University of the Philippines Manila
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DiAbVi: IoT-based Recommender System for Diabetic Patients

A special problem in partial fulfillment
of the requirements for the degree of
Bachelor of Science in Computer Science

Submitted by:

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ACCEPTANCE SHEET

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Abstract

Diabetes is a group of metabolic diseases characterized by high blood sugar levels over a prolonged period. Currently, rural areas in the Philippines lack recommender systems that can guide nurses in recommending a treatment plan for Diabetes. Also, in some scenarios where nurses conduct home visits, existing glucometer devices do not have the ability to automatically map the blood glucose levels to the corresponding patient. Consequently, this study aims a nurse in the rural health unit to use an "IoT Glucometer", which can communicate with the DiAbVi System that recommends an insulin regimen. More importantly, there is an integrated teleconsultation system in it intended for the medical doctors in the urban to monitor the recommendations of the system to a patient. In this manner, the DiAbVi System helps to guide diabetic patients in the rural areas in the effective management of Diabetes.

Keywords: Diabetes, Insulin, Internet-of-Things, Recommender System, Teleconsultation, Insulin

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I. Introduction

A. Background of the Study

A *health post*, usually having only one health worker or an infirmary technician, is the most basic type of healthcare centers and is normally located in rural or remote areas.[1] This leads to a high ratio of patients-to-doctor in a health post. Socially disadvantaged people from remote areas suffer from inadequate healthcare services from the government ranging from medical facilities, medical professionals, and medicines. They need to travel long distances just to receive routine checkups and screenings from a small number of medical professionals. In some areas, there might be no medical professional in service. A lot of people in rural areas don't have the chance to see a physician, much less a doctor, because they don't have the access to health care geographically (if it is by location or proximity) and financially.[2] Since there is less access to medical services, health issues in rural areas might need more and frequent attention to monitor and to treat.[3]

For every municipality in the Philippines, *Rural Health Units (RHUs)* were created to improve access to health care.[2] Patients in rural areas do not visit a rural health unit routinely for follow-up checkups. In some scenarios, health workers are being deployed to different areas in the community for home visits to target patients that do not have the capability to visit a RHU regularly.[4] Moreover, quality of health care and improvement in the safety of the patients are important to the viability of rural health services. Patient misidentification is a common reason to various medical errors from diagnostic testing, medication administration, and even financial billing. Errors such as the absence of formal institutional policies, failure to follow policies, and poor design of existing policies contribute to potential patient identification errors. Because of these medical errors, positive patient identification is one of the significant and critical step in performing the accurate medical procedures to a patient.[5]

Diabetes is a chronic disease that is rapidly becoming a major public health is-

sue, as in other middle-income and low-income countries including the Philippines.[6] It is a group of metabolic diseases characterized by high blood sugar levels over a prolonged period that affects the way the body treats glucose in the blood. *Insulin* is a hormone that allows the body's cells to use glucose and produce energy. For Type 1 diabetes, the pancreas cannot produce insulin. While in the case of Type 2 diabetes, it is a two-part condition. First, the pancreas does not produce enough insulin, and second, insulin can no longer play its role properly because the body's cells are unaffected by it. Diabetes of all types can lead to complications in many parts of the body. When Diabetes is not well managed, it can damage the heart, blood vessels, eyes, kidneys, and nerves that can lead to disability and premature death.[7] This disease is a major cause of blindness, kidney failure, heart attacks, stroke, and lower limb amputation. However, Diabetes can be treated, and its complications can be avoided through proper diet, physical activities, medication, and regular screening and treatment for complications.[8] Medical check-ups of diabetic patients to the doctors are important part of the diabetes care and it's essential for the patient to adhere to the treatment plan to prevent further complications.[7] Last 2000, the International Diabetes Federation (IDF) projected that there would be 320 million diabetics globally by 2025. However, there were already 415 million diabetics last 2015.[9] At least 6 million Filipinos all over the Philippines were diagnosed to have diabetes last 2016, and that figure could at least double by 2040 because of undiagnosed cases.[10] The IDF estimated the prevalence of diabetes in the 20-79 year age group in the Philippines was 6.5% last 2006 and it will be 7.9% in 2025. [6]

Glucometer is a device that measures a blood sugar to determine the approximate glucose concentration in the blood. It provides fast analysis of blood glucose levels and allows management of both hypoglycemic and hyperglycemic disorders to maintain glucose levels close to the normal range.[11] Insulin therapy is recommended for patients with diabetes to control the level of the blood glucose to normal range. It is recommended and important for the patient to have a plan

of action with their health provider in adjusting the insulin dosage depending on their blood glucose levels.[6] Diabetic patients consider multiple parameters in adjusting their insulin doses for optimal glycemic control. Problems in manual calculations of the insulin doses can result to incorrect dose prescriptions. Moreover, it may convince patients to administer fixed doses, depend on estimates, or skip boluses.[12]

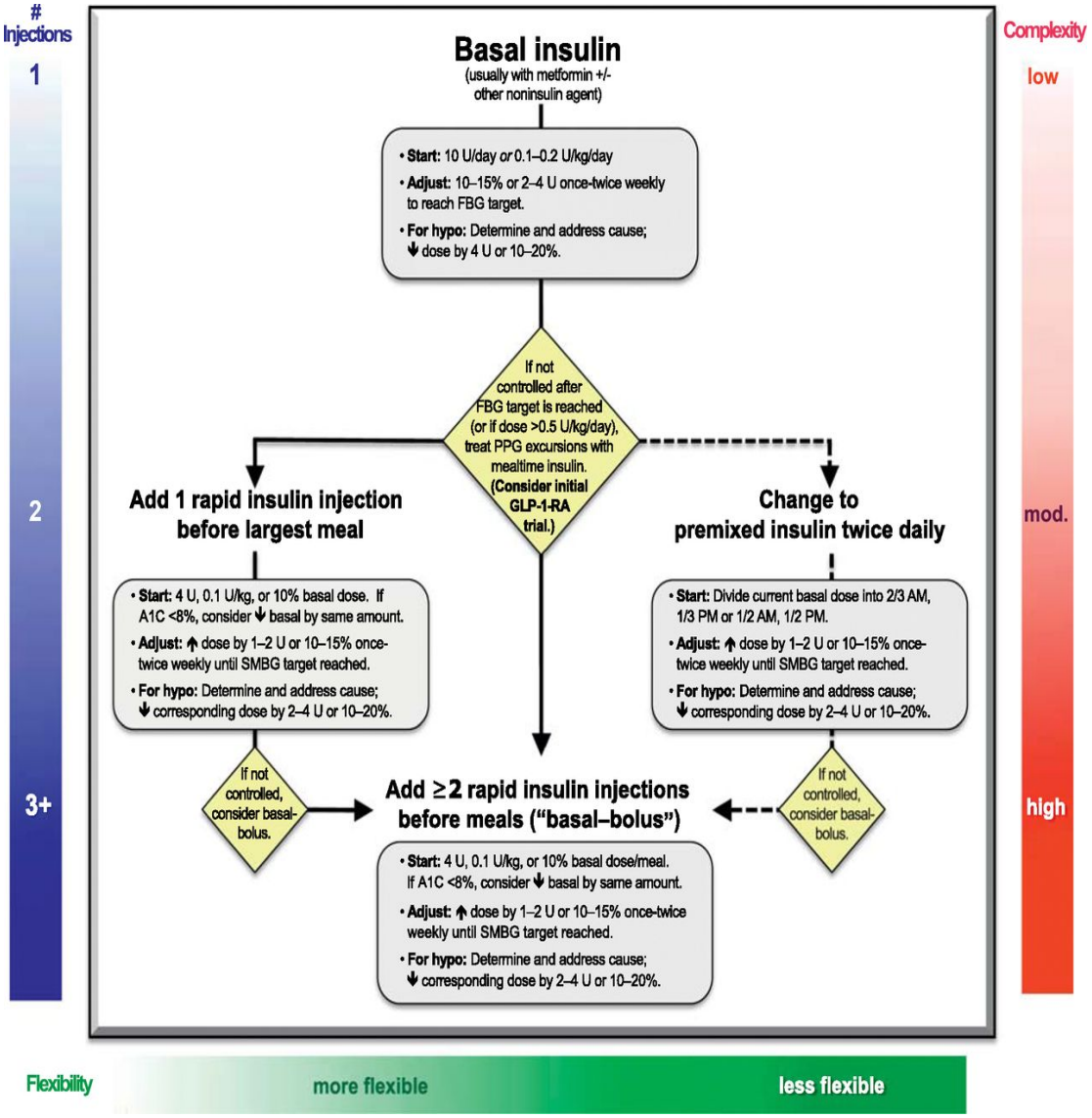

Figure 1: Approaches to starting and adjusting insulin type 2 diabetes

Figure 1 shows the recommended approach to starting and adjusting insulin type 2 diabetes. According to the American Diabetes Association Diabetes Care 2016 Jan, Basal insulin is the most convenient initial insulin regimen [13]. It

usually begins at 10 units or 0.1 to 0.2 units/kg. When the Basal Insulin has been adjusted close to the normal blood glucose, but the Hemoglobin A1C remains above target, consider moving to the next insulin regimen that will cover postprandial glucose excursions.

A *Health Recommender System* (HRS) act as a complementary tool in decision making processes in healthcare services.[14] An HRS's suggestions are results of individualized health data, called personal health record (PHR).[15] It has been used for assisting physicians in diagnosing and for personal health advising tools by users. Also, it can be used for educational purposes. Existing recommender systems for Diabetic patients include the use of devices to monitor the blood glucose, blood pressure, heart rate, and physical activity of the patient. The RPM1000 [16] is a patient app in the market that can provide diabetes management by calculating the insulin sensitivity, carb-to-insulin ratio, and insulin adjustment, if required. This app allows a patient to monitor blood glucose, glycohemoglobin test, insulin, and oral antidiabetic agents. It can also connect to its different partner medical devices and applications to provide more services.

Effective management of diabetes will be more possible with innovations in technology. *Internet of Things (IoT)* is changing our world and bringing us to diverse possibilities by innovating different designs and products to solve such problems. IoT connects different everyday devices onto the Internet network enabling them to identify, sense, and process capabilities to provide new services and efficiency. [17] Smart devices and systems introduce advantages to the medical field by incorporating a strategic IoT system. IoT medical devices offer a high level of communication and services to the healthcare industry that leads to a more transparent and connected environment. By innovating with the help of a microcomputer, not only the idea of device interoperability is possible but will also reduce the cost and effort to create an interoperable environment. *Raspberry Pi* is a low-cost, small card-sized, single-board microcomputer that helps you design and develop IoT devices. [18]

Existing glucometer models in the market can communicate only to their specific host computers. Medical errors are likely to occur during manual transcribing of patient data from a medical device to another device or an electronic health record (EHR), which is electronic record of the health-related information of an individual that complies with the nationally recognized interoperability standards and can be managed by different health providers.[19]Interoperability between medical devices can lessen avoidable medical errors by reducing redundant testing, manual data entry, and transcription errors.[20] Also, medical device interoperability that will aid in producing medical results available in real time and forwarding it straightly to the medical provider in a clear manner can help reduce medical errors. In this manner, this will forward test result and vital signs needed of the medical provider and automate the integration of it to the health record of the patient for creating a decision. Consequently, advancing in interconnecting medical devices allows device-specific information relayed to other systems for the improvement of health care of an individual. This will also allow healthcare providers to receive a richer set of information to manage patients.

With the current advancements of IoT, the traditional health care is revolutionized to complex integrated services. The World Health Organization (WHO) defines *Telemedicine* as the practice of medical care by providing an interactive health care utilizing modern technology and telecommunications infrastructure.[21] It allows healthcare providers to diagnose, monitor, and treat patients without the need of an in-person visit to the doctor. *Teleconsultation* is part of telemedicine that provides electronic communication between a healthcare provider and a patient for the delivery of healthcare to remote areas [22]. Since the Philippines has a decentralized health system, it causes the segmented provision of healthcare. The lack of referral, counter-referral systems, and inefficient procurement and supply systems results negatively to physical accessibility and availability of diabetes care.[6] With the current telemedicine system of the National Telehealth Service Program (NTSP), referring physicians in the rural areas can only send

teleconsultations to different clinical specialists in partner tertiary hospitals via e-mail or SMS.[23]

B. Statement of the Problem

Currently, there are no available recommender systems of treatment plan for diabetes here in the Philippines, that can guide health workers in the rural area specifically the nurses.

Glucometer models available in the market possess insufficiencies in terms of features and technical properties that these features may rise to better solutions for monitoring diabetic patients in remote areas. In some scenarios where nurses conduct home visits, these existing glucometer devices do not have the ability to automatically map the blood glucose levels to the corresponding patient.

The teleconsultation system here in the Philippines does not have an integrated platform that utilizes the personal health record of the patient directly for query. Thus, doctors are not fully aware of the conditions of the patient because they only rely on SMS or e-mail.

C. Objectives of the Study

This research aims to recommend a treatment plan using the recommender system by communicating with an IoT glucometer. The recommender system is a desktop application and has the ability to receive a blood glucose level or a collection of blood glucose level data simultaneously from the IoT glucometer.

This study simulates an FDA-approved glucometer into an IoT glucometer using a Raspberry Pi, stores patient identity, and measures the blood glucose level of the patient. It can also store multiple blood glucose levels of different patients. Moreover, the IoT glucometer has the ability to communicate with the recommender system in order to transmit the blood glucose levels of different patients synchronously.

The integrated teleconsultation system in the recommender system is intended for the medical doctor to monitor the conditions of a diabetic patient.

Specific Objectives

1. Allows the nurse in the rural health unit to:
    (a) Create a health profile in the recommender system based on the following details:
        i. Date and time of creation of patient health profile
        ii. Patient name
        iii. Birthday
        iv. Sex
        v. Blood type
        vi. Address
        vii. Contact Number
        viii. Email
        ix. Allergy
        x. History of Illness
        xi. Emergency contact name
        xii. Emergency contact number
        xiii. Relationship to the emergency contact
        xiv. Health unit of the patient
        xv. Hash ID of the patient
    (b) View the health profile in the recommender system.
    (c) Edit the health profile in the recommender system.
    (d) Register the patient fingerprint ID in the IoT glucometer using its fingerprint scanner.
    (e) Create patient visit record with the following details:
        i. Date and time of creation of patient visit record

ii. Date and time of blood testing performed

iii. Weight

iv. Height

v. Blood glucose level

vi. Blood glucose testing schedule

vii. A1c level

viii. Current insulin regimen

ix. Current insulin dosage

x. Newly diagnosed with diabetes (less than 6 months)

xi. Using drugs known to cause hypoglycemia

xii. Daytime hypoglycemia

xiii. Nocturnal Hypoglycemia (Consistently ¡5.5 mmol/L)

xiv. Two (2) episodes of hypoglycemia (BG ¡ 4.0 mmol/L) in a week

xv. Opposed to more than 2 injections a day

xvi. Has consistent meal times and food intake

xvii. Starting a new medication known to cause hyperglycemia

xviii. Experiencing an illness known to cause hyperglycemia

xix. Pregnant

xx. Planning a pregnancy

xxi. Hospitalized or acutely ill

(f) View patient visit record.

(g) Edit patient visit record.

(h) Manually input the blood glucose level of the patient.

(i) Request to pass the blood glucose level of the patient from the IoT glucometer to the recommender application via bluetooth.

(j) View the recommended treatment plan from the recommender system based on the results of the analysis of the patient's data.

(k) Save the recommended treatment plan to the patient visit record.

(l) Create message.

(m) Send the following to the doctor:

i. Nurse's message

ii. Patient health profile

iii. Patient visit record

2. Allow the medical doctor to:

(a) Create a health profile in the recommender system based on the following details:

i. Date and time of creation of patient health profile

ii. Patient name

iii. Birthday

iv. Sex

v. Blood type

vi. Address

vii. Contact Number

viii. Email

ix. Allergy

x. History of Illness

xi. Emergency contact name

xii. Emergency contact number

xiii. Relationship to the emergency contact

xiv. Health unit of the patient

xv. Hash ID of the patient

(b) View the health profile in the recommender system.

(c) Edit the health profile in the recommender system.

(d) Register the patient fingerprint ID in the IoT glucometer using its fingerprint scanner.

(e) Create patient visit record with the following details:

i. Date and time of creation of patient visit record

ii. Date and time of blood testing performed

iii. Weight

iv. Height

v. Blood glucose level

vi. Blood glucose testing schedule

vii. A1c level

viii. Current insulin regimen

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x. Newly diagnosed with diabetes (less than 6 months)

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xvi. Has consistent meal times and food intake

xvii. Starting a new medication known to cause hyperglycemia

xviii. Experiencing an illness known to cause hyperglycemia

xix. Pregnant

xx. Planning a pregnancy

xxi. Hospitalized or acutely ill

(f) View patient visit record.

(g) Edit patient visit record.

(h) Manually input the blood glucose level of the patient.

(i) Request to pass the blood glucose level of the patient from the IoT glucometer to the recommender application via bluetooth.

(j) View the recommended treatment plan from the recommender system based on the results of the analysis of the patient's data.

(k) Save the recommended treatment plan to the patient visit record.

(l) View the following from the nurse:

i. Nurse's message

ii. Patient health profile

iii. Patient visit record

(m) Edit the recommended treatment plan in the patient visit record.

(n) Send the following to the nurse in the rural area:

i. Medical doctor's message

ii. Patient visit record

3. Allow the administrator to:

(a) Create an user account in the recommender system based on the following details:

i. Account Type

ii. UserID

iii. Password

iv. Name

v. Birthday

vi. Specialization

vii. Health Unit

viii. Email

ix. Contact Number

(b) View user account.

(c) Edit user account.

4. Allows the system to perform recommendation of the treatment plan.

D. Significance of the Project

The recommender system for diabetes guides the nurses in the rural area in prescribing a treatment plan to the patient to prevent serious consequences such as severe hypoglycemia, seizures, coma, hyperglycemia, or even death. By letting the medical doctors verify the treatment plan using the system, nurses can check if proper treatment plan is given to the patient.

Using the proposed IoT glucometer, multiple blood glucose levels of different patients can be stored during home visits. Nurses in the rural areas can directly send the patient health profile and patient visit record to the doctors through the use of the integrated platform of teleconsultation. In this manner, doctors can properly prescribe, monitor, and adjust treatment plans of a diabetic patient remotely. Implementing a teleconsultation system in healthcare providers located in rural areas brings convenience not only to the patients of the community but also to the doctors providing care to the patient.

E. Scope and Limitations

1. This system only considers Type 2 Diabetes Mellitus. The management of complications is not included in the system.

2. The system communicates with a host computer and an IoT glucometer. It does not communicate to other devices.

3. For this study, an FDA approved glucometer device is simulated into an IoT glucometer. It is composed of a Raspberry Pi 3 Model B as its main platform, GlucoRx Nexus as the glucometer sensor, and fingerprint scanner.

4. The input of the blood glucose level to the recommender system can be done manually or through the IoT glucometer.

5. The GlucoRx Nexus will transmit the blood glucose level to the Raspberry Pi through the built-in USB port.

6. The IoT glucometer measures the blood glucose level of the patient using the GlucoRx Nexus device as the sensor.

7. The IoT glucometer stores the the fingerprint of the patient using a fingerprint scanner.

8. The fingerprint scanner used in the system was Adafruit Optical Fingerprint Scanner.

9. The fingerprint scanner has a storage capacity of 162 templates.

10. The fingerprint scanner transmits the fingerprint to the Raspberry Pi through the built-in USB port.

F. Assumptions

1. The doctor is a specialist in diabetes management. He/she can prescribe insulin bolus.

2. The study focuses on monitoring diabetic patients and does not cover diagnosis.

3. There is an available internet connection for the devices in the rural health unit.

4. The patient uses his/her right thumb in registering fingerprint in the fingerprint scanner.

II. Review of Related Literature

Most of the existing diabetes management systems are stand-alone, and only consider glucose level with or without few additional factors. In a holistic approach, Syaifuddin et al. [24] developed a framework of diabetes management system where they utilized mobile technology with a personal health record. A personal health record (PHR), which contains data and information of all health related aspects maintained by an individual, is integrated within the system. Individuals can keep track of their overall health record instead of only monitoring their blood glucose reading. The proposed system can help the individual to manage diabetes and monitor all body systems to prevent the complications of diabetes. Also, the system should be able to monitor blood glucose continuously, predict near future blood glucose level, and have an alert system that does not depend on Internet connection.

As the diabetes is considered as a non-curable disease, prevention and regular medication with proper management is important to prevent health complications. Islam et al. developed DiaHealth [25], a possible solution to promote knowledge in preventing and managing diabetes through the use of a mobile application. Currently, there are a lot of mobile applications deployed but some of them are poorly designed without any scientific background. The authors of DiaHealth have studied 70+ international journals and conference papers prior to developing the mobile application [26]. They have seen that these health applications have the same common features but also there are some features missing in almost every applications they have explored that lead them to develop the DiaHealth. The primary features of the applications are blood glucose monitor, medication suggestion, diet plan, physical activity plan, automated transfer of blood glucose data, data entry and record, nutrition information, communication with health care team, education, weight management, and blood pressure monitoring. DiaHealth includes almost all essential features required for preventing and managing diabetes and the authors believe that this will help to promote diabetic patients in

managing their condition in preventing health consequence and reducing health-care cost.

Since most of the existing e-health monitoring systems are designed for one-way transmission of measurement data, medical specialists cannot give medical advices to the patients in real time. As motivation and involvement with regards to the treatment of diabetes from family and medical specialists are important, Chang et al. [27] developed a context-aware, interactive m-health system (ImHS) to provide a real-time and two-way communication between diabetic patients and medical specialists through the use of the Internet of Things (IoT). The ImHS consists of three devices: a General Packet Radio Service (GPRS), blood-glucose monitor (BGM) - a telecare application for caregivers, and a cloud server platform. ImHS is an affordable health care system solution that make use of existing devices to improve the quality of chronic care. The cloud server is considered as the core of the ImHS because it stores patient information, and the data and permissions of authorized family caregivers. It collects patient information by using the GPRS BGM, and sends it to a cloud server by the GPRS protocol and XML format. Then, the system will determine the condition of the patient by analyzing the aggregated data. When the patient's health status is in a critical condition, the system will notify the caregiver of the patient in real-time through the Message Queue Telemetry Transport (MQTT) protocol. In view of that all patients' health condition are distinct from one another, the system allows user to customize its own grade ranges based on their doctor's suggestions. ImHS uses a rule-based system to provide Abnormal Blood-Glucose Level Detection (ABLD) service which divides abnormalities into two categories: blood-glucose abnormalities and scenarios in which the measurement data is not received on schedule. Through the MQTT protocol, the system will notify the Proactive Notification Engine (PNE) to transmit a message to the patient's GPRS BGM and caregivers' smartphone depending on the result of the ABLD service abnormality level. Also, the ImHS provides a user-friendly interface (UI) that enables users to have a clear

understanding about the results.

Tuning of insulin bolus calculator parameters depends on various factors, however, current available bolus calculators in the market lack the ability to automatically adapt over time and require constant revisions. Pesl et al. [28] demonstrated an architecture and initial usability of results of an advanced bolus calculator for diabetes (ABC4D) to provide a real-time recommendation for personalised and adaptive insulin boluses by adjusting its parameters over time using a patient's smartphone. ABC4D performs an in-silico validated algorithm based on case-based reasoning (CBR) framework that analyzes posprandial glucose excursion [29]. It's an artificial intelligence technique that allows to develop solutions to new problems based on pre-existing solutions of a similar instance. In this manner, this insulin bolus calculator for personalized insulin recommendations performs better than the common insulin recommender systems. They split the CBR cycle into a patient platform and a clinical platform for supervision to ensure the safe adaptations of the bolus calculator parameters are performed. The patient smartphone platform is implemented in an off-the-shelf smartphone, and the clinical revision platform is designed to run on a desktop computer and is implemented in MATLAB. The patient platform allows user to input important glucose-related data manually and provides real-time bolus recommendation. To ensure the safety of the patient, the clinical platform allows the clinician to analyze and to accept changes to the insulin therapy recommended by the CBR algorithm.

In contrast to other CBR systems for insulin bolus recommender systems where case features may vary, in the paper of Brown et al. [30], the case features are well-defined. Existing bolus calculators will always produce the same result when users' input are the same, except when carbohydrate-to-insulin ratio (CIR) and insulin sensitivity factor (ISF) are changed, a process that needs a clinician. Carbohydrate intake, preprandial blood glucose level, and target blood glucose are important case parameters. Insulin sensitivity factor (ISF) and carbohydrate-to-insulin ratio are considered as important parameters to tune the bolus calculator, but these

will be omitted and will be replaced by the date and time of the event. They used artificial intelligence method case-based reasoning (CBR) to provide personalized bolus. The use of temporal sequences give rise to the in silico results, that shows success in identifying appropriate cases for further reuse.

Considering that hypertension with diabetes mellitus is one of the most common causes of death, proper control and management of hypertension must be observed in a diabetic patient to reduce the risk of death. Akter et al. [31] presented a mobile-based system, Hypertension Advisor, for hypertension management in patients with diabetes mellitus. It consists of a knowledge base, inference engine, working memory, patient database, and user interface. The rule can be in a if-then structure where the IF part is the fact and the THEN part gives the action. The inference engine is considered as the main part of the system which searches through the knowledge base to find rules that match in the memory. The knowledge base comprises of facts that a medical expert uses in a given problem such as problem solving rules, procedures, and facts. Patient data, partial conclusion, data given by user, and other information related to the case under consideration is stored in the working memory. Lastly, the user interface provides interaction with the inference engine for the management of hypertension. This mobile-based application is an automated management system of diabetic hypertension that gives treatment and advice for the patient.

Banerjee et al. [32] developed a smartphone app called CheckMyVitals to improve patient care using the newest technology by remotely monitoring their chronic problems. They stated that self-monitoring blood pressure has advantages in evaluating patient with diabetes and hypertension. Also, it is proven that the home blood pressure measurement can control blood pressure than the standard blood pressure monitoring techniques in hypertensive patients. Thus, they developed a solution by utilizing smartphone to improve the treatment plans, as well as to reduce cost for better delivery of care. This app, CheckMyVitals, is a mobile healthcare application that helps patients and medical specialists to

monitor chronic diseases through validated continuous monitoring and medication control. The treatment plans are planned based on the parameters and clinical guidelines. It applies on a large population of patient and keeps complete track of patient history independent of operating systems, location, and access to an internet connection. The application enables instant communication between the health provider and the patient for immediate treatment actions once needed, and it allows several medical providers to communicate immediately in one portal to give efficient care to the patient. Also, it can monitor patients' blood pressure, blood sugar, pulse, BMI, height, weight, smoking and other vitals. They employed a validation coordinator to keep track of patient's abnormal readings. He/she guarantees that patients are being notified for any continuous abnormal readings and typically replies to 100 messages a day from the possible 1500 patients who are using the application. The app does not guarantee to remove all errors completely, but through the validation coordinator, it allows taking the data more accurately compared to the manual collection of data from the paper logs. It allows the patients to log data offline or online, and it can store data on a mobile device depending on the memory capacity of the device.

Existing systems that support in self-management of diabetes focus in the technical advancement important for the patient and clinician mobility and patient's data remote collection. However, there is a need for support in generating automated health summaries, decision support, and promoting good lifestyle. Al-Taee et al.[33] presented a paper about a new IoT based platform to support self-management of diabetes by remote collection and monitoring of patient data and to provide a customized feedback on a smartphone platform. By using all of the patient's medical data, this system enables real-time clinical interaction and response with the full basis on the needs of the patient. The architecture of the proposed mHealth platform consists of physical-objects layer, network layer, and a health portal. The software design is incorporated both to the mobile devices and health portal, where each layer contains system packages, application modules

and a database. In addition, the system provides real-time decision support by calculating required insulin bolus and necessary feedback based on the collected data. It also provides a brief summary of the blood glucose readings over the past 24 hours. The fully functional prototype of the application has a high patient acceptability levels showed by the clinician-led pilot study.

Healthcare providers' major concern is to reduce the number of mistakes during medical treatment, like in monitoring diabetes. The poor management of diabetes is because of the different location of diabetes data storage. However, access and proper management of diabetes data through the internet will help the engagement of diabetic patients to self-care especially for those who live in the rural area. In [34], Benali et al. proposed a context-aware framework utilizing both mobile computing and cloud computing that is based on software product lines variability techniques to provide a smart healthcare system for diabetes. The system produces different actions based on the patient's abnormality level.

In [35], Lit et al. proposed a personalized diabetes self-care system, MobiDiaBTs, designed for American Indians(AI) diabetic patients because of the existing tools that underappreciates the importance of language barriers that results to lower rates of literacy and other determinants of health need to be addressed. The system can provide more proper and functional recommendations such as food intake, physical workout, and predicted blood glucose levels. In addition, the proposed system is a secure social networking platform designed for the AI patients.They used a mobile phone as a platform for the knowledge management, machine learning, and secure social networking to monitor and display self-management information, alert for reminders and notifications, and generate recommendations from the information collected to the patient. Ontological model is used to present the physical and social context specific for the AIs.The system collects user's data effectively and offers diabetes recommendations in real-time. Also, it helps patients to interact with other patients in a secured manner.

III. Theoretical Framework

A. Diabetes

Diabetes Mellitus (DM) is a group of metabolic diseases characterized by high blood sugar levels over a prolonged period. [7] It is a long-term condition that affects the way the body regulates blood glucose, also called blood sugar, that results to abnormal metabolism of carbohydrates and raised levels of glucose in the blood.

1. Types of Diabetes

   For type 1 diabetes, the pancreas cannot produce insulin because the immune system destroys the cells in the pancreas that is responsible in producing insulin. In this manner, patients with type 1 diabetes must take insulin, either by injection or by insulin pump. While in the case of Type 2 diabetes, there is a two-part condition where the pancreas does not produce enough insulin, and the where the is insulin can no longer play its role properly because the body's cells are unaffected by it. As a result, they need higher levels of insulin in their body to help glucose enter cells. Lastly, the gestational diabetes develops in some women when they're pregnant. [33] [36]

2. Insulin

   Insulin is a hormone that is produced by the pancreas and it allows the body's cells to use glucose and produce energy. Insulin is the one responsible to regulate blood sugar, or glucose. [37] Insulin basal or background insulin controls blood sugar during fasting. Insulin bolus or rapid acting insulin must be taken at meal times to keep the blood glucose normal after eating. This needs to reflect the amount of the carbohydrate taken during a meal. [38]

3. Symptoms

   Most common signs and symptoms of diabetes are frequent urination, thirst, intense hunger, weight gain, increased fatigue, cuts and bruises that don't heal quickly, blurred vision, unexplained weight loss, and numbness in the hands or feet. [33]

4. Test and Diagnosis

   In type 1 diabetes, doctors usually diagnose them in children and young adult. While for type 2 diabetes, it mostly develops in adults. As for the United States Department of Health and Human Services, diabetic testing is recommended if patient is overweight at the age of 45 and older, or anyone under the age of 45 with hypertension, high cholesterol, and has history of diabetes in the family. [39] When patients report some symptoms of diabetes, doctors evaluate these symptoms by asking first some questions about the patient's medical history. The tests that are used to diagnose diabetes are Fasting Plasma Glucose (FPG) levels, Glycosylated Hemoglobin (HbA1c), and Oral Glucose Tolerance Testing (OGTT). The FPG test is considered as the best screening test for diabetes and it is a blood test after eight hours of fasting that measures your blood glucose level at a single point in time, while the HbA1c is used to measure patient's average levels of blood glucose over the past three months. [36] The OGTT is a test used to measure blood glucose before and two hours after drinking a liquid containing glucose.

   From the American Diabetes Association's (ADA) Standards of Medical Care in Diabetes [40], they recommended at the first visit of the patient to have a complete medical evaluation to:

   (a) Confirm the diagnosis and classify diabetes.

   (b) Detect diabetes complications and potential comorbid conditions.

   (c) Review previous treatment and risk factor control in patients with established diabetes.

(d) Begin patient engagement in the formulation of care management plan.

(e) Develop a plan for continuing care.

5. Diabetes Monitoring

Diabetes-related complications can be serious and sometimes lead to death. Upon being diagnosed with a diabetes disease, the patient must monitor his/her blood glucose level to see how the treatment plan is working. The goal of the treatment plan for diabetes is to control the blood sugar as close to the normal level. In this way, tissue damage caused by too much sugar in the blood stream can be prevented. Type 1 diabetes lasts a lifetime and is currently incurable. For type 2 diabetes, it usually lasts lifetime, but, for some people, they achieved to get rid of it through a combination of exercise, proper diet, and body weight control.

The HbA1c is a test that measures patient's average blood glucose control over the past three months and it is used in the monitoring of diabetes management. This test measures the blood sugar by the amount of glycosylated hemoglobin (A1C) in the blood. According to the ADA, 7.0% or less is the recommended HbA1c level for someone with diabetes. In table 1, the blood sugar chart that shows normal blood glucose levels and recommended HbA1c levels for a person with or without diabetes. [41]

Fasting	
Normal for person without diabetes	70–99 mg/dl (3.9–5.5 mmol/L)
Official ADA recommendation for someone with diabetes	80–130 mg/dl (4.5–7.2 mmol/L)
2 hours after meals	
Normal for person without diabetes	Less than 140 mg/dl (7.8 mmol/L)
Official ADA recommendation for someone with diabetes	Less than 180 mg/dl (10.0 mmol/L)
HbA1c	
Normal for person without diabetes	Less than 5.7%
Official ADA recommendation for someone with diabetes	7.0% or less

Table 1: Blood sugar chart that shows normal blood glucose levels and recommended HbA1c levels for a person with or without diabetes.

Recording and collecting blood glucose measurement are considered as important parts of monitoring diabetes under control. In this manner, it's easier for the patient to understand the reasons of the changes in the measurements and doctors can make an appropriate treatment plan by analyzing patient's blood glucose patterns. Self-monitoring is another way a patient can monitor his/her blood glucose, and it is an effective tool in self-management for Type 1 diabetes and Type 2 diabetes under insulin therapy or other medication that can lead to hypoglycemia. This test will help a diabetic patient under insulin therapy in reaching tight glycaemic control and to detect low blood glucose levels to prevent severe hypoglycemia. In Table 2, it shows the periodic monitoring of conditions and complications guidelines for a diabetic patient. [39]

Condition/complication	Tests	Frequency
Hypertension	BP taken with appropriate size cuff using optimal technique	Every visit.
Blood glucose control	HbA1c	Every 3 months until the target level is reached; thereafter, patient should be monitored at least every 12 months.
Foot ulcers	Physical exam focused on ankle reflexes, dorsalis pedis pulse, vibratory sensation, and 5.07 monofilament touch sensation performed by a provider qualified to determine the level of risk for foot ulcers	Patients at **very high risk** [2] should be seen every 3 months by a wound care nurse. Patients at **increased risk** [2] and **average risk** [2] should be screened annually.
Microalbuminuria	Microalbumin/creatinine ratio [1]	Annually.
Retinopathy	Dilated eye exam by a trained eye services professional **or** Nondilated digital photography followed by a comprehensive exam for those who test positive	Patients **with** evidence of retinopathy should be screened annually. Patients **without** evidence of retinopathy should be screened every 2 years. [3]
Electrolyte and chemistry abnormalities	Serum creatinine **and** Serum potassium	At least annually.

[1] The microalbumin/creatinine ratio test can identify patients with microalbuminuria by giving a quantitative estimate of protein loss that correlates with 24-hour urinary protein measurements. Test results are expressed in micrograms of urinary albumin per milligram of urinary creatinine (or A:C ratio). A positive test is greater than 30 mcg/mg. Two positive tests, ideally 3–6 months apart, are diagnostic for microalbuminuria.

[2] For foot-ulcer risk definitions, see "Foot care," p. 4.

[3] Annual screening is not recommended because the benefits of more frequent screening are marginal: For every 1,000 people screened annually (instead of every second year), one additional case of proliferative diabetic retinopathy and one additional case of clinically significant macular edema will be detected.

Table 2: The periodic monitoring of conditions and complications for a diabetic patient.

B. Glucometer

A *glucometer*, as shown in Fig. 2, is a medical device for blood glucose monitoring. It is a home measurement system that can be used to test the level of blood glucose. It is a quantitative test which means that it will provide the amount of glucose in the blood sample. The quality of the glucometer device and the test strips, way of performing the test, patient's hematocrit, and interferring substances are some factors that contribute to the accuracy of the test. [42]

Figure 2: A glucometer device for measuring blood glucose.

A patient must prick his/her finger with a lancet to get a drop of blood. The blood must be placed in a test strip to be inserted in the glucometer device. Test strips used in current glucometers contain glucose oxidase that reacts to glucose in the blood droplet. The strength of the electric current generated by the flux of the glucose reaction corresponds to the number appearing in its digital readout.

C. Personal Health Record

A *Personal Health Record (PHR)* is a collection of health information from a variety of sources designed to be controlled by the individual. It can help a patient to maintain and manage their health information in a private and secure environment. Also, this record is different from and does not substitute the legal record of any health provider. Standalone and tethered are the two types of PHR. For the standalone PHRs, the patient inputs information for his/her record, and the data is stored on his/her device or on the Internet, while the tethered PHR is integrated to a healthcare organization's electronic health record and the patient can access

the information through a secure portal. A PHR may include contact information for the patient and his/her immediate family, a list of providers involved in the patient's care, diagnosis list, medications list, allergy list, immunization history, lab and test results, and family medical history. [43]

D. Health Recommender System (HRS)

Health Recommender System (HRS) act as a complementary tool in decision making processes in healthcare services. [14] The suggestions of a HRS are results of individualized health data, personal health record (PHR). [15] It has been used for assisting physicians in diagnosing and for personal health advising tools by users.

In the study of Al-Taee et al. [33], the proposed mHealth platform involves continuous patient collection/monitoring, real-time feedback and decision support, and long-term social and behavioral change support. The data collection process that involves information relevant to the daily self-management of the disease, such as insulin intake, carbohydrates per meal, physical activities, patient messages, illness conditions, and measurements acquired from the medical sensors. Then, the system provides necessary feedback and recommended insulin bolus based on the collected patient's data of the system. Lastly, the system also connects the patient and the health professional in a distant to increase patient's adherence to their treatment plan that may contribute to social and behavioral change support. The system provides various activities to support patient and health professional connection, such as diabetes education, motivations for a healthy daily lifestyle, and interaction dialogues for the periodic self-assessment of social and behavioral aspects.

E. Telemedicine

According to the American Telemedicine Association, *Telemedicine* is the use of medical information exchanged from one site to another via electronic communications to improve a patient's clinical health status. Diagnosing and adjusting

treatment plans based on patient's health data transmitted through the telecommunication system comprises telemedicine. Relevant information of the patient can be transmitted in a growing variety of applications and services such as SMS, email, audio, video-conferencing, and smartphones. Nevertheless, the definition of the telemedicine is considered broad and continuously growing as it brings new advancements in the technology and adapts to the changing needs of the society. [44]

F. Internet-of-Things (IoT)

Internet of Things (IoT), or also known as the internet of objects, is considered as a dynamic information network consisting of internet and various objects. Nowadays, this technology is continuously developing as a new paradigm, which is empowered by the state-of-the-art advances in RFID, sensors, actuators, communication technology, and internet protocols. As IoT is defined in different ways [45], its main point is to achieve communication and information sharing between physical and virtual things including people, enabling them to identify, sense, and process capabilities to provide efficiency and new services.

G. Raspberry Pi

Raspberry Pi, shown in Fig. 3, is a low-cost, small card-sized, single-board computer that helps you design and develop IoT device. [18] The Raspberry Pi board comprises of a processor, graphics card, RAM, and various interfaces and connectors for external devices. It operates like the normal PC which needs a keyboard, display unit, and a power supply, but it consumes only a little amount of power. Also, Raspberry Pi uses an operating system called Raspbian, which is a free operating system based on Debian. [46]

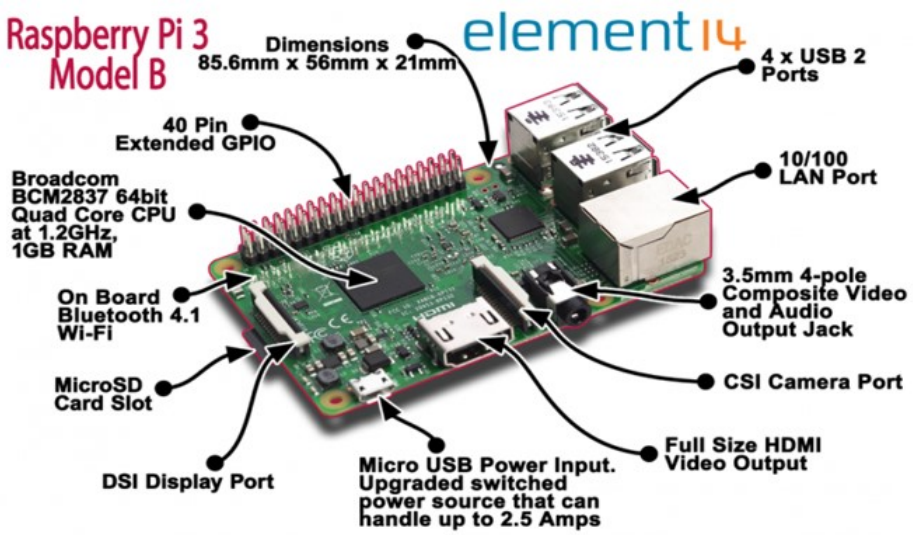

Figure 3: A Raspberry Pi 3 Model B.

At the present time, Raspberry Pi is considered as one of the most known embedding system with Linux support. It has plenty of access to free software and downloads. It was developed to promote the teaching of programming and computing. Raspberry Pi is also an initial point for developing IoT projects. It is accessible and has many connectivity options because of it is low cost and 'plug and play' feature. [47]

IV. Design and Implementation

A. Use Cases

1. Nurse

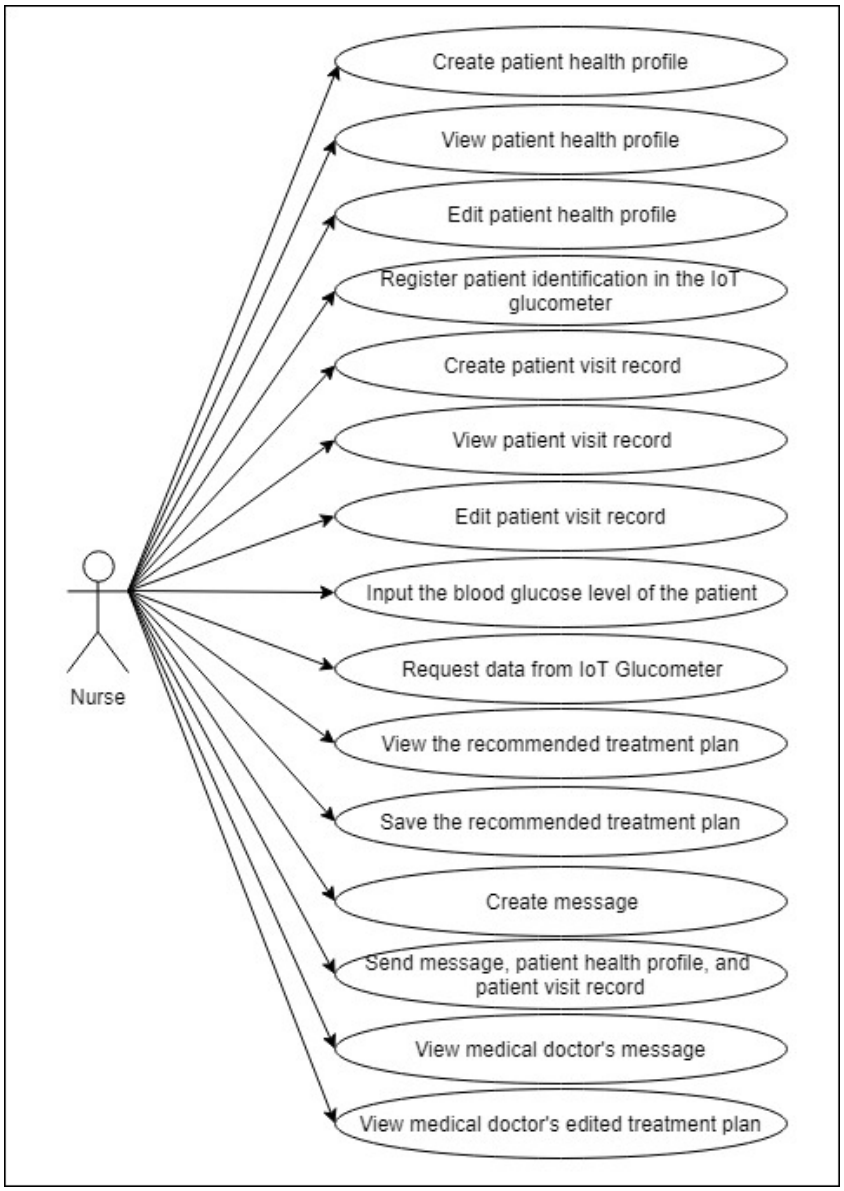

Figure 4: Use Case Diagram for the nurse

The system has two types of users: the nurse and the doctor. Figure 4 shows the roles of a nurse on the system. The nurse can create, view, and edit health profile of patient in the recommender system and he/she can register patient identification in the IoT glucometer. He/she can also create, view, and edit patient visit record. The nurse can input the blood glucose

level manually or request IoT Glucometer to transmit blood glucose level to the recommender system. He/she has the ability to view the recommended treatment plan through the patient visit record. The remote nurse can also send message, patient health profile, and patient visit record to a doctor located in the hospital. Lastly, the nurse can view the patient visit record and message from the doctor.

2. Doctor

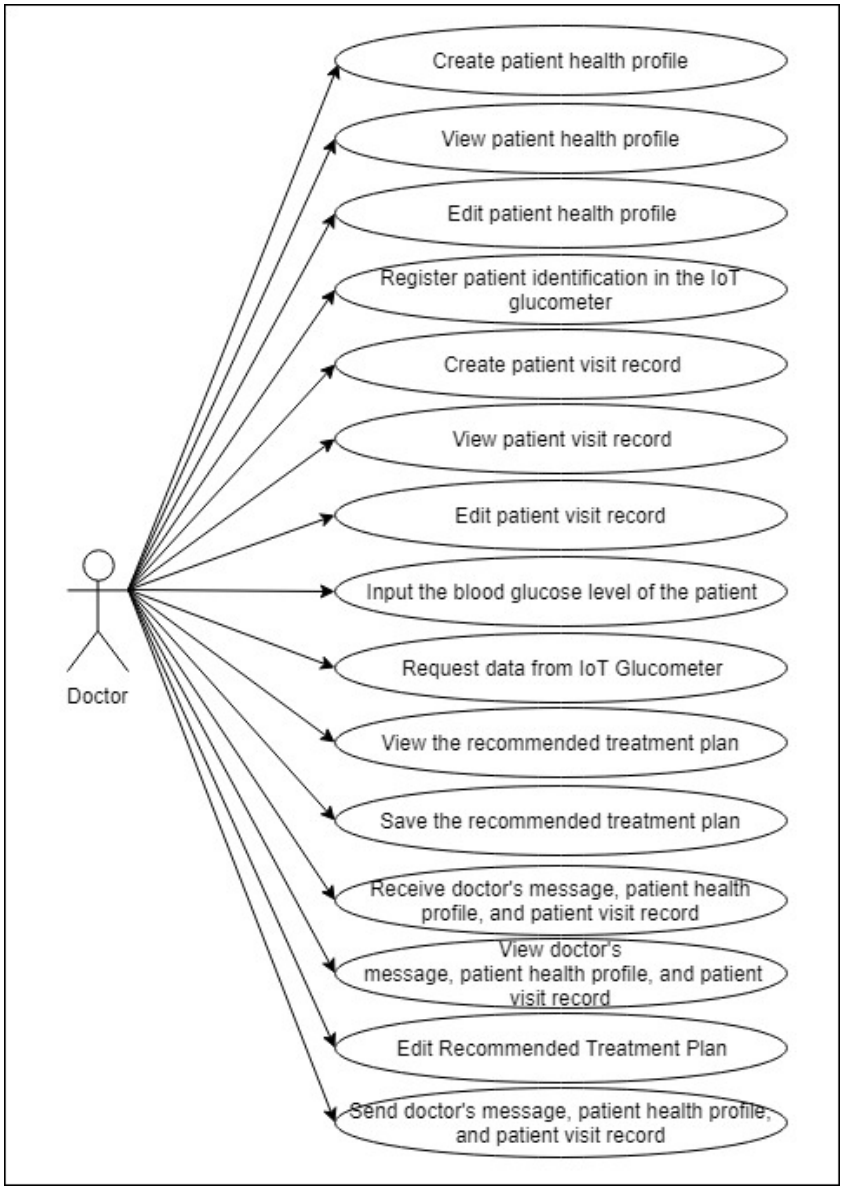

Figure 5: Use Case Diagram for the doctor.

As the doctor receives the message, patient health profile, and patient visit record from a remote nurse, he/she can now view the them as shown in Figure 5. Doctor can edit the recommended treatment plan of the recommender system through the patient visit record. As the same with nurse, the doctor can create, view, and edit the health profile and patient visit record of patient in the recommender system. He/she can register patient identification in the IoT glucometer and has the ability to input the blood glucose level manually or request IoT Glucometer to transmit blood glucose level to the recommender system. Lastly, he/she can send a message and the patient visit record.

3. Administrator

   Figure 6 shows that the administrator can create, edit, and view an user account of the recommender system.

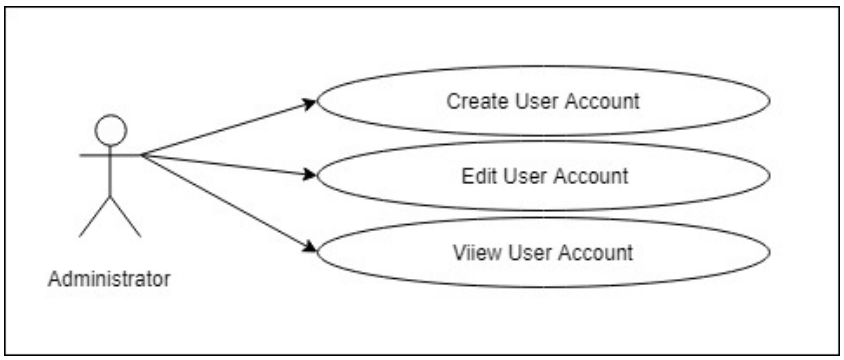

Figure 6: Use Case Diagram for the administrator.

B. Activity Diagram

1. Create Patient Health Profile

   As a new diabetic patient visit a rural health unit, the nurse will create a patient health profile using the recommender system and he/she can register patient identification in the IoT glucometer as shown in Figure 7. The nurse can view the patient health profile of an existing diabetic patient using the recommender system.

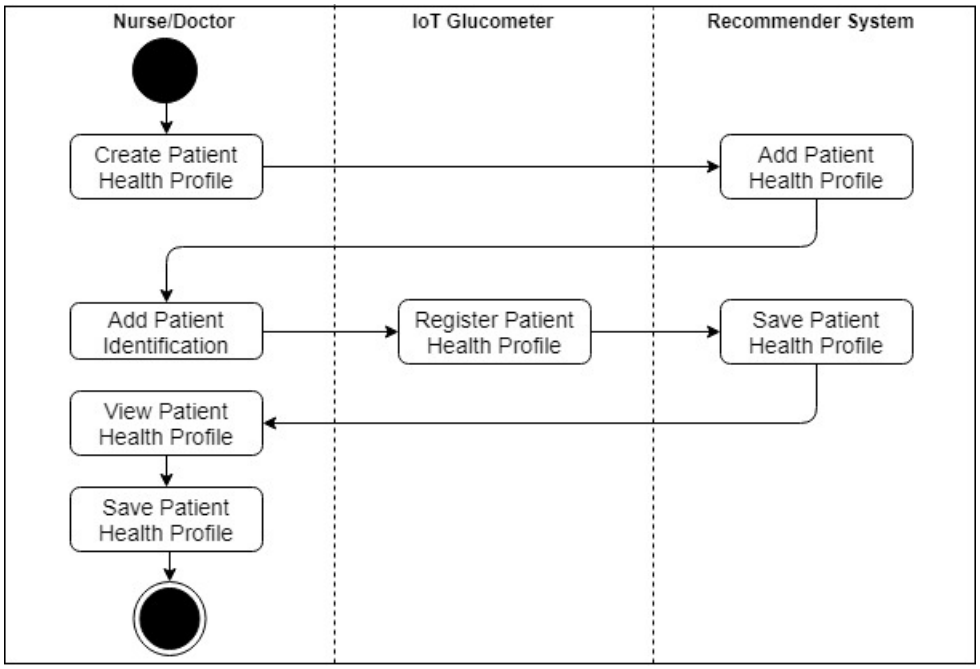

Figure 7: Activity diagram in Creating Patient Health Profile.

2. Registration of Patient Fingerprint ID

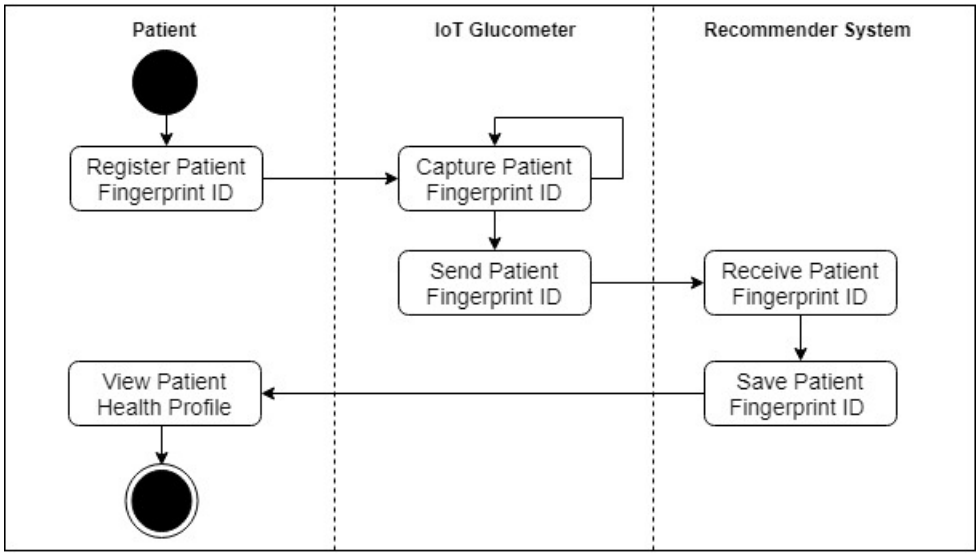

Figure 8: Activity diagram for Registering Patient Fingerprint ID.

In Figure 8, patient can register his/her fingerprint using the fingerprint scanner in the IoT glucometer. The fingerprint scanner captures the fingerprint of the patient but it will return an error if there is none. Then, the fingerprint will undergo to the identifying and verifying process. The patient will repeat to register his/her fingerprint twice. Finally, the fingerprint will

be saved.

3. Create Patient Visit Record

   The nurse can create a patient visit record as shown in Figure 9. He/she can request for patient data from the IoT Glucometer using the recommender system.

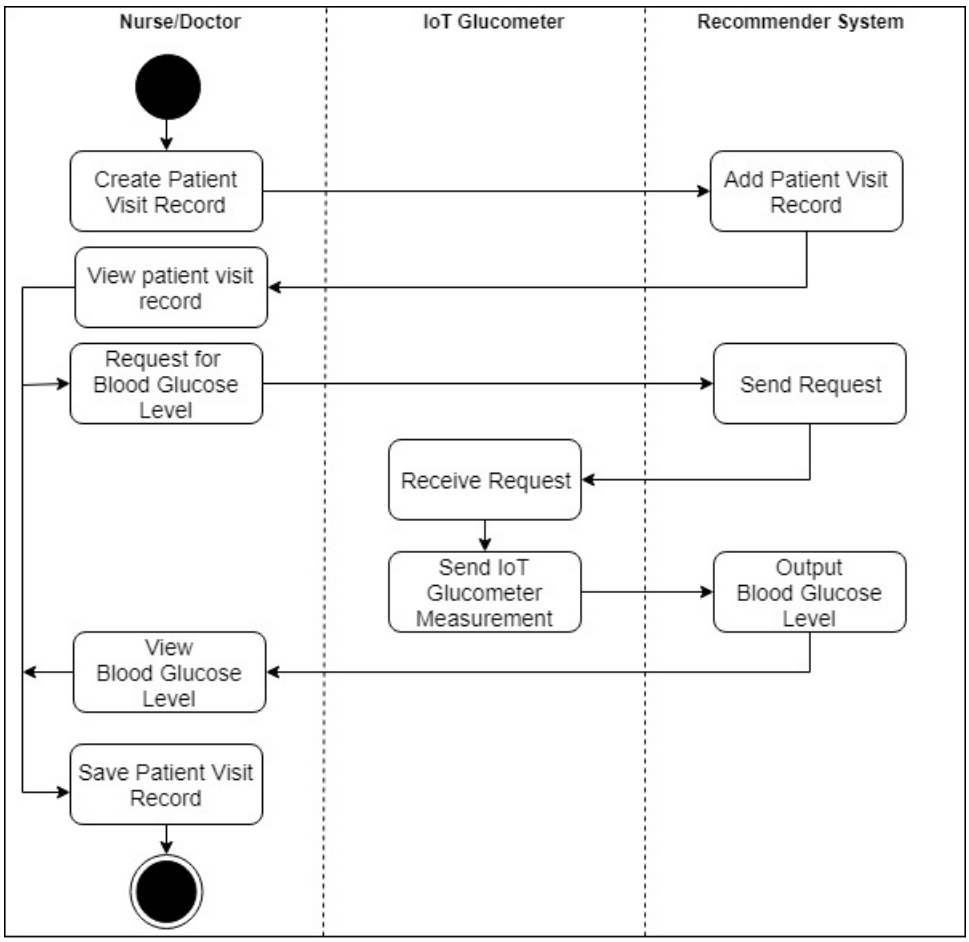

Figure 9: Activity diagram in Creating Patient Visit Record.

4. Recommendation of Treatment

   Using the recommender system, the nurse and the doctor can request for a recommended treatment plan as shown in Figure 10 As the nurse in the rural health unit consult a doctor by sending the patient health profile and the patient visit record, the doctor can edit the recommended treatment plan stored in the patient visit record.

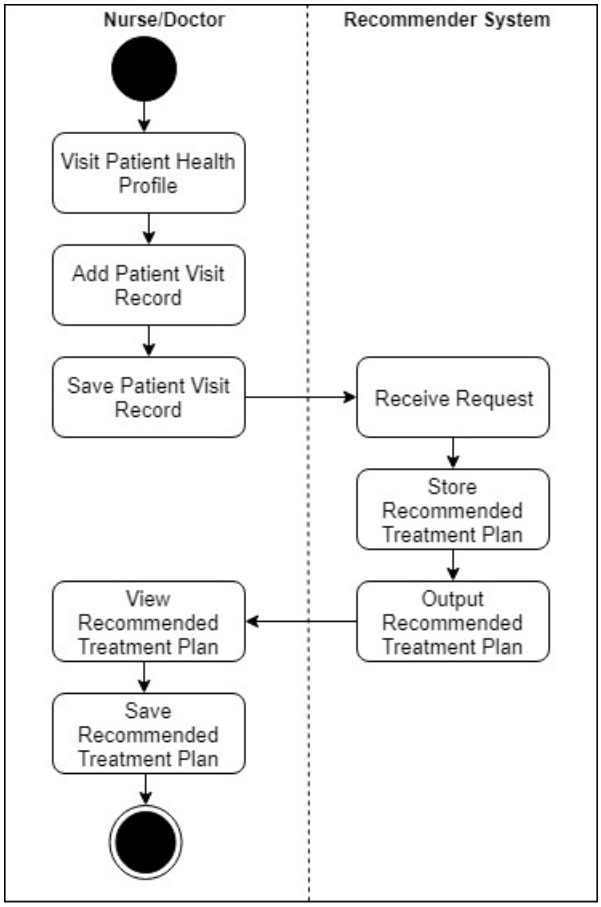

Figure 10: Activity diagram in Recommending Treatment Plan.

5. Teleconsultation

   Figure 11 shows that the nurse can send message, patient's health profile, and patient visit record to the doctor in for a consultation. The doctor can edit the recommended insulin dosage to the patient visit record. In addition, he/she can send the patient visit record along with his/her message to the nurse.

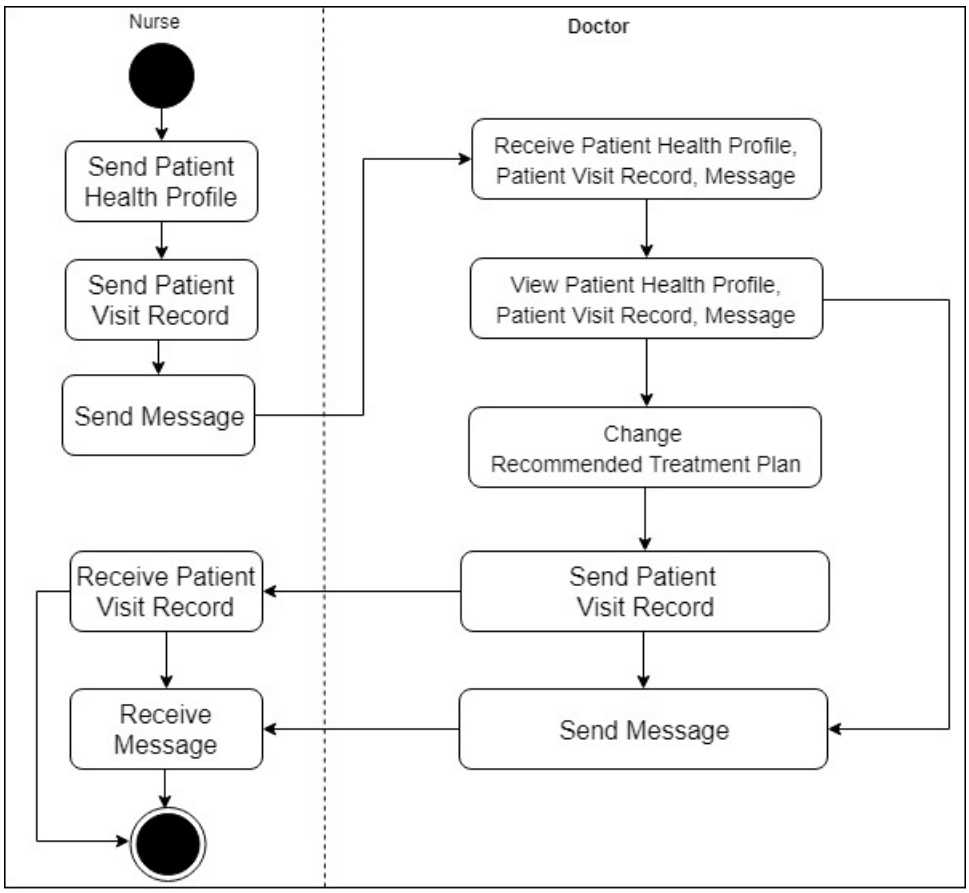

Figure 11: Activity diagram for Teleconsultation.

C. Entity Relationship Diagram

The system will be database-dependent since it is intended to keep records. Therefore, a good database design is necessary to better fulll the system's objectives. Figure 12 shows the Entity Relationship Diagram for the database design of the system.

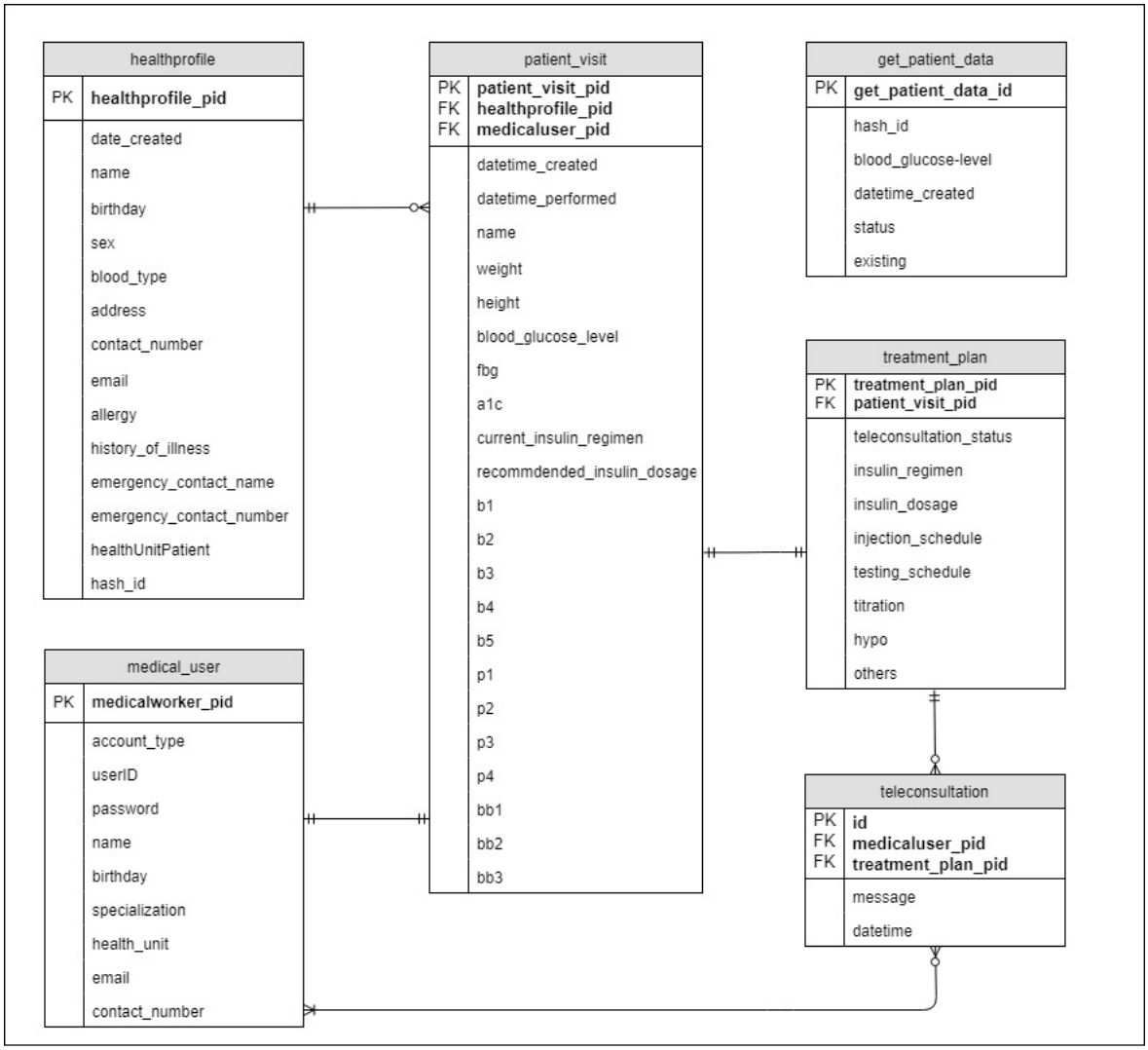

Figure 12: Entity Relationship Diagram for the DiAbVi System

D. Data Dictionary

1. Medical Users

Attribute	**Data Type**	**Description**
medical_user_pid	int(11)	unique id of the patient health profile
account_type	char(1)	type of account N-nurse, D-doctor
userID	varchar(20)	username of the medical user
password	varchar(30)	login password of the medical user
name	varchar(100)	name of the medical user
birthday	date()	birthday of the medical user
specialization	varchar(100)	specialization of the medical user
health_unit	varchar(100)	hospital of the medical user
email	varchar(50)	email of the medical user
contact_number	int(30)	contact number of the medical user

Table 3: Data Dictionary Table for Medical Users

2. Patient Health Profile

Attribute	**Data Type**	**Description**
healthprofile_pid	int(11)	unique id of the patient health profile
date_created	datetime()	datetime the health profile was created
name	varchar(100)	name of the patient
birthday	date()	birthday of the patient
sex	varchar(6)	sex of the patient; M- male, F- female
blood type	enum()	blood type of the patient
address	varchar(100)	address of the patient
contact_number	int(30)	contact number of the patient
email	varchar(50)	email of the patient
allergy	varchar(100)	allergy name/s of the patient
history_of_illness	varchar(100)	significant family history of disease of the patient
emergency_name	varchar(100)	name of the emergency contact of the patient
emergency_contact	varchar(50)	contact number of the emergency contact
emergency_relation	varchar(100)	relation of the patient to the emergency contact
healthUnitPatient	varchar(100)	health unit of the patient
hash_id	varchar(20)	Hash ID of the patient

Table 4: Data Dictionary Table for Patient Health Profile

3. Patient Visit Records

Attribute	**Data Type**	**Description**
patientvisit_pid	int(11)	unique id of the patient visit record
healthprofile_pid	int(11)	user id of the patient health profile
medical_user_pid	int(11)	user id of the medical user
date_timecreated	datetime()	datetime the patient visit record was created
datetime_performed	datetime()	datetime the patient record was performed
weight	varchar(10)	weight of the patient
height	int(10)	height of the patient
blood_glucose_level	int(10)	current blood glucose level of the patient
fbg	varchar(20)	schedule of the blood testing
a1c	datetime()	datetime the patient record was performed
current_insulin_regimen	varchar(100)	current HbA1c level of the patient
current_dosage	varchar(20)	current insulin dosage of the patient
b1	varchar(1)	Newly diagnosed with diabetes (less than 6 months)
b2	varchar(1)	Using drugs known to cause hypoglycemia
b3	varchar(1)	Daytime hypoglycemia
b4	varchar(1)	blood glucose level of the patient
b5	varchar(1)	Nocturnal Hypoglycemia (Consistently <5.5 mmol/L)
p1	varchar(1)	Two (2) episodes of hypoglycemia (BG < 4.0 mmol/L) in a week
p2	varchar(1)	Opposed to more than 2 injections a day
p3	varchar(1)	Has consistent meal times and food intake
p4	varchar(1)	Starting a new medication known to cause hyperglycemia
bb1	varchar(1)	Experiencing an illness known to cause hyperglycemia
bb2	varchar(1)	Pregnant
bb3	varchar(1)	Planning a Pregnancy

Table 5: Data Dictionary Table for Patient Visit Record

4. Treatment Plan

Attribute	**Data Type**	**Description**
treatment_plan_id	int(11)	unique id of the treatment plan
patientvisit_pid	int(11)	id of the patient visit record
consult_status	int(1)	status of the teleconsultation 1-Close Cased, 0-Open Case
insulin_regimen	int(20)	recommended insulin regimen for the patient
insulin_dosage	varchar(500)	recommended insulin dosage for the patient
injection_schedule	varchar(500)	recommended insulin injection schedule for the patient
testing_schedule	varchar(500)	recommended testing schedule for the patient
titration	varchar(500)	recommended titration algorithm
hypo	varchar(500)	recommended procedures when experiencing hypoglycemia
others	varchar(500)	other recommendations

Table 6: Data Dictionary Table for Treatment Plan

5. Teleconsultations

Attribute	**Data Type**	**Description**
teleconsultattion_id	int(11)	unique id of the treatment plan
message	text()	message of the medical user
datetime	datetime()	datetime of the message was created

Table 7: Data Dictionary Table for Teleconsultations

6. Get Patient Data

Attribute	**Data Type**	**Description**
get_patient_data_id	int(11)	unique id of the patient data
hash_id	varchar(20)	Hash ID of the patient
blood_glucose	int(10)	current blood glucose level of the patient
datetime	datetime()	datetime of the patient data was performed
status	char(1)	status of the patient data 0 - not used, 1 - used
existing	char(1)	existing status of the data 0 - new, 1 - old

Table 8: Data Dictionary Table for Get Patient Data

E. System Architecture

The whole system will be implemented using C++ programming language. It will run on Windows 7 or later operating systems. The MySQL will be used for the Teleconsultation module of the system. As for the IoT Glucometer, Python programming language will be used to read and send the blood glucose data.

F. Technical Architecture

1. The requirements for the recommender system include:

   (a) pybluez library

   (b) At least 2 GB RAM

   (c) At least 1 GB free disk space

   (d) Intel Core i3, i5, or i7 Processor

   (e) Gigabit Ethernet, 802.11a/b/g/n wireless

   (f) Microsoft Windows 7 or later

2. The requirements for the IoT Glucometer include:

   (a) GlucoRx Nexus

   (b) Raspberry Pi Model 3 B

   (c) Fingerprint Scanner

   (d) Raspbian Operating System

V. Results

The DiAbVi system is composed of the Recommender System installed in a computer and a device called "IoT Glucometer."

A. DiAbVi Recommender System

In Figure 13, it shows the main window of the DiAbVi Recommender System.

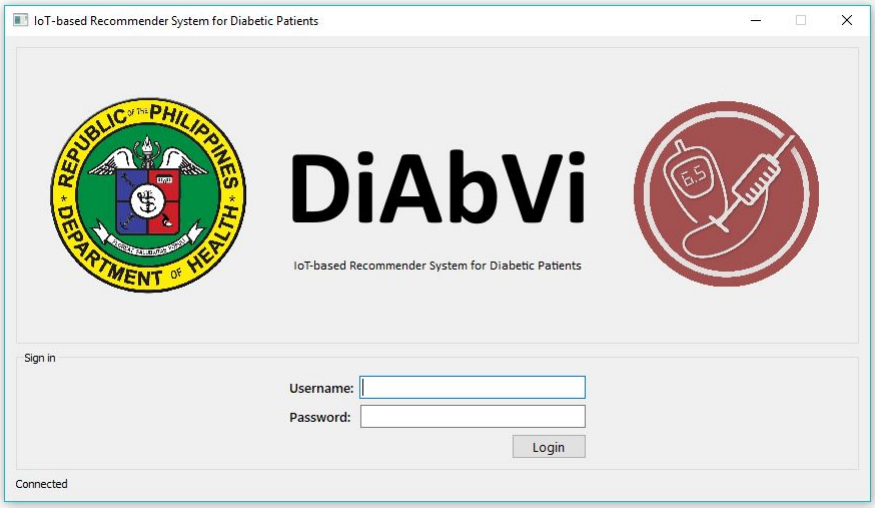

Figure 13: Main Window Page - DiAbVi System

B. IoT Glucometer

Figure 14: IoT Glucometer - DiAbVi System

In Figure 14, it shows the Iot Glucometer device. It is composed of the Gluco RX Nexus for the blood glucose sensor, AdaFruit fingerprint scanner, and a Rasberry Pi 3 Model B. Also, there are two led buttons to act as a signals for the different features of the device. There is a green button to trigger the different functionalities of the IoT Glucometer. The inside of the IoT glucometer device is shown in figure 15.

Figure 15: IoT Glucometer (inside) - DiAbVi System

C. Creating a Medical User Account

Figure 16: Admin Login Page - DiAbVi System

For the users to have an access to the DiAbVi system, they must log in through the Log in Page. If a medical user does not have an account, he/she can have an account registered by the Admin account as shown in Figure 16. Otherwise, the medical user may log in by entering his/her credentials (username and password) before clicking the Login button. The system has three users: Admin, Nurse, and the Doctor. In Figure 17, the Admin Account has two main options in the system.

Figure 17: Admin Main Menu Page - DiAbVi System

By clicking the Add User Account, the system will be redirected to the Add User Account page as shown in Figure 18. The admin must enter the medical user's credentials such as the name, medical user type, username, password, birthday, specialization, health unit, email, and contact number. The medical user type can be a Nurse or Doctor.

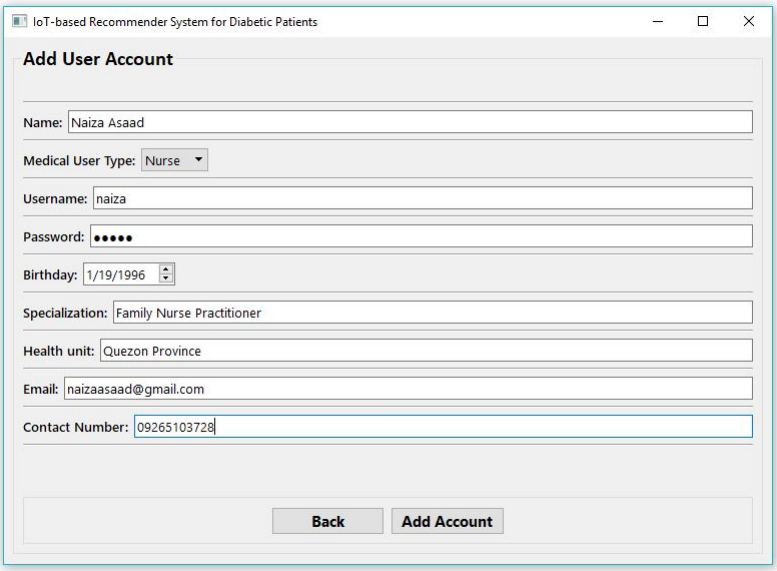

Figure 18: Add User Account Page - DiAbVi System

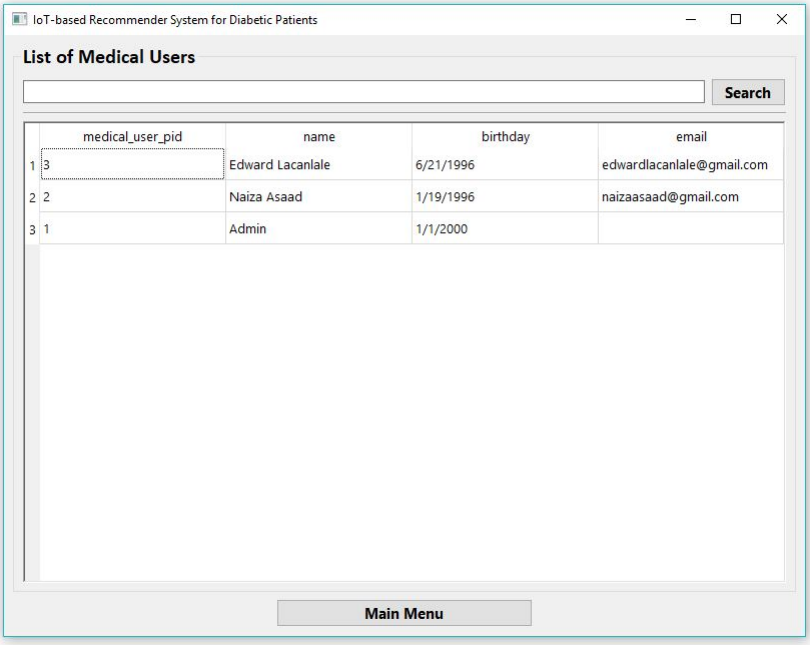

Figure 19: List of Medical Users - DiAbVi System

The admin user can view the list of the users of the DiAbVi System as shown in Figure 19. As the admin click the medical user id of the desired user, he/she will be redirected to the View User Account Page of the system shown in Figure 20.

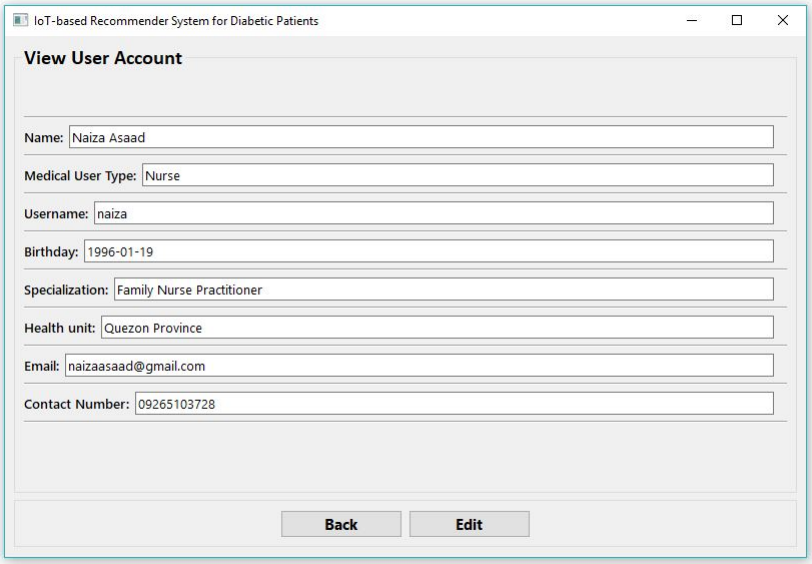

Figure 20: View User Account - DiAbVi System

The admin can update the desired medical user account of the medical user by clicking the Edit button of the View User Account Page of the medical user as shown in the Figure 21.

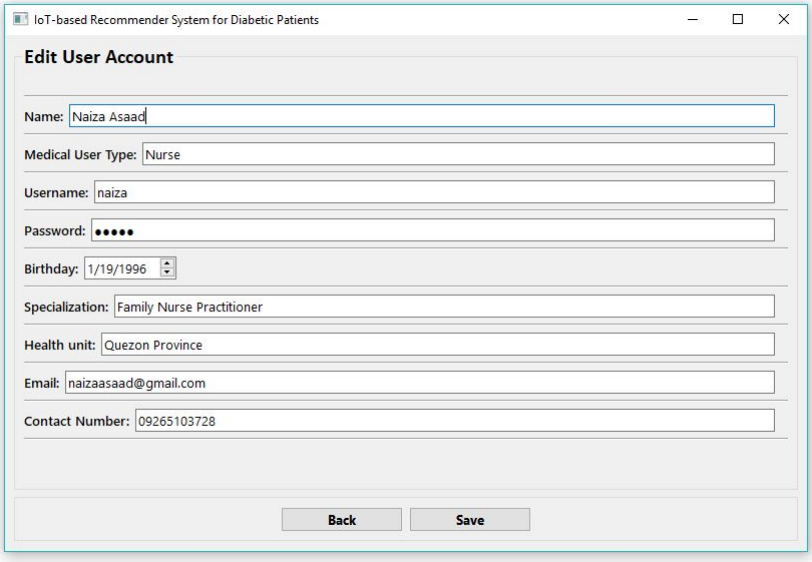

Figure 21: Edit User Account - DiAbVi System

D. Creating Patient Health Profile

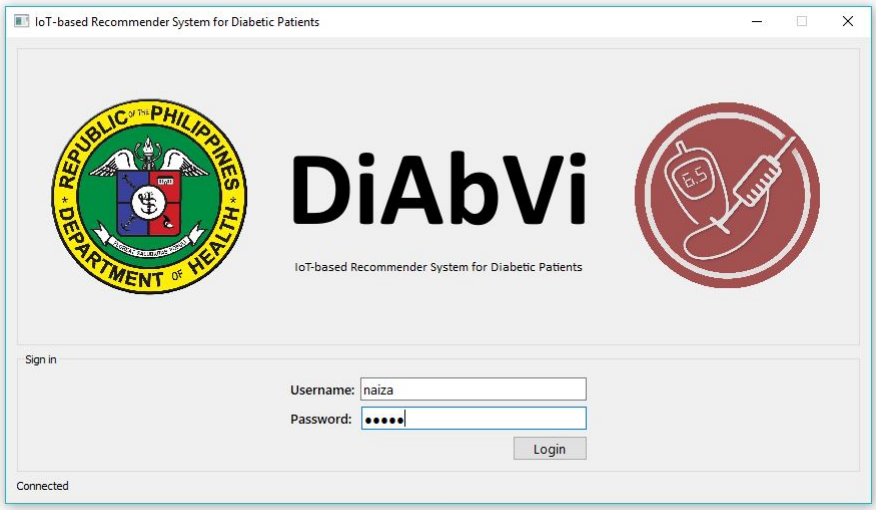

Figure 22: Nurse Login Page- DiAbVi System

In creating a Patient Health Profile, the user must login to the DiAbVi Recommender System as shown in Figure 22. Once the medical user of the DiAbVi System, the nurse or the doctor, has successfully logged on, he/she will be redirected to the main menu. Both nurse and doctor have the same menu in their Main Menu page. As shown in Figure 23, the nurse or the doctor can choose to Add Patient, Search Patient, View Consultations or Retrieve IoT Glucometer data.

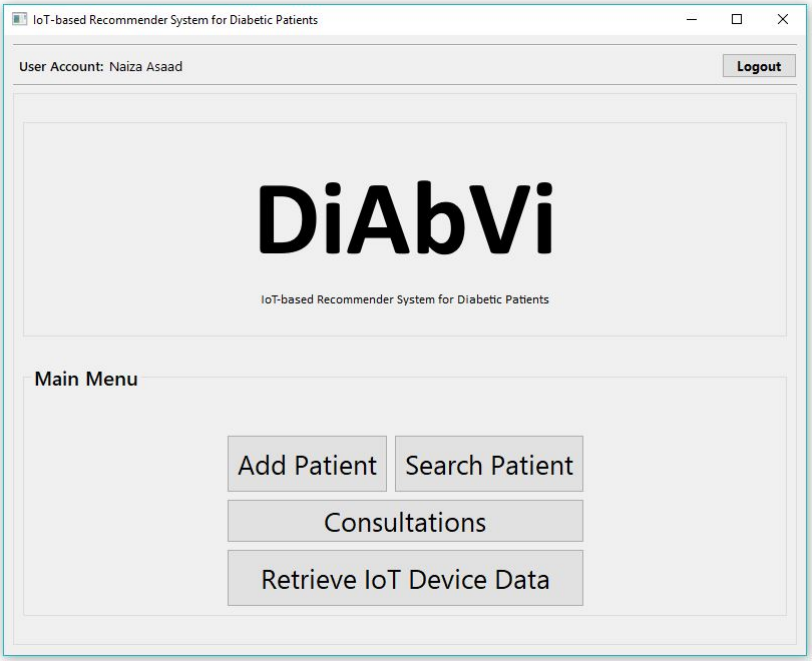

Figure 23: Nurse Main Menu - DiAbVi System

When the medical users choose to Add Patient, they will be redirected to the Add Patient Health Profile Page of the system as shown in Figure 24. The patient must provide his/her full name, birthday, sex, blood type, contact number, emergency contact, emergency contact number, and health unit. Otherwise, the system will provide an error stating to fill in all the required fields.

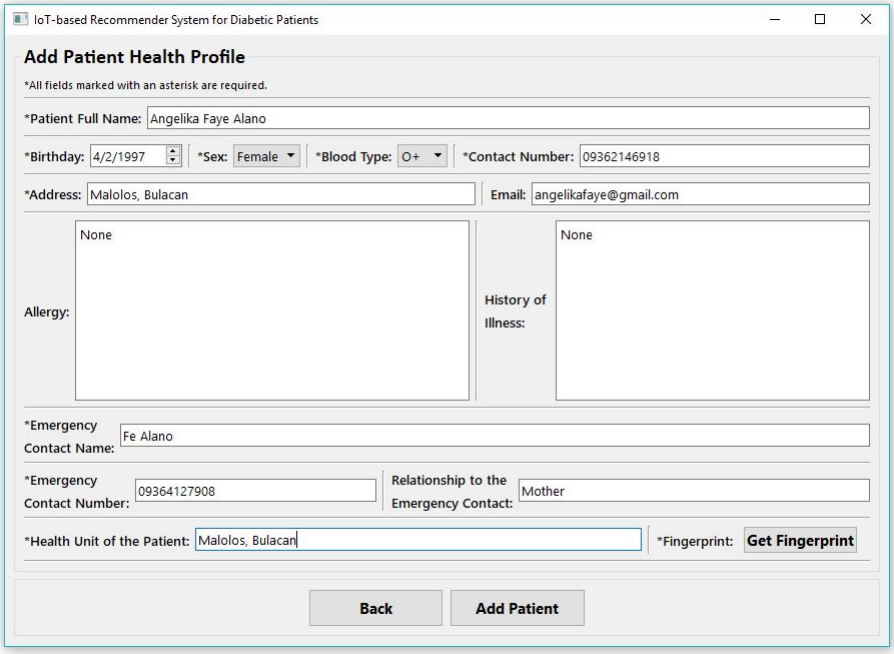

Figure 24: Add Patient Health Profile - DiAbVi System

Also, there is the option to Get Fingerprint of the Patient. Once the medical user clicked the Get Fingerprint button, it will show a dialog box as shown in Figure 25 for the necessary instructions for storing the fingerprint of the patient.

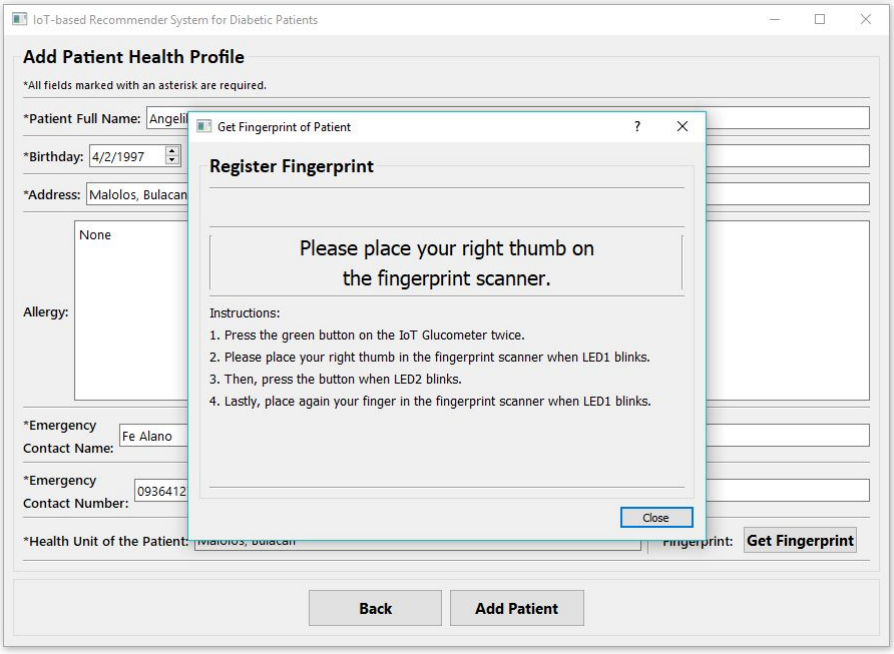

Figure 25: Register Fingerprint of the Patient - DiAbVi System

In the IoT Glucometer, the patient must use his/her right thumb in register-

ing his/her fingerprint as shown in Figure 26. The instructions to use the IoT Glucometer are shown in the Get Fingerprint dialog box in Figure 25.

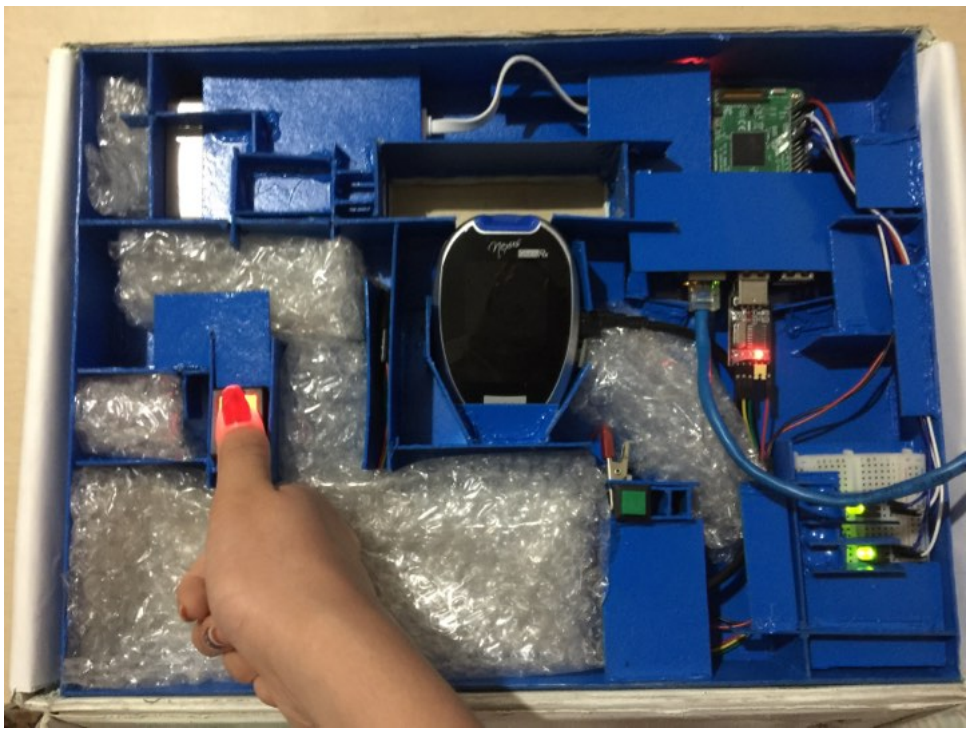

Figure 26: Register Fingerprint of the Patient (Right Thumb) - DiAbVi System

In this Figure 27, this shows the success of getting the fingerprint of the the diabetic patient using the IoT Glucometer.

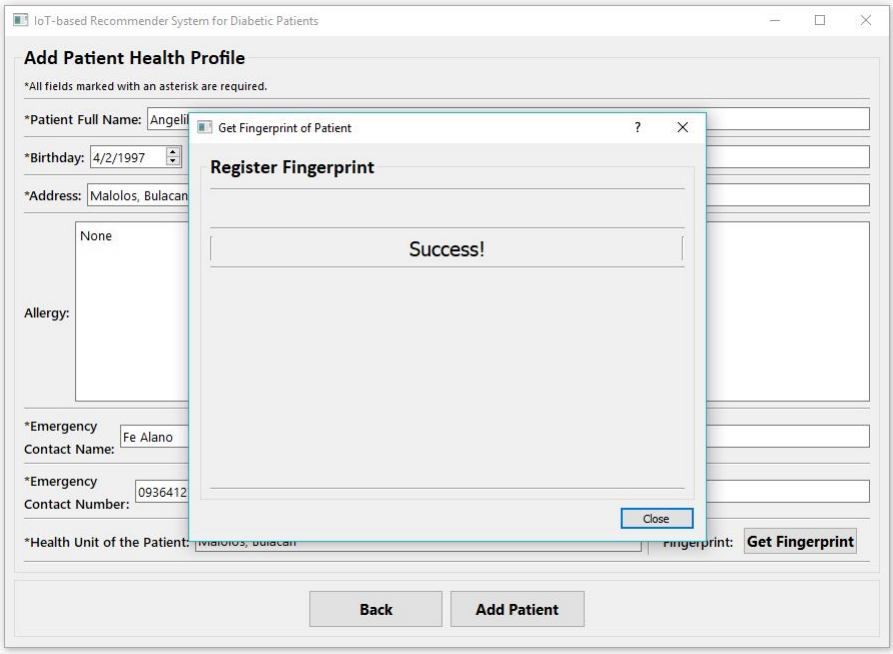

Figure 27: Success in Register Fingerprint of the Patient - DiAbVi System

E. Creating Patient Data in IoT Glucometer

In creating a Patient Data in the IoT Glucometer, the patient must click the green button once. When the LED1 (top) lights, the patient must place his/her finger in the fingerprint scanner as shown in the Figure 28. Lastly, the patient must click the green button once when the LED2 (bottom) lights.

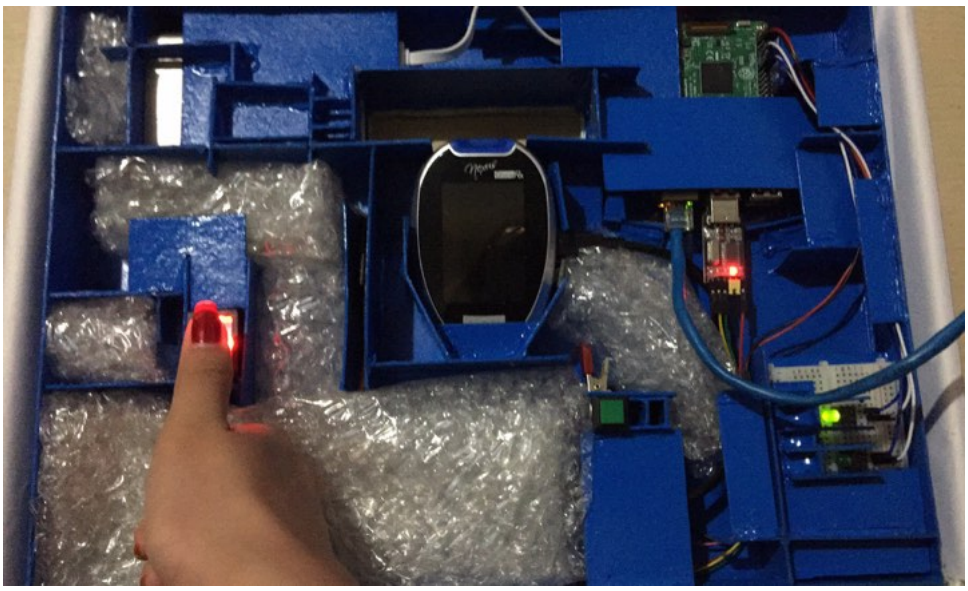

Figure 28: Creating Patient Data in IoT Glucometer - DiAbVi System

F. Get IoT Glucometer Data

Once the patient has a Patient Health Profile in the DiAbVi System, he/she may now use the IoT Glucometer for getting his/her blood glucose level. In order for the system to receive the blood glucose levels of the different patients, the medical user must choose the Retrieve IoT Glucometer data button in their Main Menu Page. As shown in Figure 29, the Retrieve IoT Glucometer Data page will show the list of all the new patient data received by the DiAbVi Recommender System from the IoT Glucometer.

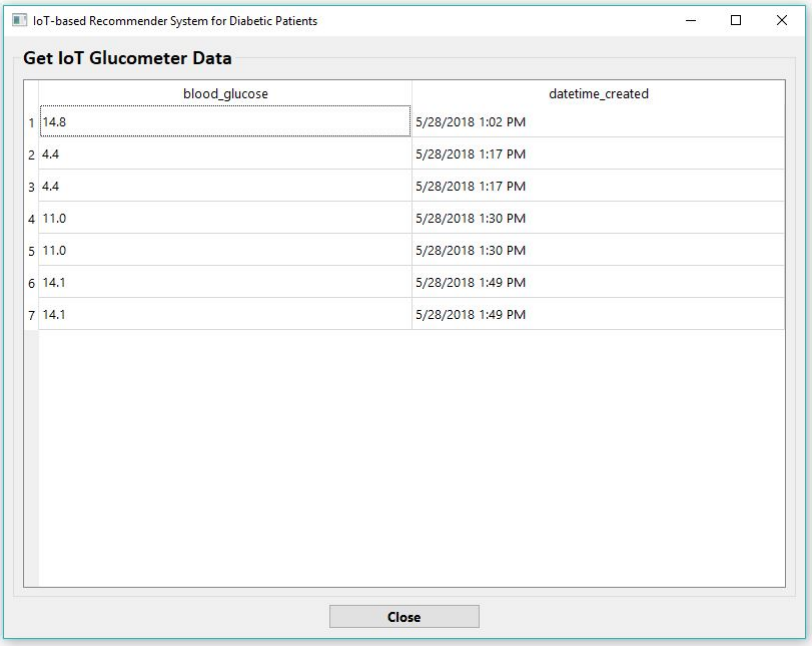

Figure 29: Retrieve IoT Glucometer Data - DiAbVi System

G. Creating Patient Visit Record

In Creating Patient Visit Record, the medical user must navigate to the desired Patient Health Profile first. The medical user will search the desired patient in the List of Patient Health Profile once he/she clicked the Search Patient button in the main menu of the user as shown in Figure 30.

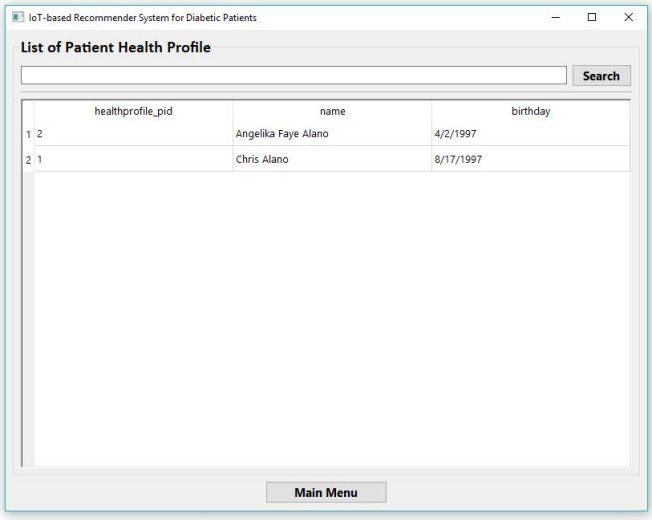

Figure 30: List of Patient Health Profile - DiAbVi System

The medical user must click the Add Patient Visit Record button in the Patient Health Profile of the desired patient. Once the medical user will Add Patient Visit Record as shown in Figure, he/she can get the corresponding data of the patient through clicking the Get IoT Glucometer Data button in the Add Patient Visit Record as shown in the Figure 31.

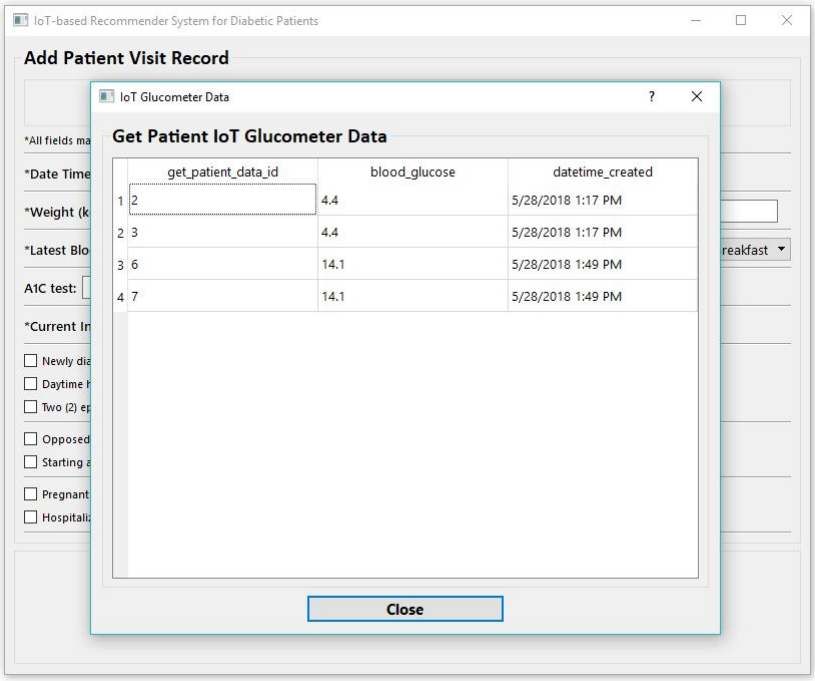

Figure 31: Get Patient IoT Glucometer - DiAbVi System

When a diabetic patient is just starting the insulin therapy. He/she has no

Patient Visit Record yet. It means that the insulin regimen for him/her is the starting insulin dosage which is 10 units. The Patient Visit Record page is shown on Figure 32. It consists of the different inputs of the medical user about the patient for the DiAbVi system be able to recommend a Treatment Plan.

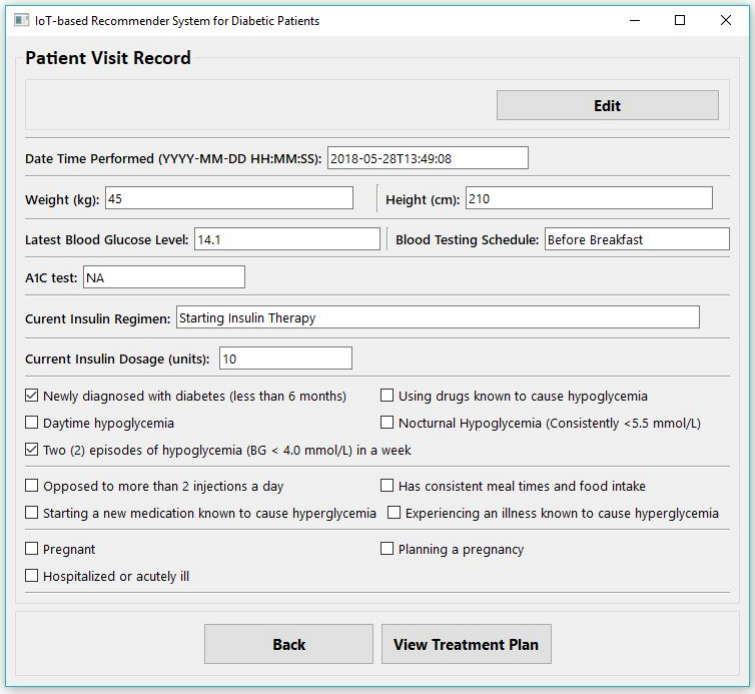

Figure 32: Patient Visit Record - DiAbVi System

Lastly, the medical user can edit the Patient Visit Record and delete it in the Edit Patient Visit Record Page.

H. Recommend a Treatment Plan

Once the medical user click the View Treatment Plan Button on the Patient Visit Record Page, it will redirected to the Recommended Treatment Plan Page as shown on Figure 33. It consists of the insulin regimen, insulin dosage, insulin injection schedule, and testing schedule.

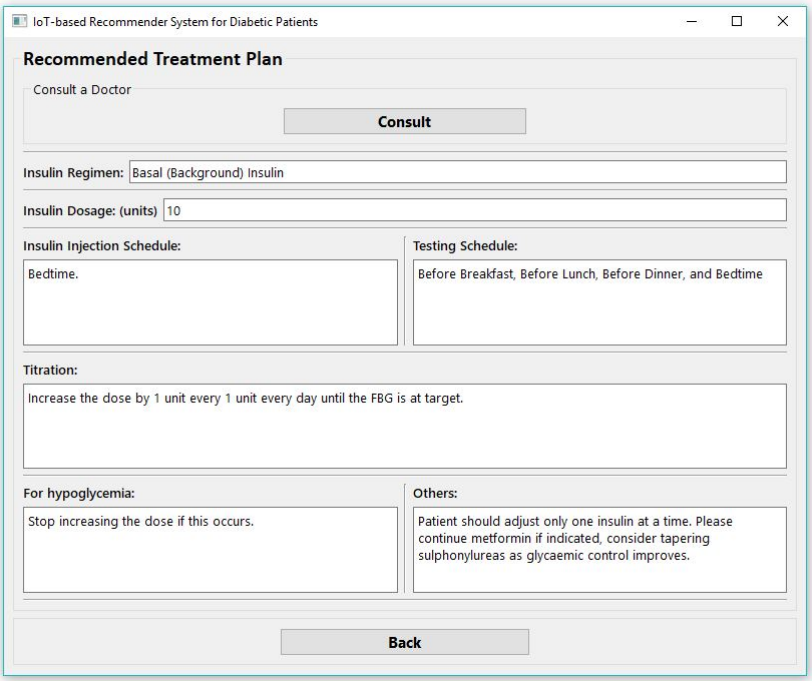

Figure 33: Recommended Treatment Plan - DiAbVi System

I. Teleconsultations

I..1 Consult a Doctor

The nurse can consult a doctor about the recommended treatment plan of the DiAbVi System. In the Teleconsultations Page, nurses can send messages to doctors about the Treatment Plan as shown in Figure 34.

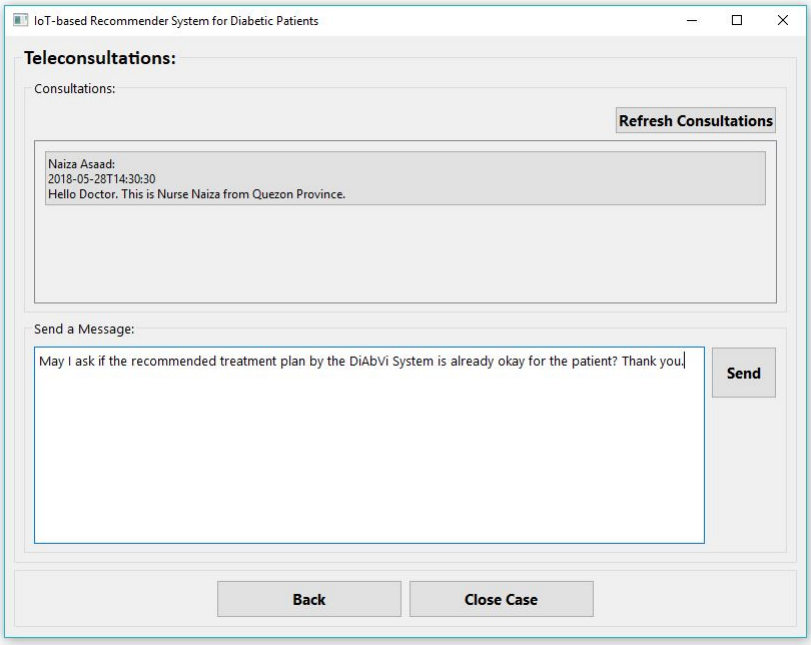

Figure 34: Nurse: Teleconsultations Page - DiAbVi System

I..2 View Teleconsultations

For the Doctor account, they can view the consultations of the nurses in the Consultations Page from the View Consultations button on the Main Menu page as shown in 35.

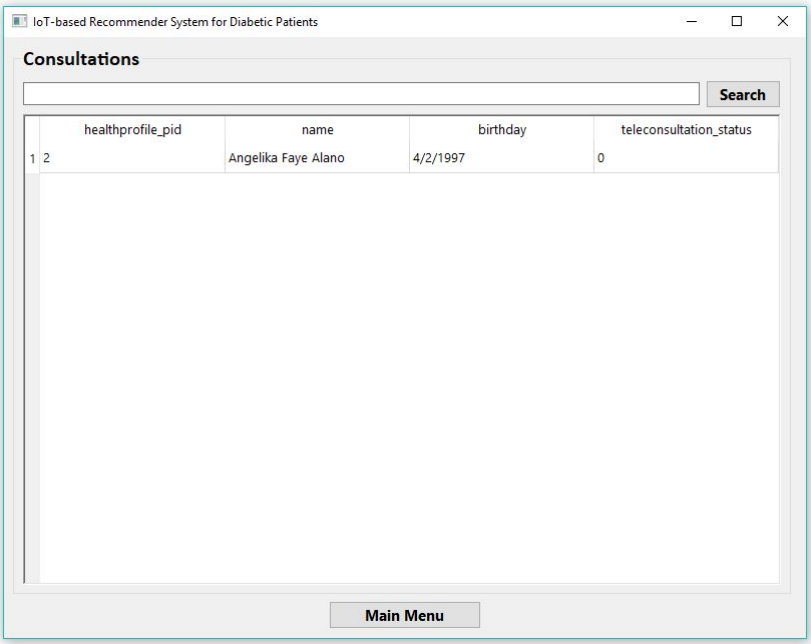

Figure 35: Doctor: Consultations - DiAbVi System

The doctor can view the messages, along with the Patient Health Profile and the Patient Visit Record of the Patient, as shown in the Figure 36.

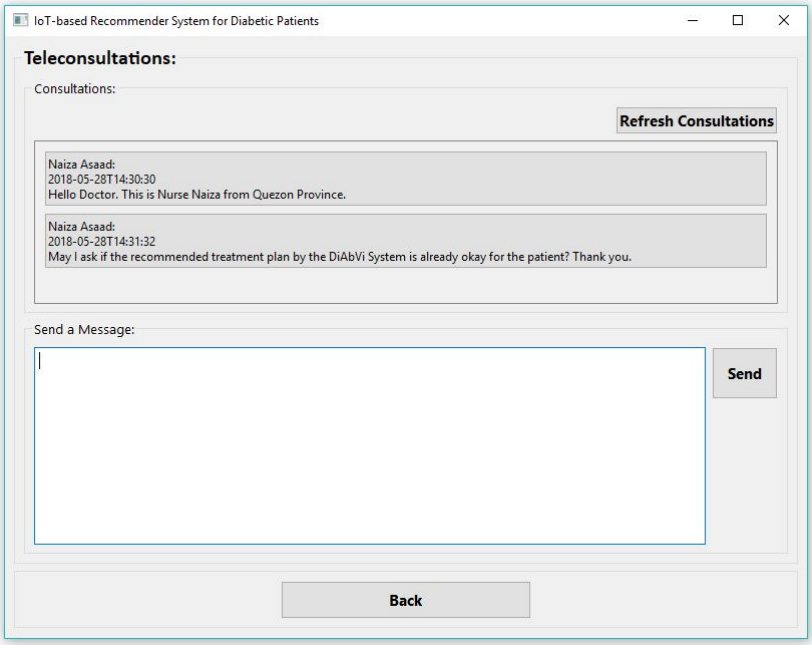

Figure 36: Doctor: View Messages - DiAbVi System

Also, the doctor can edit the Recommended Treatment Plan of the DiAbVi System as shown in the Figure 37.

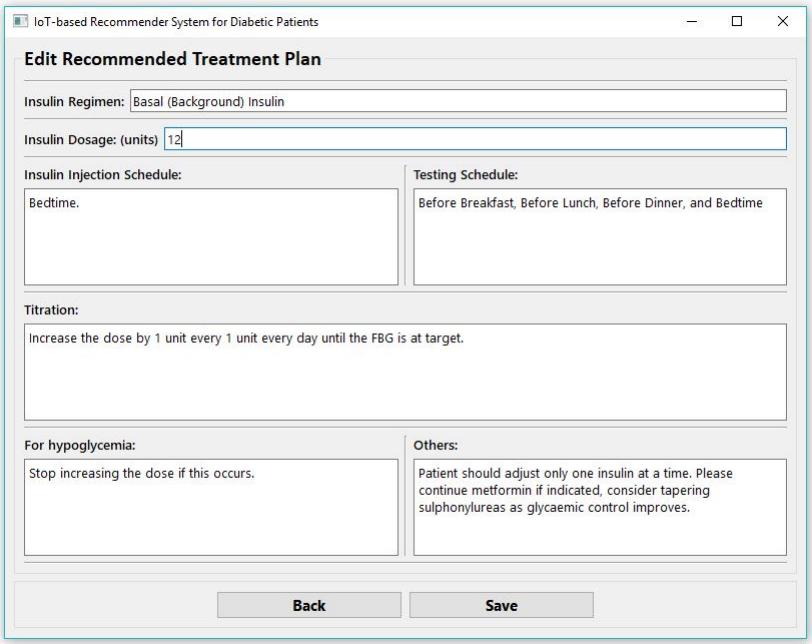

Figure 37: Doctor: Edit Recommended Treatment Plan Page - DiAbVi System

As the doctor updated the Recommended Treatment Plan, the DiAbVi System automatically posted a notification for the nurse to see the updated version of the treatment plan for the patient and he can also send an additional messages as shown in Figure 38.

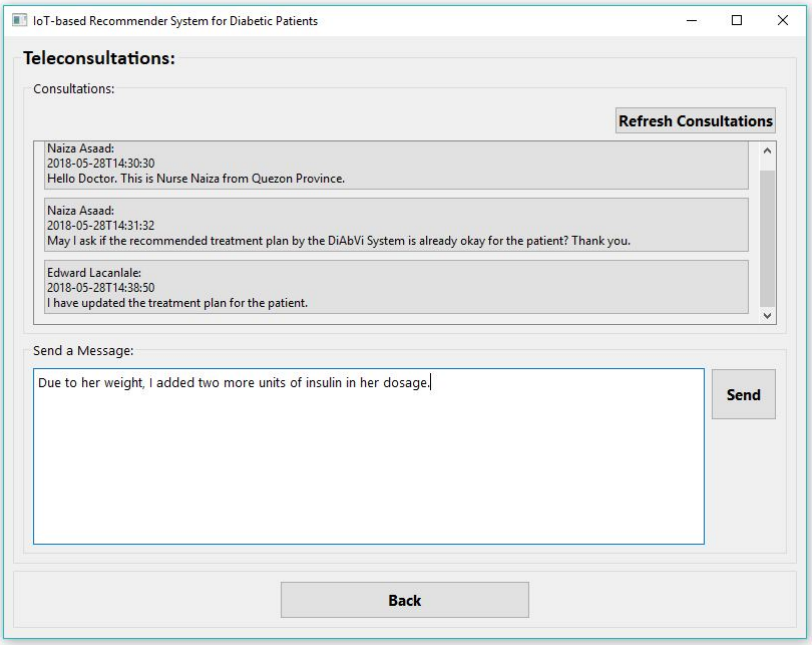

Figure 38: Doctor: Send Message - DiAbVi System

Lastly, as the medical user who created the patient visit record decided to close the consultation. He/she may close it by clicking the Close Case button as shown in Figure 39.

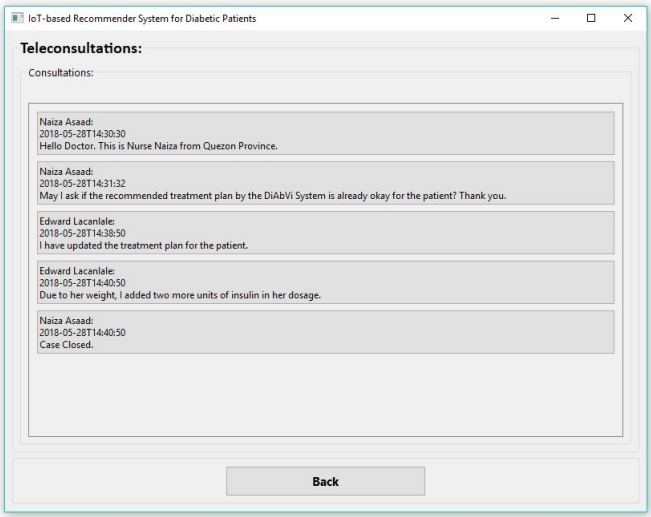

Figure 39: Close Consultation - DiAbVi System

VI. Discussions

The recommender system uses an algorithm which is based on the pharmacological therapy provided by the American Diabetes Association. For some missing details, we have used the information provided by Royal Australian College of General Practitioners. We have used MySQL to centralize all the records and messages. By implementing it this way, we have avoided to use MQTT protocol for sending messages. The MySQL implementation removed the complexity of setting the host addresses unlike if MQTT was used. We have developed the system using Qt Creator IDE.

We have used Bluetooth instead of Wi-Fi to reduce the power consumption of the battery of the IoT Glucometer. The fingerprint scanner uses a proprietary algorithm for fingerprint matching, which only works if the fingerprint is stored in its internal database. This fingerprint scanner can only store up to 162 templates, thus limiting the number of the patients with fingerprint ID in our recommender system. Our IoT Glucometer uses 10050 mAh power bank for its power supply. Based on our initial testing, the IoT Glucometer can operate for at least 12 hrs.

To validate our solution, we have interviewed Dr. Iris Thiele Isip-Tan, an Endocrinologist working at Medical Informatics Unit of Philippine General Hospital (PGH). Based on her assessment, in the urban setting the recommender system can be used to help the doctors verify the treatment plan. As for the IoT Glucometer itself, it can be used in the outpatient clinic of PGH. She have also suggested some ideas, written in Chapter 8 of this document. Since the original idea is intended for the rural health setting, we have combined the user story for both rural and urban setting. Our implementation is based on the original proposal and the ideas from Dr. Isip-Tan. Clinical testing is still needed to validate the effectivity of the system. Our next step is to collaborate with National Telehealth Center (NTHC) to test the idea in the RHU.

In comparison to the initial proposed solution, which uses Case-Based Reasoning, using rules instead of statistical methods give us an advantage. Statistical

methods rely on parameters to evaluate their output. In the real life setting, there is a possibility that the treatment plan may change for the same individual given that the parameters did not changed. For example, the patient is currently using basal insulin treatment. After one month of monitoring, his/her HbA1c and FBS did not changed. The doctor may change the treatment plan into rapid insulin injection or premixed insulin. If we use statistical methods, the recommender system will give us the same treatment plan given that the status of the patient did not changed. Thus we have implemented the same algorithm the doctors use on recommending an insulin treatment plan.

VII. Conclusions

We have created an IoT-based Recommender System, a solution that can help nurses in the RHU to provide treatment plan. It consists of a recommender system which suggests treatment plan for insulin dosage, an integrated teleconsultation system so nurses can consult cases to an expert doctor, and an IoT Glucometer that can be used to take blood glucose level of multiple patients. This IoT-based Recommender System is intended for the use in the RHU.

This Special Problem can be used as a template for future IoT projects, especially here in the University of the Philippines Manila. As of this writing, there are only two Special Problems that are under the area of Internet-of-Things. Aside our work, another is the work of Charlene Grace Regilme about Fluid Level Control and Monitoring. Our application focused on health services since UP Manila is known as the Health Sciences Center of the Philippines.

VIII. Recommendations

From our interview with Dr. Isip-Tan of Medical Informatics Unit of Philippine General Hospital, it is suggested that we create a mobile application to bridge the patients to the doctor. There are cases where the patient do not fully understand the recommendation, or is afraid to adjust their insulin. Also by giving patients access in the recommender function, there will be less intervention from the health practitioner or nurses. The idea however is still not highly applicable in the Philippines, since not all of the population have access to smartphones and internet access.

As for the IoT Glucometer, we are suggesting to create an actual FDA-approved non-invasive glucometer that has biometrics and can communicate with an app, similar with our idea. We can also create a cloud service where the data in the IoT Glucometer can be stored and monitored, as suggested by Dr. Alvin Marcelo of PGH. One good addition would be data analytics, where doctors may find correlation between the time, geographical area, and diabetic patients. This can be used by the Department of Health for their programs to prevent, monitor, and treat diabetes cases here in the Philippines.

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X. Appendix

A. Source Code

```
import bluetooth

try:
 # create server socket
 server_sock=bluetooth.BluetoothSocket( bluetooth.RFCOMM
        )

 # bind to any host and port
 server_sock.bind(("",bluetooth.PORT_ANY))

 # accept one connection at a time
 server_sock.listen(1)

 # define service names
 enrollService="DiAbViGetFingerprint"


 bluetooth.advertise_service(server_sock, enrollService,
        service_classes=[bluetooth.SERIAL_PORT_CLASS],
        profiles=[bluetooth.SERIAL_PORT_PROFILE])

 try:
  # create client socket
  client_sock, address = server_sock.accept()

  # receive data
  data = client_sock.recv(1024)
  print(data.decode("utf-8"))

 except Exception as e:
  print("Error on client socket...\n")

 client_sock.close()
 #server_sock.close()

except Exception as e:
 print("Error on server socket...\n")

server_sock.close()


import bluetooth

try:
 # create server socket
 server_sock=bluetooth.BluetoothSocket( bluetooth.RFCOMM
        )

 # bind to any host and port
 server_sock.bind(("",bluetooth.PORT_ANY))

 # accept one connection at a time
 server_sock.listen(1)

 # define service names
 patientService="DiAbViGetPatientData"

 bluetooth.advertise_service(server_sock, patientService,
        service_classes=[bluetooth.SERIAL_PORT_CLASS],
        profiles=[bluetooth.SERIAL_PORT_PROFILE])

 try:
  # create client socket
  client_sock, address = server_sock.accept()

  #print "Accepted connection from ",address
  #print("Accepted connection from... ")

  # receive data
  #data = client_sock.recv(1024)
  #print("Received: " + data.decode("utf-8"))

  while True:
   data = client_sock.recv(1024)
   print(data.decode("utf-8"))
   if not data: break

 except Exception as e:
  print("Error on client socket...\n")

 # close client socket
 client_sock.close()

except Exception as e:
     print("Error on server socket...\n")

server_sock.close()
```

```
kill -9 $(ps aux | grep '[p]ython /home/pi/DiAbVi/
       DiAbVi_App.py' | awk '{print $2}')
python Admin.py


from bluetooth import *
from pyfingerprint.pyfingerprint import PyFingerprint
from gpiozero import LED, Button
from subprocess import check_call
import hashlib
import time
import datetime
import csv
import random

#----------------------------------------

# Initialization
#----------------------------------------


led1 = LED(17)
led2 = LED(27)
button = Button(2, hold_time=5.0)
patientFile="/home/pi/DiAbVi/DiAbViRecord.csv"
enrollService="DiAbViGetFingerprint"
patientService="DiAbViGetPatientData"


#----------------------------------------

# Functions
#----------------------------------------

# Inform user that system is on standby through LED
def led_standby():
    led1.on()
    led2.on()
    return

# Inform user for step 1 (fingerprint) through LED
def led_step1():
    led1.blink()
    led2.off()

    return

# Inform user for step 2 (button) through LED
def led_step2():
    led1.on()
    led2.blink()

    return

# Inform user for completed task through LED
def led_success():
    led1.blink(on_time=0.5,off_time=0.5)
    led2.blink(on_time=0.5,off_time=0.5)
    time.sleep(5)

    return

# Inform user that system is in progress through LED
def led_waiting():
    led1.blink()
    time.sleep(1)
    led2.blink()

    return

# Inform user for error through LED
def led_error():
    led1.blink(on_time=0.2,off_time=0.2)
    time.sleep(0.2)
    led2.blink(on_time=0.2,off_time=0.2)
    time.sleep(5)

    return

def waitUserInput():
    # wait for push button
    button.wait_for_press()

    # once pushed, start counting
    start_time = time.time()
    diff = 0

    # as long as button is pressed in less than hold time
    while button.is_pressed and (diff < button.hold_time):
```

```
        # check the difference between the start and current
            time
        now_time = time.time()
        diff = now_time - start_time

    # determine if user will double click
    doubleClicked = False
    if not button.is_pressed:
        # create a small interval after the initial click
        time.sleep(0.2)
        # check again for second press w/in 2 seconds
        while True:
            if button.is_pressed:
                doubleClicked = True

            # exit after 2 seconds
            if diff >= 2:
                break
            # check the difference between the start and
                current time
            now_time = time.time()
            diff = now_time - start_time

    return diff, doubleClicked

def initFP():
    try:
        f = PyFingerprint("/dev/ttyUSB0", 57600, 0
            xFFFFFFFF, 0x00000000)
        if ( f.verifyPassword() == False ):
            raise ValueError("The given fingerprint sensor
                password is wrong!")
    except Exception as e:
        print("The fingerprint sensor could not be
            initialized !")
        print("Exception message: " + str(e))
        #exit(1)
    return f

def getFPHash(f, positionNumber):
    # load the template
    f.loadTemplate(positionNumber, 0x01)
    # get characteristics
    characterics = str(f.downloadCharacteristics(0x01)).
        encode('utf-8')
    # return the hash value of FP
    return str(hashlib.sha256(characterics).hexdigest())

def searchFingerprint():
    # initialize FP scanner
    f = initFP()

    # read fingerprint and put in character buffer 1
    print("Place your finger in the fingerprint scanner...")
    while ( f.readImage() == False ):
        pass
    f.convertImage(0x01)

    # if not found, return False
    result = f.searchTemplate()
    positionNumber = result[0]
    accuracyScore = result[1]
    if ( positionNumber == -1 ):
        print("Fingerprint not found!\n")
        return False, -1

    # else, return the hash and position number
    print("Fingerprint found!")
    fpHash = getFPHash(f, positionNumber)
    print("Hash: " + str(fpHash))
    print("Patient #" + str(positionNumber + 1))

    return str(fpHash), positionNumber

# Function that creates a patient record (hash, blood glucose
    , timestamp)
def createPatientData():
    # initialize FP scanner and get the number of registered
        fingerprint in the FP scanner DB
    led_step1()
    f = initFP()

    # get hash
    fingerprintData, index = searchFingerprint()

    # if fingerprint exists
    if index != -1:
        print("Fingerprint found! Waiting for glucometer...")
        led_step2()

        # wait for pushbutton
        button.wait_for_press()
        # get glucometer data
        print("Getting glucometer data...")
        bloodGlucoseData = round(random.uniform(3, 15), 1)
        # if glucometer data failed, error then back to main
            loop
        print("Done! Saving to file ...")

        # open file for appending
        fileHandler = open(patientFile, "a")
        patientDataWriter = csv.writer(fileHandler, quoting=
            csv.QUOTE_NONE)

        # create dummy instance
        patientData = [str(fingerprintData),
            bloodGlucoseData, datetime.datetime.now().
            strftime("%Y-%m-%d %H:%M:%S")]
        patientDataWriter.writerow(patientData)
        print(str(patientData))

        # close file
        fileHandler.close()
        print("Saved!\n")
        led_success()
    else:
        led_error()

    return

def findBluetoothDevice():
    # search for devices
    print("Searching...")
    nearby_devices = discover_devices(lookup_names = True)
    print("Found " + str(len(nearby_devices)) + " devices.")
    # if no device found, then return immediately to main
        loop
    if(len(nearby_devices) < 1):
        led_error()
        return False
    # if devices found, then continue operation
    print("Devices:")
    for name, addr in nearby_devices:
        print(str(addr) + " - " + str(name))

    return True


def sendFP(client_socket):
    # initialize FP scanner
    f = initFP()

    # get first instance and put in character buffer 1
    print("Register your finger in the fingerprint scanner
        ...")
    led_step1()
    while ( f.readImage() == False ):
        pass
    f.convertImage(0x01)
    print("Done!")

    # if already exist in the FP scanner DB, inform user
        and go back to main menu
    result = f.searchTemplate()
    positionNumber = result[0]
    if ( positionNumber >= 0 ):
        print("Already registered! Patient #" + str(
            positionNumber) + ".\n")
        return False

    time.sleep(2)
    # wait for button press
    print("Waiting for button...")
    led_step2()
    button.wait_for_press()
    print("Done!")

    # get second instance and put in character buffer 2
    print("Place the same finger in the fingerprint scanner
        ...")
    led_step1()
    while ( f.readImage() == False ):
        pass
    f.convertImage(0x02)
    print("Done!")

    # if not the same fingerprint, inform user and go back to
        main menu
    if ( f.compareCharacteristics() == 0 ):
        print("Fingerprints do not match!\n")
        return False

    # if the same fingerprint, create template and store to
        FP scanner DB
    f.createTemplate()
    positionNumber = f.storeTemplate()

    fingerprintData = getFPHash(f, positionNumber)

    # send data
    client_socket.send(str(fingerprintData))

    # print hash
    print("Fingerprint stored. Patient " + str(
        positionNumber + 1) + ":\n" + str(fingerprintData
        ))

    return True
```

```
def sendRecords(client_socket):
    try:
        # open file for reading
        fileHandler = open(patientFile, "r")
        patientRecord = list(csv.reader(fileHandler))

        # get length of record
        recordSize = len(patientRecord)

        # notify server how many records to receive
        print("Sending " + str(recordSize) + " records...")
        # for each patient data, send to server
        for i in range(recordSize):
            print(str(patientRecord[i]))
            client_socket.send(str(patientRecord[i]))
        print("All records sent!")
    except Exception as e:
        print("Error on reading file.")
        print("Exception message: " + str(e) + "\n")
        return False

    fileHandler.close()

    # delete data after sending
    try:
        fileHandler = open(patientFile, "w")
    except Exception as e:
        print("Error on clearing the file.")
        print("Exception message: " + str(e) + "\n")
        return False

    fileHandler.close()

    return True


def connectToService(match):
    port=match["port"]
    name=match["name"]
    host=match["host"]

    print("Connected to service: " + str(name))
    print("Port: " + str(port))
    print("Host: " + str(host))

    # create client socket
    client_socket=BluetoothSocket( RFCOMM )

    try:
        # connect through given host and port
        client_socket.connect((host, port))

        # notify user that client has connected
        led_success()

        if(name == enrollService):
            if(not sendFP(client_socket)):
                led_error()
                return
        elif(name == patientService):
            if(not sendRecords(client_socket)):
                led_error()
                return

    except Exception as e:
        print("Unable to connect the client!")
        print("Exception message: " + str(e) + "\n")
        led_error()
        return

    # close socket
    client_socket.close()
    # notify user that communication was successful
    print("Communication with recommender system
        completed.\n")
    led_success()

    return

def findServices():
    # check available services
    try:
        services=find_service(uuid=SERIAL_PORT_CLASS)
    except Exception as e:
        print("Error in finding service!")
        print("Exception message: " + str(e) + "\n")
        led_error()
        return

    for i in range(len(services)):
        match=services[i]
        # if DiAbViGetFingerprint service is found
        if(match["name"]==enrollService or match["name
            "]==patientService):
            connectToService(match)
            return

    # if exited for loop, then no service found
    print("No service found. Returning to main loop.\n")
    led_error()

    return

def communicateWithRecommender():
    # notify user that client is searching
    led_waiting()

    if findBluetoothDevice():
        print("Checking for related services ...")
        findServices()
    else:
        print("Returning to main loop.\n")
        led_error()

    return


#-----------------------------------------

# Main Program Loop
#-----------------------------------------


while True:

    # notify user that device is on
    # TODO system check
    led_standby()
    print("---Main---")
    print("Waiting for button...")

    diff, doubleClicked = waitUserInput()

    # if single clicked w/in 5 seconds, call
        createPatientData()
    if diff < button.hold_time and doubleClicked is False:
        print("Single clicked. Creating patient data.\n")
        createPatientData()
    # if double clicked w/in 5 seconds, call
        createPatientData()
    elif diff < button.hold_time and doubleClicked is True:
        print("Double clicked! Communicating with
            recommender system.\n")
        communicateWithRecommender()
    # if held for 5 seconds, shutdown
    else:
        print("Button held! Shutting down...")
        check_call(["sudo", "shutdown", "-h", "now"])

    # create a small interval for the next loop
    time.sleep(1)

from gpiozero import LED
from bluetooth import *
from pyfingerprint.pyfingerprint import PyFingerprint
import hashlib
import time
import datetime
import csv
import random

# turn off led just in case
led1 = LED(17)
led2 = LED(27)
led1.off()
led2.off()

# initialize variables
patientFile="DiAbViRecord.csv"
enrollService="DiAbViGetFingerprint"
patientService="DiAbViGetPatientData"

def initFP():
    try:
        f = PyFingerprint("/dev/ttyUSB0", 57600, 0
            xFFFFFFFF, 0x00000000)
        if ( f.verifyPassword() == False ):
            raise ValueError("The given fingerprint sensor
                password is wrong!")
    except Exception as e:
        print("The fingerprint sensor could not be
            initialized!")
        print("Exception message: " + str(e))
        #exit(1)
    return f

def getFPHash(f, positionNumber):
    # load the template
    f.loadTemplate(positionNumber, 0x01)
    # get characteristics
    characterics = str(f.downloadCharacteristics(0x01)).
        encode('utf-8')
    # return the hash value of FP
    return str(hashlib.sha256(characterics).hexdigest())

def viewAllFP():
    # initialize FP scanner
```

```
    f = initFP()

    # get the number of registered fingerprint in the FP
        scanner DB
    fpTotal = f.getTemplateCount()
    print(str(fpTotal) + " fingerprints already registered.
        Below are the hash values.\n")

    # for each fingerprint stored in the FP scanner DB
    for index in range(fpTotal):
        # print hash
        print("Patient " + str(index + 1) + ":\n" +
            getFPHash(f, index) + "\n")

    return

def searchFingerprint():
    # initialize FP scanner
    f = initFP()

    # read fingerprint and put in character buffer 1
    print("Place your finger in the fingerprint scanner...")
    while ( f.readImage() == False ):
        pass
    f.convertImage(0x01)

    # if not found, return False
    result = f.searchTemplate()
    positionNumber = result[0]
    accuracyScore = result[1]
    if ( positionNumber == -1 ):
        print("Fingerprint not found!\n")
        return False, False

    # else, return the hash and position number
    print("Fingerprint found!")
    fpHash = getFPHash(f, positionNumber)
    print("Hash: " + fpHash)
    print("Patient #" + str(positionNumber + 1))

    return fpHash, positionNumber

def createFP():
    # initialize FP scanner
    f = initFP()

    # get first instance and put in character buffer 1
    print("Register your finger in the fingerprint scanner
        ...")
    while ( f.readImage() == False ):
        pass
    f.convertImage(0x01)
    print("Done!\n")

    # if already exist in the FP scanner DB, inform user
        and go back to main menu
    result = f.searchTemplate()
    positionNumber = result[0]
    if ( positionNumber >= 0 ):
        print("Already registered! Patient #" + str(
            positionNumber) + ".\n")
        return

    time.sleep(2)

    # get second instance and put in character buffer 2
    print("Place the same finger in the fingerprint scanner
        ...")
    while ( f.readImage() == False ):
        pass
    f.convertImage(0x02)
    print("Done!\n")

    # if not the same fingerprint, inform user and go back to
        main menu
    if ( f.compareCharacteristics() == 0 ):
        print("Fingerprints do not match!\n")
        return

    # if the same fingerprint, create template and store to
        FP scanner DB
    f.createTemplate()
    positionNumber = f.storeTemplate()

    # print hash
    print("Fingerprint stored. Patient " + str(
        positionNumber + 1) + ":\n" + getFPHash(f,
        positionNumber) + "\n")

    return

def createRecords():
    # enter number of days between 1 to 30
    days = int(input("Enter number of days (max of 30): "))
    if days > 30 or days < 1:
        print("Must enter between 1-30!\n")
        return

    # initialize FP scanner and get the number of registered
        fingerprint in the FP scanner DB
    f = initFP()
    fpTotal = f.getTemplateCount()

    # enter number of patients between 1 to number of
        registered fingerprint in the FP scanner DB
    patients = int(input("Enter number of patients (max of "
        + str(fpTotal) + "): "))
    if patients > fpTotal or patients < 1:
        print("Must enter between 1-" + str(fpTotal) + "!\n
            ")
        return

    print("Generating records...")
    # open file for appending
    fileHandler = open(patientFile, "a")
    patientDataWriter = csv.writer(fileHandler, quoting=csv.
        QUOTE_NONE)

    sampletime = [" 06:00:00", " 09:00:00", " 12:00:00", "
        18:00:00"]
    # for each day
    for day in range(days):
        # for each time
        for index in range(4):
            # for each patient
            for patient in range(patients):
                # create dummy data
                sampleData = [getFPHash(f, patient), round(
                    random.uniform(3, 15), 1), "2018-01-"
                    + str(day + 1).zfill(2) + sampletime[
                    index]]
                patientDataWriter.writerow(sampleData)
                print(str(sampleData))

    # close file
    fileHandler.close()
    print("Done!\n")

    return

def createInstance():
    # initialize FP scanner and get the number of registered
        fingerprint in the FP scanner DB
    f = initFP()

    # get hash
    fingerprintData, index = searchFingerprint()

    # if fingerprint exists
    if fingerprintData != False:
        print("Fingerprint found! Creating record...")
        # open file for appending
        fileHandler = open(patientFile, "a")
        patientDataWriter = csv.writer(fileHandler, quoting=
            csv.QUOTE_NONE)

        # create dummy instance
        sampleData = [fingerprintData, round(random.
            uniform(3, 15), 1), datetime.datetime.now().
            strftime("%Y-%m-%d %H:%M:%S")]
        patientDataWriter.writerow(sampleData)
        print(str(sampleData))

        # close file
        fileHandler.close()
        print("Done!\n")

    return

def findDeviceAndService(serviceToFind):
    # search for devices
    print("Searching...")
    nearby_devices = discover_devices(lookup_names = True)
    print("Found " + str(len(nearby_devices)) + " devices.")
    # if no device found, then return immediately to main
        loop
    if(len(nearby_devices) < 1):
        return None
    # if devices found, then continue operation
    print("Devices:")
    for name, addr in nearby_devices:
        print(str(addr) + " - " + str(name))

    # check available services
    services=find_service(uuid=SERIAL_PORT_CLASS)
    print("Checking for related services...")
    for i in range(len(services)):
        match=services[i]
        if(match["name"] == serviceToFind):
            print(str(serviceToFind) + " found!")
            return match

    print("Service not found!\n")
    return None

def connectAndCreateSocket(match):
    port=match["port"]
    name=match["name"]
```

```
    host=match["host"]

    print("Connected to service: " + str(name))
    print("Port: " + str(port))
    print("Host: " + str(host))

    # create client socket
    client_socket =BluetoothSocket( RFCOMM )

    # connect through given host and port
    client_socket.connect((host, port))

    return client_socket

def sendFP():
    match = findDeviceAndService(enrollService)

    if match != None:
        client_socket = connectAndCreateSocket(match)

        fingerprintData, index = searchFingerprint()

        # send hash if fingerprint exists
        if fingerprintData != False:
            client_socket.send(str(fingerprintData))
            print("Fingerprint sent!\n")

        # close socket
        client_socket.close()

    return

def sendRecords():
    match = findDeviceAndService(patientService)

    if match != None:
        client_socket = connectAndCreateSocket(match)

        # open file for reading
        fileHandler = open(patientFile, "r")
        patientRecord = list(csv.reader(fileHandler))

        # get length of record
        recordSize = len(patientRecord)

        # notify server how many records to receive
        print("Sending " + str(recordSize) + " records...")

        # for each patient data, send to server
        for i in range(recordSize):
            print(str(patientRecord[i]))
            client_socket.send(str(patientRecord[i]))

        fileHandler.close()
        # delete data after sending
        fileHandler = open(patientFile, "w")
        fileHandler.close()

        client_socket.close()
        print("All records sent!\n")

    return

def deleteFP():
    # initialize FP scanner
    f = initFP()

    # search for fingerprint
    fingerprintData, positionNumber = searchFingerprint()

    # delete template if fingerprint exists
    if fingerprintData != False:
        print("Deleting...")
        f.deleteTemplate(positionNumber)
        print("Done!\n")

    return

def deleteAllFP():
    # initialize FP scanner
    f = initFP()

    # get the number of registered fingerprint in the FP
        scanner DB
    fpTotal = f.getTemplateCount()
    print(str(fpTotal) + " fingerprints registered. Deleting
        ...\n")

    # for each fingerprint stored in the FP scanner DB
    for index in range(fpTotal):
        # delete template
        f.deleteTemplate(index)
    print("Done!\n")

    return

choice = -1
while choice != 0:
    choice = int(input("Options:\n" +
                       "1.) View all stored fingerprint IDs\
                           n" +
                       "2.) Create patient fingerprint ID\n"
                           +
                       "3.) Search fingerprint ID\n" +
                       "4.) Send fingerprint ID\n" +
                       "5.) Delete one fingerprint ID\n" +
                       "6.) Delete all fingerprint IDs\n" +
                       "7.) Create sample data (FP, random
                           BG, date-time)\n" +
                       "8.) Generate patient records\n" +
                       "9.) Send patient records\n" +
                       "0.) Exit\n" +
                       "Your choice: "))
    if choice > 9 or choice < 0:
        print("Invalid choice!")
    elif choice == 1:
        viewAllFP()
    elif choice == 2:
        createFP()
    elif choice == 3:
        searchFingerprint()
    elif choice == 4:
        sendFP()
    elif choice == 5:
        deleteFP()
    elif choice == 6:
        deleteAllFP()
    elif choice == 7:
        createInstance()
    elif choice == 8:
        createRecords()
    elif choice == 9:
        sendRecords()
    elif choice == 0:
        print("Bye!")
```

```
/********************************************************************************

** Form generated from reading UI file 'addcase.ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
    recompiling UI file!
********************************************************************************


#ifndef UI_ADDCASE_H
#define UI_ADDCASE_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QDialog>
#include <QtWidgets/QDialogButtonBox>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHeaderView>

QT_BEGIN_NAMESPACE

class Ui_AddCase
{
public:
    QGridLayout *gridLayout;
    QGroupBox *groupBox;
    QDialogButtonBox *buttonBox;

    void setupUi(QDialog *AddCase)
    {
        if (AddCase->objectName().isEmpty())
            AddCase->setObjectName(QStringLiteral("
                AddCase"));
        AddCase->resize(704, 516);
        gridLayout = new QGridLayout(AddCase);
        gridLayout->setObjectName(QStringLiteral("
            gridLayout"));
        groupBox = new QGroupBox(AddCase);
        groupBox->setObjectName(QStringLiteral("
            groupBox"));

        gridLayout->addWidget(groupBox, 0, 0, 1, 1);

        buttonBox = new QDialogButtonBox(AddCase);
        buttonBox->setObjectName(QStringLiteral("
            buttonBox"));
        buttonBox->setOrientation(Qt::Horizontal);
        buttonBox->setStandardButtons(QDialogButtonBox
            ::Cancel|QDialogButtonBox::Ok);

        gridLayout->addWidget(buttonBox, 1, 0, 1, 1);


        retranslateUi(AddCase);
        QObject::connect(buttonBox, SIGNAL(accepted()),
            AddCase, SLOT(accept()));
```

```
        QObject::connect(buttonBox, SIGNAL(rejected()),
                AddCase, SLOT(reject()));

        QMetaObject::connectSlotsByName(AddCase);
    } // setupUi

    void retranslateUi(QDialog *AddCase)
    {
        AddCase->setWindowTitle(QApplication::translate("
                AddCase", "Dialog", nullptr));
        groupBox->setTitle(QApplication::translate("
                AddCase", "Add Case", nullptr));
    } // retranslateUi

};

namespace Ui {
    class AddCase: public Ui_AddCase {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_ADDCASE_H

/********************************************************************************
** Form generated from reading UI file 'addpatientprofile.ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
       recompiling UI file!
********************************************************************************/


#ifndef UI_ADDPATIENTPROFILE_H
#define UI_ADDPATIENTPROFILE_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QComboBox>
#include <QtWidgets/QDateEdit>
#include <QtWidgets/QFrame>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QLineEdit>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QTextEdit>
#include <QtWidgets/QVBoxLayout>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_AddPatientProfile
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout_3;
    QGroupBox *groupBox;
    QGridLayout *gridLayout;
    QFrame *line_2;
    QLabel *label_6;
    QHBoxLayout *horizontalLayout_17;
    QHBoxLayout *horizontalLayout_3;
    QLabel *label_2;
    QDateEdit *birthday;
    QFrame *line_4;
    QHBoxLayout *horizontalLayout_4;
    QLabel *label_3;
    QComboBox *sex;
    QHBoxLayout *horizontalLayout_5;
    QFrame *line_5;
    QLabel *label_4;
    QComboBox *blood_type;
    QHBoxLayout *horizontalLayout;
    QFrame *line_8;
    QLabel *label;
    QLineEdit *contact_number;
    QFrame *line_3;
    QFrame *line_7;
    QHBoxLayout *horizontalLayout_10;
    QHBoxLayout *horizontalLayout_9;
    QLabel *label_10;
    QLineEdit *address;
    QHBoxLayout *horizontalLayout_15;
    QFrame *line_17;
    QLabel *label_13;
    QLineEdit *email;
    QFrame *line_14;
    QFrame *line_9;
    QFrame *line_11;
    QHBoxLayout *horizontalLayout_6;
    QLabel *label_14;
    QTextEdit *allergy;
    QHBoxLayout *horizontalLayout_22;
    QFrame *line_10;
    QVBoxLayout *verticalLayout_4;
    QLabel *label_20;
    QLabel *label_21;
    QTextEdit *illness;
    QHBoxLayout *horizontalLayout_25;
    QHBoxLayout *horizontalLayout_24;
    QVBoxLayout *verticalLayout_6;
    QLabel *label_24;
    QLabel *label_25;
    QLineEdit *emergency_contact;
    QFrame *line_12;
    QVBoxLayout *verticalLayout_7;
    QLabel *label_26;
    QLabel *label_27;
    QLineEdit *emergency_relation;
    QHBoxLayout *horizontalLayout_2;
    QLabel *label_12;
    QLineEdit *name;
    QFrame *line_16;
    QFrame *line;
    QHBoxLayout *horizontalLayout_18;
    QVBoxLayout *verticalLayout_2;
    QLabel *label_16;
    QLabel *label_17;
    QLineEdit *emergency_name;
    QHBoxLayout *horizontalLayout_8;
    QHBoxLayout *horizontalLayout_13;
    QLabel *label_15;
    QLineEdit *healthUnitPatient;
    QFrame *line_13;
    QLabel *fingerprint;
    QPushButton *pushButton_2;
    QLabel *label_5;
    QGroupBox *groupBox_2;
    QGridLayout *gridLayout_2;
    QHBoxLayout *horizontalLayout_7;
    QLabel *label_9;
    QLabel *label_7;
    QPushButton *pushButton_3;
    QPushButton *pushButton;
    QLabel *label_11;
    QLabel *label_8;

    void setupUi(QMainWindow *AddPatientProfile)
    {
        if (AddPatientProfile->objectName().isEmpty())
            AddPatientProfile->setObjectName(
                    QStringLiteral("AddPatientProfile"));
        AddPatientProfile->resize(883, 610);
        centralwidget = new QWidget(AddPatientProfile);
        centralwidget->setObjectName(QStringLiteral("
                centralwidget"));
        gridLayout_3 = new QGridLayout(centralwidget);
        gridLayout_3->setObjectName(QStringLiteral("
                gridLayout_3"));
        groupBox = new QGroupBox(centralwidget);
        groupBox->setObjectName(QStringLiteral("
                groupBox"));
        QFont font;
        font.setFamily(QStringLiteral("Calibri"));
        font.setPointSize(15);
        font.setBold(true);
        font.setWeight(75);
        groupBox->setFont(font);
        gridLayout = new QGridLayout(groupBox);
        gridLayout->setObjectName(QStringLiteral("
                gridLayout"));
        line_2 = new QFrame(groupBox);
        line_2->setObjectName(QStringLiteral("line_2"));
        QFont font1;
        font1.setBold(false);
        font1.setWeight(50);
        line_2->setFont(font1);
        line_2->setFrameShape(QFrame::HLine);
        line_2->setFrameShadow(QFrame::Sunken);

        gridLayout->addWidget(line_2, 4, 0, 1, 2);

        label_6 = new QLabel(groupBox);
        label_6->setObjectName(QStringLiteral("label_6"));
        QFont font2;
        font2.setFamily(QStringLiteral("Segoe UI"));
        font2.setPointSize(8);
        font2.setBold(false);
        font2.setWeight(50);
        label_6->setFont(font2);

        gridLayout->addWidget(label_6, 1, 0, 1, 1);

        horizontalLayout_17 = new QHBoxLayout();
        horizontalLayout_17->setObjectName(QStringLiteral
                ("horizontalLayout_17"));
        horizontalLayout_3 = new QHBoxLayout();
        horizontalLayout_3->setObjectName(QStringLiteral
                ("horizontalLayout_3"));
        label_2 = new QLabel(groupBox);
```

```
label_2->setObjectName(QStringLiteral("label_2"));
QFont font3;
font3.setFamily(QStringLiteral("Segoe UI Semibold")
    );
font3.setPointSize(10);
font3.setBold(false);
font3.setWeight(50);
label_2->setFont(font3);

horizontalLayout_3->addWidget(label_2);

birthday = new QDateEdit(groupBox);
birthday->setObjectName(QStringLiteral("birthday
    "));
QFont font4;
font4.setFamily(QStringLiteral("Segoe UI"));
font4.setPointSize(10);
font4.setBold(false);
font4.setWeight(50);
birthday->setFont(font4);
birthday->setDateTime(QDateTime(QDate(1900, 1,
    1), QTime(0, 0, 0)));

horizontalLayout_3->addWidget(birthday);


horizontalLayout_17->addLayout(horizontalLayout_3)
    ;

line_4 = new QFrame(groupBox);
line_4->setObjectName(QStringLiteral("line_4"));
line_4->setFont(font1);
line_4->setFrameShape(QFrame::VLine);
line_4->setFrameShadow(QFrame::Sunken);

horizontalLayout_17->addWidget(line_4);

horizontalLayout_4 = new QHBoxLayout();
horizontalLayout_4->setObjectName(QStringLiteral
    ("horizontalLayout_4"));
label_3 = new QLabel(groupBox);
label_3->setObjectName(QStringLiteral("label_3"));
label_3->setFont(font3);

horizontalLayout_4->addWidget(label_3);

sex = new QComboBox(groupBox);
sex->addItem(QString());
sex->addItem(QString());
sex->setObjectName(QStringLiteral("sex"));
sex->setFont(font4);

horizontalLayout_4->addWidget(sex);


horizontalLayout_17->addLayout(horizontalLayout_4)
    ;

horizontalLayout_5 = new QHBoxLayout();
horizontalLayout_5->setObjectName(QStringLiteral
    ("horizontalLayout_5"));
line_5 = new QFrame(groupBox);
line_5->setObjectName(QStringLiteral("line_5"));
line_5->setFont(font1);
line_5->setFrameShape(QFrame::VLine);
line_5->setFrameShadow(QFrame::Sunken);

horizontalLayout_5->addWidget(line_5);

label_4 = new QLabel(groupBox);
label_4->setObjectName(QStringLiteral("label_4"));
label_4->setFont(font3);

horizontalLayout_5->addWidget(label_4);

blood_type = new QComboBox(groupBox);
blood_type->addItem(QString());
blood_type->addItem(QString());
blood_type->addItem(QString());
blood_type->addItem(QString());
blood_type->addItem(QString());
blood_type->addItem(QString());
blood_type->addItem(QString());
blood_type->addItem(QString());
blood_type->setObjectName(QStringLiteral("
    blood_type"));
blood_type->setFont(font4);

horizontalLayout_5->addWidget(blood_type);


horizontalLayout_17->addLayout(horizontalLayout_5)
    ;


gridLayout->addLayout(horizontalLayout_17, 7, 0, 1,
     1);

horizontalLayout = new QHBoxLayout();
horizontalLayout->setObjectName(QStringLiteral("
    horizontalLayout"));
line_8 = new QFrame(groupBox);
line_8->setObjectName(QStringLiteral("line_8"));
line_8->setFont(font1);
line_8->setFrameShape(QFrame::VLine);
line_8->setFrameShadow(QFrame::Sunken);

horizontalLayout->addWidget(line_8);

label = new QLabel(groupBox);
label->setObjectName(QStringLiteral("label"));
label->setFont(font3);

horizontalLayout->addWidget(label);

contact_number = new QLineEdit(groupBox);
contact_number->setObjectName(QStringLiteral("
    contact_number"));
contact_number->setFont(font4);

horizontalLayout->addWidget(contact_number);


gridLayout->addLayout(horizontalLayout, 7, 1, 1, 1);

line_3 = new QFrame(groupBox);
line_3->setObjectName(QStringLiteral("line_3"));
line_3->setFont(font1);
line_3->setFrameShape(QFrame::HLine);
line_3->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_3, 8, 0, 1, 2);

line_7 = new QFrame(groupBox);
line_7->setObjectName(QStringLiteral("line_7"));
line_7->setFont(font1);
line_7->setFrameShape(QFrame::HLine);
line_7->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_7, 10, 0, 1, 2);

horizontalLayout_10 = new QHBoxLayout();
horizontalLayout_10->setObjectName(QStringLiteral
    ("horizontalLayout_10"));
horizontalLayout_9 = new QHBoxLayout();
horizontalLayout_9->setObjectName(QStringLiteral
    ("horizontalLayout_9"));
label_10 = new QLabel(groupBox);
label_10->setObjectName(QStringLiteral("label_10")
    );
label_10->setFont(font3);

horizontalLayout_9->addWidget(label_10);

address = new QLineEdit(groupBox);
address->setObjectName(QStringLiteral("address"));
address->setFont(font4);

horizontalLayout_9->addWidget(address);

horizontalLayout_15 = new QHBoxLayout();
horizontalLayout_15->setObjectName(QStringLiteral
    ("horizontalLayout_15"));
line_17 = new QFrame(groupBox);
line_17->setObjectName(QStringLiteral("line_17"));
line_17->setFont(font1);
line_17->setFrameShape(QFrame::VLine);
line_17->setFrameShadow(QFrame::Sunken);

horizontalLayout_15->addWidget(line_17);

label_13 = new QLabel(groupBox);
label_13->setObjectName(QStringLiteral("label_13")
    );
label_13->setFont(font3);

horizontalLayout_15->addWidget(label_13);

email = new QLineEdit(groupBox);
email->setObjectName(QStringLiteral("email"));
email->setFont(font4);

horizontalLayout_15->addWidget(email);


horizontalLayout_9->addLayout(horizontalLayout_15)
    ;


horizontalLayout_10->addLayout(horizontalLayout_9)
    ;


gridLayout->addLayout(horizontalLayout_10, 9, 0, 1,
     2);

line_14 = new QFrame(groupBox);
line_14->setObjectName(QStringLiteral("line_14"));
```

```
line_14->setFont(font1);
line_14->setFrameShape(QFrame::HLine);
line_14->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_14, 14, 0, 1, 2);

line_9 = new QFrame(groupBox);
line_9->setObjectName(QStringLiteral("line_9"));
line_9->setFont(font1);
line_9->setFrameShape(QFrame::HLine);
line_9->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_9, 12, 0, 1, 2);

line_11 = new QFrame(groupBox);
line_11->setObjectName(QStringLiteral("line_11"));
line_11->setFont(font1);
line_11->setFrameShape(QFrame::HLine);
line_11->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_11, 16, 0, 1, 2);

horizontalLayout_6 = new QHBoxLayout();
horizontalLayout_6->setObjectName(QStringLiteral
    ("horizontalLayout_6"));
label_14 = new QLabel(groupBox);
label_14->setObjectName(QStringLiteral("label_14")
    );
label_14->setFont(font3);

horizontalLayout_6->addWidget(label_14);

allergy = new QTextEdit(groupBox);
allergy->setObjectName(QStringLiteral("allergy"));
allergy->setFont(font4);

horizontalLayout_6->addWidget(allergy);

horizontalLayout_22 = new QHBoxLayout();
horizontalLayout_22->setObjectName(QStringLiteral
    ("horizontalLayout_22"));
line_10 = new QFrame(groupBox);
line_10->setObjectName(QStringLiteral("line_10"));
line_10->setFont(font1);
line_10->setFrameShape(QFrame::VLine);
line_10->setFrameShadow(QFrame::Sunken);

horizontalLayout_22->addWidget(line_10);

verticalLayout_4 = new QVBoxLayout();
verticalLayout_4->setObjectName(QStringLiteral("
    verticalLayout_4"));
label_20 = new QLabel(groupBox);
label_20->setObjectName(QStringLiteral("label_20")
    );
label_20->setFont(font3);

verticalLayout_4->addWidget(label_20, 0, Qt::
    AlignBottom);

label_21 = new QLabel(groupBox);
label_21->setObjectName(QStringLiteral("label_21")
    );
label_21->setFont(font3);

verticalLayout_4->addWidget(label_21, 0, Qt::
    AlignTop);


horizontalLayout_22->addLayout(verticalLayout_4);

illness = new QTextEdit(groupBox);
illness->setObjectName(QStringLiteral("illness"));
illness->setFont(font4);

horizontalLayout_22->addWidget(illness);


horizontalLayout_6->addLayout(horizontalLayout_22)
    ;


gridLayout->addLayout(horizontalLayout_6, 11, 0, 1,
     2);

horizontalLayout_25 = new QHBoxLayout();
horizontalLayout_25->setObjectName(QStringLiteral
    ("horizontalLayout_25"));
horizontalLayout_24 = new QHBoxLayout();
horizontalLayout_24->setObjectName(QStringLiteral
    ("horizontalLayout_24"));
verticalLayout_6 = new QVBoxLayout();
verticalLayout_6->setObjectName(QStringLiteral("
    verticalLayout_6"));
label_24 = new QLabel(groupBox);
label_24->setObjectName(QStringLiteral("label_24")
    );
label_24->setFont(font3);

verticalLayout_6->addWidget(label_24, 0, Qt::
    AlignBottom);

label_25 = new QLabel(groupBox);
label_25->setObjectName(QStringLiteral("label_25")
    );
label_25->setFont(font3);

verticalLayout_6->addWidget(label_25, 0, Qt::
    AlignTop);


horizontalLayout_24->addLayout(verticalLayout_6);

emergency_contact = new QLineEdit(groupBox);
emergency_contact->setObjectName(QStringLiteral("
    emergency_contact"));
emergency_contact->setFont(font4);

horizontalLayout_24->addWidget(emergency_contact)
    ;


horizontalLayout_25->addLayout(
    horizontalLayout_24);

line_12 = new QFrame(groupBox);
line_12->setObjectName(QStringLiteral("line_12"));
line_12->setFont(font1);
line_12->setFrameShape(QFrame::VLine);
line_12->setFrameShadow(QFrame::Sunken);

horizontalLayout_25->addWidget(line_12);

verticalLayout_7 = new QVBoxLayout();
verticalLayout_7->setObjectName(QStringLiteral("
    verticalLayout_7"));
label_26 = new QLabel(groupBox);
label_26->setObjectName(QStringLiteral("label_26")
    );
label_26->setFont(font3);

verticalLayout_7->addWidget(label_26);

label_27 = new QLabel(groupBox);
label_27->setObjectName(QStringLiteral("label_27")
    );
label_27->setFont(font3);

verticalLayout_7->addWidget(label_27);


horizontalLayout_25->addLayout(verticalLayout_7);

emergency_relation = new QLineEdit(groupBox);
emergency_relation->setObjectName(QStringLiteral
    ("emergency_relation"));
emergency_relation->setFont(font4);

horizontalLayout_25->addWidget(emergency_relation
    );


gridLayout->addLayout(horizontalLayout_25, 15, 0,
    1, 2);

horizontalLayout_2 = new QHBoxLayout();
horizontalLayout_2->setObjectName(QStringLiteral
    ("horizontalLayout_2"));
label_12 = new QLabel(groupBox);
label_12->setObjectName(QStringLiteral("label_12")
    );
label_12->setFont(font3);

horizontalLayout_2->addWidget(label_12);

name = new QLineEdit(groupBox);
name->setObjectName(QStringLiteral("name"));
name->setFont(font4);

horizontalLayout_2->addWidget(name);


gridLayout->addLayout(horizontalLayout_2, 3, 0, 1,
    2);

line_16 = new QFrame(groupBox);
line_16->setObjectName(QStringLiteral("line_16"));
line_16->setFont(font1);
line_16->setFrameShape(QFrame::HLine);
line_16->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_16, 18, 0, 1, 2);

line = new QFrame(groupBox);
line->setObjectName(QStringLiteral("line"));
line->setFont(font1);
line->setFrameShape(QFrame::HLine);
line->setFrameShadow(QFrame::Sunken);
```

```
gridLayout->addWidget(line, 2, 0, 1, 2);

horizontalLayout_18 = new QHBoxLayout();
horizontalLayout_18->setObjectName(QStringLiteral
        ("horizontalLayout_18"));
verticalLayout_2 = new QVBoxLayout();
verticalLayout_2->setObjectName(QStringLiteral("
        verticalLayout_2"));
label_16 = new QLabel(groupBox);
label_16->setObjectName(QStringLiteral("label_16")
        );
label_16->setFont(font3);

verticalLayout_2->addWidget(label_16, 0, Qt::
        AlignBottom);

label_17 = new QLabel(groupBox);
label_17->setObjectName(QStringLiteral("label_17")
        );
label_17->setFont(font3);

verticalLayout_2->addWidget(label_17, 0, Qt::
        AlignTop);


horizontalLayout_18->addLayout(verticalLayout_2);

emergency_name = new QLineEdit(groupBox);
emergency_name->setObjectName(QStringLiteral("
        emergency_name"));
emergency_name->setFont(font4);

horizontalLayout_18->addWidget(emergency_name);


gridLayout->addLayout(horizontalLayout_18, 13, 0,
        1, 2);

horizontalLayout_8 = new QHBoxLayout();
horizontalLayout_8->setObjectName(QStringLiteral
        ("horizontalLayout_8"));
horizontalLayout_13 = new QHBoxLayout();
horizontalLayout_13->setObjectName(QStringLiteral
        ("horizontalLayout_13"));
label_15 = new QLabel(groupBox);
label_15->setObjectName(QStringLiteral("label_15")
        );
QFont font5;
font5.setFamily(QStringLiteral("Segoe UI Semibold")
        );
font5.setPointSize(10);
label_15->setFont(font5);

horizontalLayout_13->addWidget(label_15);

healthUnitPatient = new QLineEdit(groupBox);
healthUnitPatient->setObjectName(QStringLiteral("
        healthUnitPatient"));
healthUnitPatient->setFont(font4);

horizontalLayout_13->addWidget(healthUnitPatient);


horizontalLayout_8->addLayout(horizontalLayout_13)
        ;

line_13 = new QFrame(groupBox);
line_13->setObjectName(QStringLiteral("line_13"));
line_13->setFont(font1);
line_13->setFrameShape(QFrame::VLine);
line_13->setFrameShadow(QFrame::Sunken);

horizontalLayout_8->addWidget(line_13);

fingerprint = new QLabel(groupBox);
fingerprint->setObjectName(QStringLiteral("
        fingerprint"));
fingerprint->setFont(font3);

horizontalLayout_8->addWidget(fingerprint);

pushButton_2 = new QPushButton(groupBox);
pushButton_2->setObjectName(QStringLiteral("
        pushButton_2"));
QFont font6;
font6.setFamily(QStringLiteral("Segoe UI"));
font6.setPointSize(11);
font6.setBold(true);
font6.setWeight(75);
pushButton_2->setFont(font6);

horizontalLayout_8->addWidget(pushButton_2);

label_5 = new QLabel(groupBox);
label_5->setObjectName(QStringLiteral("label_5"));
QFont font7;
font7.setFamily(QStringLiteral("Arial"));
font7.setPointSize(10);
font7.setBold(false);
font7.setWeight(50);
label_5->setFont(font7);

horizontalLayout_8->addWidget(label_5);


gridLayout->addLayout(horizontalLayout_8, 17, 0, 1,
        2);


gridLayout_3->addWidget(groupBox, 1, 0, 1, 1);

groupBox_2 = new QGroupBox(centralwidget);
groupBox_2->setObjectName(QStringLiteral("
        groupBox_2"));
groupBox_2->setFont(font1);
gridLayout_2 = new QGridLayout(groupBox_2);
gridLayout_2->setObjectName(QStringLiteral("
        gridLayout_2"));
horizontalLayout_7 = new QHBoxLayout();
horizontalLayout_7->setObjectName(QStringLiteral
        ("horizontalLayout_7"));
label_9 = new QLabel(groupBox_2);
label_9->setObjectName(QStringLiteral("label_9"));

horizontalLayout_7->addWidget(label_9);

label_7 = new QLabel(groupBox_2);
label_7->setObjectName(QStringLiteral("label_7"));
label_7->setFont(font1);

horizontalLayout_7->addWidget(label_7);

pushButton_3 = new QPushButton(groupBox_2);
pushButton_3->setObjectName(QStringLiteral("
        pushButton_3"));
pushButton_3->setFont(font6);

horizontalLayout_7->addWidget(pushButton_3);

pushButton = new QPushButton(groupBox_2);
pushButton->setObjectName(QStringLiteral("
        pushButton"));
pushButton->setFont(font6);

horizontalLayout_7->addWidget(pushButton);

label_11 = new QLabel(groupBox_2);
label_11->setObjectName(QStringLiteral("label_11")
        );

horizontalLayout_7->addWidget(label_11);

label_8 = new QLabel(groupBox_2);
label_8->setObjectName(QStringLiteral("label_8"));
label_8->setFont(font1);

horizontalLayout_7->addWidget(label_8);


gridLayout_2->addLayout(horizontalLayout_7, 0, 0,
        1, 1);


gridLayout_3->addWidget(groupBox_2, 2, 0, 1, 1);

AddPatientProfile->setCentralWidget(centralwidget);
QWidget::setTabOrder(name, birthday);
QWidget::setTabOrder(birthday, sex);
QWidget::setTabOrder(sex, blood_type);
QWidget::setTabOrder(blood_type, contact_number);
QWidget::setTabOrder(contact_number, address);
QWidget::setTabOrder(address, email);
QWidget::setTabOrder(email, allergy);
QWidget::setTabOrder(allergy, illness);
QWidget::setTabOrder(illness, emergency_name);
QWidget::setTabOrder(emergency_name,
        emergency_contact);
QWidget::setTabOrder(emergency_contact,
        emergency_relation);
QWidget::setTabOrder(emergency_relation,
        pushButton_2);
QWidget::setTabOrder(pushButton_2, pushButton_3);
QWidget::setTabOrder(pushButton_3, pushButton);

retranslateUi(AddPatientProfile);

QMetaObject::connectSlotsByName(AddPatientProfile
        );
} // setupUi

void retranslateUi(QMainWindow *AddPatientProfile)
{
    AddPatientProfile->setWindowTitle(QApplication::
        translate("AddPatientProfile", "IoT-based
        Recommender System for Diabetic Patients",
        nullptr));
    groupBox->setTitle(QApplication::translate("
```

```
            AddPatientProfile", "Add Patient Health Profile
            ", nullptr));
        label_6->setText(QApplication::translate("
            AddPatientProfile", "*All fields marked with an
             asterisk are required.", nullptr));
        label_2->setText(QApplication::translate("
            AddPatientProfile", "*Birthday:", nullptr));
        label_3->setText(QApplication::translate("
            AddPatientProfile", "*Sex:", nullptr));
        sex->setItemText(0, QApplication::translate("
            AddPatientProfile", "Female", nullptr));
        sex->setItemText(1, QApplication::translate("
            AddPatientProfile", "Male", nullptr));

        label_4->setText(QApplication::translate("
            AddPatientProfile", "*Blood Type:", nullptr));
        blood_type->setItemText(0, QApplication::translate
            ("AddPatientProfile", "O+", nullptr));
        blood_type->setItemText(1, QApplication::translate
            ("AddPatientProfile", "O-", nullptr));
        blood_type->setItemText(2, QApplication::translate
            ("AddPatientProfile", "A+", nullptr));
        blood_type->setItemText(3, QApplication::translate
            ("AddPatientProfile", "A-", nullptr));
        blood_type->setItemText(4, QApplication::translate
            ("AddPatientProfile", "B+", nullptr));
        blood_type->setItemText(5, QApplication::translate
            ("AddPatientProfile", "B-", nullptr));
        blood_type->setItemText(6, QApplication::translate
            ("AddPatientProfile", "AB+", nullptr));
        blood_type->setItemText(7, QApplication::translate
            ("AddPatientProfile", "AB-", nullptr));

        label->setText(QApplication::translate("
            AddPatientProfile", "*Contact Number:",
            nullptr));
        label_10->setText(QApplication::translate("
            AddPatientProfile", "*Address:", nullptr));
        address->setText(QString());
        label_13->setText(QApplication::translate("
            AddPatientProfile", "Email:", nullptr));
        email->setText(QString());
        label_14->setText(QApplication::translate("
            AddPatientProfile", "Allergy:", nullptr));
        allergy->setHtml(QApplication::translate("
            AddPatientProfile", "<!DOCTYPE HTML
            PUBLIC \"-//W3C//DTD HTML 4.0//EN\"
            \"http://www.w3.org/TR/REC-html40/strict.
            dtd\">\n"
"<html><head><meta name=\"qrichtext\" content=\"1\"
        /><style type=\"text/css\">\n"
"p, li { white-space: pre-wrap; }\n"
"</style></head><body style=\" font-family:'Segoe UI';
        font-size:10pt; font-weight:400; font-style:normal
        ;\">\n"
"<p style=\"-qt-paragraph-type:empty; margin-top:0px;
        margin-bottom:0px; margin-left:0px; margin-right:0
        px; -qt-block-indent:0; text-indent:0px; font-family
        :'MS Shell Dlg 2'; font-size:8.25pt;\"><br /></p></
        body></html>", nullptr));
        label_20->setText(QApplication::translate("
            AddPatientProfile", "History of ", nullptr));
        label_21->setText(QApplication::translate("
            AddPatientProfile", "Illness:", nullptr));
        illness->setHtml(QApplication::translate("
            AddPatientProfile", "<!DOCTYPE HTML
            PUBLIC \"-//W3C//DTD HTML 4.0//EN\"
            \"http://www.w3.org/TR/REC-html40/strict.
            dtd\">\n"
"<html><head><meta name=\"qrichtext\" content=\"1\"
        /><style type=\"text/css\">\n"
"p, li { white-space: pre-wrap; }\n"
"</style></head><body style=\" font-family:'Segoe UI';
        font-size:10pt; font-weight:400; font-style:normal
        ;\">\n"
"<p style=\"-qt-paragraph-type:empty; margin-top:0px;
        margin-bottom:0px; margin-left:0px; margin-right:0
        px; -qt-block-indent:0; text-indent:0px; font-family
        :'MS Shell Dlg 2'; font-size:8.25pt;\"><br /></p></
        body></html>", nullptr));
        label_24->setText(QApplication::translate("
            AddPatientProfile", "*Emergency", nullptr));
        label_25->setText(QApplication::translate("
            AddPatientProfile", "Contact Number:", nullptr
            ));
        emergency_contact->setText(QString());
        label_26->setText(QApplication::translate("
            AddPatientProfile", "Relationship to the",
            nullptr));
        label_27->setText(QApplication::translate("
            AddPatientProfile", "Emergency Contact:",
            nullptr));
        emergency_relation->setText(QString());
        label_12->setText(QApplication::translate("
            AddPatientProfile", "*Patient Full Name:",
            nullptr));
        name->setText(QString());
        label_16->setText(QApplication::translate("
            AddPatientProfile", "*Emergency", nullptr));
        label_17->setText(QApplication::translate("
            AddPatientProfile", "Contact Name:", nullptr));
        emergency_name->setText(QString());
        label_15->setText(QApplication::translate("
            AddPatientProfile", "*Health Unit of the
            Patient:", nullptr));
        fingerprint->setText(QApplication::translate("
            AddPatientProfile", "*Fingerprint: ", nullptr));
        pushButton_2->setText(QApplication::translate("
            AddPatientProfile", "Get Fingerprint", nullptr))
            ;
        label_5->setText(QString());
        groupBox_2->setTitle(QString());
        label_9->setText(QString());
        label_7->setText(QString());
        pushButton_3->setText(QApplication::translate("
            AddPatientProfile", "Back", nullptr));
        pushButton->setText(QApplication::translate("
            AddPatientProfile", "Add Patient", nullptr));
        label_11->setText(QString());
        label_8->setText(QString());
    } // retranslateUi

};

namespace Ui {
    class AddPatientProfile: public Ui_AddPatientProfile {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_ADDPATIENTPROFILE_H


/********************************************************************************

** Form generated from reading UI file 'addpatientprofiledoc.
       ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
       recompiling UI file!
********************************************************************************


#ifndef UI_ADDPATIENTPROFILEDOC_H
#define UI_ADDPATIENTPROFILEDOC_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QComboBox>
#include <QtWidgets/QDateEdit>
#include <QtWidgets/QFrame>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QLineEdit>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QTextEdit>
#include <QtWidgets/QVBoxLayout>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_AddPatientProfileDoc
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout_3;
    QGroupBox *groupBox;
    QGridLayout *gridLayout;
    QLabel *label_6;
    QFrame *line_2;
    QHBoxLayout *horizontalLayout_17;
    QHBoxLayout *horizontalLayout_3;
    QLabel *label_2;
    QDateEdit *birthday;
    QFrame *line_4;
    QHBoxLayout *horizontalLayout_4;
    QLabel *label_3;
    QComboBox *sex;
    QHBoxLayout *horizontalLayout_5;
    QFrame *line_5;
    QLabel *label_4;
    QComboBox *blood_type;
    QHBoxLayout *horizontalLayout;
    QFrame *line_8;
    QLabel *label;
    QLineEdit *contact_number;
    QFrame *line_3;
    QFrame *line_7;
    QHBoxLayout *horizontalLayout_10;
    QHBoxLayout *horizontalLayout_9;
    QLabel *label_10;
```

```
QLineEdit *address;
QHBoxLayout *horizontalLayout_15;
QFrame *line_17;
QLabel *label_13;
QLineEdit *email;
QHBoxLayout *horizontalLayout_6;
QLabel *label_14;
QTextEdit *allergy;
QHBoxLayout *horizontalLayout_22;
QFrame *line_10;
QVBoxLayout *verticalLayout_4;
QLabel *label_20;
QLabel *label_21;
QTextEdit *illness;
QFrame *line_9;
QFrame *line_14;
QFrame *line_11;
QHBoxLayout *horizontalLayout_25;
QHBoxLayout *horizontalLayout_24;
QVBoxLayout *verticalLayout_6;
QLabel *label_24;
QLabel *label_25;
QLineEdit *emergency_contact;
QFrame *line_12;
QVBoxLayout *verticalLayout_7;
QLabel *label_26;
QLabel *label_27;
QLineEdit *emergency_relation;
QHBoxLayout *horizontalLayout_8;
QHBoxLayout *horizontalLayout_13;
QLabel *label_15;
QLineEdit *healthUnitPatient;
QFrame *line_15;
QLabel *fingerprint;
QPushButton *pushButton_2;
QLabel *label_5;
QFrame *line_16;
QHBoxLayout *horizontalLayout_2;
QLabel *label_12;
QLineEdit *name;
QHBoxLayout *horizontalLayout_18;
QVBoxLayout *verticalLayout_2;
QLabel *label_16;
QLabel *label_17;
QLineEdit *emergency_name;
QFrame *line;
QGroupBox *groupBox_2;
QGridLayout *gridLayout_2;
QHBoxLayout *horizontalLayout_7;
QLabel *label_9;
QLabel *label_7;
QPushButton *pushButton_3;
QPushButton *pushButton;
QLabel *label_8;
QLabel *label_11;
QLabel *status1_label;

void setupUi(QMainWindow *AddPatientProfileDoc)
{
    if (AddPatientProfileDoc->objectName().isEmpty())
        AddPatientProfileDoc->setObjectName(
            QStringLiteral("AddPatientProfileDoc"));
    AddPatientProfileDoc->resize(800, 613);
    centralwidget = new QWidget(AddPatientProfileDoc);
    centralwidget->setObjectName(QStringLiteral("
        centralwidget"));
    gridLayout_3 = new QGridLayout(centralwidget);
    gridLayout_3->setObjectName(QStringLiteral("
        gridLayout_3"));
    groupBox = new QGroupBox(centralwidget);
    groupBox->setObjectName(QStringLiteral("
        groupBox"));
    QFont font;
    font.setFamily(QStringLiteral("Calibri"));
    font.setPointSize(15);
    font.setBold(true);
    font.setWeight(75);
    groupBox->setFont(font);
    gridLayout = new QGridLayout(groupBox);
    gridLayout->setObjectName(QStringLiteral("
        gridLayout"));
    label_6 = new QLabel(groupBox);
    label_6->setObjectName(QStringLiteral("label_6"));
    QFont font1;
    font1.setFamily(QStringLiteral("Segoe UI"));
    font1.setPointSize(8);
    font1.setBold(false);
    font1.setWeight(50);
    label_6->setFont(font1);

    gridLayout->addWidget(label_6, 1, 0, 1, 1);

    line_2 = new QFrame(groupBox);
    line_2->setObjectName(QStringLiteral("line_2"));
    QFont font2;
    font2.setFamily(QStringLiteral("Segoe UI"));
    font2.setPointSize(10);
    font2.setBold(false);
    font2.setWeight(50);
    line_2->setFont(font2);
    line_2->setFrameShape(QFrame::HLine);
    line_2->setFrameShadow(QFrame::Sunken);

    gridLayout->addWidget(line_2, 4, 0, 1, 2);

    horizontalLayout_17 = new QHBoxLayout();
    horizontalLayout_17->setObjectName(QStringLiteral
        ("horizontalLayout_17"));
    horizontalLayout_3 = new QHBoxLayout();
    horizontalLayout_3->setObjectName(QStringLiteral
        ("horizontalLayout_3"));
    label_2 = new QLabel(groupBox);
    label_2->setObjectName(QStringLiteral("label_2"));
    QFont font3;
    font3.setFamily(QStringLiteral("Segoe UI Semibold")
        );
    font3.setPointSize(10);
    font3.setBold(false);
    font3.setWeight(50);
    label_2->setFont(font3);

    horizontalLayout_3->addWidget(label_2);

    birthday = new QDateEdit(groupBox);
    birthday->setObjectName(QStringLiteral("birthday
        "));
    birthday->setFont(font2);
    birthday->setDateTime(QDateTime(QDate(1900, 1,
        1), QTime(0, 0, 0)));

    horizontalLayout_3->addWidget(birthday);


    horizontalLayout_17->addLayout(horizontalLayout_3)
        ;

    line_4 = new QFrame(groupBox);
    line_4->setObjectName(QStringLiteral("line_4"));
    line_4->setFont(font2);
    line_4->setFrameShape(QFrame::VLine);
    line_4->setFrameShadow(QFrame::Sunken);

    horizontalLayout_17->addWidget(line_4);

    horizontalLayout_4 = new QHBoxLayout();
    horizontalLayout_4->setObjectName(QStringLiteral
        ("horizontalLayout_4"));
    label_3 = new QLabel(groupBox);
    label_3->setObjectName(QStringLiteral("label_3"));
    label_3->setFont(font3);

    horizontalLayout_4->addWidget(label_3);

    sex = new QComboBox(groupBox);
    sex->addItem(QString());
    sex->addItem(QString());
    sex->setObjectName(QStringLiteral("sex"));
    sex->setFont(font2);

    horizontalLayout_4->addWidget(sex);


    horizontalLayout_17->addLayout(horizontalLayout_4)
        ;

    horizontalLayout_5 = new QHBoxLayout();
    horizontalLayout_5->setObjectName(QStringLiteral
        ("horizontalLayout_5"));
    line_5 = new QFrame(groupBox);
    line_5->setObjectName(QStringLiteral("line_5"));
    line_5->setFont(font2);
    line_5->setFrameShape(QFrame::VLine);
    line_5->setFrameShadow(QFrame::Sunken);

    horizontalLayout_5->addWidget(line_5);

    label_4 = new QLabel(groupBox);
    label_4->setObjectName(QStringLiteral("label_4"));
    label_4->setFont(font3);

    horizontalLayout_5->addWidget(label_4);

    blood_type = new QComboBox(groupBox);
    blood_type->addItem(QString());
    blood_type->addItem(QString());
    blood_type->addItem(QString());
    blood_type->addItem(QString());
    blood_type->addItem(QString());
    blood_type->addItem(QString());
    blood_type->addItem(QString());
    blood_type->addItem(QString());
    blood_type->setObjectName(QStringLiteral("
        blood_type"));
    blood_type->setFont(font2);

    horizontalLayout_5->addWidget(blood_type);
```

```
horizontalLayout_17->addLayout(horizontalLayout_5)
        ;


gridLayout->addLayout(horizontalLayout_17, 7, 0, 1,
        1);

horizontalLayout = new QHBoxLayout();
horizontalLayout->setObjectName(QStringLiteral("
        horizontalLayout"));
line_8 = new QFrame(groupBox);
line_8->setObjectName(QStringLiteral("line_8"));
line_8->setFont(font2);
line_8->setFrameShape(QFrame::VLine);
line_8->setFrameShadow(QFrame::Sunken);

horizontalLayout->addWidget(line_8);

label = new QLabel(groupBox);
label->setObjectName(QStringLiteral("label"));
label->setFont(font3);

horizontalLayout->addWidget(label);

contact_number = new QLineEdit(groupBox);
contact_number->setObjectName(QStringLiteral("
        contact_number"));
contact_number->setFont(font2);

horizontalLayout->addWidget(contact_number);


gridLayout->addLayout(horizontalLayout, 7, 1, 1, 1);

line_3 = new QFrame(groupBox);
line_3->setObjectName(QStringLiteral("line_3"));
line_3->setFont(font2);
line_3->setFrameShape(QFrame::HLine);
line_3->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_3, 8, 0, 1, 2);

line_7 = new QFrame(groupBox);
line_7->setObjectName(QStringLiteral("line_7"));
line_7->setFont(font2);
line_7->setFrameShape(QFrame::HLine);
line_7->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_7, 10, 0, 1, 2);

horizontalLayout_10 = new QHBoxLayout();
horizontalLayout_10->setObjectName(QStringLiteral
        ("horizontalLayout_10"));
horizontalLayout_9 = new QHBoxLayout();
horizontalLayout_9->setObjectName(QStringLiteral
        ("horizontalLayout_9"));
label_10 = new QLabel(groupBox);
label_10->setObjectName(QStringLiteral("label_10")
        );
label_10->setFont(font3);

horizontalLayout_9->addWidget(label_10);

address = new QLineEdit(groupBox);
address->setObjectName(QStringLiteral("address"));
address->setFont(font2);

horizontalLayout_9->addWidget(address);

horizontalLayout_15 = new QHBoxLayout();
horizontalLayout_15->setObjectName(QStringLiteral
        ("horizontalLayout_15"));
line_17 = new QFrame(groupBox);
line_17->setObjectName(QStringLiteral("line_17"));
line_17->setFont(font2);
line_17->setFrameShape(QFrame::VLine);
line_17->setFrameShadow(QFrame::Sunken);

horizontalLayout_15->addWidget(line_17);

label_13 = new QLabel(groupBox);
label_13->setObjectName(QStringLiteral("label_13")
        );
label_13->setFont(font3);

horizontalLayout_15->addWidget(label_13);

email = new QLineEdit(groupBox);
email->setObjectName(QStringLiteral("email"));
email->setFont(font2);

horizontalLayout_15->addWidget(email);


horizontalLayout_9->addLayout(horizontalLayout_15)
        ;


horizontalLayout_10->addLayout(horizontalLayout_9)
        ;


gridLayout->addLayout(horizontalLayout_10, 9, 0, 1,
        2);

horizontalLayout_6 = new QHBoxLayout();
horizontalLayout_6->setObjectName(QStringLiteral
        ("horizontalLayout_6"));
label_14 = new QLabel(groupBox);
label_14->setObjectName(QStringLiteral("label_14")
        );
label_14->setFont(font3);

horizontalLayout_6->addWidget(label_14);

allergy = new QTextEdit(groupBox);
allergy->setObjectName(QStringLiteral("allergy"));
allergy->setFont(font2);

horizontalLayout_6->addWidget(allergy);

horizontalLayout_22 = new QHBoxLayout();
horizontalLayout_22->setObjectName(QStringLiteral
        ("horizontalLayout_22"));
line_10 = new QFrame(groupBox);
line_10->setObjectName(QStringLiteral("line_10"));
line_10->setFont(font2);
line_10->setFrameShape(QFrame::VLine);
line_10->setFrameShadow(QFrame::Sunken);

horizontalLayout_22->addWidget(line_10);

verticalLayout_4 = new QVBoxLayout();
verticalLayout_4->setObjectName(QStringLiteral("
        verticalLayout_4"));
label_20 = new QLabel(groupBox);
label_20->setObjectName(QStringLiteral("label_20")
        );
label_20->setFont(font3);

verticalLayout_4->addWidget(label_20, 0, Qt::
        AlignBottom);

label_21 = new QLabel(groupBox);
label_21->setObjectName(QStringLiteral("label_21")
        );
label_21->setFont(font3);

verticalLayout_4->addWidget(label_21, 0, Qt::
        AlignTop);


horizontalLayout_22->addLayout(verticalLayout_4);

illness = new QTextEdit(groupBox);
illness->setObjectName(QStringLiteral("illness"));
illness->setFont(font2);

horizontalLayout_22->addWidget(illness);


horizontalLayout_6->addLayout(horizontalLayout_22)
        ;


gridLayout->addLayout(horizontalLayout_6, 11, 0, 1,
        2);

line_9 = new QFrame(groupBox);
line_9->setObjectName(QStringLiteral("line_9"));
line_9->setFont(font2);
line_9->setFrameShape(QFrame::HLine);
line_9->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_9, 12, 0, 1, 2);

line_14 = new QFrame(groupBox);
line_14->setObjectName(QStringLiteral("line_14"));
line_14->setFont(font2);
line_14->setFrameShape(QFrame::HLine);
line_14->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_14, 14, 0, 1, 2);

line_11 = new QFrame(groupBox);
line_11->setObjectName(QStringLiteral("line_11"));
line_11->setFont(font2);
line_11->setFrameShape(QFrame::HLine);
line_11->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_11, 16, 0, 1, 2);

horizontalLayout_25 = new QHBoxLayout();
horizontalLayout_25->setObjectName(QStringLiteral
        ("horizontalLayout_25"));
horizontalLayout_24 = new QHBoxLayout();
horizontalLayout_24->setObjectName(QStringLiteral
        ("horizontalLayout_24"));
```

```
verticalLayout_6 = new QVBoxLayout();
verticalLayout_6->setObjectName(QStringLiteral("
    verticalLayout_6"));
label_24 = new QLabel(groupBox);
label_24->setObjectName(QStringLiteral("label_24")
    );
label_24->setFont(font3);

verticalLayout_6->addWidget(label_24, 0, Qt::
    AlignBottom);

label_25 = new QLabel(groupBox);
label_25->setObjectName(QStringLiteral("label_25")
    );
label_25->setFont(font3);

verticalLayout_6->addWidget(label_25, 0, Qt::
    AlignTop);


horizontalLayout_24->addLayout(verticalLayout_6);

emergency_contact = new QLineEdit(groupBox);
emergency_contact->setObjectName(QStringLiteral("
    emergency_contact"));
emergency_contact->setFont(font2);

horizontalLayout_24->addWidget(emergency_contact)
    ;


horizontalLayout_25->addLayout(
    horizontalLayout_24);

line_12 = new QFrame(groupBox);
line_12->setObjectName(QStringLiteral("line_12"));
line_12->setFont(font2);
line_12->setFrameShape(QFrame::VLine);
line_12->setFrameShadow(QFrame::Sunken);

horizontalLayout_25->addWidget(line_12);

verticalLayout_7 = new QVBoxLayout();
verticalLayout_7->setObjectName(QStringLiteral("
    verticalLayout_7"));
label_26 = new QLabel(groupBox);
label_26->setObjectName(QStringLiteral("label_26")
    );
label_26->setFont(font3);

verticalLayout_7->addWidget(label_26);

label_27 = new QLabel(groupBox);
label_27->setObjectName(QStringLiteral("label_27")
    );
label_27->setFont(font3);

verticalLayout_7->addWidget(label_27);


horizontalLayout_25->addLayout(verticalLayout_7);

emergency_relation = new QLineEdit(groupBox);
emergency_relation->setObjectName(QStringLiteral
    ("emergency_relation"));
emergency_relation->setFont(font2);

horizontalLayout_25->addWidget(emergency_relation
    );


gridLayout->addLayout(horizontalLayout_25, 15, 0,
    1, 2);

horizontalLayout_8 = new QHBoxLayout();
horizontalLayout_8->setObjectName(QStringLiteral
    ("horizontalLayout_8"));
horizontalLayout_13 = new QHBoxLayout();
horizontalLayout_13->setObjectName(QStringLiteral
    ("horizontalLayout_13"));
label_15 = new QLabel(groupBox);
label_15->setObjectName(QStringLiteral("label_15")
    );
label_15->setFont(font3);

horizontalLayout_13->addWidget(label_15);

healthUnitPatient = new QLineEdit(groupBox);
healthUnitPatient->setObjectName(QStringLiteral("
    healthUnitPatient"));
healthUnitPatient->setFont(font2);

horizontalLayout_13->addWidget(healthUnitPatient);

line_15 = new QFrame(groupBox);
line_15->setObjectName(QStringLiteral("line_15"));
line_15->setFont(font2);
line_15->setFrameShape(QFrame::VLine);
line_15->setFrameShadow(QFrame::Sunken);

horizontalLayout_13->addWidget(line_15);


horizontalLayout_8->addLayout(horizontalLayout_13)
    ;

fingerprint = new QLabel(groupBox);
fingerprint->setObjectName(QStringLiteral("
    fingerprint"));
fingerprint->setFont(font3);

horizontalLayout_8->addWidget(fingerprint);

pushButton_2 = new QPushButton(groupBox);
pushButton_2->setObjectName(QStringLiteral("
    pushButton_2"));
QFont font4;
font4.setFamily(QStringLiteral("Segoe UI"));
font4.setPointSize(11);
font4.setBold(true);
font4.setWeight(75);
pushButton_2->setFont(font4);

horizontalLayout_8->addWidget(pushButton_2);

label_5 = new QLabel(groupBox);
label_5->setObjectName(QStringLiteral("label_5"));
label_5->setFont(font2);

horizontalLayout_8->addWidget(label_5);


gridLayout->addLayout(horizontalLayout_8, 17, 0, 1,
     2);

line_16 = new QFrame(groupBox);
line_16->setObjectName(QStringLiteral("line_16"));
line_16->setFont(font2);
line_16->setFrameShape(QFrame::HLine);
line_16->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_16, 18, 0, 1, 2);

horizontalLayout_2 = new QHBoxLayout();
horizontalLayout_2->setObjectName(QStringLiteral
    ("horizontalLayout_2"));
label_12 = new QLabel(groupBox);
label_12->setObjectName(QStringLiteral("label_12")
    );
label_12->setFont(font3);

horizontalLayout_2->addWidget(label_12);

name = new QLineEdit(groupBox);
name->setObjectName(QStringLiteral("name"));
name->setFont(font2);

horizontalLayout_2->addWidget(name);


gridLayout->addLayout(horizontalLayout_2, 3, 0, 1,
    2);

horizontalLayout_18 = new QHBoxLayout();
horizontalLayout_18->setObjectName(QStringLiteral
    ("horizontalLayout_18"));
verticalLayout_2 = new QVBoxLayout();
verticalLayout_2->setObjectName(QStringLiteral("
    verticalLayout_2"));
label_16 = new QLabel(groupBox);
label_16->setObjectName(QStringLiteral("label_16")
    );
label_16->setFont(font3);

verticalLayout_2->addWidget(label_16, 0, Qt::
    AlignBottom);

label_17 = new QLabel(groupBox);
label_17->setObjectName(QStringLiteral("label_17")
    );
label_17->setFont(font3);

verticalLayout_2->addWidget(label_17, 0, Qt::
    AlignTop);


horizontalLayout_18->addLayout(verticalLayout_2);

emergency_name = new QLineEdit(groupBox);
emergency_name->setObjectName(QStringLiteral("
    emergency_name"));
emergency_name->setFont(font2);

horizontalLayout_18->addWidget(emergency_name);


gridLayout->addLayout(horizontalLayout_18, 13, 0,
    1, 2);
```

```
    line = new QFrame(groupBox);
    line->setObjectName(QStringLiteral("line"));
    line->setFont(font2);
    line->setFrameShape(QFrame::HLine);
    line->setFrameShadow(QFrame::Sunken);

    gridLayout->addWidget(line, 2, 0, 1, 2);


    gridLayout_3->addWidget(groupBox, 0, 0, 1, 1);

    groupBox_2 = new QGroupBox(centralwidget);
    groupBox_2->setObjectName(QStringLiteral("
        groupBox_2"));
    groupBox_2->setFont(font2);
    gridLayout_2 = new QGridLayout(groupBox_2);
    gridLayout_2->setObjectName(QStringLiteral("
        gridLayout_2"));
    horizontalLayout_7 = new QHBoxLayout();
    horizontalLayout_7->setObjectName(QStringLiteral
        ("horizontalLayout_7"));
    label_9 = new QLabel(groupBox_2);
    label_9->setObjectName(QStringLiteral("label_9"));

    horizontalLayout_7->addWidget(label_9);

    label_7 = new QLabel(groupBox_2);
    label_7->setObjectName(QStringLiteral("label_7"));
    label_7->setFont(font2);

    horizontalLayout_7->addWidget(label_7);

    pushButton_3 = new QPushButton(groupBox_2);
    pushButton_3->setObjectName(QStringLiteral("
        pushButton_3"));
    pushButton_3->setFont(font4);

    horizontalLayout_7->addWidget(pushButton_3);

    pushButton = new QPushButton(groupBox_2);
    pushButton->setObjectName(QStringLiteral("
        pushButton"));
    pushButton->setFont(font4);

    horizontalLayout_7->addWidget(pushButton);

    label_8 = new QLabel(groupBox_2);
    label_8->setObjectName(QStringLiteral("label_8"));
    label_8->setFont(font2);

    horizontalLayout_7->addWidget(label_8);

    label_11 = new QLabel(groupBox_2);
    label_11->setObjectName(QStringLiteral("label_11")
        );

    horizontalLayout_7->addWidget(label_11);


    gridLayout_2->addLayout(horizontalLayout_7, 0, 0,
        1, 1);


    gridLayout_3->addWidget(groupBox_2, 1, 0, 1, 1);

    status1_label = new QLabel(centralwidget);
    status1_label->setObjectName(QStringLiteral("
        status1_label"));
    status1_label->setFont(font2);

    gridLayout_3->addWidget(status1_label, 2, 0, 1, 1);

    AddPatientProfileDoc->setCentralWidget(
        centralwidget);

    retranslateUi(AddPatientProfileDoc);

    QMetaObject::connectSlotsByName(
        AddPatientProfileDoc);
} // setupUi

void retranslateUi(QMainWindow *AddPatientProfileDoc
    )
{
    AddPatientProfileDoc->setWindowTitle(
        QApplication::translate("AddPatientProfileDoc
        ", "IoT-based Recommender System for
        Diabetic Patients", nullptr));
    groupBox->setTitle(QApplication::translate("
        AddPatientProfileDoc", "Add Patient Health
        Profile", nullptr));
    label_6->setText(QApplication::translate("
        AddPatientProfileDoc", "*All fields marked
        with an asterisk are required.", nullptr));
    label_2->setText(QApplication::translate("
        AddPatientProfileDoc", "*Birthday:", nullptr));
    label_3->setText(QApplication::translate("
        AddPatientProfileDoc", "*Sex:", nullptr));
    sex->setItemText(0, QApplication::translate("
        AddPatientProfileDoc", "Female", nullptr));
    sex->setItemText(1, QApplication::translate("
        AddPatientProfileDoc", "Male", nullptr));

    label_4->setText(QApplication::translate("
        AddPatientProfileDoc", "*Blood Type:", nullptr
        ));
    blood_type->setItemText(0, QApplication::translate
        ("AddPatientProfileDoc", "O+", nullptr));
    blood_type->setItemText(1, QApplication::translate
        ("AddPatientProfileDoc", "O-", nullptr));
    blood_type->setItemText(2, QApplication::translate
        ("AddPatientProfileDoc", "A+", nullptr));
    blood_type->setItemText(3, QApplication::translate
        ("AddPatientProfileDoc", "A-", nullptr));
    blood_type->setItemText(4, QApplication::translate
        ("AddPatientProfileDoc", "B+", nullptr));
    blood_type->setItemText(5, QApplication::translate
        ("AddPatientProfileDoc", "B-", nullptr));
    blood_type->setItemText(6, QApplication::translate
        ("AddPatientProfileDoc", "AB+", nullptr));
    blood_type->setItemText(7, QApplication::translate
        ("AddPatientProfileDoc", "AB-", nullptr));

    label->setText(QApplication::translate("
        AddPatientProfileDoc", "*Contact Number:",
        nullptr));
    label_10->setText(QApplication::translate("
        AddPatientProfileDoc", "*Address:", nullptr));
    address->setText(QString());
    label_13->setText(QApplication::translate("
        AddPatientProfileDoc", "Email:", nullptr));
    email->setText(QString());
    label_14->setText(QApplication::translate("
        AddPatientProfileDoc", "Allergy:", nullptr));
    allergy->setHtml(QApplication::translate("
        AddPatientProfileDoc", "<!DOCTYPE HTML
        PUBLIC \"-//W3C//DTD HTML 4.0//EN\"
        \"http://www.w3.org/TR/REC-html40/strict.
        dtd\">\n"
"<html><head><meta name=\"qrichtext\" content=\"1\"
        /><style type=\"text/css\">\n"
"p, li { white-space: pre-wrap; }\n"
"</style></head><body style=\" font-family:'Segoe UI';
        font-size:10pt; font-weight:400; font-style:normal
        ;\">\n"
"<p style=\"-qt-paragraph-type:empty; margin-top:0px;
        margin-bottom:0px; margin-left:0px; margin-right:0
        px; -qt-block-indent:0; text-indent:0px; font-family
        :'MS Shell Dlg 2'; font-size:8.25pt;\"><br /></p></
        body></html>", nullptr));
    label_20->setText(QApplication::translate("
        AddPatientProfileDoc", "History of ", nullptr));
    label_21->setText(QApplication::translate("
        AddPatientProfileDoc", "Illness:", nullptr));
    illness->setHtml(QApplication::translate("
        AddPatientProfileDoc", "<!DOCTYPE HTML
        PUBLIC \"-//W3C//DTD HTML 4.0//EN\"
        \"http://www.w3.org/TR/REC-html40/strict.
        dtd\">\n"
"<html><head><meta name=\"qrichtext\" content=\"1\"
        /><style type=\"text/css\">\n"
"p, li { white-space: pre-wrap; }\n"
"</style></head><body style=\" font-family:'Segoe UI';
        font-size:10pt; font-weight:400; font-style:normal
        ;\">\n"
"<p style=\"-qt-paragraph-type:empty; margin-top:0px;
        margin-bottom:0px; margin-left:0px; margin-right:0
        px; -qt-block-indent:0; text-indent:0px; font-family
        :'MS Shell Dlg 2'; font-size:8.25pt;\"><br /></p></
        body></html>", nullptr));
    label_24->setText(QApplication::translate("
        AddPatientProfileDoc", "*Emergency", nullptr)
        );
    label_25->setText(QApplication::translate("
        AddPatientProfileDoc", "Contact Number:",
        nullptr));
    emergency_contact->setText(QString());
    label_26->setText(QApplication::translate("
        AddPatientProfileDoc", "Relationship to the",
        nullptr));
    label_27->setText(QApplication::translate("
        AddPatientProfileDoc", "Emergency Contact:",
        nullptr));
    emergency_relation->setText(QString());
    label_15->setText(QApplication::translate("
        AddPatientProfileDoc", "*Health Unit of the
        Patient:", nullptr));
    fingerprint->setText(QApplication::translate("
        AddPatientProfileDoc", "*Fingerprint: ",
        nullptr));
    pushButton_2->setText(QApplication::translate("
        AddPatientProfileDoc", "Get Fingerprint",
        nullptr));
    label_5->setText(QString());
    label_12->setText(QApplication::translate("
        AddPatientProfileDoc", "*Patient Full Name:",
        nullptr));
```

```
        name->setText(QString());
        label_16->setText(QApplication::translate("
            AddPatientProfileDoc", "*Emergency", nullptr)
            );
        label_17->setText(QApplication::translate("
            AddPatientProfileDoc", "Contact Name:",
            nullptr));
        emergency_name->setText(QString());
        groupBox_2->setTitle(QString());
        label_9->setText(QString());
        label_7->setText(QString());
        pushButton_3->setText(QApplication::translate("
            AddPatientProfileDoc", "Back", nullptr));
        pushButton->setText(QApplication::translate("
            AddPatientProfileDoc", "Add Patient", nullptr)
            );
        label_8->setText(QString());
        label_11->setText(QString());
        status1_label->setText(QApplication::translate("
            AddPatientProfileDoc", "TextLabel", nullptr));
    } // retranslateUi

};

namespace Ui {
    class AddPatientProfileDoc: public
        Ui_AddPatientProfileDoc {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_ADDPATIENTPROFILEDOC_H

/********************************************************************************

** Form generated from reading UI file 'addpatientvisitrecord
    .ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
    recompiling UI file!
********************************************************************************/


#ifndef UI_ADDPATIENTVISITRECORD_H
#define UI_ADDPATIENTVISITRECORD_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QCheckBox>
#include <QtWidgets/QComboBox>
#include <QtWidgets/QFrame>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QLineEdit>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QSpacerItem>
#include <QtWidgets/QVBoxLayout>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_AddPatientVisitRecord
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout_2;
    QGroupBox *groupBox;
    QVBoxLayout *verticalLayout_3;
    QGroupBox *groupBox_2;
    QGridLayout *gridLayout_3;
    QLabel *label_15;
    QVBoxLayout *verticalLayout;
    QPushButton *pushButton;
    QLabel *label_16;
    QLabel *label_3;
    QFrame *line_7;
    QHBoxLayout *horizontalLayout_4;
    QLabel *date;
    QLabel *label_11;
    QLineEdit *lineEdit_dateTime;
    QSpacerItem *horizontalSpacer_4;
    QFrame *line;
    QHBoxLayout *horizontalLayout_3;
    QLabel *label_6;
    QLineEdit *lineEdit_weight;
    QLabel *label_8;
    QFrame *line_2;
    QLabel *label_7;
    QLineEdit *lineEdit_height;
    QLabel *label_12;
    QFrame *line_4;
    QHBoxLayout *horizontalLayout;
    QLabel *label;
    QLineEdit *blood_glucose_level;
    QFrame *line_13;
    QLabel *label_13;
    QComboBox *fbg;
    QFrame *line_6;
    QHBoxLayout *horizontalLayout_2;
    QLabel *label_2;
    QLineEdit *lineEdit_a1c;
    QSpacerItem *horizontalSpacer_3;
    QSpacerItem *horizontalSpacer_2;
    QSpacerItem *horizontalSpacer;
    QFrame *line_5;
    QGridLayout *gridLayout_5;
    QLabel *label_14;
    QLineEdit *lineEdit_currDosage;
    QSpacerItem *horizontalSpacer_7;
    QSpacerItem *horizontalSpacer_9;
    QSpacerItem *horizontalSpacer_8;
    QSpacerItem *horizontalSpacer_5;
    QFrame *line_12;
    QVBoxLayout *verticalLayout_2;
    QHBoxLayout *horizontalLayout_11;
    QCheckBox *b1;
    QCheckBox *b2;
    QHBoxLayout *horizontalLayout_9;
    QCheckBox *b3;
    QCheckBox *b4;
    QCheckBox *b5;
    QFrame *line_10;
    QHBoxLayout *horizontalLayout_10;
    QCheckBox *p1;
    QCheckBox *p2;
    QHBoxLayout *horizontalLayout_7;
    QCheckBox *p3;
    QCheckBox *p4;
    QFrame *line_3;
    QHBoxLayout *horizontalLayout_5;
    QCheckBox *bb1;
    QCheckBox *bb2;
    QCheckBox *bb3;
    QFrame *line_11;
    QGroupBox *groupBox_3;
    QGridLayout *gridLayout;
    QHBoxLayout *horizontalLayout_6;
    QLabel *label_17;
    QLabel *label_9;
    QPushButton *pushButton_4;
    QPushButton *pushButton_3;
    QLabel *label_18;
    QLabel *label_10;

    void setupUi(QMainWindow *AddPatientVisitRecord)
    {
        if (AddPatientVisitRecord->objectName().isEmpty
            ())
            AddPatientVisitRecord->setObjectName(
                QStringLiteral("AddPatientVisitRecord"));
        AddPatientVisitRecord->resize(804, 636);
        centralwidget = new QWidget(AddPatientVisitRecord
            );
        centralwidget->setObjectName(QStringLiteral("
            centralwidget"));
        gridLayout_2 = new QGridLayout(centralwidget);
        gridLayout_2->setObjectName(QStringLiteral("
            gridLayout_2"));
        groupBox = new QGroupBox(centralwidget);
        groupBox->setObjectName(QStringLiteral("
            groupBox"));
        QFont font;
        font.setFamily(QStringLiteral("Calibri"));
        font.setPointSize(15);
        font.setBold(true);
        font.setWeight(75);
        groupBox->setFont(font);
        verticalLayout_3 = new QVBoxLayout(groupBox);
        verticalLayout_3->setObjectName(QStringLiteral("
            verticalLayout_3"));
        groupBox_2 = new QGroupBox(groupBox);
        groupBox_2->setObjectName(QStringLiteral("
            groupBox_2"));
        QFont font1;
        font1.setFamily(QStringLiteral("Segoe UI"));
        font1.setPointSize(10);
        font1.setBold(false);
        font1.setWeight(50);
        groupBox_2->setFont(font1);
        gridLayout_3 = new QGridLayout(groupBox_2);
        gridLayout_3->setObjectName(QStringLiteral("
            gridLayout_3"));
        label_15 = new QLabel(groupBox_2);
        label_15->setObjectName(QStringLiteral("label_15")
            );

        gridLayout_3->addWidget(label_15, 0, 0, 1, 1);

        verticalLayout = new QVBoxLayout();
        verticalLayout->setObjectName(QStringLiteral("
```

```
        verticalLayout"));
pushButton = new QPushButton(groupBox_2);
pushButton->setObjectName(QStringLiteral("
        pushButton"));
QFont font2;
font2.setFamily(QStringLiteral("Segoe UI"));
font2.setPointSize(11);
font2.setBold(true);
font2.setWeight(75);
pushButton->setFont(font2);

verticalLayout->addWidget(pushButton);


gridLayout_3->addLayout(verticalLayout, 0, 1, 1, 1);

label_16 = new QLabel(groupBox_2);
label_16->setObjectName(QStringLiteral("label_16")
        );

gridLayout_3->addWidget(label_16, 0, 2, 1, 1);


verticalLayout_3->addWidget(groupBox_2);

label_3 = new QLabel(groupBox);
label_3->setObjectName(QStringLiteral("label_3"));
QFont font3;
font3.setFamily(QStringLiteral("Segoe UI"));
font3.setPointSize(8);
font3.setBold(false);
font3.setWeight(50);
label_3->setFont(font3);

verticalLayout_3->addWidget(label_3);

line_7 = new QFrame(groupBox);
line_7->setObjectName(QStringLiteral("line_7"));
line_7->setFont(font1);
line_7->setFrameShape(QFrame::HLine);
line_7->setFrameShadow(QFrame::Sunken);

verticalLayout_3->addWidget(line_7);

horizontalLayout_4 = new QHBoxLayout();
horizontalLayout_4->setObjectName(QStringLiteral
        ("horizontalLayout_4"));
date = new QLabel(groupBox);
date->setObjectName(QStringLiteral("date"));
QFont font4;
font4.setFamily(QStringLiteral("Segoe UI Semibold")
        );
font4.setPointSize(10);
font4.setBold(false);
font4.setWeight(50);
date->setFont(font4);

horizontalLayout_4->addWidget(date);

label_11 = new QLabel(groupBox);
label_11->setObjectName(QStringLiteral("label_11")
        );
label_11->setFont(font1);

horizontalLayout_4->addWidget(label_11);

lineEdit_dateTime = new QLineEdit(groupBox);
lineEdit_dateTime->setObjectName(QStringLiteral("
        lineEdit_dateTime"));
lineEdit_dateTime->setFont(font1);

horizontalLayout_4->addWidget(lineEdit_dateTime);

horizontalSpacer_4 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

horizontalLayout_4->addItem(horizontalSpacer_4);


verticalLayout_3->addLayout(horizontalLayout_4);

line = new QFrame(groupBox);
line->setObjectName(QStringLiteral("line"));
line->setFont(font1);
line->setFrameShape(QFrame::HLine);
line->setFrameShadow(QFrame::Sunken);

verticalLayout_3->addWidget(line);

horizontalLayout_3 = new QHBoxLayout();
horizontalLayout_3->setObjectName(QStringLiteral
        ("horizontalLayout_3"));
label_6 = new QLabel(groupBox);
label_6->setObjectName(QStringLiteral("label_6"));
label_6->setFont(font4);

horizontalLayout_3->addWidget(label_6);

lineEdit_weight = new QLineEdit(groupBox);
lineEdit_weight->setObjectName(QStringLiteral("
        lineEdit_weight"));
lineEdit_weight->setFont(font1);

horizontalLayout_3->addWidget(lineEdit_weight);

label_8 = new QLabel(groupBox);
label_8->setObjectName(QStringLiteral("label_8"));
label_8->setFont(font1);

horizontalLayout_3->addWidget(label_8);

line_2 = new QFrame(groupBox);
line_2->setObjectName(QStringLiteral("line_2"));
line_2->setFont(font1);
line_2->setFrameShape(QFrame::VLine);
line_2->setFrameShadow(QFrame::Sunken);

horizontalLayout_3->addWidget(line_2);

label_7 = new QLabel(groupBox);
label_7->setObjectName(QStringLiteral("label_7"));
label_7->setFont(font4);

horizontalLayout_3->addWidget(label_7);

lineEdit_height = new QLineEdit(groupBox);
lineEdit_height->setObjectName(QStringLiteral("
        lineEdit_height"));
lineEdit_height->setFont(font1);

horizontalLayout_3->addWidget(lineEdit_height);

label_12 = new QLabel(groupBox);
label_12->setObjectName(QStringLiteral("label_12")
        );
label_12->setFont(font1);

horizontalLayout_3->addWidget(label_12);


verticalLayout_3->addLayout(horizontalLayout_3);

line_4 = new QFrame(groupBox);
line_4->setObjectName(QStringLiteral("line_4"));
line_4->setFont(font1);
line_4->setFrameShape(QFrame::HLine);
line_4->setFrameShadow(QFrame::Sunken);

verticalLayout_3->addWidget(line_4);

horizontalLayout = new QHBoxLayout();
horizontalLayout->setObjectName(QStringLiteral("
        horizontalLayout"));
label = new QLabel(groupBox);
label->setObjectName(QStringLiteral("label"));
label->setFont(font4);

horizontalLayout->addWidget(label);

blood_glucose_level = new QLineEdit(groupBox);
blood_glucose_level->setObjectName(QStringLiteral
        ("blood_glucose_level"));
blood_glucose_level->setFont(font1);

horizontalLayout->addWidget(blood_glucose_level);

line_13 = new QFrame(groupBox);
line_13->setObjectName(QStringLiteral("line_13"));
line_13->setFont(font1);
line_13->setFrameShape(QFrame::VLine);
line_13->setFrameShadow(QFrame::Sunken);

horizontalLayout->addWidget(line_13);

label_13 = new QLabel(groupBox);
label_13->setObjectName(QStringLiteral("label_13")
        );
label_13->setFont(font4);

horizontalLayout->addWidget(label_13);

fbg = new QComboBox(groupBox);
fbg->addItem(QString());
fbg->addItem(QString());
fbg->addItem(QString());
fbg->addItem(QString());
fbg->addItem(QString());
fbg->addItem(QString());
fbg->addItem(QString());
fbg->setObjectName(QStringLiteral("fbg"));
fbg->setFont(font1);

horizontalLayout->addWidget(fbg);


verticalLayout_3->addLayout(horizontalLayout);
```

```
line_6 = new QFrame(groupBox);
line_6->setObjectName(QStringLiteral("line_6"));
line_6->setFont(font1);
line_6->setFrameShape(QFrame::HLine);
line_6->setFrameShadow(QFrame::Sunken);

verticalLayout_3->addWidget(line_6);

horizontalLayout_2 = new QHBoxLayout();
horizontalLayout_2->setObjectName(QStringLiteral
        ("horizontalLayout_2"));
label_2 = new QLabel(groupBox);
label_2->setObjectName(QStringLiteral("label_2"));
label_2->setFont(font4);

horizontalLayout_2->addWidget(label_2);

lineEdit_a1c = new QLineEdit(groupBox);
lineEdit_a1c->setObjectName(QStringLiteral("
        lineEdit_a1c"));
lineEdit_a1c->setFont(font1);

horizontalLayout_2->addWidget(lineEdit_a1c);

horizontalSpacer_3 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

horizontalLayout_2->addItem(horizontalSpacer_3);

horizontalSpacer_2 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

horizontalLayout_2->addItem(horizontalSpacer_2);

horizontalSpacer = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

horizontalLayout_2->addItem(horizontalSpacer);


verticalLayout_3->addLayout(horizontalLayout_2);

line_5 = new QFrame(groupBox);
line_5->setObjectName(QStringLiteral("line_5"));
line_5->setFont(font1);
line_5->setFrameShape(QFrame::HLine);
line_5->setFrameShadow(QFrame::Sunken);

verticalLayout_3->addWidget(line_5);

gridLayout_5 = new QGridLayout();
gridLayout_5->setObjectName(QStringLiteral("
        gridLayout_5"));
label_14 = new QLabel(groupBox);
label_14->setObjectName(QStringLiteral("label_14")
        );
label_14->setFont(font4);

gridLayout_5->addWidget(label_14, 0, 0, 1, 1);

lineEdit_currDosage = new QLineEdit(groupBox);
lineEdit_currDosage->setObjectName(QStringLiteral
        ("lineEdit_currDosage"));
lineEdit_currDosage->setFont(font1);

gridLayout_5->addWidget(lineEdit_currDosage, 0, 1,
        1, 1);

horizontalSpacer_7 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

gridLayout_5->addItem(horizontalSpacer_7, 0, 2, 1,
        1);

horizontalSpacer_9 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

gridLayout_5->addItem(horizontalSpacer_9, 0, 3, 1,
        1);

horizontalSpacer_8 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

gridLayout_5->addItem(horizontalSpacer_8, 0, 4, 1,
        1);

horizontalSpacer_5 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

gridLayout_5->addItem(horizontalSpacer_5, 0, 5, 1,
        1);

verticalLayout_3->addLayout(gridLayout_5);

line_12 = new QFrame(groupBox);
line_12->setObjectName(QStringLiteral("line_12"));
line_12->setFont(font1);
line_12->setFrameShape(QFrame::HLine);
line_12->setFrameShadow(QFrame::Sunken);

verticalLayout_3->addWidget(line_12);

verticalLayout_2 = new QVBoxLayout();
verticalLayout_2->setObjectName(QStringLiteral("
        verticalLayout_2"));
horizontalLayout_11 = new QHBoxLayout();
horizontalLayout_11->setObjectName(QStringLiteral
        ("horizontalLayout_11"));
b1 = new QCheckBox(groupBox);
b1->setObjectName(QStringLiteral("b1"));
b1->setFont(font3);

horizontalLayout_11->addWidget(b1);

b2 = new QCheckBox(groupBox);
b2->setObjectName(QStringLiteral("b2"));
b2->setFont(font3);

horizontalLayout_11->addWidget(b2);


verticalLayout_2->addLayout(horizontalLayout_11);

horizontalLayout_9 = new QHBoxLayout();
horizontalLayout_9->setObjectName(QStringLiteral
        ("horizontalLayout_9"));
b3 = new QCheckBox(groupBox);
b3->setObjectName(QStringLiteral("b3"));
b3->setFont(font3);

horizontalLayout_9->addWidget(b3);

b4 = new QCheckBox(groupBox);
b4->setObjectName(QStringLiteral("b4"));
b4->setFont(font3);

horizontalLayout_9->addWidget(b4);


verticalLayout_2->addLayout(horizontalLayout_9);

b5 = new QCheckBox(groupBox);
b5->setObjectName(QStringLiteral("b5"));
b5->setFont(font3);

verticalLayout_2->addWidget(b5);

line_10 = new QFrame(groupBox);
line_10->setObjectName(QStringLiteral("line_10"));
line_10->setFont(font1);
line_10->setFrameShape(QFrame::HLine);
line_10->setFrameShadow(QFrame::Sunken);

verticalLayout_2->addWidget(line_10);

horizontalLayout_10 = new QHBoxLayout();
horizontalLayout_10->setObjectName(QStringLiteral
        ("horizontalLayout_10"));
p1 = new QCheckBox(groupBox);
p1->setObjectName(QStringLiteral("p1"));
p1->setFont(font3);

horizontalLayout_10->addWidget(p1);

p2 = new QCheckBox(groupBox);
p2->setObjectName(QStringLiteral("p2"));
p2->setFont(font3);

horizontalLayout_10->addWidget(p2);


verticalLayout_2->addLayout(horizontalLayout_10);

horizontalLayout_7 = new QHBoxLayout();
horizontalLayout_7->setObjectName(QStringLiteral
        ("horizontalLayout_7"));
p3 = new QCheckBox(groupBox);
p3->setObjectName(QStringLiteral("p3"));
p3->setFont(font3);

horizontalLayout_7->addWidget(p3);

p4 = new QCheckBox(groupBox);
p4->setObjectName(QStringLiteral("p4"));
p4->setFont(font3);

horizontalLayout_7->addWidget(p4);


verticalLayout_2->addLayout(horizontalLayout_7);
```

```
line_3 = new QFrame(groupBox);
line_3->setObjectName(QStringLiteral("line_3"));
line_3->setFont(font1);
line_3->setFrameShape(QFrame::HLine);
line_3->setFrameShadow(QFrame::Sunken);

verticalLayout_2->addWidget(line_3);

horizontalLayout_5 = new QHBoxLayout();
horizontalLayout_5->setObjectName(QStringLiteral
        ("horizontalLayout_5"));
bb1 = new QCheckBox(groupBox);
bb1->setObjectName(QStringLiteral("bb1"));
bb1->setFont(font3);

horizontalLayout_5->addWidget(bb1);

bb2 = new QCheckBox(groupBox);
bb2->setObjectName(QStringLiteral("bb2"));
bb2->setFont(font3);

horizontalLayout_5->addWidget(bb2);


verticalLayout_2->addLayout(horizontalLayout_5);

bb3 = new QCheckBox(groupBox);
bb3->setObjectName(QStringLiteral("bb3"));
bb3->setFont(font3);

verticalLayout_2->addWidget(bb3);

line_11 = new QFrame(groupBox);
line_11->setObjectName(QStringLiteral("line_11"));
line_11->setFont(font1);
line_11->setFrameShape(QFrame::HLine);
line_11->setFrameShadow(QFrame::Sunken);

verticalLayout_2->addWidget(line_11);


verticalLayout_3->addLayout(verticalLayout_2);


gridLayout_2->addWidget(groupBox, 0, 0, 1, 1);

groupBox_3 = new QGroupBox(centralwidget);
groupBox_3->setObjectName(QStringLiteral("
        groupBox_3"));
groupBox_3->setFont(font1);
gridLayout = new QGridLayout(groupBox_3);
gridLayout->setObjectName(QStringLiteral("
        gridLayout"));
horizontalLayout_6 = new QHBoxLayout();
horizontalLayout_6->setObjectName(QStringLiteral
        ("horizontalLayout_6"));
label_17 = new QLabel(groupBox_3);
label_17->setObjectName(QStringLiteral("label_17")
        );

horizontalLayout_6->addWidget(label_17);

label_9 = new QLabel(groupBox_3);
label_9->setObjectName(QStringLiteral("label_9"));
label_9->setFont(font1);

horizontalLayout_6->addWidget(label_9);

pushButton_4 = new QPushButton(groupBox_3);
pushButton_4->setObjectName(QStringLiteral("
        pushButton_4"));
pushButton_4->setFont(font2);

horizontalLayout_6->addWidget(pushButton_4);

pushButton_3 = new QPushButton(groupBox_3);
pushButton_3->setObjectName(QStringLiteral("
        pushButton_3"));
pushButton_3->setFont(font2);

horizontalLayout_6->addWidget(pushButton_3);

label_18 = new QLabel(groupBox_3);
label_18->setObjectName(QStringLiteral("label_18")
        );

horizontalLayout_6->addWidget(label_18);

label_10 = new QLabel(groupBox_3);
label_10->setObjectName(QStringLiteral("label_10")
        );
label_10->setFont(font1);

horizontalLayout_6->addWidget(label_10);


gridLayout->addLayout(horizontalLayout_6, 0, 0, 1,
        1);

    gridLayout_2->addWidget(groupBox_3, 1, 0, 1, 1);

    AddPatientVisitRecord->setCentralWidget(
            centralwidget);

    retranslateUi(AddPatientVisitRecord);

    QMetaObject::connectSlotsByName(
            AddPatientVisitRecord);
} // setupUi

void retranslateUi(QMainWindow *
        AddPatientVisitRecord)
{
    AddPatientVisitRecord->setWindowTitle(
            QApplication::translate("AddPatientVisitRecord
            ", "IoT-based Recommender System for
            Diabetic Patients", nullptr));
    groupBox->setTitle(QApplication::translate("
            AddPatientVisitRecord", "Add Patient Visit
            Record", nullptr));
    groupBox_2->setTitle(QString());
    label_15->setText(QString());
    pushButton->setText(QApplication::translate("
            AddPatientVisitRecord", "Get IoT Glucometer
            Data", nullptr));
    label_16->setText(QString());
    label_3->setText(QApplication::translate("
            AddPatientVisitRecord", "*All fields marked
            with an asterisk are required.", nullptr));
    date->setText(QApplication::translate("
            AddPatientVisitRecord", "*Date Time
            Performed (YYYY-MM-DD HH:MM:SS):",
            nullptr));
    label_11->setText(QString());
    label_6->setText(QApplication::translate("
            AddPatientVisitRecord", "*Weight (kg):",
            nullptr));
    label_8->setText(QString());
    label_7->setText(QApplication::translate("
            AddPatientVisitRecord", "Height (cm):",
            nullptr));
    label_12->setText(QString());
    label->setText(QApplication::translate("
            AddPatientVisitRecord", "*Latest Blood
            Glucose Level:", nullptr));
    blood_glucose_level->setText(QString());
    label_13->setText(QApplication::translate("
            AddPatientVisitRecord", "*Blood Testing
            Schedule:", nullptr));
    fbg->setItemText(0, QApplication::translate("
            AddPatientVisitRecord", "Before Breakfast",
            nullptr));
    fbg->setItemText(1, QApplication::translate("
            AddPatientVisitRecord", "After Breakfast",
            nullptr));
    fbg->setItemText(2, QApplication::translate("
            AddPatientVisitRecord", "Before Lunch",
            nullptr));
    fbg->setItemText(3, QApplication::translate("
            AddPatientVisitRecord", "After Lunch", nullptr
            ));
    fbg->setItemText(4, QApplication::translate("
            AddPatientVisitRecord", "Before Dinner",
            nullptr));
    fbg->setItemText(5, QApplication::translate("
            AddPatientVisitRecord", "After Dinner",
            nullptr));
    fbg->setItemText(6, QApplication::translate("
            AddPatientVisitRecord", "Bedtime", nullptr));

    label_2->setText(QApplication::translate("
            AddPatientVisitRecord", "A1C test:", nullptr));
    label_14->setText(QApplication::translate("
            AddPatientVisitRecord", "*Current Insulin
            Dosage (units): ", nullptr));
    lineEdit_currDosage->setText(QString());
    b1->setText(QApplication::translate("
            AddPatientVisitRecord", "Newly diagnosed
            with diabetes (less than 6 months)", nullptr));
    b2->setText(QApplication::translate("
            AddPatientVisitRecord", "Using drugs known
            to cause hypoglycemia", nullptr));
    b3->setText(QApplication::translate("
            AddPatientVisitRecord", "Daytime
            hypoglycemia", nullptr));
    b4->setText(QApplication::translate("
            AddPatientVisitRecord", "Nocturnal
            Hypoglycemia (Consistently <5.5 mmol/L)",
            nullptr));
    b5->setText(QApplication::translate("
            AddPatientVisitRecord", "Two (2) episodes of
            hypoglycemia (BG < 4.0 mmol/L) in a week",
            nullptr));
    p1->setText(QApplication::translate("
            AddPatientVisitRecord", "Opposed to more
            than 2 injections a day", nullptr));
```

```
        p2->setText(QApplication::translate("
            AddPatientVisitRecord", "Has consistent meal
            times and food intake", nullptr));
        p3->setText(QApplication::translate("
            AddPatientVisitRecord", "Starting a new
            medication known to cause hyperglycemia",
            nullptr));
        p4->setText(QApplication::translate("
            AddPatientVisitRecord", "Experiencing an
            illness known to cause hyperglycemia", nullptr))
            ;
        bb1->setText(QApplication::translate("
            AddPatientVisitRecord", "Pregnant", nullptr));
        bb2->setText(QApplication::translate("
            AddPatientVisitRecord", "Planning a pregnancy
            ", nullptr));
        bb3->setText(QApplication::translate("
            AddPatientVisitRecord", "Hospitalized or
            acutely ill", nullptr));
        groupBox_3->setTitle(QString());
        label_17->setText(QString());
        label_9->setText(QString());
        pushButton_4->setText(QApplication::translate("
            AddPatientVisitRecord", "Back", nullptr));
        pushButton_3->setText(QApplication::translate("
            AddPatientVisitRecord", "Add Record", nullptr
            ));
        label_18->setText(QString());
        label_10->setText(QString());
    } // retranslateUi

};

namespace Ui {
    class AddPatientVisitRecord: public
        Ui_AddPatientVisitRecord {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_ADDPATIENTVISITRECORD_H

/********************************************************************************
** Form generated from reading UI file '
    addpatientvisitrecorddoc.ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
    recompiling UI file!
********************************************************************************/


#ifndef UI_ADDPATIENTVISITRECORDDOC_H
#define UI_ADDPATIENTVISITRECORDDOC_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QCheckBox>
#include <QtWidgets/QComboBox>
#include <QtWidgets/QFrame>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QLineEdit>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QSpacerItem>
#include <QtWidgets/QVBoxLayout>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_AddPatientVisitRecordDoc
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout_2;
    QGroupBox *groupBox_3;
    QGridLayout *gridLayout;
    QHBoxLayout *horizontalLayout_6;
    QLabel *label_17;
    QLabel *label_9;
    QPushButton *pushButton_4;
    QPushButton *pushButton_3;
    QLabel *label_18;
    QLabel *label_10;
    QGroupBox *groupBox;
    QGridLayout *gridLayout_4;
    QGroupBox *groupBox_2;
    QGridLayout *gridLayout_3;
    QLabel *label_15;
    QVBoxLayout *verticalLayout;
    QPushButton *pushButton;
    QLabel *label_16;
    QHBoxLayout *horizontalLayout_4;
    QLabel *date;
    QLabel *label_11;
    QLineEdit *lineEdit_dateTime;
    QSpacerItem *horizontalSpacer_4;
    QFrame *line;
    QFrame *line_4;
    QHBoxLayout *horizontalLayout_3;
    QLabel *label_6;
    QLineEdit *lineEdit_weight;
    QLabel *label_8;
    QFrame *line_2;
    QLabel *label_7;
    QLineEdit *lineEdit_height;
    QLabel *label_12;
    QFrame *line_6;
    QHBoxLayout *horizontalLayout;
    QLabel *label;
    QLineEdit *blood_glucose_level;
    QFrame *line_13;
    QLabel *label_13;
    QComboBox *fbg;
    QHBoxLayout *horizontalLayout_2;
    QLabel *label_2;
    QLineEdit *lineEdit_a1c;
    QSpacerItem *horizontalSpacer_3;
    QSpacerItem *horizontalSpacer_2;
    QSpacerItem *horizontalSpacer;
    QFrame *line_9;
    QFrame *line_5;
    QHBoxLayout *horizontalLayout_8;
    QLabel *label_4;
    QComboBox *current_insulin_regimen;
    QLabel *label_5;
    QGridLayout *gridLayout_5;
    QLabel *label_14;
    QLineEdit *lineEdit_currDosage;
    QSpacerItem *horizontalSpacer_7;
    QSpacerItem *horizontalSpacer_9;
    QSpacerItem *horizontalSpacer_8;
    QSpacerItem *horizontalSpacer_5;
    QFrame *line_12;
    QFrame *line_7;
    QVBoxLayout *verticalLayout_2;
    QHBoxLayout *horizontalLayout_11;
    QCheckBox *b1;
    QCheckBox *b2;
    QHBoxLayout *horizontalLayout_9;
    QCheckBox *b3;
    QCheckBox *b4;
    QCheckBox *b5;
    QFrame *line_10;
    QHBoxLayout *horizontalLayout_10;
    QCheckBox *p1;
    QCheckBox *p2;
    QHBoxLayout *horizontalLayout_7;
    QCheckBox *p3;
    QCheckBox *p4;
    QFrame *line_3;
    QHBoxLayout *horizontalLayout_5;
    QCheckBox *bb1;
    QCheckBox *bb2;
    QCheckBox *bb3;
    QFrame *line_11;
    QLabel *label_3;

    void setupUi(QMainWindow *AddPatientVisitRecordDoc)
    {
        if (AddPatientVisitRecordDoc->objectName().
            isEmpty())
            AddPatientVisitRecordDoc->setObjectName(
                QStringLiteral("AddPatientVisitRecordDoc
                "));
        AddPatientVisitRecordDoc->resize(800, 636);
        centralwidget = new QWidget(
            AddPatientVisitRecordDoc);
        centralwidget->setObjectName(QStringLiteral("
            centralwidget"));
        gridLayout_2 = new QGridLayout(centralwidget);
        gridLayout_2->setObjectName(QStringLiteral("
            gridLayout_2"));
        groupBox_3 = new QGroupBox(centralwidget);
        groupBox_3->setObjectName(QStringLiteral("
            groupBox_3"));
        QFont font;
        font.setFamily(QStringLiteral("Segoe UI"));
        font.setPointSize(10);
        font.setBold(false);
        font.setWeight(50);
        groupBox_3->setFont(font);
        gridLayout = new QGridLayout(groupBox_3);
        gridLayout->setObjectName(QStringLiteral("
            gridLayout"));
        horizontalLayout_6 = new QHBoxLayout();
        horizontalLayout_6->setObjectName(QStringLiteral
            ("horizontalLayout_6"));
        label_17 = new QLabel(groupBox_3);
        label_17->setObjectName(QStringLiteral("label_17")
```

```
        );

horizontalLayout_6->addWidget(label_17);

label_9 = new QLabel(groupBox_3);
label_9->setObjectName(QStringLiteral("label_9"));
label_9->setFont(font);

horizontalLayout_6->addWidget(label_9);

pushButton_4 = new QPushButton(groupBox_3);
pushButton_4->setObjectName(QStringLiteral("
        pushButton_4"));
QFont font1;
font1.setFamily(QStringLiteral("Segoe UI"));
font1.setPointSize(11);
font1.setBold(true);
font1.setWeight(75);
pushButton_4->setFont(font1);

horizontalLayout_6->addWidget(pushButton_4);

pushButton_3 = new QPushButton(groupBox_3);
pushButton_3->setObjectName(QStringLiteral("
        pushButton_3"));
pushButton_3->setFont(font1);

horizontalLayout_6->addWidget(pushButton_3);

label_18 = new QLabel(groupBox_3);
label_18->setObjectName(QStringLiteral("label_18")
        );

horizontalLayout_6->addWidget(label_18);

label_10 = new QLabel(groupBox_3);
label_10->setObjectName(QStringLiteral("label_10")
        );
label_10->setFont(font);

horizontalLayout_6->addWidget(label_10);


gridLayout->addLayout(horizontalLayout_6, 0, 0, 1,
        1);


gridLayout_2->addWidget(groupBox_3, 2, 0, 1, 1);

groupBox = new QGroupBox(centralwidget);
groupBox->setObjectName(QStringLiteral("
        groupBox"));
QFont font2;
font2.setFamily(QStringLiteral("Calibri"));
font2.setPointSize(15);
font2.setBold(true);
font2.setWeight(75);
groupBox->setFont(font2);
gridLayout_4 = new QGridLayout(groupBox);
gridLayout_4->setObjectName(QStringLiteral("
        gridLayout_4"));
groupBox_2 = new QGroupBox(groupBox);
groupBox_2->setObjectName(QStringLiteral("
        groupBox_2"));
groupBox_2->setFont(font);
gridLayout_3 = new QGridLayout(groupBox_2);
gridLayout_3->setObjectName(QStringLiteral("
        gridLayout_3"));
label_15 = new QLabel(groupBox_2);
label_15->setObjectName(QStringLiteral("label_15")
        );
label_15->setFont(font);

gridLayout_3->addWidget(label_15, 0, 0, 1, 1);

verticalLayout = new QVBoxLayout();
verticalLayout->setObjectName(QStringLiteral("
        verticalLayout"));
pushButton = new QPushButton(groupBox_2);
pushButton->setObjectName(QStringLiteral("
        pushButton"));
pushButton->setFont(font1);

verticalLayout->addWidget(pushButton);


gridLayout_3->addLayout(verticalLayout, 0, 1, 1, 1);

label_16 = new QLabel(groupBox_2);
label_16->setObjectName(QStringLiteral("label_16")
        );
label_16->setFont(font);

gridLayout_3->addWidget(label_16, 0, 2, 1, 1);


gridLayout_4->addWidget(groupBox_2, 0, 0, 1, 1);

horizontalLayout_4 = new QHBoxLayout();
horizontalLayout_4->setObjectName(QStringLiteral
        ("horizontalLayout_4"));
date = new QLabel(groupBox);
date->setObjectName(QStringLiteral("date"));
QFont font3;
font3.setFamily(QStringLiteral("Segoe UI Semibold")
        );
font3.setPointSize(10);
font3.setBold(false);
font3.setWeight(50);
date->setFont(font3);

horizontalLayout_4->addWidget(date);

label_11 = new QLabel(groupBox);
label_11->setObjectName(QStringLiteral("label_11")
        );
label_11->setFont(font);

horizontalLayout_4->addWidget(label_11);

lineEdit_dateTime = new QLineEdit(groupBox);
lineEdit_dateTime->setObjectName(QStringLiteral("
        lineEdit_dateTime"));
lineEdit_dateTime->setFont(font);

horizontalLayout_4->addWidget(lineEdit_dateTime);

horizontalSpacer_4 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

horizontalLayout_4->addItem(horizontalSpacer_4);


gridLayout_4->addLayout(horizontalLayout_4, 5, 0,
        1, 1);

line = new QFrame(groupBox);
line->setObjectName(QStringLiteral("line"));
line->setFont(font);
line->setFrameShape(QFrame::HLine);
line->setFrameShadow(QFrame::Sunken);

gridLayout_4->addWidget(line, 6, 0, 1, 1);

line_4 = new QFrame(groupBox);
line_4->setObjectName(QStringLiteral("line_4"));
line_4->setFont(font);
line_4->setFrameShape(QFrame::HLine);
line_4->setFrameShadow(QFrame::Sunken);

gridLayout_4->addWidget(line_4, 8, 0, 1, 1);

horizontalLayout_3 = new QHBoxLayout();
horizontalLayout_3->setObjectName(QStringLiteral
        ("horizontalLayout_3"));
label_6 = new QLabel(groupBox);
label_6->setObjectName(QStringLiteral("label_6"));
label_6->setFont(font3);

horizontalLayout_3->addWidget(label_6);

lineEdit_weight = new QLineEdit(groupBox);
lineEdit_weight->setObjectName(QStringLiteral("
        lineEdit_weight"));
lineEdit_weight->setFont(font);

horizontalLayout_3->addWidget(lineEdit_weight);

label_8 = new QLabel(groupBox);
label_8->setObjectName(QStringLiteral("label_8"));
label_8->setFont(font);

horizontalLayout_3->addWidget(label_8);

line_2 = new QFrame(groupBox);
line_2->setObjectName(QStringLiteral("line_2"));
line_2->setFont(font);
line_2->setFrameShape(QFrame::VLine);
line_2->setFrameShadow(QFrame::Sunken);

horizontalLayout_3->addWidget(line_2);

label_7 = new QLabel(groupBox);
label_7->setObjectName(QStringLiteral("label_7"));
label_7->setFont(font3);

horizontalLayout_3->addWidget(label_7);

lineEdit_height = new QLineEdit(groupBox);
lineEdit_height->setObjectName(QStringLiteral("
        lineEdit_height"));
lineEdit_height->setFont(font);

horizontalLayout_3->addWidget(lineEdit_height);

label_12 = new QLabel(groupBox);
label_12->setObjectName(QStringLiteral("label_12")
```

```
        );
label_12->setFont(font);

horizontalLayout_3->addWidget(label_12);


gridLayout_4->addLayout(horizontalLayout_3, 7, 0,
        1, 1);

line_6 = new QFrame(groupBox);
line_6->setObjectName(QStringLiteral("line_6"));
line_6->setFont(font);
line_6->setFrameShape(QFrame::HLine);
line_6->setFrameShadow(QFrame::Sunken);

gridLayout_4->addWidget(line_6, 10, 0, 1, 1);

horizontalLayout = new QHBoxLayout();
horizontalLayout->setObjectName(QStringLiteral("
        horizontalLayout"));
label = new QLabel(groupBox);
label->setObjectName(QStringLiteral("label"));
label->setFont(font3);

horizontalLayout->addWidget(label);

blood_glucose_level = new QLineEdit(groupBox);
blood_glucose_level->setObjectName(QStringLiteral
        ("blood_glucose_level"));
blood_glucose_level->setFont(font);

horizontalLayout->addWidget(blood_glucose_level);

line_13 = new QFrame(groupBox);
line_13->setObjectName(QStringLiteral("line_13"));
line_13->setFont(font);
line_13->setFrameShape(QFrame::VLine);
line_13->setFrameShadow(QFrame::Sunken);

horizontalLayout->addWidget(line_13);

label_13 = new QLabel(groupBox);
label_13->setObjectName(QStringLiteral("label_13")
        );
label_13->setFont(font3);

horizontalLayout->addWidget(label_13);

fbg = new QComboBox(groupBox);
fbg->addItem(QString());
fbg->addItem(QString());
fbg->addItem(QString());
fbg->addItem(QString());
fbg->addItem(QString());
fbg->addItem(QString());
fbg->addItem(QString());
fbg->setObjectName(QStringLiteral("fbg"));
fbg->setFont(font);

horizontalLayout->addWidget(fbg);


gridLayout_4->addLayout(horizontalLayout, 9, 0, 1,
        1);

horizontalLayout_2 = new QHBoxLayout();
horizontalLayout_2->setObjectName(QStringLiteral
        ("horizontalLayout_2"));
label_2 = new QLabel(groupBox);
label_2->setObjectName(QStringLiteral("label_2"));
label_2->setFont(font3);

horizontalLayout_2->addWidget(label_2);

lineEdit_a1c = new QLineEdit(groupBox);
lineEdit_a1c->setObjectName(QStringLiteral("
        lineEdit_a1c"));
lineEdit_a1c->setFont(font);

horizontalLayout_2->addWidget(lineEdit_a1c);

horizontalSpacer_3 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

horizontalLayout_2->addItem(horizontalSpacer_3);

horizontalSpacer_2 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

horizontalLayout_2->addItem(horizontalSpacer_2);

horizontalSpacer = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

horizontalLayout_2->addItem(horizontalSpacer);

gridLayout_4->addLayout(horizontalLayout_2, 11, 0,
        1, 1);

line_9 = new QFrame(groupBox);
line_9->setObjectName(QStringLiteral("line_9"));
line_9->setFont(font);
line_9->setFrameShape(QFrame::HLine);
line_9->setFrameShadow(QFrame::Sunken);

gridLayout_4->addWidget(line_9, 12, 0, 1, 1);

line_5 = new QFrame(groupBox);
line_5->setObjectName(QStringLiteral("line_5"));
line_5->setFont(font);
line_5->setFrameShape(QFrame::HLine);
line_5->setFrameShadow(QFrame::Sunken);

gridLayout_4->addWidget(line_5, 14, 0, 1, 1);

horizontalLayout_8 = new QHBoxLayout();
horizontalLayout_8->setObjectName(QStringLiteral
        ("horizontalLayout_8"));
label_4 = new QLabel(groupBox);
label_4->setObjectName(QStringLiteral("label_4"));
label_4->setFont(font3);

horizontalLayout_8->addWidget(label_4);

current_insulin_regimen = new QComboBox(groupBox
        );
current_insulin_regimen->addItem(QString());
current_insulin_regimen->addItem(QString());
current_insulin_regimen->addItem(QString());
current_insulin_regimen->addItem(QString());
current_insulin_regimen->setObjectName(
        QStringLiteral("current_insulin_regimen"));
current_insulin_regimen->setFont(font);

horizontalLayout_8->addWidget(
        current_insulin_regimen);

label_5 = new QLabel(groupBox);
label_5->setObjectName(QStringLiteral("label_5"));
label_5->setFont(font);

horizontalLayout_8->addWidget(label_5);


gridLayout_4->addLayout(horizontalLayout_8, 13, 0,
        1, 1);

gridLayout_5 = new QGridLayout();
gridLayout_5->setObjectName(QStringLiteral("
        gridLayout_5"));
label_14 = new QLabel(groupBox);
label_14->setObjectName(QStringLiteral("label_14")
        );
label_14->setFont(font3);

gridLayout_5->addWidget(label_14, 0, 0, 1, 1);

lineEdit_currDosage = new QLineEdit(groupBox);
lineEdit_currDosage->setObjectName(QStringLiteral
        ("lineEdit_currDosage"));
lineEdit_currDosage->setFont(font);

gridLayout_5->addWidget(lineEdit_currDosage, 0, 1,
        1, 1);

horizontalSpacer_7 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

gridLayout_5->addItem(horizontalSpacer_7, 0, 2, 1,
        1);

horizontalSpacer_9 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

gridLayout_5->addItem(horizontalSpacer_9, 0, 3, 1,
        1);

horizontalSpacer_8 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

gridLayout_5->addItem(horizontalSpacer_8, 0, 4, 1,
        1);

horizontalSpacer_5 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

gridLayout_5->addItem(horizontalSpacer_5, 0, 5, 1,
        1);
```

```
gridLayout_4->addLayout(gridLayout_5, 15, 0, 1, 1);

line_12 = new QFrame(groupBox);
line_12->setObjectName(QStringLiteral("line_12"));
line_12->setFont(font);
line_12->setFrameShape(QFrame::HLine);
line_12->setFrameShadow(QFrame::Sunken);

gridLayout_4->addWidget(line_12, 16, 0, 1, 1);

line_7 = new QFrame(groupBox);
line_7->setObjectName(QStringLiteral("line_7"));
line_7->setFont(font);
line_7->setFrameShape(QFrame::HLine);
line_7->setFrameShadow(QFrame::Sunken);

gridLayout_4->addWidget(line_7, 2, 0, 1, 1);

verticalLayout_2 = new QVBoxLayout();
verticalLayout_2->setObjectName(QStringLiteral("
    verticalLayout_2"));
horizontalLayout_11 = new QHBoxLayout();
horizontalLayout_11->setObjectName(QStringLiteral
    ("horizontalLayout_11"));
b1 = new QCheckBox(groupBox);
b1->setObjectName(QStringLiteral("b1"));
QFont font4;
font4.setFamily(QStringLiteral("Segoe UI"));
font4.setPointSize(8);
font4.setBold(false);
font4.setWeight(50);
b1->setFont(font4);

horizontalLayout_11->addWidget(b1);

b2 = new QCheckBox(groupBox);
b2->setObjectName(QStringLiteral("b2"));
b2->setFont(font4);

horizontalLayout_11->addWidget(b2);


verticalLayout_2->addLayout(horizontalLayout_11);

horizontalLayout_9 = new QHBoxLayout();
horizontalLayout_9->setObjectName(QStringLiteral
    ("horizontalLayout_9"));
b3 = new QCheckBox(groupBox);
b3->setObjectName(QStringLiteral("b3"));
b3->setFont(font4);

horizontalLayout_9->addWidget(b3);

b4 = new QCheckBox(groupBox);
b4->setObjectName(QStringLiteral("b4"));
b4->setFont(font4);

horizontalLayout_9->addWidget(b4);


verticalLayout_2->addLayout(horizontalLayout_9);

b5 = new QCheckBox(groupBox);
b5->setObjectName(QStringLiteral("b5"));
b5->setFont(font4);

verticalLayout_2->addWidget(b5);

line_10 = new QFrame(groupBox);
line_10->setObjectName(QStringLiteral("line_10"));
line_10->setFont(font);
line_10->setFrameShape(QFrame::HLine);
line_10->setFrameShadow(QFrame::Sunken);

verticalLayout_2->addWidget(line_10);

horizontalLayout_10 = new QHBoxLayout();
horizontalLayout_10->setObjectName(QStringLiteral
    ("horizontalLayout_10"));
p1 = new QCheckBox(groupBox);
p1->setObjectName(QStringLiteral("p1"));
p1->setFont(font4);

horizontalLayout_10->addWidget(p1);

p2 = new QCheckBox(groupBox);
p2->setObjectName(QStringLiteral("p2"));
p2->setFont(font4);

horizontalLayout_10->addWidget(p2);


verticalLayout_2->addLayout(horizontalLayout_10);

horizontalLayout_7 = new QHBoxLayout();
horizontalLayout_7->setObjectName(QStringLiteral
    ("horizontalLayout_7"));
p3 = new QCheckBox(groupBox);
p3->setObjectName(QStringLiteral("p3"));
p3->setFont(font4);

horizontalLayout_7->addWidget(p3);

p4 = new QCheckBox(groupBox);
p4->setObjectName(QStringLiteral("p4"));
p4->setFont(font4);

horizontalLayout_7->addWidget(p4);


verticalLayout_2->addLayout(horizontalLayout_7);

line_3 = new QFrame(groupBox);
line_3->setObjectName(QStringLiteral("line_3"));
line_3->setFont(font);
line_3->setFrameShape(QFrame::HLine);
line_3->setFrameShadow(QFrame::Sunken);

verticalLayout_2->addWidget(line_3);

horizontalLayout_5 = new QHBoxLayout();
horizontalLayout_5->setObjectName(QStringLiteral
    ("horizontalLayout_5"));
bb1 = new QCheckBox(groupBox);
bb1->setObjectName(QStringLiteral("bb1"));
bb1->setFont(font4);

horizontalLayout_5->addWidget(bb1);

bb2 = new QCheckBox(groupBox);
bb2->setObjectName(QStringLiteral("bb2"));
bb2->setFont(font4);

horizontalLayout_5->addWidget(bb2);


verticalLayout_2->addLayout(horizontalLayout_5);

bb3 = new QCheckBox(groupBox);
bb3->setObjectName(QStringLiteral("bb3"));
bb3->setFont(font4);

verticalLayout_2->addWidget(bb3);

line_11 = new QFrame(groupBox);
line_11->setObjectName(QStringLiteral("line_11"));
line_11->setFont(font);
line_11->setFrameShape(QFrame::HLine);
line_11->setFrameShadow(QFrame::Sunken);

verticalLayout_2->addWidget(line_11);


gridLayout_4->addLayout(verticalLayout_2, 17, 0, 1,
    1);

label_3 = new QLabel(groupBox);
label_3->setObjectName(QStringLiteral("label_3"));
label_3->setFont(font4);

gridLayout_4->addWidget(label_3, 1, 0, 1, 1);


gridLayout_2->addWidget(groupBox, 1, 0, 1, 1);

AddPatientVisitRecordDoc->setCentralWidget(
    centralwidget);

retranslateUi(AddPatientVisitRecordDoc);

QMetaObject::connectSlotsByName(
    AddPatientVisitRecordDoc);
} // setupUi

void retranslateUi(QMainWindow *
    AddPatientVisitRecordDoc)
{
AddPatientVisitRecordDoc->setWindowTitle(
    QApplication::translate("
    AddPatientVisitRecordDoc", "IoT-based
    Recommender System for Diabetic Patients",
    nullptr));
groupBox_3->setTitle(QString());
label_17->setText(QString());
label_9->setText(QString());
pushButton_4->setText(QApplication::translate("
    AddPatientVisitRecordDoc", "Back", nullptr));
pushButton_3->setText(QApplication::translate("
    AddPatientVisitRecordDoc", "Add Record",
    nullptr));
label_18->setText(QString());
label_10->setText(QString());
groupBox->setTitle(QApplication::translate("
    AddPatientVisitRecordDoc", "Add Patient Visit
     Record", nullptr));
groupBox_2->setTitle(QString());
label_15->setText(QString());
pushButton->setText(QApplication::translate("
```

```
        AddPatientVisitRecordDoc", "Get IoT
        Glucometer Data", nullptr));
label_16->setText(QString());
date->setText(QApplication::translate("
        AddPatientVisitRecordDoc", "*Date Time
        Performed (YYYY-MM-DD HH:MM:SS):",
        nullptr));
label_11->setText(QString());
label_6->setText(QApplication::translate("
        AddPatientVisitRecordDoc", "*Weight (kg):",
        nullptr));
label_8->setText(QString());
label_7->setText(QApplication::translate("
        AddPatientVisitRecordDoc", "Height (cm):",
        nullptr));
label_12->setText(QString());
label->setText(QApplication::translate("
        AddPatientVisitRecordDoc", "*Latest Blood
        Glucose Level:", nullptr));
blood_glucose_level->setText(QString());
label_13->setText(QApplication::translate("
        AddPatientVisitRecordDoc", "*Blood Testing
        Schedule:", nullptr));
fbg->setItemText(0, QApplication::translate("
        AddPatientVisitRecordDoc", "Before Breakfast
        ", nullptr));
fbg->setItemText(1, QApplication::translate("
        AddPatientVisitRecordDoc", "After Breakfast",
         nullptr));
fbg->setItemText(2, QApplication::translate("
        AddPatientVisitRecordDoc", "Before Lunch",
        nullptr));
fbg->setItemText(3, QApplication::translate("
        AddPatientVisitRecordDoc", "After Lunch",
        nullptr));
fbg->setItemText(4, QApplication::translate("
        AddPatientVisitRecordDoc", "Before Dinner",
        nullptr));
fbg->setItemText(5, QApplication::translate("
        AddPatientVisitRecordDoc", "After Dinner",
        nullptr));
fbg->setItemText(6, QApplication::translate("
        AddPatientVisitRecordDoc", "Bedtime", nullptr
        ));

label_2->setText(QApplication::translate("
        AddPatientVisitRecordDoc", "A1C test:",
        nullptr));
label_4->setText(QApplication::translate("
        AddPatientVisitRecordDoc", "*Curent Insulin
        Regimen:", nullptr));
current_insulin_regimen->setItemText(0,
        QApplication::translate("
        AddPatientVisitRecordDoc", "Starting Insulin
        Therapy", nullptr));
current_insulin_regimen->setItemText(1,
        QApplication::translate("
        AddPatientVisitRecordDoc", "Basal (
        Background) Insulin", nullptr));
current_insulin_regimen->setItemText(2,
        QApplication::translate("
        AddPatientVisitRecordDoc", "Pre-mixed
        Twice Daily (Before breakfast and dinner)",
        nullptr));
current_insulin_regimen->setItemText(3,
        QApplication::translate("
        AddPatientVisitRecordDoc", "Basal-bolus",
        nullptr));

label_5->setText(QString());
label_14->setText(QApplication::translate("
        AddPatientVisitRecordDoc", "*Current Insulin
        Dosage (units): ", nullptr));
lineEdit_currDosage->setText(QString());
b1->setText(QApplication::translate("
        AddPatientVisitRecordDoc", "Newly diagnosed
        with diabetes (less than 6 months)", nullptr));
b2->setText(QApplication::translate("
        AddPatientVisitRecordDoc", "Using drugs
        known to cause hypoglycemia", nullptr));
b3->setText(QApplication::translate("
        AddPatientVisitRecordDoc", "Daytime
        hypoglycemia", nullptr));
b4->setText(QApplication::translate("
        AddPatientVisitRecordDoc", "Nocturnal
        Hypoglycemia (Consistently <5.5 mmol/L)",
        nullptr));
b5->setText(QApplication::translate("
        AddPatientVisitRecordDoc", "Two (2) episodes
        of hypoglycemia (BG < 4.0 mmol/L) in a week
        ", nullptr));
p1->setText(QApplication::translate("
        AddPatientVisitRecordDoc", "Opposed to more
         than 2 injections a day", nullptr));
p2->setText(QApplication::translate("
        AddPatientVisitRecordDoc", "Has consistent
        meal times and food intake", nullptr));
p3->setText(QApplication::translate("
        AddPatientVisitRecordDoc", "Starting a new
        medication known to cause hyperglycemia",
        nullptr));
p4->setText(QApplication::translate("
        AddPatientVisitRecordDoc", "Experiencing an
        illness known to cause hyperglycemia", nullptr))
        ;
bb1->setText(QApplication::translate("
        AddPatientVisitRecordDoc", "Pregnant",
        nullptr));
bb2->setText(QApplication::translate("
        AddPatientVisitRecordDoc", "Planning a
        pregnancy", nullptr));
bb3->setText(QApplication::translate("
        AddPatientVisitRecordDoc", "Hospitalized or
        acutely ill", nullptr));
label_3->setText(QApplication::translate("
        AddPatientVisitRecordDoc", "*All fields
        marked with an asterisk are required.", nullptr))
        ;
    } // retranslateUi

};

namespace Ui {
    class AddPatientVisitRecordDoc: public
        Ui_AddPatientVisitRecordDoc {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_ADDPATIENTVISITRECORDDOC_H

/********************************************************************************

** Form generated from reading UI file 'adminaddaccount.ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
    recompiling UI file!
********************************************************************************


#ifndef UI_ADMINADDACCOUNT_H
#define UI_ADMINADDACCOUNT_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QComboBox>
#include <QtWidgets/QDateEdit>
#include <QtWidgets/QFrame>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QLineEdit>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QSpacerItem>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_AdminAddAccount
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout;
    QGroupBox *groupBox;
    QGridLayout *gridLayout_2;
    QGroupBox *groupBox_2;
    QGridLayout *gridLayout_3;
    QPushButton *pushButton_2;
    QLabel *label_10;
    QPushButton *pushButton;
    QLabel *label_11;
    QLabel *label_12;
    QLabel *label_13;
    QLabel *label_9;
    QFrame *line_9;
    QFrame *line_4;
    QFrame *line_2;
    QFrame *line_3;
    QFrame *line;
    QHBoxLayout *horizontalLayout;
    QLabel *label;
    QLineEdit *lineEditName;
    QFrame *line_5;
    QHBoxLayout *horizontalLayout_2;
    QLabel *label_2;
    QLineEdit *lineEditUsername;
    QHBoxLayout *horizontalLayout_5;
    QLabel *label_3;
    QLineEdit *lineEditPassword;
    QHBoxLayout *horizontalLayout_12;
    QLabel *label_18;
```

```
QComboBox *comboBoxType;
QSpacerItem *horizontalSpacer_3;
QHBoxLayout *horizontalLayout_11;
QHBoxLayout *horizontalLayout_6;
QLabel *label_4;
QDateEdit *dateEditBirthday;
QLabel *label_17;
QSpacerItem *horizontalSpacer;
QHBoxLayout *horizontalLayout_7;
QLabel *label_5;
QLineEdit *lineEditSpecialization;
QHBoxLayout *horizontalLayout_8;
QLabel *label_6;
QLineEdit *lineEditHealthUnit;
QHBoxLayout *horizontalLayout_9;
QLabel *label_7;
QLineEdit *lineEditEmail;
QFrame *line_6;
QFrame *line_7;
QFrame *line_8;
QHBoxLayout *horizontalLayout_10;
QLabel *label_8;
QLineEdit *lineEditContactNum;
QSpacerItem *verticalSpacer_2;
QSpacerItem *verticalSpacer;
QFrame *line_10;

void setupUi(QMainWindow *AdminAddAccount)
{
    if (AdminAddAccount->objectName().isEmpty())
        AdminAddAccount->setObjectName(
            QStringLiteral("AdminAddAccount"));
    AdminAddAccount->resize(800, 516);
    QFont font;
    font.setPointSize(30);
    AdminAddAccount->setFont(font);
    centralwidget = new QWidget(AdminAddAccount);
    centralwidget->setObjectName(QStringLiteral("
        centralwidget"));
    gridLayout = new QGridLayout(centralwidget);
    gridLayout->setObjectName(QStringLiteral("
        gridLayout"));
    groupBox = new QGroupBox(centralwidget);
    groupBox->setObjectName(QStringLiteral("
        groupBox"));
    QFont font1;
    font1.setFamily(QStringLiteral("Calibri"));
    font1.setPointSize(15);
    font1.setBold(true);
    font1.setWeight(75);
    groupBox->setFont(font1);
    gridLayout_2 = new QGridLayout(groupBox);
    gridLayout_2->setObjectName(QStringLiteral("
        gridLayout_2"));
    groupBox_2 = new QGroupBox(groupBox);
    groupBox_2->setObjectName(QStringLiteral("
        groupBox_2"));
    QFont font2;
    font2.setFamily(QStringLiteral("Segoe UI"));
    font2.setPointSize(10);
    font2.setBold(false);
    font2.setWeight(50);
    groupBox_2->setFont(font2);
    gridLayout_3 = new QGridLayout(groupBox_2);
    gridLayout_3->setObjectName(QStringLiteral("
        gridLayout_3"));
    pushButton_2 = new QPushButton(groupBox_2);
    pushButton_2->setObjectName(QStringLiteral("
        pushButton_2"));
    QFont font3;
    font3.setFamily(QStringLiteral("Segoe UI"));
    font3.setPointSize(11);
    font3.setBold(true);
    font3.setWeight(75);
    pushButton_2->setFont(font3);

    gridLayout_3->addWidget(pushButton_2, 0, 3, 1, 1);

    label_10 = new QLabel(groupBox_2);
    label_10->setObjectName(QStringLiteral("label_10")
        );

    gridLayout_3->addWidget(label_10, 0, 1, 1, 1);

    pushButton = new QPushButton(groupBox_2);
    pushButton->setObjectName(QStringLiteral("
        pushButton"));
    pushButton->setFont(font3);

    gridLayout_3->addWidget(pushButton, 0, 2, 1, 1);

    label_11 = new QLabel(groupBox_2);
    label_11->setObjectName(QStringLiteral("label_11")
        );

    gridLayout_3->addWidget(label_11, 0, 4, 1, 1);

    label_12 = new QLabel(groupBox_2);
    label_12->setObjectName(QStringLiteral("label_12")
        );

    gridLayout_3->addWidget(label_12, 0, 0, 1, 1);

    label_13 = new QLabel(groupBox_2);
    label_13->setObjectName(QStringLiteral("label_13")
        );

    gridLayout_3->addWidget(label_13, 0, 5, 1, 1);


    gridLayout_2->addWidget(groupBox_2, 23, 0, 1, 1);

    label_9 = new QLabel(groupBox);
    label_9->setObjectName(QStringLiteral("label_9"));
    label_9->setFont(font2);

    gridLayout_2->addWidget(label_9, 21, 0, 1, 1);

    line_9 = new QFrame(groupBox);
    line_9->setObjectName(QStringLiteral("line_9"));
    line_9->setFont(font2);
    line_9->setFrameShape(QFrame::HLine);
    line_9->setFrameShadow(QFrame::Sunken);

    gridLayout_2->addWidget(line_9, 1, 0, 1, 1);

    line_4 = new QFrame(groupBox);
    line_4->setObjectName(QStringLiteral("line_4"));
    line_4->setFont(font2);
    line_4->setFrameShape(QFrame::HLine);
    line_4->setFrameShadow(QFrame::Sunken);

    gridLayout_2->addWidget(line_4, 10, 0, 1, 1);

    line_2 = new QFrame(groupBox);
    line_2->setObjectName(QStringLiteral("line_2"));
    line_2->setFont(font2);
    line_2->setFrameShape(QFrame::HLine);
    line_2->setFrameShadow(QFrame::Sunken);

    gridLayout_2->addWidget(line_2, 6, 0, 1, 1);

    line_3 = new QFrame(groupBox);
    line_3->setObjectName(QStringLiteral("line_3"));
    line_3->setFont(font2);
    line_3->setFrameShape(QFrame::HLine);
    line_3->setFrameShadow(QFrame::Sunken);

    gridLayout_2->addWidget(line_3, 8, 0, 1, 1);

    line = new QFrame(groupBox);
    line->setObjectName(QStringLiteral("line"));
    line->setFont(font2);
    line->setFrameShape(QFrame::HLine);
    line->setFrameShadow(QFrame::Sunken);

    gridLayout_2->addWidget(line, 4, 0, 1, 1);

    horizontalLayout = new QHBoxLayout();
    horizontalLayout->setObjectName(QStringLiteral("
        horizontalLayout"));
    label = new QLabel(groupBox);
    label->setObjectName(QStringLiteral("label"));
    QFont font4;
    font4.setFamily(QStringLiteral("Segoe UI Semibold")
        );
    font4.setPointSize(10);
    font4.setBold(false);
    font4.setWeight(50);
    label->setFont(font4);

    horizontalLayout->addWidget(label);

    lineEditName = new QLineEdit(groupBox);
    lineEditName->setObjectName(QStringLiteral("
        lineEditName"));
    lineEditName->setFont(font2);

    horizontalLayout->addWidget(lineEditName);


    gridLayout_2->addLayout(horizontalLayout, 3, 0, 1,
        1);

    line_5 = new QFrame(groupBox);
    line_5->setObjectName(QStringLiteral("line_5"));
    line_5->setFont(font2);
    line_5->setFrameShape(QFrame::HLine);
    line_5->setFrameShadow(QFrame::Sunken);

    gridLayout_2->addWidget(line_5, 12, 0, 1, 1);

    horizontalLayout_2 = new QHBoxLayout();
    horizontalLayout_2->setObjectName(QStringLiteral
        ("horizontalLayout_2"));
    label_2 = new QLabel(groupBox);
    label_2->setObjectName(QStringLiteral("label_2"));
    label_2->setFont(font4);
```

```
horizontalLayout_2->addWidget(label_2);

lineEditUsername = new QLineEdit(groupBox);
lineEditUsername->setObjectName(QStringLiteral("
    lineEditUsername"));
lineEditUsername->setFont(font2);

horizontalLayout_2->addWidget(lineEditUsername);


gridLayout_2->addLayout(horizontalLayout_2, 7, 0,
    1, 1);

horizontalLayout_5 = new QHBoxLayout();
horizontalLayout_5->setObjectName(QStringLiteral
    ("horizontalLayout_5"));
label_3 = new QLabel(groupBox);
label_3->setObjectName(QStringLiteral("label_3"));
label_3->setFont(font4);

horizontalLayout_5->addWidget(label_3);

lineEditPassword = new QLineEdit(groupBox);
lineEditPassword->setObjectName(QStringLiteral("
    lineEditPassword"));
lineEditPassword->setFont(font2);

horizontalLayout_5->addWidget(lineEditPassword);


gridLayout_2->addLayout(horizontalLayout_5, 9, 0,
    1, 1);

horizontalLayout_12 = new QHBoxLayout();
horizontalLayout_12->setObjectName(QStringLiteral
    ("horizontalLayout_12"));
label_18 = new QLabel(groupBox);
label_18->setObjectName(QStringLiteral("label_18")
    );
label_18->setFont(font4);

horizontalLayout_12->addWidget(label_18);

comboBoxType = new QComboBox(groupBox);
comboBoxType->addItem(QString());
comboBoxType->addItem(QString());
comboBoxType->setObjectName(QStringLiteral("
    comboBoxType"));
comboBoxType->setFont(font2);

horizontalLayout_12->addWidget(comboBoxType);

horizontalSpacer_3 = new QSpacerItem(40, 20,
    QSizePolicy::Expanding, QSizePolicy::Minimum
    );

horizontalLayout_12->addItem(horizontalSpacer_3);


gridLayout_2->addLayout(horizontalLayout_12, 5, 0,
    1, 1);

horizontalLayout_11 = new QHBoxLayout();
horizontalLayout_11->setObjectName(QStringLiteral
    ("horizontalLayout_11"));
horizontalLayout_6 = new QHBoxLayout();
horizontalLayout_6->setObjectName(QStringLiteral
    ("horizontalLayout_6"));
label_4 = new QLabel(groupBox);
label_4->setObjectName(QStringLiteral("label_4"));
label_4->setFont(font4);

horizontalLayout_6->addWidget(label_4);

dateEditBirthday = new QDateEdit(groupBox);
dateEditBirthday->setObjectName(QStringLiteral("
    dateEditBirthday"));
dateEditBirthday->setFont(font2);

horizontalLayout_6->addWidget(dateEditBirthday);


horizontalLayout_11->addLayout(horizontalLayout_6)
    ;

label_17 = new QLabel(groupBox);
label_17->setObjectName(QStringLiteral("label_17")
    );
label_17->setFont(font2);

horizontalLayout_11->addWidget(label_17);

horizontalSpacer = new QSpacerItem(40, 20,
    QSizePolicy::Expanding, QSizePolicy::Minimum
    );

horizontalLayout_11->addItem(horizontalSpacer);

gridLayout_2->addLayout(horizontalLayout_11, 11, 0,
    1, 1);

horizontalLayout_7 = new QHBoxLayout();
horizontalLayout_7->setObjectName(QStringLiteral
    ("horizontalLayout_7"));
label_5 = new QLabel(groupBox);
label_5->setObjectName(QStringLiteral("label_5"));
label_5->setFont(font4);

horizontalLayout_7->addWidget(label_5);

lineEditSpecialization = new QLineEdit(groupBox);
lineEditSpecialization->setObjectName(
    QStringLiteral("lineEditSpecialization"));
lineEditSpecialization->setFont(font2);

horizontalLayout_7->addWidget(
    lineEditSpecialization);


gridLayout_2->addLayout(horizontalLayout_7, 13, 0,
    1, 1);

horizontalLayout_8 = new QHBoxLayout();
horizontalLayout_8->setObjectName(QStringLiteral
    ("horizontalLayout_8"));
label_6 = new QLabel(groupBox);
label_6->setObjectName(QStringLiteral("label_6"));
label_6->setFont(font4);

horizontalLayout_8->addWidget(label_6);

lineEditHealthUnit = new QLineEdit(groupBox);
lineEditHealthUnit->setObjectName(QStringLiteral
    ("lineEditHealthUnit"));
lineEditHealthUnit->setFont(font2);

horizontalLayout_8->addWidget(lineEditHealthUnit);


gridLayout_2->addLayout(horizontalLayout_8, 15, 0,
    1, 1);

horizontalLayout_9 = new QHBoxLayout();
horizontalLayout_9->setObjectName(QStringLiteral
    ("horizontalLayout_9"));
label_7 = new QLabel(groupBox);
label_7->setObjectName(QStringLiteral("label_7"));
label_7->setFont(font4);

horizontalLayout_9->addWidget(label_7);

lineEditEmail = new QLineEdit(groupBox);
lineEditEmail->setObjectName(QStringLiteral("
    lineEditEmail"));
lineEditEmail->setFont(font2);

horizontalLayout_9->addWidget(lineEditEmail);


gridLayout_2->addLayout(horizontalLayout_9, 17, 0,
    1, 1);

line_6 = new QFrame(groupBox);
line_6->setObjectName(QStringLiteral("line_6"));
line_6->setFont(font2);
line_6->setFrameShape(QFrame::HLine);
line_6->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_6, 14, 0, 1, 1);

line_7 = new QFrame(groupBox);
line_7->setObjectName(QStringLiteral("line_7"));
line_7->setFont(font2);
line_7->setFrameShape(QFrame::HLine);
line_7->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_7, 16, 0, 1, 1);

line_8 = new QFrame(groupBox);
line_8->setObjectName(QStringLiteral("line_8"));
line_8->setFont(font2);
line_8->setFrameShape(QFrame::HLine);
line_8->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_8, 18, 0, 1, 1);

horizontalLayout_10 = new QHBoxLayout();
horizontalLayout_10->setObjectName(QStringLiteral
    ("horizontalLayout_10"));
label_8 = new QLabel(groupBox);
label_8->setObjectName(QStringLiteral("label_8"));
label_8->setFont(font4);

horizontalLayout_10->addWidget(label_8);

lineEditContactNum = new QLineEdit(groupBox);
```

```
    lineEditContactNum->setObjectName(QStringLiteral
        ("lineEditContactNum"));
    lineEditContactNum->setFont(font2);

    horizontalLayout_10->addWidget(
        lineEditContactNum);


    gridLayout_2->addLayout(horizontalLayout_10, 19, 0,
         1, 1);

    verticalSpacer_2 = new QSpacerItem(20, 40,
        QSizePolicy::Minimum, QSizePolicy::Expanding
        );

    gridLayout_2->addItem(verticalSpacer_2, 22, 0, 1, 1);

    verticalSpacer = new QSpacerItem(20, 40,
        QSizePolicy::Minimum, QSizePolicy::Expanding
        );

    gridLayout_2->addItem(verticalSpacer, 0, 0, 1, 1);

    line_10 = new QFrame(groupBox);
    line_10->setObjectName(QStringLiteral("line_10"));
    line_10->setFont(font2);
    line_10->setFrameShape(QFrame::HLine);
    line_10->setFrameShadow(QFrame::Sunken);

    gridLayout_2->addWidget(line_10, 20, 0, 1, 1);


    gridLayout->addWidget(groupBox, 0, 1, 1, 1);

    AdminAddAccount->setCentralWidget(centralwidget
        );
    QWidget::setTabOrder(lineEditName, comboBoxType
        );
    QWidget::setTabOrder(comboBoxType,
        lineEditUsername);
    QWidget::setTabOrder(lineEditUsername,
        lineEditPassword);
    QWidget::setTabOrder(lineEditPassword,
        dateEditBirthday);
    QWidget::setTabOrder(dateEditBirthday,
        lineEditSpecialization);
    QWidget::setTabOrder(lineEditSpecialization,
        lineEditHealthUnit);
    QWidget::setTabOrder(lineEditHealthUnit,
        lineEditEmail);
    QWidget::setTabOrder(lineEditEmail,
        lineEditContactNum);
    QWidget::setTabOrder(lineEditContactNum,
        pushButton);
    QWidget::setTabOrder(pushButton, pushButton_2);

    retranslateUi(AdminAddAccount);

    QMetaObject::connectSlotsByName(
        AdminAddAccount);
} // setupUi

void retranslateUi(QMainWindow *AdminAddAccount)
{
    AdminAddAccount->setWindowTitle(QApplication::
        translate("AdminAddAccount", "IoT-based
        Recommender System for Diabetic Patients",
        nullptr));
    groupBox->setTitle(QApplication::translate("
        AdminAddAccount", "Add User Account",
        nullptr));
    groupBox_2->setTitle(QString());
    pushButton_2->setText(QApplication::translate("
        AdminAddAccount", "Add Account", nullptr));
    label_10->setText(QString());
    pushButton->setText(QApplication::translate("
        AdminAddAccount", "Back", nullptr));
    label_11->setText(QString());
    label_12->setText(QString());
    label_13->setText(QString());
    label_9->setText(QString());
    label->setText(QApplication::translate("
        AdminAddAccount", "Name:", nullptr));
    label_2->setText(QApplication::translate("
        AdminAddAccount", "Username:", nullptr));
    label_3->setText(QApplication::translate("
        AdminAddAccount", "Password:", nullptr));
    label_18->setText(QApplication::translate("
        AdminAddAccount", "Medical User Type:",
        nullptr));
    comboBoxType->setItemText(0, QApplication::
        translate("AdminAddAccount", "Nurse",
        nullptr));
    comboBoxType->setItemText(1, QApplication::
        translate("AdminAddAccount", "Doctor",
        nullptr));

    label_4->setText(QApplication::translate("
        AdminAddAccount", "Birthday:", nullptr));
    label_17->setText(QString());
    label_5->setText(QApplication::translate("
        AdminAddAccount", "Specialization:", nullptr))
        ;
    label_6->setText(QApplication::translate("
        AdminAddAccount", "Health unit:", nullptr));
    label_7->setText(QApplication::translate("
        AdminAddAccount", "Email:", nullptr));
    label_8->setText(QApplication::translate("
        AdminAddAccount", "Contact Number:",
        nullptr));
} // retranslateUi

};

namespace Ui {
    class AdminAddAccount: public Ui_AdminAddAccount
        {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_ADMINADDACCOUNT_H

/********************************************************************

** Form generated from reading UI file 'adminedituser.ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
    recompiling UI file!
********************************************************************


#ifndef UI_ADMINEDITUSER_H
#define UI_ADMINEDITUSER_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QDateEdit>
#include <QtWidgets/QFrame>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QLineEdit>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QSpacerItem>
#include <QtWidgets/QVBoxLayout>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_AdminEditUser
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout;
    QGroupBox *groupBox;
    QGridLayout *gridLayout_2;
    QFrame *line_9;
    QFrame *line_10;
    QLabel *label_10;
    QSpacerItem *verticalSpacer;
    QVBoxLayout *verticalLayout;
    QHBoxLayout *horizontalLayout;
    QLabel *label;
    QLineEdit *lineEditName;
    QLabel *label_11;
    QFrame *line_2;
    QHBoxLayout *horizontalLayout_3;
    QLabel *label_9;
    QLineEdit *lineEditMedType;
    QLabel *label_19;
    QFrame *line;
    QHBoxLayout *horizontalLayout_2;
    QLabel *label_2;
    QLineEdit *lineEditUsername;
    QLabel *label_12;
    QFrame *line_3;
    QHBoxLayout *horizontalLayout_5;
    QLabel *label_3;
    QLineEdit *lineEditPassword;
    QLabel *label_13;
    QFrame *line_4;
    QHBoxLayout *horizontalLayout_11;
    QHBoxLayout *horizontalLayout_6;
    QLabel *label_4;
    QDateEdit *dateEditBirthday;
    QLabel *label_17;
    QSpacerItem *horizontalSpacer;
    QFrame *line_5;
    QHBoxLayout *horizontalLayout_7;
    QLabel *label_5;
```

```
QLineEdit *lineEditSpecialization;
QLabel *label_14;
QFrame *line_6;
QHBoxLayout *horizontalLayout_8;
QLabel *label_6;
QLineEdit *lineEditHealthUnit;
QLabel *label_15;
QFrame *line_7;
QHBoxLayout *horizontalLayout_9;
QLabel *label_7;
QLineEdit *lineEditEmail;
QLabel *label_16;
QFrame *line_8;
QHBoxLayout *horizontalLayout_10;
QLabel *label_8;
QLineEdit *lineEditContactNum;
QLabel *label_18;
QSpacerItem *verticalSpacer_2;
QGroupBox *groupBox_2;
QGridLayout *gridLayout_3;
QLabel *label_22;
QPushButton *saveUserProfile;
QPushButton *backToUserProfile;
QLabel *label_20;
QLabel *label_21;
QLabel *label_23;

void setupUi(QMainWindow *AdminEditUser)
{
    if (AdminEditUser->objectName().isEmpty())
        AdminEditUser->setObjectName(QStringLiteral
            ("AdminEditUser"));
    AdminEditUser->resize(800, 515);
    centralwidget = new QWidget(AdminEditUser);
    centralwidget->setObjectName(QStringLiteral("
        centralwidget"));
    gridLayout = new QGridLayout(centralwidget);
    gridLayout->setObjectName(QStringLiteral("
        gridLayout"));
    groupBox = new QGroupBox(centralwidget);
    groupBox->setObjectName(QStringLiteral("
        groupBox"));
    QFont font;
    font.setFamily(QStringLiteral("Calibri"));
    font.setPointSize(15);
    font.setBold(true);
    font.setWeight(75);
    groupBox->setFont(font);
    gridLayout_2 = new QGridLayout(groupBox);
    gridLayout_2->setObjectName(QStringLiteral("
        gridLayout_2"));
    line_9 = new QFrame(groupBox);
    line_9->setObjectName(QStringLiteral("line_9"));
    QFont font1;
    font1.setFamily(QStringLiteral("Segoe UI"));
    font1.setPointSize(10);
    font1.setBold(false);
    font1.setWeight(50);
    line_9->setFont(font1);
    line_9->setFrameShape(QFrame::HLine);
    line_9->setFrameShadow(QFrame::Sunken);

    gridLayout_2->addWidget(line_9, 1, 0, 1, 1);

    line_10 = new QFrame(groupBox);
    line_10->setObjectName(QStringLiteral("line_10"));
    line_10->setFont(font1);
    line_10->setFrameShape(QFrame::HLine);
    line_10->setFrameShadow(QFrame::Sunken);

    gridLayout_2->addWidget(line_10, 3, 0, 1, 1);

    label_10 = new QLabel(groupBox);
    label_10->setObjectName(QStringLiteral("label_10")
        );
    label_10->setFont(font1);

    gridLayout_2->addWidget(label_10, 4, 0, 1, 1);

    verticalSpacer = new QSpacerItem(20, 40,
        QSizePolicy::Minimum, QSizePolicy::Expanding
        );

    gridLayout_2->addItem(verticalSpacer, 5, 0, 1, 1);

    verticalLayout = new QVBoxLayout();
    verticalLayout->setObjectName(QStringLiteral("
        verticalLayout"));
    horizontalLayout = new QHBoxLayout();
    horizontalLayout->setObjectName(QStringLiteral("
        horizontalLayout"));
    label = new QLabel(groupBox);
    label->setObjectName(QStringLiteral("label"));
    QFont font2;
    font2.setFamily(QStringLiteral("Segoe UI Semibold")
        );
    font2.setPointSize(10);
    font2.setBold(false);
    font2.setWeight(50);
    label->setFont(font2);

    horizontalLayout->addWidget(label);

    lineEditName = new QLineEdit(groupBox);
    lineEditName->setObjectName(QStringLiteral("
        lineEditName"));
    lineEditName->setFont(font1);

    horizontalLayout->addWidget(lineEditName);

    label_11 = new QLabel(groupBox);
    label_11->setObjectName(QStringLiteral("label_11")
        );
    label_11->setFont(font1);

    horizontalLayout->addWidget(label_11);


    verticalLayout->addLayout(horizontalLayout);

    line_2 = new QFrame(groupBox);
    line_2->setObjectName(QStringLiteral("line_2"));
    line_2->setFont(font1);
    line_2->setFrameShape(QFrame::HLine);
    line_2->setFrameShadow(QFrame::Sunken);

    verticalLayout->addWidget(line_2);

    horizontalLayout_3 = new QHBoxLayout();
    horizontalLayout_3->setObjectName(QStringLiteral
        ("horizontalLayout_3"));
    label_9 = new QLabel(groupBox);
    label_9->setObjectName(QStringLiteral("label_9"));
    label_9->setFont(font2);

    horizontalLayout_3->addWidget(label_9);

    lineEditMedType = new QLineEdit(groupBox);
    lineEditMedType->setObjectName(QStringLiteral("
        lineEditMedType"));
    lineEditMedType->setFont(font1);

    horizontalLayout_3->addWidget(lineEditMedType);

    label_19 = new QLabel(groupBox);
    label_19->setObjectName(QStringLiteral("label_19")
        );
    label_19->setFont(font1);

    horizontalLayout_3->addWidget(label_19);


    verticalLayout->addLayout(horizontalLayout_3);

    line = new QFrame(groupBox);
    line->setObjectName(QStringLiteral("line"));
    line->setFont(font1);
    line->setFrameShape(QFrame::HLine);
    line->setFrameShadow(QFrame::Sunken);

    verticalLayout->addWidget(line);

    horizontalLayout_2 = new QHBoxLayout();
    horizontalLayout_2->setObjectName(QStringLiteral
        ("horizontalLayout_2"));
    label_2 = new QLabel(groupBox);
    label_2->setObjectName(QStringLiteral("label_2"));
    label_2->setFont(font2);

    horizontalLayout_2->addWidget(label_2);

    lineEditUsername = new QLineEdit(groupBox);
    lineEditUsername->setObjectName(QStringLiteral("
        lineEditUsername"));
    lineEditUsername->setFont(font1);

    horizontalLayout_2->addWidget(lineEditUsername);

    label_12 = new QLabel(groupBox);
    label_12->setObjectName(QStringLiteral("label_12")
        );
    label_12->setFont(font1);

    horizontalLayout_2->addWidget(label_12);


    verticalLayout->addLayout(horizontalLayout_2);

    line_3 = new QFrame(groupBox);
    line_3->setObjectName(QStringLiteral("line_3"));
    line_3->setFont(font1);
    line_3->setFrameShape(QFrame::HLine);
    line_3->setFrameShadow(QFrame::Sunken);

    verticalLayout->addWidget(line_3);

    horizontalLayout_5 = new QHBoxLayout();
    horizontalLayout_5->setObjectName(QStringLiteral
```

```
        ("horizontalLayout_5"));
label_3 = new QLabel(groupBox);
label_3->setObjectName(QStringLiteral("label_3"));
label_3->setFont(font2);

horizontalLayout_5->addWidget(label_3);

lineEditPassword = new QLineEdit(groupBox);
lineEditPassword->setObjectName(QStringLiteral("
        lineEditPassword"));
lineEditPassword->setFont(font1);

horizontalLayout_5->addWidget(lineEditPassword);

label_13 = new QLabel(groupBox);
label_13->setObjectName(QStringLiteral("label_13")
        );
label_13->setFont(font1);

horizontalLayout_5->addWidget(label_13);


verticalLayout->addLayout(horizontalLayout_5);

line_4 = new QFrame(groupBox);
line_4->setObjectName(QStringLiteral("line_4"));
line_4->setFont(font1);
line_4->setFrameShape(QFrame::HLine);
line_4->setFrameShadow(QFrame::Sunken);

verticalLayout->addWidget(line_4);

horizontalLayout_11 = new QHBoxLayout();
horizontalLayout_11->setObjectName(QStringLiteral
        ("horizontalLayout_11"));
horizontalLayout_6 = new QHBoxLayout();
horizontalLayout_6->setObjectName(QStringLiteral
        ("horizontalLayout_6"));
label_4 = new QLabel(groupBox);
label_4->setObjectName(QStringLiteral("label_4"));
label_4->setFont(font2);

horizontalLayout_6->addWidget(label_4);

dateEditBirthday = new QDateEdit(groupBox);
dateEditBirthday->setObjectName(QStringLiteral("
        dateEditBirthday"));
dateEditBirthday->setFont(font1);

horizontalLayout_6->addWidget(dateEditBirthday);


horizontalLayout_11->addLayout(horizontalLayout_6)
        ;

label_17 = new QLabel(groupBox);
label_17->setObjectName(QStringLiteral("label_17")
        );
label_17->setFont(font1);

horizontalLayout_11->addWidget(label_17);

horizontalSpacer = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

horizontalLayout_11->addItem(horizontalSpacer);


verticalLayout->addLayout(horizontalLayout_11);

line_5 = new QFrame(groupBox);
line_5->setObjectName(QStringLiteral("line_5"));
line_5->setFont(font1);
line_5->setFrameShape(QFrame::HLine);
line_5->setFrameShadow(QFrame::Sunken);

verticalLayout->addWidget(line_5);

horizontalLayout_7 = new QHBoxLayout();
horizontalLayout_7->setObjectName(QStringLiteral
        ("horizontalLayout_7"));
label_5 = new QLabel(groupBox);
label_5->setObjectName(QStringLiteral("label_5"));
label_5->setFont(font2);

horizontalLayout_7->addWidget(label_5);

lineEditSpecialization = new QLineEdit(groupBox);
lineEditSpecialization->setObjectName(
        QStringLiteral("lineEditSpecialization"));
lineEditSpecialization->setFont(font1);

horizontalLayout_7->addWidget(
        lineEditSpecialization);

label_14 = new QLabel(groupBox);
label_14->setObjectName(QStringLiteral("label_14")
        );
label_14->setFont(font1);

horizontalLayout_7->addWidget(label_14);


verticalLayout->addLayout(horizontalLayout_7);

line_6 = new QFrame(groupBox);
line_6->setObjectName(QStringLiteral("line_6"));
line_6->setFont(font1);
line_6->setFrameShape(QFrame::HLine);
line_6->setFrameShadow(QFrame::Sunken);

verticalLayout->addWidget(line_6);

horizontalLayout_8 = new QHBoxLayout();
horizontalLayout_8->setObjectName(QStringLiteral
        ("horizontalLayout_8"));
label_6 = new QLabel(groupBox);
label_6->setObjectName(QStringLiteral("label_6"));
label_6->setFont(font2);

horizontalLayout_8->addWidget(label_6);

lineEditHealthUnit = new QLineEdit(groupBox);
lineEditHealthUnit->setObjectName(QStringLiteral
        ("lineEditHealthUnit"));
lineEditHealthUnit->setFont(font1);

horizontalLayout_8->addWidget(lineEditHealthUnit);

label_15 = new QLabel(groupBox);
label_15->setObjectName(QStringLiteral("label_15")
        );
label_15->setFont(font1);

horizontalLayout_8->addWidget(label_15);


verticalLayout->addLayout(horizontalLayout_8);

line_7 = new QFrame(groupBox);
line_7->setObjectName(QStringLiteral("line_7"));
line_7->setFont(font1);
line_7->setFrameShape(QFrame::HLine);
line_7->setFrameShadow(QFrame::Sunken);

verticalLayout->addWidget(line_7);

horizontalLayout_9 = new QHBoxLayout();
horizontalLayout_9->setObjectName(QStringLiteral
        ("horizontalLayout_9"));
label_7 = new QLabel(groupBox);
label_7->setObjectName(QStringLiteral("label_7"));
label_7->setFont(font2);

horizontalLayout_9->addWidget(label_7);

lineEditEmail = new QLineEdit(groupBox);
lineEditEmail->setObjectName(QStringLiteral("
        lineEditEmail"));
lineEditEmail->setFont(font1);

horizontalLayout_9->addWidget(lineEditEmail);

label_16 = new QLabel(groupBox);
label_16->setObjectName(QStringLiteral("label_16")
        );
label_16->setFont(font1);

horizontalLayout_9->addWidget(label_16);


verticalLayout->addLayout(horizontalLayout_9);

line_8 = new QFrame(groupBox);
line_8->setObjectName(QStringLiteral("line_8"));
line_8->setFont(font1);
line_8->setFrameShape(QFrame::HLine);
line_8->setFrameShadow(QFrame::Sunken);

verticalLayout->addWidget(line_8);

horizontalLayout_10 = new QHBoxLayout();
horizontalLayout_10->setObjectName(QStringLiteral
        ("horizontalLayout_10"));
label_8 = new QLabel(groupBox);
label_8->setObjectName(QStringLiteral("label_8"));
label_8->setFont(font2);

horizontalLayout_10->addWidget(label_8);

lineEditContactNum = new QLineEdit(groupBox);
lineEditContactNum->setObjectName(QStringLiteral
        ("lineEditContactNum"));
lineEditContactNum->setFont(font1);

horizontalLayout_10->addWidget(
        lineEditContactNum);
```

```
    label_18 = new QLabel(groupBox);
    label_18->setObjectName(QStringLiteral("label_18")
        );
    label_18->setFont(font1);

    horizontalLayout_10->addWidget(label_18);


    verticalLayout->addLayout(horizontalLayout_10);


    gridLayout_2->addLayout(verticalLayout, 2, 0, 1, 1);

    verticalSpacer_2 = new QSpacerItem(20, 40,
        QSizePolicy::Minimum, QSizePolicy::Expanding
        );

    gridLayout_2->addItem(verticalSpacer_2, 0, 0, 1, 1);


    gridLayout->addWidget(groupBox, 0, 0, 1, 1);

    groupBox_2 = new QGroupBox(centralwidget);
    groupBox_2->setObjectName(QStringLiteral("
        groupBox_2"));
    groupBox_2->setFont(font1);
    gridLayout_3 = new QGridLayout(groupBox_2);
    gridLayout_3->setObjectName(QStringLiteral("
        gridLayout_3"));
    label_22 = new QLabel(groupBox_2);
    label_22->setObjectName(QStringLiteral("label_22")
        );

    gridLayout_3->addWidget(label_22, 0, 0, 1, 1);

    saveUserProfile = new QPushButton(groupBox_2);
    saveUserProfile->setObjectName(QStringLiteral("
        saveUserProfile"));
    QFont font3;
    font3.setFamily(QStringLiteral("Segoe UI"));
    font3.setPointSize(10);
    font3.setBold(true);
    font3.setWeight(75);
    saveUserProfile->setFont(font3);

    gridLayout_3->addWidget(saveUserProfile, 0, 3, 1, 1)
        ;

    backToUserProfile = new QPushButton(groupBox_2);
    backToUserProfile->setObjectName(QStringLiteral("
        backToUserProfile"));
    backToUserProfile->setFont(font3);

    gridLayout_3->addWidget(backToUserProfile, 0, 2, 1,
         1);

    label_20 = new QLabel(groupBox_2);
    label_20->setObjectName(QStringLiteral("label_20")
        );

    gridLayout_3->addWidget(label_20, 0, 1, 1, 1);

    label_21 = new QLabel(groupBox_2);
    label_21->setObjectName(QStringLiteral("label_21")
        );

    gridLayout_3->addWidget(label_21, 0, 4, 1, 1);

    label_23 = new QLabel(groupBox_2);
    label_23->setObjectName(QStringLiteral("label_23")
        );

    gridLayout_3->addWidget(label_23, 0, 5, 1, 1);


    gridLayout->addWidget(groupBox_2, 1, 0, 1, 1);

    AdminEditUser->setCentralWidget(centralwidget);

    retranslateUi(AdminEditUser);

    QMetaObject::connectSlotsByName(AdminEditUser);
} // setupUi

void retranslateUi(QMainWindow *AdminEditUser)
{
    AdminEditUser->setWindowTitle(QApplication::
        translate("AdminEditUser", "IoT-based
        Recommender System for Diabetic Patients",
        nullptr));
    groupBox->setTitle(QApplication::translate("
        AdminEditUser", "Edit User Account", nullptr)
        );
    label_10->setText(QString());
    label->setText(QApplication::translate("
        AdminEditUser", "Name:", nullptr));
    label_11->setText(QString());
    label_9->setText(QApplication::translate("
        AdminEditUser", "Medical User Type:", nullptr
        ));
    label_19->setText(QString());
    label_2->setText(QApplication::translate("
        AdminEditUser", "Username:", nullptr));
    label_12->setText(QString());
    label_3->setText(QApplication::translate("
        AdminEditUser", "Password:", nullptr));
    label_13->setText(QString());
    label_4->setText(QApplication::translate("
        AdminEditUser", "Birthday:", nullptr));
    label_17->setText(QString());
    label_5->setText(QApplication::translate("
        AdminEditUser", "Specialization:", nullptr));
    label_14->setText(QString());
    label_6->setText(QApplication::translate("
        AdminEditUser", "Health unit:", nullptr));
    label_15->setText(QString());
    label_7->setText(QApplication::translate("
        AdminEditUser", "Email:", nullptr));
    label_16->setText(QString());
    label_8->setText(QApplication::translate("
        AdminEditUser", "Contact Number:", nullptr));
    label_18->setText(QString());
    groupBox_2->setTitle(QString());
    label_22->setText(QString());
    saveUserProfile->setText(QApplication::translate("
        AdminEditUser", "Save", nullptr));
    backToUserProfile->setText(QApplication::translate
        ("AdminEditUser", "Back", nullptr));
    label_20->setText(QString());
    label_21->setText(QString());
    label_23->setText(QString());
} // retranslateUi

};

namespace Ui {
    class AdminEditUser: public Ui_AdminEditUser {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_ADMINEDITUSER_H

/********************************************************************************

** Form generated from reading UI file 'adminedituser.ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
       recompiling UI file!
********************************************************************************


#ifndef UI_ADMINEDITUSER_H
#define UI_ADMINEDITUSER_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QDateEdit>
#include <QtWidgets/QFrame>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QLineEdit>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QSpacerItem>
#include <QtWidgets/QVBoxLayout>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_AdminEditUser
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout;
    QGroupBox *groupBox;
    QGridLayout *gridLayout_2;
    QFrame *line_9;
    QFrame *line_10;
    QLabel *label_10;
    QSpacerItem *verticalSpacer;
    QVBoxLayout *verticalLayout;
    QHBoxLayout *horizontalLayout;
    QLabel *label;
    QLineEdit *lineEditName;
    QLabel *label_11;
    QFrame *line_2;
    QHBoxLayout *horizontalLayout_3;
    QLabel *label_9;
    QLineEdit *lineEditMedType;
```

```
QLabel *label_19;
QFrame *line;
QHBoxLayout *horizontalLayout_2;
QLabel *label_2;
QLineEdit *lineEditUsername;
QLabel *label_12;
QFrame *line_3;
QHBoxLayout *horizontalLayout_5;
QLabel *label_3;
QLineEdit *lineEditPassword;
QLabel *label_13;
QFrame *line_4;
QHBoxLayout *horizontalLayout_11;
QHBoxLayout *horizontalLayout_6;
QLabel *label_4;
QDateEdit *dateEditBirthday;
QLabel *label_17;
QSpacerItem *horizontalSpacer;
QFrame *line_5;
QHBoxLayout *horizontalLayout_7;
QLabel *label_5;
QLineEdit *lineEditSpecialization;
QLabel *label_14;
QFrame *line_6;
QHBoxLayout *horizontalLayout_8;
QLabel *label_6;
QLineEdit *lineEditHealthUnit;
QLabel *label_15;
QFrame *line_7;
QHBoxLayout *horizontalLayout_9;
QLabel *label_7;
QLineEdit *lineEditEmail;
QLabel *label_16;
QFrame *line_8;
QHBoxLayout *horizontalLayout_10;
QLabel *label_8;
QLineEdit *lineEditContactNum;
QLabel *label_18;
QSpacerItem *verticalSpacer_2;
QGroupBox *groupBox_2;
QGridLayout *gridLayout_3;
QLabel *label_22;
QPushButton *saveUserProfile;
QPushButton *backToUserProfile;
QLabel *label_20;
QLabel *label_21;
QLabel *label_23;

void setupUi(QMainWindow *AdminEditUser)
{
    if (AdminEditUser->objectName().isEmpty())
        AdminEditUser->setObjectName(QStringLiteral
            ("AdminEditUser"));
    AdminEditUser->resize(800, 515);
    centralwidget = new QWidget(AdminEditUser);
    centralwidget->setObjectName(QStringLiteral("
        centralwidget"));
    gridLayout = new QGridLayout(centralwidget);
    gridLayout->setObjectName(QStringLiteral("
        gridLayout"));
    groupBox = new QGroupBox(centralwidget);
    groupBox->setObjectName(QStringLiteral("
        groupBox"));
    QFont font;
    font.setFamily(QStringLiteral("Calibri"));
    font.setPointSize(15);
    font.setBold(true);
    font.setWeight(75);
    groupBox->setFont(font);
    gridLayout_2 = new QGridLayout(groupBox);
    gridLayout_2->setObjectName(QStringLiteral("
        gridLayout_2"));
    line_9 = new QFrame(groupBox);
    line_9->setObjectName(QStringLiteral("line_9"));
    QFont font1;
    font1.setFamily(QStringLiteral("Segoe UI"));
    font1.setPointSize(10);
    font1.setBold(false);
    font1.setWeight(50);
    line_9->setFont(font1);
    line_9->setFrameShape(QFrame::HLine);
    line_9->setFrameShadow(QFrame::Sunken);

    gridLayout_2->addWidget(line_9, 1, 0, 1, 1);

    line_10 = new QFrame(groupBox);
    line_10->setObjectName(QStringLiteral("line_10"));
    line_10->setFont(font1);
    line_10->setFrameShape(QFrame::HLine);
    line_10->setFrameShadow(QFrame::Sunken);

    gridLayout_2->addWidget(line_10, 3, 0, 1, 1);

    label_10 = new QLabel(groupBox);
    label_10->setObjectName(QStringLiteral("label_10")
        );
    label_10->setFont(font1);

    gridLayout_2->addWidget(label_10, 4, 0, 1, 1);

    verticalSpacer = new QSpacerItem(20, 40,
        QSizePolicy::Minimum, QSizePolicy::Expanding
        );

    gridLayout_2->addItem(verticalSpacer, 5, 0, 1, 1);

    verticalLayout = new QVBoxLayout();
    verticalLayout->setObjectName(QStringLiteral("
        verticalLayout"));
    horizontalLayout = new QHBoxLayout();
    horizontalLayout->setObjectName(QStringLiteral("
        horizontalLayout"));
    label = new QLabel(groupBox);
    label->setObjectName(QStringLiteral("label"));
    QFont font2;
    font2.setFamily(QStringLiteral("Segoe UI Semibold")
        );
    font2.setPointSize(10);
    font2.setBold(false);
    font2.setWeight(50);
    label->setFont(font2);

    horizontalLayout->addWidget(label);

    lineEditName = new QLineEdit(groupBox);
    lineEditName->setObjectName(QStringLiteral("
        lineEditName"));
    lineEditName->setFont(font1);

    horizontalLayout->addWidget(lineEditName);

    label_11 = new QLabel(groupBox);
    label_11->setObjectName(QStringLiteral("label_11")
        );
    label_11->setFont(font1);

    horizontalLayout->addWidget(label_11);


    verticalLayout->addLayout(horizontalLayout);

    line_2 = new QFrame(groupBox);
    line_2->setObjectName(QStringLiteral("line_2"));
    line_2->setFont(font1);
    line_2->setFrameShape(QFrame::HLine);
    line_2->setFrameShadow(QFrame::Sunken);

    verticalLayout->addWidget(line_2);

    horizontalLayout_3 = new QHBoxLayout();
    horizontalLayout_3->setObjectName(QStringLiteral
        ("horizontalLayout_3"));
    label_9 = new QLabel(groupBox);
    label_9->setObjectName(QStringLiteral("label_9"));
    label_9->setFont(font2);

    horizontalLayout_3->addWidget(label_9);

    lineEditMedType = new QLineEdit(groupBox);
    lineEditMedType->setObjectName(QStringLiteral("
        lineEditMedType"));
    lineEditMedType->setFont(font1);

    horizontalLayout_3->addWidget(lineEditMedType);

    label_19 = new QLabel(groupBox);
    label_19->setObjectName(QStringLiteral("label_19")
        );
    label_19->setFont(font1);

    horizontalLayout_3->addWidget(label_19);


    verticalLayout->addLayout(horizontalLayout_3);

    line = new QFrame(groupBox);
    line->setObjectName(QStringLiteral("line"));
    line->setFont(font1);
    line->setFrameShape(QFrame::HLine);
    line->setFrameShadow(QFrame::Sunken);

    verticalLayout->addWidget(line);

    horizontalLayout_2 = new QHBoxLayout();
    horizontalLayout_2->setObjectName(QStringLiteral
        ("horizontalLayout_2"));
    label_2 = new QLabel(groupBox);
    label_2->setObjectName(QStringLiteral("label_2"));
    label_2->setFont(font2);

    horizontalLayout_2->addWidget(label_2);

    lineEditUsername = new QLineEdit(groupBox);
    lineEditUsername->setObjectName(QStringLiteral("
        lineEditUsername"));
    lineEditUsername->setFont(font1);

    horizontalLayout_2->addWidget(lineEditUsername);
```

```
label_12 = new QLabel(groupBox);
label_12->setObjectName(QStringLiteral("label_12")
    );
label_12->setFont(font1);

horizontalLayout_2->addWidget(label_12);


verticalLayout->addLayout(horizontalLayout_2);

line_3 = new QFrame(groupBox);
line_3->setObjectName(QStringLiteral("line_3"));
line_3->setFont(font1);
line_3->setFrameShape(QFrame::HLine);
line_3->setFrameShadow(QFrame::Sunken);

verticalLayout->addWidget(line_3);

horizontalLayout_5 = new QHBoxLayout();
horizontalLayout_5->setObjectName(QStringLiteral
    ("horizontalLayout_5"));
label_3 = new QLabel(groupBox);
label_3->setObjectName(QStringLiteral("label_3"));
label_3->setFont(font2);

horizontalLayout_5->addWidget(label_3);

lineEditPassword = new QLineEdit(groupBox);
lineEditPassword->setObjectName(QStringLiteral("
    lineEditPassword"));
lineEditPassword->setFont(font1);

horizontalLayout_5->addWidget(lineEditPassword);

label_13 = new QLabel(groupBox);
label_13->setObjectName(QStringLiteral("label_13")
    );
label_13->setFont(font1);

horizontalLayout_5->addWidget(label_13);


verticalLayout->addLayout(horizontalLayout_5);

line_4 = new QFrame(groupBox);
line_4->setObjectName(QStringLiteral("line_4"));
line_4->setFont(font1);
line_4->setFrameShape(QFrame::HLine);
line_4->setFrameShadow(QFrame::Sunken);

verticalLayout->addWidget(line_4);

horizontalLayout_11 = new QHBoxLayout();
horizontalLayout_11->setObjectName(QStringLiteral
    ("horizontalLayout_11"));
horizontalLayout_6 = new QHBoxLayout();
horizontalLayout_6->setObjectName(QStringLiteral
    ("horizontalLayout_6"));
label_4 = new QLabel(groupBox);
label_4->setObjectName(QStringLiteral("label_4"));
label_4->setFont(font2);

horizontalLayout_6->addWidget(label_4);

dateEditBirthday = new QDateEdit(groupBox);
dateEditBirthday->setObjectName(QStringLiteral("
    dateEditBirthday"));
dateEditBirthday->setFont(font1);

horizontalLayout_6->addWidget(dateEditBirthday);


horizontalLayout_11->addLayout(horizontalLayout_6)
    ;

label_17 = new QLabel(groupBox);
label_17->setObjectName(QStringLiteral("label_17")
    );
label_17->setFont(font1);

horizontalLayout_11->addWidget(label_17);

horizontalSpacer = new QSpacerItem(40, 20,
    QSizePolicy::Expanding, QSizePolicy::Minimum
    );

horizontalLayout_11->addItem(horizontalSpacer);


verticalLayout->addLayout(horizontalLayout_11);

line_5 = new QFrame(groupBox);
line_5->setObjectName(QStringLiteral("line_5"));
line_5->setFont(font1);
line_5->setFrameShape(QFrame::HLine);
line_5->setFrameShadow(QFrame::Sunken);

verticalLayout->addWidget(line_5);

horizontalLayout_7 = new QHBoxLayout();
horizontalLayout_7->setObjectName(QStringLiteral
    ("horizontalLayout_7"));
label_5 = new QLabel(groupBox);
label_5->setObjectName(QStringLiteral("label_5"));
label_5->setFont(font2);

horizontalLayout_7->addWidget(label_5);

lineEditSpecialization = new QLineEdit(groupBox);
lineEditSpecialization->setObjectName(
    QStringLiteral("lineEditSpecialization"));
lineEditSpecialization->setFont(font1);

horizontalLayout_7->addWidget(
    lineEditSpecialization);

label_14 = new QLabel(groupBox);
label_14->setObjectName(QStringLiteral("label_14")
    );
label_14->setFont(font1);

horizontalLayout_7->addWidget(label_14);


verticalLayout->addLayout(horizontalLayout_7);

line_6 = new QFrame(groupBox);
line_6->setObjectName(QStringLiteral("line_6"));
line_6->setFont(font1);
line_6->setFrameShape(QFrame::HLine);
line_6->setFrameShadow(QFrame::Sunken);

verticalLayout->addWidget(line_6);

horizontalLayout_8 = new QHBoxLayout();
horizontalLayout_8->setObjectName(QStringLiteral
    ("horizontalLayout_8"));
label_6 = new QLabel(groupBox);
label_6->setObjectName(QStringLiteral("label_6"));
label_6->setFont(font2);

horizontalLayout_8->addWidget(label_6);

lineEditHealthUnit = new QLineEdit(groupBox);
lineEditHealthUnit->setObjectName(QStringLiteral
    ("lineEditHealthUnit"));
lineEditHealthUnit->setFont(font1);

horizontalLayout_8->addWidget(lineEditHealthUnit);

label_15 = new QLabel(groupBox);
label_15->setObjectName(QStringLiteral("label_15")
    );
label_15->setFont(font1);

horizontalLayout_8->addWidget(label_15);


verticalLayout->addLayout(horizontalLayout_8);

line_7 = new QFrame(groupBox);
line_7->setObjectName(QStringLiteral("line_7"));
line_7->setFont(font1);
line_7->setFrameShape(QFrame::HLine);
line_7->setFrameShadow(QFrame::Sunken);

verticalLayout->addWidget(line_7);

horizontalLayout_9 = new QHBoxLayout();
horizontalLayout_9->setObjectName(QStringLiteral
    ("horizontalLayout_9"));
label_7 = new QLabel(groupBox);
label_7->setObjectName(QStringLiteral("label_7"));
label_7->setFont(font2);

horizontalLayout_9->addWidget(label_7);

lineEditEmail = new QLineEdit(groupBox);
lineEditEmail->setObjectName(QStringLiteral("
    lineEditEmail"));
lineEditEmail->setFont(font1);

horizontalLayout_9->addWidget(lineEditEmail);

label_16 = new QLabel(groupBox);
label_16->setObjectName(QStringLiteral("label_16")
    );
label_16->setFont(font1);

horizontalLayout_9->addWidget(label_16);


verticalLayout->addLayout(horizontalLayout_9);

line_8 = new QFrame(groupBox);
line_8->setObjectName(QStringLiteral("line_8"));
line_8->setFont(font1);
```

```
line_8->setFrameShape(QFrame::HLine);
line_8->setFrameShadow(QFrame::Sunken);

verticalLayout->addWidget(line_8);

horizontalLayout_10 = new QHBoxLayout();
horizontalLayout_10->setObjectName(QStringLiteral
        ("horizontalLayout_10"));
label_8 = new QLabel(groupBox);
label_8->setObjectName(QStringLiteral("label_8"));
label_8->setFont(font2);

horizontalLayout_10->addWidget(label_8);

lineEditContactNum = new QLineEdit(groupBox);
lineEditContactNum->setObjectName(QStringLiteral
        ("lineEditContactNum"));
lineEditContactNum->setFont(font1);

horizontalLayout_10->addWidget(
        lineEditContactNum);

label_18 = new QLabel(groupBox);
label_18->setObjectName(QStringLiteral("label_18")
        );
label_18->setFont(font1);

horizontalLayout_10->addWidget(label_18);


verticalLayout->addLayout(horizontalLayout_10);


gridLayout_2->addLayout(verticalLayout, 2, 0, 1, 1);

verticalSpacer_2 = new QSpacerItem(20, 40,
        QSizePolicy::Minimum, QSizePolicy::Expanding
        );

gridLayout_2->addItem(verticalSpacer_2, 0, 0, 1, 1);


gridLayout->addWidget(groupBox, 0, 0, 1, 1);

groupBox_2 = new QGroupBox(centralwidget);
groupBox_2->setObjectName(QStringLiteral("
        groupBox_2"));
groupBox_2->setFont(font1);
gridLayout_3 = new QGridLayout(groupBox_2);
gridLayout_3->setObjectName(QStringLiteral("
        gridLayout_3"));
label_22 = new QLabel(groupBox_2);
label_22->setObjectName(QStringLiteral("label_22")
        );

gridLayout_3->addWidget(label_22, 0, 0, 1, 1);

saveUserProfile = new QPushButton(groupBox_2);
saveUserProfile->setObjectName(QStringLiteral("
        saveUserProfile"));
QFont font3;
font3.setFamily(QStringLiteral("Segoe UI"));
font3.setPointSize(10);
font3.setBold(true);
font3.setWeight(75);
saveUserProfile->setFont(font3);

gridLayout_3->addWidget(saveUserProfile, 0, 3, 1, 1)
        ;

backToUserProfile = new QPushButton(groupBox_2);
backToUserProfile->setObjectName(QStringLiteral("
        backToUserProfile"));
backToUserProfile->setFont(font3);

gridLayout_3->addWidget(backToUserProfile, 0, 2, 1,
         1);

label_20 = new QLabel(groupBox_2);
label_20->setObjectName(QStringLiteral("label_20")
        );

gridLayout_3->addWidget(label_20, 0, 1, 1, 1);

label_21 = new QLabel(groupBox_2);
label_21->setObjectName(QStringLiteral("label_21")
        );

gridLayout_3->addWidget(label_21, 0, 4, 1, 1);

label_23 = new QLabel(groupBox_2);
label_23->setObjectName(QStringLiteral("label_23")
        );

gridLayout_3->addWidget(label_23, 0, 5, 1, 1);


gridLayout->addWidget(groupBox_2, 1, 0, 1, 1);

        AdminEditUser->setCentralWidget(centralwidget);

        retranslateUi(AdminEditUser);

        QMetaObject::connectSlotsByName(AdminEditUser);
    } // setupUi

    void retranslateUi(QMainWindow *AdminEditUser)
    {
        AdminEditUser->setWindowTitle(QApplication::
                translate("AdminEditUser", "IoT-based
                Recommender System for Diabetic Patients",
                nullptr));
        groupBox->setTitle(QApplication::translate("
                AdminEditUser", "Edit User Account", nullptr)
                );
        label_10->setText(QString());
        label->setText(QApplication::translate("
                AdminEditUser", "Name:", nullptr));
        label_11->setText(QString());
        label_9->setText(QApplication::translate("
                AdminEditUser", "Medical User Type:", nullptr
                ));
        label_19->setText(QString());
        label_2->setText(QApplication::translate("
                AdminEditUser", "Username:", nullptr));
        label_12->setText(QString());
        label_3->setText(QApplication::translate("
                AdminEditUser", "Password:", nullptr));
        label_13->setText(QString());
        label_4->setText(QApplication::translate("
                AdminEditUser", "Birthday:", nullptr));
        label_17->setText(QString());
        label_5->setText(QApplication::translate("
                AdminEditUser", "Specialization:", nullptr));
        label_14->setText(QString());
        label_6->setText(QApplication::translate("
                AdminEditUser", "Health unit:", nullptr));
        label_15->setText(QString());
        label_7->setText(QApplication::translate("
                AdminEditUser", "Email:", nullptr));
        label_16->setText(QString());
        label_8->setText(QApplication::translate("
                AdminEditUser", "Contact Number:", nullptr));
        label_18->setText(QString());
        groupBox_2->setTitle(QString());
        label_22->setText(QString());
        saveUserProfile->setText(QApplication::translate("
                AdminEditUser", "Save", nullptr));
        backToUserProfile->setText(QApplication::translate
                ("AdminEditUser", "Back", nullptr));
        label_20->setText(QString());
        label_21->setText(QString());
        label_23->setText(QString());
    } // retranslateUi

};

namespace Ui {
    class AdminEditUser: public Ui_AdminEditUser {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_ADMINEDITUSER_H

/********************************************************************************

** Form generated from reading UI file '
        editpatientvisitrecord.ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
        recompiling UI file!
********************************************************************************


#ifndef UI_EDITPATIENTVISITRECORD_H
#define UI_EDITPATIENTVISITRECORD_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QCheckBox>
#include <QtWidgets/QComboBox>
#include <QtWidgets/QFrame>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QLineEdit>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QSpacerItem>
#include <QtWidgets/QWidget>
```

```
QT_BEGIN_NAMESPACE

class Ui_EditPatientVisitRecord
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout_4;
    QGroupBox *groupBox_4;
    QGridLayout *gridLayout;
    QPushButton *pushButton_3;
    QPushButton *pushButton_4;
    QLabel *label_10;
    QLabel *label_9;
    QLabel *label_16;
    QLabel *label_17;
    QGroupBox *groupBox;
    QGridLayout *gridLayout_2;
    QGroupBox *groupBox_2;
    QGridLayout *gridLayout_3;
    QLabel *label_3;
    QPushButton *pushButton_5;
    QLabel *label_11;
    QHBoxLayout *horizontalLayout;
    QLabel *label;
    QLineEdit *blood_glucose_level;
    QFrame *line_13;
    QLabel *label_13;
    QComboBox *fbg;
    QSpacerItem *horizontalSpacer_6;
    QHBoxLayout *horizontalLayout_5;
    QCheckBox *bb1;
    QCheckBox *bb2;
    QFrame *line_9;
    QHBoxLayout *horizontalLayout_2;
    QLabel *label_2;
    QLineEdit *lineEdit_a1c;
    QSpacerItem *horizontalSpacer_3;
    QSpacerItem *horizontalSpacer_2;
    QSpacerItem *horizontalSpacer;
    QHBoxLayout *horizontalLayout_8;
    QLabel *label_4;
    QComboBox *current_insulin_regimen;
    QLabel *label_5;
    QGridLayout *gridLayout_5;
    QLabel *label_14;
    QLineEdit *lineEdit_currDosage;
    QSpacerItem *horizontalSpacer_7;
    QSpacerItem *horizontalSpacer_9;
    QSpacerItem *horizontalSpacer_8;
    QSpacerItem *horizontalSpacer_5;
    QFrame *line_4;
    QHBoxLayout *horizontalLayout_4;
    QLabel *date;
    QLineEdit *lineEdit_dateTime;
    QSpacerItem *horizontalSpacer_4;
    QHBoxLayout *horizontalLayout_3;
    QLabel *label_6;
    QLineEdit *lineEdit_weight;
    QLabel *label_8;
    QFrame *line_2;
    QLabel *label_7;
    QLineEdit *lineEdit_height;
    QLabel *label_12;
    QFrame *line;
    QFrame *line_6;
    QFrame *line_7;
    QFrame *line_5;
    QHBoxLayout *horizontalLayout_9;
    QCheckBox *b3;
    QCheckBox *b4;
    QFrame *line_3;
    QCheckBox *bb3;
    QFrame *line_10;
    QFrame *line_11;
    QFrame *line_12;
    QHBoxLayout *horizontalLayout_7;
    QCheckBox *p3;
    QCheckBox *p4;
    QHBoxLayout *horizontalLayout_10;
    QCheckBox *p1;
    QCheckBox *p2;
    QCheckBox *b5;
    QHBoxLayout *horizontalLayout_6;
    QCheckBox *b2;
    QCheckBox *b1;
    QLabel *label_15;

    void setupUi(QMainWindow *EditPatientVisitRecord)
    {
        if (EditPatientVisitRecord->objectName().isEmpty
            ())
            EditPatientVisitRecord->setObjectName(
                QStringLiteral("EditPatientVisitRecord"));
        EditPatientVisitRecord->resize(742, 634);
        centralwidget = new QWidget(EditPatientVisitRecord
            );
        centralwidget->setObjectName(QStringLiteral("
            centralwidget"));
        gridLayout_4 = new QGridLayout(centralwidget);
        gridLayout_4->setObjectName(QStringLiteral("
            gridLayout_4"));
        groupBox_4 = new QGroupBox(centralwidget);
        groupBox_4->setObjectName(QStringLiteral("
            groupBox_4"));
        QFont font;
        font.setFamily(QStringLiteral("Segoe UI"));
        font.setPointSize(10);
        font.setBold(false);
        font.setWeight(50);
        groupBox_4->setFont(font);
        gridLayout = new QGridLayout(groupBox_4);
        gridLayout->setObjectName(QStringLiteral("
            gridLayout"));
        pushButton_3 = new QPushButton(groupBox_4);
        pushButton_3->setObjectName(QStringLiteral("
            pushButton_3"));
        QFont font1;
        font1.setFamily(QStringLiteral("Segoe UI"));
        font1.setPointSize(11);
        font1.setBold(true);
        font1.setWeight(75);
        pushButton_3->setFont(font1);

        gridLayout->addWidget(pushButton_3, 0, 3, 1, 1);

        pushButton_4 = new QPushButton(groupBox_4);
        pushButton_4->setObjectName(QStringLiteral("
            pushButton_4"));
        pushButton_4->setFont(font1);

        gridLayout->addWidget(pushButton_4, 0, 2, 1, 1);

        label_10 = new QLabel(groupBox_4);
        label_10->setObjectName(QStringLiteral("label_10")
            );
        label_10->setFont(font);

        gridLayout->addWidget(label_10, 0, 4, 1, 1);

        label_9 = new QLabel(groupBox_4);
        label_9->setObjectName(QStringLiteral("label_9"));
        label_9->setFont(font);

        gridLayout->addWidget(label_9, 0, 1, 1, 1);

        label_16 = new QLabel(groupBox_4);
        label_16->setObjectName(QStringLiteral("label_16")
            );

        gridLayout->addWidget(label_16, 0, 0, 1, 1);

        label_17 = new QLabel(groupBox_4);
        label_17->setObjectName(QStringLiteral("label_17")
            );

        gridLayout->addWidget(label_17, 0, 5, 1, 1);


        gridLayout_4->addWidget(groupBox_4, 1, 0, 1, 1);

        groupBox = new QGroupBox(centralwidget);
        groupBox->setObjectName(QStringLiteral("
            groupBox"));
        QFont font2;
        font2.setFamily(QStringLiteral("Calibri"));
        font2.setPointSize(15);
        font2.setBold(true);
        font2.setWeight(75);
        groupBox->setFont(font2);
        gridLayout_2 = new QGridLayout(groupBox);
        gridLayout_2->setObjectName(QStringLiteral("
            gridLayout_2"));
        groupBox_2 = new QGroupBox(groupBox);
        groupBox_2->setObjectName(QStringLiteral("
            groupBox_2"));
        groupBox_2->setFont(font);
        gridLayout_3 = new QGridLayout(groupBox_2);
        gridLayout_3->setObjectName(QStringLiteral("
            gridLayout_3"));
        label_3 = new QLabel(groupBox_2);
        label_3->setObjectName(QStringLiteral("label_3"));
        label_3->setFont(font);

        gridLayout_3->addWidget(label_3, 0, 0, 1, 1);

        pushButton_5 = new QPushButton(groupBox_2);
        pushButton_5->setObjectName(QStringLiteral("
            pushButton_5"));
        pushButton_5->setFont(font1);

        gridLayout_3->addWidget(pushButton_5, 0, 2, 1, 1);

        label_11 = new QLabel(groupBox_2);
        label_11->setObjectName(QStringLiteral("label_11")
            );
        label_11->setFont(font);

        gridLayout_3->addWidget(label_11, 0, 1, 1, 1);
```

```
gridLayout_2->addWidget(groupBox_2, 0, 0, 1, 1);

horizontalLayout = new QHBoxLayout();
horizontalLayout->setObjectName(QStringLiteral("
    horizontalLayout"));
label = new QLabel(groupBox);
label->setObjectName(QStringLiteral("label"));
QFont font3;
font3.setFamily(QStringLiteral("Segoe UI Semibold")
    );
font3.setPointSize(10);
font3.setBold(false);
font3.setWeight(50);
label->setFont(font3);

horizontalLayout->addWidget(label);

blood_glucose_level = new QLineEdit(groupBox);
blood_glucose_level->setObjectName(QStringLiteral
    ("blood_glucose_level"));
blood_glucose_level->setFont(font);

horizontalLayout->addWidget(blood_glucose_level);

line_13 = new QFrame(groupBox);
line_13->setObjectName(QStringLiteral("line_13"));
line_13->setFont(font);
line_13->setFrameShape(QFrame::VLine);
line_13->setFrameShadow(QFrame::Sunken);

horizontalLayout->addWidget(line_13);

label_13 = new QLabel(groupBox);
label_13->setObjectName(QStringLiteral("label_13")
    );
label_13->setFont(font3);

horizontalLayout->addWidget(label_13);

fbg = new QComboBox(groupBox);
fbg->addItem(QString());
fbg->addItem(QString());
fbg->addItem(QString());
fbg->addItem(QString());
fbg->addItem(QString());
fbg->addItem(QString());
fbg->addItem(QString());
fbg->setObjectName(QStringLiteral("fbg"));
fbg->setFont(font);

horizontalLayout->addWidget(fbg);

horizontalSpacer_6 = new QSpacerItem(73, 20,
    QSizePolicy::Expanding, QSizePolicy::Minimum
    );

horizontalLayout->addItem(horizontalSpacer_6);


gridLayout_2->addLayout(horizontalLayout, 7, 0, 1,
    1);

horizontalLayout_5 = new QHBoxLayout();
horizontalLayout_5->setObjectName(QStringLiteral
    ("horizontalLayout_5"));
bb1 = new QCheckBox(groupBox);
bb1->setObjectName(QStringLiteral("bb1"));
QFont font4;
font4.setFamily(QStringLiteral("Segoe UI"));
font4.setPointSize(9);
font4.setBold(false);
font4.setWeight(50);
bb1->setFont(font4);

horizontalLayout_5->addWidget(bb1);

bb2 = new QCheckBox(groupBox);
bb2->setObjectName(QStringLiteral("bb2"));
bb2->setFont(font4);

horizontalLayout_5->addWidget(bb2);


gridLayout_2->addLayout(horizontalLayout_5, 27, 0,
    1, 1);

line_9 = new QFrame(groupBox);
line_9->setObjectName(QStringLiteral("line_9"));
line_9->setFont(font);
line_9->setFrameShape(QFrame::HLine);
line_9->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_9, 11, 0, 1, 1);

horizontalLayout_2 = new QHBoxLayout();
horizontalLayout_2->setObjectName(QStringLiteral
    ("horizontalLayout_2"));
label_2 = new QLabel(groupBox);
label_2->setObjectName(QStringLiteral("label_2"));
label_2->setFont(font3);

horizontalLayout_2->addWidget(label_2);

lineEdit_a1c = new QLineEdit(groupBox);
lineEdit_a1c->setObjectName(QStringLiteral("
    lineEdit_a1c"));
lineEdit_a1c->setFont(font);

horizontalLayout_2->addWidget(lineEdit_a1c);

horizontalSpacer_3 = new QSpacerItem(40, 20,
    QSizePolicy::Expanding, QSizePolicy::Minimum
    );

horizontalLayout_2->addItem(horizontalSpacer_3);

horizontalSpacer_2 = new QSpacerItem(40, 20,
    QSizePolicy::Expanding, QSizePolicy::Minimum
    );

horizontalLayout_2->addItem(horizontalSpacer_2);

horizontalSpacer = new QSpacerItem(40, 20,
    QSizePolicy::Expanding, QSizePolicy::Minimum
    );

horizontalLayout_2->addItem(horizontalSpacer);


gridLayout_2->addLayout(horizontalLayout_2, 9, 0,
    1, 1);

horizontalLayout_8 = new QHBoxLayout();
horizontalLayout_8->setObjectName(QStringLiteral
    ("horizontalLayout_8"));
label_4 = new QLabel(groupBox);
label_4->setObjectName(QStringLiteral("label_4"));
label_4->setFont(font3);

horizontalLayout_8->addWidget(label_4);

current_insulin_regimen = new QComboBox(groupBox
    );
current_insulin_regimen->addItem(QString());
current_insulin_regimen->addItem(QString());
current_insulin_regimen->addItem(QString());
current_insulin_regimen->addItem(QString());
current_insulin_regimen->setObjectName(
    QStringLiteral("current_insulin_regimen"));
current_insulin_regimen->setFont(font);

horizontalLayout_8->addWidget(
    current_insulin_regimen);

label_5 = new QLabel(groupBox);
label_5->setObjectName(QStringLiteral("label_5"));
label_5->setFont(font);

horizontalLayout_8->addWidget(label_5);


gridLayout_2->addLayout(horizontalLayout_8, 12, 0,
    1, 1);

gridLayout_5 = new QGridLayout();
gridLayout_5->setObjectName(QStringLiteral("
    gridLayout_5"));
label_14 = new QLabel(groupBox);
label_14->setObjectName(QStringLiteral("label_14")
    );
label_14->setFont(font3);

gridLayout_5->addWidget(label_14, 0, 0, 1, 1);

lineEdit_currDosage = new QLineEdit(groupBox);
lineEdit_currDosage->setObjectName(QStringLiteral
    ("lineEdit_currDosage"));
lineEdit_currDosage->setFont(font);

gridLayout_5->addWidget(lineEdit_currDosage, 0, 1,
    1, 1);

horizontalSpacer_7 = new QSpacerItem(40, 20,
    QSizePolicy::Expanding, QSizePolicy::Minimum
    );

gridLayout_5->addItem(horizontalSpacer_7, 0, 2, 1,
    1);

horizontalSpacer_9 = new QSpacerItem(40, 20,
    QSizePolicy::Expanding, QSizePolicy::Minimum
    );

gridLayout_5->addItem(horizontalSpacer_9, 0, 3, 1,
    1);
```

```
horizontalSpacer_8 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

gridLayout_5->addItem(horizontalSpacer_8, 0, 4, 1,
        1);

horizontalSpacer_5 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

gridLayout_5->addItem(horizontalSpacer_5, 0, 5, 1,
        1);


gridLayout_2->addLayout(gridLayout_5, 14, 0, 1, 1);

line_4 = new QFrame(groupBox);
line_4->setObjectName(QStringLiteral("line_4"));
line_4->setFont(font);
line_4->setFrameShape(QFrame::HLine);
line_4->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_4, 6, 0, 1, 1);

horizontalLayout_4 = new QHBoxLayout();
horizontalLayout_4->setObjectName(QStringLiteral
        ("horizontalLayout_4"));
date = new QLabel(groupBox);
date->setObjectName(QStringLiteral("date"));
date->setFont(font3);

horizontalLayout_4->addWidget(date);

lineEdit_dateTime = new QLineEdit(groupBox);
lineEdit_dateTime->setObjectName(QStringLiteral("
        lineEdit_dateTime"));
lineEdit_dateTime->setFont(font);

horizontalLayout_4->addWidget(lineEdit_dateTime);

horizontalSpacer_4 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

horizontalLayout_4->addItem(horizontalSpacer_4);


gridLayout_2->addLayout(horizontalLayout_4, 3, 0,
        1, 1);

horizontalLayout_3 = new QHBoxLayout();
horizontalLayout_3->setObjectName(QStringLiteral
        ("horizontalLayout_3"));
label_6 = new QLabel(groupBox);
label_6->setObjectName(QStringLiteral("label_6"));
label_6->setFont(font3);

horizontalLayout_3->addWidget(label_6);

lineEdit_weight = new QLineEdit(groupBox);
lineEdit_weight->setObjectName(QStringLiteral("
        lineEdit_weight"));
lineEdit_weight->setFont(font);

horizontalLayout_3->addWidget(lineEdit_weight);

label_8 = new QLabel(groupBox);
label_8->setObjectName(QStringLiteral("label_8"));
label_8->setFont(font);

horizontalLayout_3->addWidget(label_8);

line_2 = new QFrame(groupBox);
line_2->setObjectName(QStringLiteral("line_2"));
line_2->setFont(font);
line_2->setFrameShape(QFrame::VLine);
line_2->setFrameShadow(QFrame::Sunken);

horizontalLayout_3->addWidget(line_2);

label_7 = new QLabel(groupBox);
label_7->setObjectName(QStringLiteral("label_7"));
label_7->setFont(font3);

horizontalLayout_3->addWidget(label_7);

lineEdit_height = new QLineEdit(groupBox);
lineEdit_height->setObjectName(QStringLiteral("
        lineEdit_height"));
lineEdit_height->setFont(font);

horizontalLayout_3->addWidget(lineEdit_height);

label_12 = new QLabel(groupBox);
label_12->setObjectName(QStringLiteral("label_12")
        );
label_12->setFont(font);

horizontalLayout_3->addWidget(label_12);


gridLayout_2->addLayout(horizontalLayout_3, 5, 0,
        1, 1);

line = new QFrame(groupBox);
line->setObjectName(QStringLiteral("line"));
line->setFont(font);
line->setFrameShape(QFrame::HLine);
line->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line, 4, 0, 1, 1);

line_6 = new QFrame(groupBox);
line_6->setObjectName(QStringLiteral("line_6"));
line_6->setFont(font);
line_6->setFrameShape(QFrame::HLine);
line_6->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_6, 8, 0, 1, 1);

line_7 = new QFrame(groupBox);
line_7->setObjectName(QStringLiteral("line_7"));
line_7->setFont(font);
line_7->setFrameShape(QFrame::HLine);
line_7->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_7, 2, 0, 1, 1);

line_5 = new QFrame(groupBox);
line_5->setObjectName(QStringLiteral("line_5"));
line_5->setFont(font);
line_5->setFrameShape(QFrame::HLine);
line_5->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_5, 13, 0, 1, 1);

horizontalLayout_9 = new QHBoxLayout();
horizontalLayout_9->setObjectName(QStringLiteral
        ("horizontalLayout_9"));
b3 = new QCheckBox(groupBox);
b3->setObjectName(QStringLiteral("b3"));
b3->setFont(font4);

horizontalLayout_9->addWidget(b3);

b4 = new QCheckBox(groupBox);
b4->setObjectName(QStringLiteral("b4"));
b4->setFont(font4);

horizontalLayout_9->addWidget(b4);


gridLayout_2->addLayout(horizontalLayout_9, 18, 0,
        1, 1);

line_3 = new QFrame(groupBox);
line_3->setObjectName(QStringLiteral("line_3"));
line_3->setFont(font);
line_3->setFrameShape(QFrame::HLine);
line_3->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_3, 26, 0, 1, 1);

bb3 = new QCheckBox(groupBox);
bb3->setObjectName(QStringLiteral("bb3"));
bb3->setFont(font4);

gridLayout_2->addWidget(bb3, 28, 0, 1, 1);

line_10 = new QFrame(groupBox);
line_10->setObjectName(QStringLiteral("line_10"));
line_10->setFont(font);
line_10->setFrameShape(QFrame::HLine);
line_10->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_10, 20, 0, 1, 1);

line_11 = new QFrame(groupBox);
line_11->setObjectName(QStringLiteral("line_11"));
line_11->setFont(font);
line_11->setFrameShape(QFrame::HLine);
line_11->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_11, 29, 0, 1, 1);

line_12 = new QFrame(groupBox);
line_12->setObjectName(QStringLiteral("line_12"));
line_12->setFont(font);
line_12->setFrameShape(QFrame::HLine);
line_12->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_12, 15, 0, 1, 1);

horizontalLayout_7 = new QHBoxLayout();
horizontalLayout_7->setObjectName(QStringLiteral
        ("horizontalLayout_7"));
p3 = new QCheckBox(groupBox);
```

```
    p3->setObjectName(QStringLiteral("p3"));
    p3->setFont(font4);

    horizontalLayout_7->addWidget(p3);

    p4 = new QCheckBox(groupBox);
    p4->setObjectName(QStringLiteral("p4"));
    p4->setFont(font4);

    horizontalLayout_7->addWidget(p4);


    gridLayout_2->addLayout(horizontalLayout_7, 25, 0,
        1, 1);

    horizontalLayout_10 = new QHBoxLayout();
    horizontalLayout_10->setObjectName(QStringLiteral
        ("horizontalLayout_10"));
    p1 = new QCheckBox(groupBox);
    p1->setObjectName(QStringLiteral("p1"));
    p1->setFont(font4);

    horizontalLayout_10->addWidget(p1);

    p2 = new QCheckBox(groupBox);
    p2->setObjectName(QStringLiteral("p2"));
    p2->setFont(font4);

    horizontalLayout_10->addWidget(p2);


    gridLayout_2->addLayout(horizontalLayout_10, 24, 0,
        1, 1);

    b5 = new QCheckBox(groupBox);
    b5->setObjectName(QStringLiteral("b5"));
    b5->setFont(font4);

    gridLayout_2->addWidget(b5, 19, 0, 1, 1);

    horizontalLayout_6 = new QHBoxLayout();
    horizontalLayout_6->setObjectName(QStringLiteral
        ("horizontalLayout_6"));
    b2 = new QCheckBox(groupBox);
    b2->setObjectName(QStringLiteral("b2"));
    b2->setFont(font4);

    horizontalLayout_6->addWidget(b2);

    b1 = new QCheckBox(groupBox);
    b1->setObjectName(QStringLiteral("b1"));
    b1->setFont(font4);

    horizontalLayout_6->addWidget(b1);


    gridLayout_2->addLayout(horizontalLayout_6, 16, 0,
        1, 1);

    label_15 = new QLabel(groupBox);
    label_15->setObjectName(QStringLiteral("label_15")
        );
    QFont font5;
    font5.setFamily(QStringLiteral("Segoe UI"));
    font5.setPointSize(8);
    font5.setBold(false);
    font5.setWeight(50);
    label_15->setFont(font5);

    gridLayout_2->addWidget(label_15, 1, 0, 1, 1);


    gridLayout_4->addWidget(groupBox, 0, 0, 1, 1);

    EditPatientVisitRecord->setCentralWidget(
        centralwidget);

    retranslateUi(EditPatientVisitRecord);

    QMetaObject::connectSlotsByName(
        EditPatientVisitRecord);
} // setupUi

void retranslateUi(QMainWindow *
    EditPatientVisitRecord)
{
    EditPatientVisitRecord->setWindowTitle(
        QApplication::translate("
        EditPatientVisitRecord", "IoT-based
        Recommender System for Diabetic Patients",
        nullptr));
    groupBox_4->setTitle(QString());
    pushButton_3->setText(QApplication::translate("
        EditPatientVisitRecord", "Update", nullptr));
    pushButton_4->setText(QApplication::translate("
        EditPatientVisitRecord", "Back", nullptr));
    label_10->setText(QString());
    label_9->setText(QString());
    label_16->setText(QString());
    label_17->setText(QString());
    groupBox->setTitle(QApplication::translate("
        EditPatientVisitRecord", "Edit Patient Visit
        Record", nullptr));
    groupBox_2->setTitle(QString());
    label_3->setText(QString());
    pushButton_5->setText(QApplication::translate("
        EditPatientVisitRecord", "Delete", nullptr));
    label_11->setText(QString());
    label->setText(QApplication::translate("
        EditPatientVisitRecord", "*Latest Blood
        Glucose Level:", nullptr));
    blood_glucose_level->setText(QString());
    label_13->setText(QApplication::translate("
        EditPatientVisitRecord", "*Blood Testing
        Schedule:", nullptr));
    fbg->setItemText(0, QApplication::translate("
        EditPatientVisitRecord", "Before Breakfast",
        nullptr));
    fbg->setItemText(1, QApplication::translate("
        EditPatientVisitRecord", "After Breakfast",
        nullptr));
    fbg->setItemText(2, QApplication::translate("
        EditPatientVisitRecord", "Before Lunch",
        nullptr));
    fbg->setItemText(3, QApplication::translate("
        EditPatientVisitRecord", "After Lunch", nullptr
        ));
    fbg->setItemText(4, QApplication::translate("
        EditPatientVisitRecord", "Before Dinner",
        nullptr));
    fbg->setItemText(5, QApplication::translate("
        EditPatientVisitRecord", "After Lunch", nullptr
        ));
    fbg->setItemText(6, QApplication::translate("
        EditPatientVisitRecord", "Bedtime", nullptr));

    bb1->setText(QApplication::translate("
        EditPatientVisitRecord", "Pregnant", nullptr));
    bb2->setText(QApplication::translate("
        EditPatientVisitRecord", "Planning a
        pregnancy", nullptr));
    label_2->setText(QApplication::translate("
        EditPatientVisitRecord", "A1C test:", nullptr));
    label_4->setText(QApplication::translate("
        EditPatientVisitRecord", "*Curent Insulin
        Regimen:", nullptr));
    current_insulin_regimen->setItemText(0,
        QApplication::translate("
        EditPatientVisitRecord", "Starting Insulin
        Therapy", nullptr));
    current_insulin_regimen->setItemText(1,
        QApplication::translate("
        EditPatientVisitRecord", "Basal (Background)
        Insulin", nullptr));
    current_insulin_regimen->setItemText(2,
        QApplication::translate("
        EditPatientVisitRecord", "Pre-mixed Twice
        Daily (Before breakfast and dinner)", nullptr));
    current_insulin_regimen->setItemText(3,
        QApplication::translate("
        EditPatientVisitRecord", "Basal-bolus",
        nullptr));

    label_5->setText(QString());
    label_14->setText(QApplication::translate("
        EditPatientVisitRecord", "*Current Insulin
        Dosage (units): ", nullptr));
    lineEdit_currDosage->setText(QString());
    date->setText(QApplication::translate("
        EditPatientVisitRecord", "*Date Time
        Performed (YYYY-MM-DD HH:MM:SS):",
        nullptr));
    label_6->setText(QApplication::translate("
        EditPatientVisitRecord", "*Weight (kg):",
        nullptr));
    label_8->setText(QString());
    label_7->setText(QApplication::translate("
        EditPatientVisitRecord", "Height (cm):",
        nullptr));
    label_12->setText(QString());
    b3->setText(QApplication::translate("
        EditPatientVisitRecord", "Daytime
        hypoglycemia", nullptr));
    b4->setText(QApplication::translate("
        EditPatientVisitRecord", "Nocturnal
        Hypoglycemia (Consistently <5.5 mmol/L)",
        nullptr));
    bb3->setText(QApplication::translate("
        EditPatientVisitRecord", "Hospitalized or
        acutely ill", nullptr));
    p3->setText(QApplication::translate("
        EditPatientVisitRecord", "Starting a new
        medication known to cause hyperglycemia",
        nullptr));
    p4->setText(QApplication::translate("
        EditPatientVisitRecord", "Experiencing an
        illness known to cause hyperglycemia", nullptr))
        ;
```

```
        p1->setText(QApplication::translate("
            EditPatientVisitRecord", "Opposed to more
            than 2 injections a day", nullptr));
        p2->setText(QApplication::translate("
            EditPatientVisitRecord", "Has consistent meal
            times and food intake", nullptr));
        b5->setText(QApplication::translate("
            EditPatientVisitRecord", "Two (2) episodes of
            hypoglycemia (BG < 4.0 mmol/L) in a week",
            nullptr));
        b2->setText(QApplication::translate("
            EditPatientVisitRecord", "Using drugs known
            to cause hypoglycemia", nullptr));
        b1->setText(QApplication::translate("
            EditPatientVisitRecord", "Newly diagnosed
            with diabetes (less than 6 months)", nullptr));
        label_15->setText(QApplication::translate("
            EditPatientVisitRecord", "*All fields marked
            with an asterisk are required.", nullptr));
    } // retranslateUi

};

namespace Ui {
    class EditPatientVisitRecord: public
        Ui_EditPatientVisitRecord {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_EDITPATIENTVISITRECORD_H

/********************************************************************************
** Form generated from reading UI file '
    editpatientvisitrecorddoc.ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
    recompiling UI file!
********************************************************************************/


#ifndef UI_EDITPATIENTVISITRECORDDOC_H
#define UI_EDITPATIENTVISITRECORDDOC_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QCheckBox>
#include <QtWidgets/QComboBox>
#include <QtWidgets/QFrame>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QLineEdit>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QSpacerItem>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_EditPatientVisitRecordDoc
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout_4;
    QGroupBox *groupBox;
    QGridLayout *gridLayout_2;
    QGroupBox *groupBox_2;
    QGridLayout *gridLayout_3;
    QLabel *label_3;
    QLabel *label_11;
    QPushButton *pushButton_5;
    QHBoxLayout *horizontalLayout_5;
    QCheckBox *bb1;
    QCheckBox *bb2;
    QFrame *line_9;
    QHBoxLayout *horizontalLayout;
    QLabel *label;
    QLineEdit *blood_glucose_level;
    QFrame *line_13;
    QLabel *label_13;
    QComboBox *fbg;
    QHBoxLayout *horizontalLayout_2;
    QLabel *label_2;
    QLineEdit *lineEdit_a1c;
    QSpacerItem *horizontalSpacer_3;
    QSpacerItem *horizontalSpacer_2;
    QSpacerItem *horizontalSpacer;
    QHBoxLayout *horizontalLayout_8;
    QLabel *label_4;
    QComboBox *current_insulin_regimen;
    QLabel *label_5;
    QGridLayout *gridLayout_5;
    QLabel *label_14;
    QLineEdit *lineEdit_currDosage;
    QSpacerItem *horizontalSpacer_7;
    QSpacerItem *horizontalSpacer_9;
    QSpacerItem *horizontalSpacer_8;
    QSpacerItem *horizontalSpacer_5;
    QFrame *line_4;
    QHBoxLayout *horizontalLayout_4;
    QLabel *date;
    QLineEdit *lineEdit_dateTime;
    QSpacerItem *horizontalSpacer_4;
    QFrame *line_6;
    QHBoxLayout *horizontalLayout_3;
    QLabel *label_6;
    QLineEdit *lineEdit_weight;
    QLabel *label_8;
    QFrame *line_2;
    QLabel *label_7;
    QLineEdit *lineEdit_height;
    QLabel *label_12;
    QFrame *line;
    QFrame *line_7;
    QHBoxLayout *horizontalLayout_9;
    QCheckBox *b3;
    QCheckBox *b4;
    QFrame *line_5;
    QFrame *line_3;
    QHBoxLayout *horizontalLayout_7;
    QCheckBox *p3;
    QCheckBox *p4;
    QFrame *line_10;
    QFrame *line_11;
    QFrame *line_12;
    QCheckBox *bb3;
    QCheckBox *b5;
    QHBoxLayout *horizontalLayout_10;
    QCheckBox *p1;
    QCheckBox *p2;
    QLabel *label_15;
    QHBoxLayout *horizontalLayout_6;
    QCheckBox *b2;
    QCheckBox *b1;
    QGroupBox *groupBox_4;
    QGridLayout *gridLayout;
    QPushButton *pushButton_4;
    QLabel *label_9;
    QPushButton *pushButton_3;
    QLabel *label_10;
    QLabel *label_16;
    QLabel *label_17;

    void setupUi(QMainWindow *EditPatientVisitRecordDoc)
    {
        if (EditPatientVisitRecordDoc->objectName().
            isEmpty())
            EditPatientVisitRecordDoc->setObjectName(
                QStringLiteral("EditPatientVisitRecordDoc
                "));
        EditPatientVisitRecordDoc->resize(800, 658);
        centralwidget = new QWidget(
            EditPatientVisitRecordDoc);
        centralwidget->setObjectName(QStringLiteral("
            centralwidget"));
        gridLayout_4 = new QGridLayout(centralwidget);
        gridLayout_4->setObjectName(QStringLiteral("
            gridLayout_4"));
        groupBox = new QGroupBox(centralwidget);
        groupBox->setObjectName(QStringLiteral("
            groupBox"));
        QFont font;
        font.setFamily(QStringLiteral("Segoe UI Semibold"));
        font.setPointSize(15);
        font.setBold(true);
        font.setWeight(75);
        groupBox->setFont(font);
        gridLayout_2 = new QGridLayout(groupBox);
        gridLayout_2->setObjectName(QStringLiteral("
            gridLayout_2"));
        groupBox_2 = new QGroupBox(groupBox);
        groupBox_2->setObjectName(QStringLiteral("
            groupBox_2"));
        QFont font1;
        font1.setFamily(QStringLiteral("Segoe UI"));
        font1.setPointSize(10);
        font1.setBold(false);
        font1.setWeight(50);
        groupBox_2->setFont(font1);
        gridLayout_3 = new QGridLayout(groupBox_2);
        gridLayout_3->setObjectName(QStringLiteral("
            gridLayout_3"));
        label_3 = new QLabel(groupBox_2);
        label_3->setObjectName(QStringLiteral("label_3"));
        label_3->setFont(font1);

        gridLayout_3->addWidget(label_3, 0, 0, 1, 1);

        label_11 = new QLabel(groupBox_2);
        label_11->setObjectName(QStringLiteral("label_11")
```

```
        );
label_11->setFont(font1);

gridLayout_3->addWidget(label_11, 0, 1, 1, 1);

pushButton_5 = new QPushButton(groupBox_2);
pushButton_5->setObjectName(QStringLiteral("
        pushButton_5"));
QFont font2;
font2.setFamily(QStringLiteral("Segoe UI"));
font2.setPointSize(11);
font2.setBold(true);
font2.setWeight(75);
pushButton_5->setFont(font2);

gridLayout_3->addWidget(pushButton_5, 0, 2, 1, 1);


gridLayout_2->addWidget(groupBox_2, 0, 0, 1, 1);

horizontalLayout_5 = new QHBoxLayout();
horizontalLayout_5->setObjectName(QStringLiteral
        ("horizontalLayout_5"));
bb1 = new QCheckBox(groupBox);
bb1->setObjectName(QStringLiteral("bb1"));
QFont font3;
font3.setFamily(QStringLiteral("Segoe UI"));
font3.setPointSize(9);
font3.setBold(false);
font3.setWeight(50);
bb1->setFont(font3);

horizontalLayout_5->addWidget(bb1);

bb2 = new QCheckBox(groupBox);
bb2->setObjectName(QStringLiteral("bb2"));
bb2->setFont(font3);

horizontalLayout_5->addWidget(bb2);


gridLayout_2->addLayout(horizontalLayout_5, 27, 0,
        1, 1);

line_9 = new QFrame(groupBox);
line_9->setObjectName(QStringLiteral("line_9"));
line_9->setFont(font1);
line_9->setFrameShape(QFrame::HLine);
line_9->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_9, 11, 0, 1, 1);

horizontalLayout = new QHBoxLayout();
horizontalLayout->setObjectName(QStringLiteral("
        horizontalLayout"));
label = new QLabel(groupBox);
label->setObjectName(QStringLiteral("label"));
QFont font4;
font4.setFamily(QStringLiteral("Segoe UI Semibold")
        );
font4.setPointSize(10);
font4.setBold(false);
font4.setWeight(50);
label->setFont(font4);

horizontalLayout->addWidget(label);

blood_glucose_level = new QLineEdit(groupBox);
blood_glucose_level->setObjectName(QStringLiteral
        ("blood_glucose_level"));
blood_glucose_level->setFont(font1);

horizontalLayout->addWidget(blood_glucose_level);

line_13 = new QFrame(groupBox);
line_13->setObjectName(QStringLiteral("line_13"));
line_13->setFont(font1);
line_13->setFrameShape(QFrame::VLine);
line_13->setFrameShadow(QFrame::Sunken);

horizontalLayout->addWidget(line_13);

label_13 = new QLabel(groupBox);
label_13->setObjectName(QStringLiteral("label_13")
        );
label_13->setFont(font4);

horizontalLayout->addWidget(label_13);

fbg = new QComboBox(groupBox);
fbg->addItem(QString());
fbg->addItem(QString());
fbg->addItem(QString());
fbg->addItem(QString());
fbg->addItem(QString());
fbg->addItem(QString());
fbg->addItem(QString());
fbg->setObjectName(QStringLiteral("fbg"));
fbg->setFont(font1);

horizontalLayout->addWidget(fbg);


gridLayout_2->addLayout(horizontalLayout, 7, 0, 1,
        1);

horizontalLayout_2 = new QHBoxLayout();
horizontalLayout_2->setObjectName(QStringLiteral
        ("horizontalLayout_2"));
label_2 = new QLabel(groupBox);
label_2->setObjectName(QStringLiteral("label_2"));
label_2->setFont(font4);

horizontalLayout_2->addWidget(label_2);

lineEdit_a1c = new QLineEdit(groupBox);
lineEdit_a1c->setObjectName(QStringLiteral("
        lineEdit_a1c"));
lineEdit_a1c->setFont(font1);

horizontalLayout_2->addWidget(lineEdit_a1c);

horizontalSpacer_3 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

horizontalLayout_2->addItem(horizontalSpacer_3);

horizontalSpacer_2 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

horizontalLayout_2->addItem(horizontalSpacer_2);

horizontalSpacer = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

horizontalLayout_2->addItem(horizontalSpacer);


gridLayout_2->addLayout(horizontalLayout_2, 9, 0,
        1, 1);

horizontalLayout_8 = new QHBoxLayout();
horizontalLayout_8->setObjectName(QStringLiteral
        ("horizontalLayout_8"));
label_4 = new QLabel(groupBox);
label_4->setObjectName(QStringLiteral("label_4"));
label_4->setFont(font4);

horizontalLayout_8->addWidget(label_4);

current_insulin_regimen = new QComboBox(groupBox
        );
current_insulin_regimen->addItem(QString());
current_insulin_regimen->addItem(QString());
current_insulin_regimen->addItem(QString());
current_insulin_regimen->addItem(QString());
current_insulin_regimen->setObjectName(
        QStringLiteral("current_insulin_regimen"));
current_insulin_regimen->setFont(font1);

horizontalLayout_8->addWidget(
        current_insulin_regimen);

label_5 = new QLabel(groupBox);
label_5->setObjectName(QStringLiteral("label_5"));
label_5->setFont(font1);

horizontalLayout_8->addWidget(label_5);


gridLayout_2->addLayout(horizontalLayout_8, 12, 0,
        1, 1);

gridLayout_5 = new QGridLayout();
gridLayout_5->setObjectName(QStringLiteral("
        gridLayout_5"));
label_14 = new QLabel(groupBox);
label_14->setObjectName(QStringLiteral("label_14")
        );
label_14->setFont(font4);

gridLayout_5->addWidget(label_14, 0, 0, 1, 1);

lineEdit_currDosage = new QLineEdit(groupBox);
lineEdit_currDosage->setObjectName(QStringLiteral
        ("lineEdit_currDosage"));
lineEdit_currDosage->setFont(font1);

gridLayout_5->addWidget(lineEdit_currDosage, 0, 1,
        1, 1);

horizontalSpacer_7 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );
```

```
gridLayout_5->addItem(horizontalSpacer_7, 0, 2, 1,
        1);

horizontalSpacer_9 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

gridLayout_5->addItem(horizontalSpacer_9, 0, 3, 1,
        1);

horizontalSpacer_8 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

gridLayout_5->addItem(horizontalSpacer_8, 0, 4, 1,
        1);

horizontalSpacer_5 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

gridLayout_5->addItem(horizontalSpacer_5, 0, 5, 1,
        1);


gridLayout_2->addLayout(gridLayout_5, 14, 0, 1, 1);

line_4 = new QFrame(groupBox);
line_4->setObjectName(QStringLiteral("line_4"));
line_4->setFont(font1);
line_4->setFrameShape(QFrame::HLine);
line_4->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_4, 6, 0, 1, 1);

horizontalLayout_4 = new QHBoxLayout();
horizontalLayout_4->setObjectName(QStringLiteral
        ("horizontalLayout_4"));
date = new QLabel(groupBox);
date->setObjectName(QStringLiteral("date"));
date->setFont(font4);

horizontalLayout_4->addWidget(date);

lineEdit_dateTime = new QLineEdit(groupBox);
lineEdit_dateTime->setObjectName(QStringLiteral("
        lineEdit_dateTime"));
lineEdit_dateTime->setFont(font1);

horizontalLayout_4->addWidget(lineEdit_dateTime);

horizontalSpacer_4 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

horizontalLayout_4->addItem(horizontalSpacer_4);


gridLayout_2->addLayout(horizontalLayout_4, 3, 0,
        1, 1);

line_6 = new QFrame(groupBox);
line_6->setObjectName(QStringLiteral("line_6"));
line_6->setFont(font1);
line_6->setFrameShape(QFrame::HLine);
line_6->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_6, 8, 0, 1, 1);

horizontalLayout_3 = new QHBoxLayout();
horizontalLayout_3->setObjectName(QStringLiteral
        ("horizontalLayout_3"));
label_6 = new QLabel(groupBox);
label_6->setObjectName(QStringLiteral("label_6"));
label_6->setFont(font4);

horizontalLayout_3->addWidget(label_6);

lineEdit_weight = new QLineEdit(groupBox);
lineEdit_weight->setObjectName(QStringLiteral("
        lineEdit_weight"));
lineEdit_weight->setFont(font1);

horizontalLayout_3->addWidget(lineEdit_weight);

label_8 = new QLabel(groupBox);
label_8->setObjectName(QStringLiteral("label_8"));
label_8->setFont(font1);

horizontalLayout_3->addWidget(label_8);

line_2 = new QFrame(groupBox);
line_2->setObjectName(QStringLiteral("line_2"));
line_2->setFont(font1);
line_2->setFrameShape(QFrame::VLine);
line_2->setFrameShadow(QFrame::Sunken);

horizontalLayout_3->addWidget(line_2);

label_7 = new QLabel(groupBox);
label_7->setObjectName(QStringLiteral("label_7"));
label_7->setFont(font4);

horizontalLayout_3->addWidget(label_7);

lineEdit_height = new QLineEdit(groupBox);
lineEdit_height->setObjectName(QStringLiteral("
        lineEdit_height"));
lineEdit_height->setFont(font1);

horizontalLayout_3->addWidget(lineEdit_height);

label_12 = new QLabel(groupBox);
label_12->setObjectName(QStringLiteral("label_12")
        );
label_12->setFont(font1);

horizontalLayout_3->addWidget(label_12);


gridLayout_2->addLayout(horizontalLayout_3, 5, 0,
        1, 1);

line = new QFrame(groupBox);
line->setObjectName(QStringLiteral("line"));
line->setFont(font1);
line->setFrameShape(QFrame::HLine);
line->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line, 4, 0, 1, 1);

line_7 = new QFrame(groupBox);
line_7->setObjectName(QStringLiteral("line_7"));
line_7->setFont(font1);
line_7->setFrameShape(QFrame::HLine);
line_7->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_7, 2, 0, 1, 1);

horizontalLayout_9 = new QHBoxLayout();
horizontalLayout_9->setObjectName(QStringLiteral
        ("horizontalLayout_9"));
b3 = new QCheckBox(groupBox);
b3->setObjectName(QStringLiteral("b3"));
b3->setFont(font1);

horizontalLayout_9->addWidget(b3);

b4 = new QCheckBox(groupBox);
b4->setObjectName(QStringLiteral("b4"));
b4->setFont(font3);

horizontalLayout_9->addWidget(b4);


gridLayout_2->addLayout(horizontalLayout_9, 18, 0,
        1, 1);

line_5 = new QFrame(groupBox);
line_5->setObjectName(QStringLiteral("line_5"));
line_5->setFont(font1);
line_5->setFrameShape(QFrame::HLine);
line_5->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_5, 13, 0, 1, 1);

line_3 = new QFrame(groupBox);
line_3->setObjectName(QStringLiteral("line_3"));
line_3->setFont(font1);
line_3->setFrameShape(QFrame::HLine);
line_3->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_3, 26, 0, 1, 1);

horizontalLayout_7 = new QHBoxLayout();
horizontalLayout_7->setObjectName(QStringLiteral
        ("horizontalLayout_7"));
p3 = new QCheckBox(groupBox);
p3->setObjectName(QStringLiteral("p3"));
p3->setFont(font3);

horizontalLayout_7->addWidget(p3);

p4 = new QCheckBox(groupBox);
p4->setObjectName(QStringLiteral("p4"));
p4->setFont(font3);

horizontalLayout_7->addWidget(p4);


gridLayout_2->addLayout(horizontalLayout_7, 25, 0,
        1, 1);

line_10 = new QFrame(groupBox);
line_10->setObjectName(QStringLiteral("line_10"));
line_10->setFont(font1);
line_10->setFrameShape(QFrame::HLine);
line_10->setFrameShadow(QFrame::Sunken);
```

```
gridLayout_2->addWidget(line_10, 20, 0, 1, 1);

line_11 = new QFrame(groupBox);
line_11->setObjectName(QStringLiteral("line_11"));
line_11->setFont(font1);
line_11->setFrameShape(QFrame::HLine);
line_11->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_11, 29, 0, 1, 1);

line_12 = new QFrame(groupBox);
line_12->setObjectName(QStringLiteral("line_12"));
line_12->setFont(font1);
line_12->setFrameShape(QFrame::HLine);
line_12->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_12, 15, 0, 1, 1);

bb3 = new QCheckBox(groupBox);
bb3->setObjectName(QStringLiteral("bb3"));
bb3->setFont(font3);

gridLayout_2->addWidget(bb3, 28, 0, 1, 1);

b5 = new QCheckBox(groupBox);
b5->setObjectName(QStringLiteral("b5"));
b5->setFont(font3);

gridLayout_2->addWidget(b5, 19, 0, 1, 1);

horizontalLayout_10 = new QHBoxLayout();
horizontalLayout_10->setObjectName(QStringLiteral
        ("horizontalLayout_10"));
p1 = new QCheckBox(groupBox);
p1->setObjectName(QStringLiteral("p1"));
p1->setFont(font3);

horizontalLayout_10->addWidget(p1);

p2 = new QCheckBox(groupBox);
p2->setObjectName(QStringLiteral("p2"));
p2->setFont(font3);

horizontalLayout_10->addWidget(p2);


gridLayout_2->addLayout(horizontalLayout_10, 24, 0,
        1, 1);

label_15 = new QLabel(groupBox);
label_15->setObjectName(QStringLiteral("label_15")
        );
QFont font5;
font5.setFamily(QStringLiteral("Segoe UI"));
font5.setPointSize(8);
font5.setBold(false);
font5.setWeight(50);
label_15->setFont(font5);

gridLayout_2->addWidget(label_15, 1, 0, 1, 1);

horizontalLayout_6 = new QHBoxLayout();
horizontalLayout_6->setObjectName(QStringLiteral
        ("horizontalLayout_6"));
b2 = new QCheckBox(groupBox);
b2->setObjectName(QStringLiteral("b2"));
b2->setFont(font3);

horizontalLayout_6->addWidget(b2);

b1 = new QCheckBox(groupBox);
b1->setObjectName(QStringLiteral("b1"));
b1->setFont(font3);

horizontalLayout_6->addWidget(b1);


gridLayout_2->addLayout(horizontalLayout_6, 16, 0,
        1, 1);


gridLayout_4->addWidget(groupBox, 0, 0, 1, 1);

groupBox_4 = new QGroupBox(centralwidget);
groupBox_4->setObjectName(QStringLiteral("
        groupBox_4"));
groupBox_4->setFont(font1);
gridLayout = new QGridLayout(groupBox_4);
gridLayout->setObjectName(QStringLiteral("
        gridLayout"));
pushButton_4 = new QPushButton(groupBox_4);
pushButton_4->setObjectName(QStringLiteral("
        pushButton_4"));
pushButton_4->setFont(font2);

gridLayout->addWidget(pushButton_4, 0, 2, 1, 1);

label_9 = new QLabel(groupBox_4);
label_9->setObjectName(QStringLiteral("label_9"));
label_9->setFont(font1);

gridLayout->addWidget(label_9, 0, 0, 1, 1);

pushButton_3 = new QPushButton(groupBox_4);
pushButton_3->setObjectName(QStringLiteral("
        pushButton_3"));
pushButton_3->setFont(font2);

gridLayout->addWidget(pushButton_3, 0, 3, 1, 1);

label_10 = new QLabel(groupBox_4);
label_10->setObjectName(QStringLiteral("label_10")
        );
label_10->setFont(font1);

gridLayout->addWidget(label_10, 0, 5, 1, 1);

label_16 = new QLabel(groupBox_4);
label_16->setObjectName(QStringLiteral("label_16")
        );

gridLayout->addWidget(label_16, 0, 1, 1, 1);

label_17 = new QLabel(groupBox_4);
label_17->setObjectName(QStringLiteral("label_17")
        );

gridLayout->addWidget(label_17, 0, 4, 1, 1);


gridLayout_4->addWidget(groupBox_4, 1, 0, 1, 1);

EditPatientVisitRecordDoc->setCentralWidget(
        centralwidget);

retranslateUi(EditPatientVisitRecordDoc);

QMetaObject::connectSlotsByName(
        EditPatientVisitRecordDoc);
} // setupUi

void retranslateUi(QMainWindow *
      EditPatientVisitRecordDoc)
{
    EditPatientVisitRecordDoc->setWindowTitle(
            QApplication::translate("
            EditPatientVisitRecordDoc", "IoT-based
            Recommender System for Diabetic Patients",
            nullptr));
    groupBox->setTitle(QApplication::translate("
            EditPatientVisitRecordDoc", "Edit Patient
            Visit Record", nullptr));
    groupBox_2->setTitle(QString());
    label_3->setText(QString());
    label_11->setText(QString());
    pushButton_5->setText(QApplication::translate("
            EditPatientVisitRecordDoc", "Delete", nullptr))
            ;
    bb1->setText(QApplication::translate("
            EditPatientVisitRecordDoc", "Pregnant",
            nullptr));
    bb2->setText(QApplication::translate("
            EditPatientVisitRecordDoc", "Planning a
            pregnancy", nullptr));
    label->setText(QApplication::translate("
            EditPatientVisitRecordDoc", "*Latest Blood
            Glucose Level:", nullptr));
    blood_glucose_level->setText(QString());
    label_13->setText(QApplication::translate("
            EditPatientVisitRecordDoc", "*Blood Testing
            Schedule:", nullptr));
    fbg->setItemText(0, QApplication::translate("
            EditPatientVisitRecordDoc", "Before Breakfast
            ", nullptr));
    fbg->setItemText(1, QApplication::translate("
            EditPatientVisitRecordDoc", "After Breakfast",
             nullptr));
    fbg->setItemText(2, QApplication::translate("
            EditPatientVisitRecordDoc", "Before Lunch",
            nullptr));
    fbg->setItemText(3, QApplication::translate("
            EditPatientVisitRecordDoc", "After Lunch",
            nullptr));
    fbg->setItemText(4, QApplication::translate("
            EditPatientVisitRecordDoc", "Before Dinner",
            nullptr));
    fbg->setItemText(5, QApplication::translate("
            EditPatientVisitRecordDoc", "After Dinner",
            nullptr));
    fbg->setItemText(6, QApplication::translate("
            EditPatientVisitRecordDoc", "Bedtime", nullptr
            ));

    label_2->setText(QApplication::translate("
            EditPatientVisitRecordDoc", "A1C test:",
            nullptr));
    label_4->setText(QApplication::translate("
```

```
            EditPatientVisitRecordDoc", "*Curent Insulin
            Regimen:", nullptr));
        current_insulin_regimen->setItemText(0,
            QApplication::translate("
            EditPatientVisitRecordDoc", "Starting Insulin
            Therapy", nullptr));
        current_insulin_regimen->setItemText(1,
            QApplication::translate("
            EditPatientVisitRecordDoc", "Basal (
            Background) Insulin", nullptr));
        current_insulin_regimen->setItemText(2,
            QApplication::translate("
            EditPatientVisitRecordDoc", "Pre-mixed
            Twice Daily (Before breakfast and dinner)",
            nullptr));
        current_insulin_regimen->setItemText(3,
            QApplication::translate("
            EditPatientVisitRecordDoc", "Basal-bolus",
            nullptr));

        label_5->setText(QString());
        label_14->setText(QApplication::translate("
            EditPatientVisitRecordDoc", "*Current Insulin
            Dosage (units): ", nullptr));
        lineEdit_currDosage->setText(QString());
        date->setText(QApplication::translate("
            EditPatientVisitRecordDoc", "*Date Time
            Performed (YYYY-MM-DD HH:MM:SS):",
            nullptr));
        label_6->setText(QApplication::translate("
            EditPatientVisitRecordDoc", "*Weight (kg):",
            nullptr));
        label_8->setText(QString());
        label_7->setText(QApplication::translate("
            EditPatientVisitRecordDoc", "Height (cm):",
            nullptr));
        label_12->setText(QString());
        b3->setText(QApplication::translate("
            EditPatientVisitRecordDoc", "Daytime
            hypoglycemia", nullptr));
        b4->setText(QApplication::translate("
            EditPatientVisitRecordDoc", "Nocturnal
            Hypoglycemia (Consistently <5.5 mmol/L)",
            nullptr));
        p3->setText(QApplication::translate("
            EditPatientVisitRecordDoc", "Starting a new
            medication known to cause hyperglycemia",
            nullptr));
        p4->setText(QApplication::translate("
            EditPatientVisitRecordDoc", "Experiencing an
            illness known to cause hyperglycemia", nullptr))
            ;
        bb3->setText(QApplication::translate("
            EditPatientVisitRecordDoc", "Hospitalized or
            acutely ill", nullptr));
        b5->setText(QApplication::translate("
            EditPatientVisitRecordDoc", "Two (2) episodes
             of hypoglycemia (BG < 4.0 mmol/L) in a week
            ", nullptr));
        p1->setText(QApplication::translate("
            EditPatientVisitRecordDoc", "Opposed to more
             than 2 injections a day", nullptr));
        p2->setText(QApplication::translate("
            EditPatientVisitRecordDoc", "Has consistent
            meal times and food intake", nullptr));
        label_15->setText(QApplication::translate("
            EditPatientVisitRecordDoc", "*All fields
            marked with an asterisk are required.", nullptr)
            );
        b2->setText(QApplication::translate("
            EditPatientVisitRecordDoc", "Using drugs
            known to cause hypoglycemia", nullptr));
        b1->setText(QApplication::translate("
            EditPatientVisitRecordDoc", "Newly diagnosed
            with diabetes (less than 6 months)", nullptr));
        groupBox_4->setTitle(QString());
        pushButton_4->setText(QApplication::translate("
            EditPatientVisitRecordDoc", "Back", nullptr));
        label_9->setText(QString());
        pushButton_3->setText(QApplication::translate("
            EditPatientVisitRecordDoc", "Update", nullptr)
            );
        label_10->setText(QString());
        label_16->setText(QString());
        label_17->setText(QString());
    } // retranslateUi

};

namespace Ui {
    class EditPatientVisitRecordDoc: public
        Ui_EditPatientVisitRecordDoc {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_EDITPATIENTVISITRECORDDOC_H
```

```
/********************************************************************************

** Form generated from reading UI file 'getfingerprint.ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
    recompiling UI file!
********************************************************************************/


#ifndef UI_GETFINGERPRINT_H
#define UI_GETFINGERPRINT_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QDialog>
#include <QtWidgets/QFrame>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QSpacerItem>
#include <QtWidgets/QVBoxLayout>

QT_BEGIN_NAMESPACE

class Ui_GetFingerprint
{
public:
    QGridLayout *gridLayout;
    QHBoxLayout *horizontalLayout;
    QSpacerItem *horizontalSpacer;
    QPushButton *pushButton;
    QGroupBox *groupBox;
    QGridLayout *gridLayout_2;
    QSpacerItem *verticalSpacer;
    QLabel *label_5;
    QFrame *line_4;
    QLabel *label_7;
    QFrame *line_2;
    QFrame *line_3;
    QLabel *label_4;
    QLabel *label;
    QLabel *label_3;
    QLabel *label_6;
    QFrame *line;
    QHBoxLayout *horizontalLayout_2;
    QFrame *line_5;
    QVBoxLayout *verticalLayout;
    QLabel *label_1;
    QLabel *label_2;
    QFrame *line_6;
    QLabel *label_8;

    void setupUi(QDialog *GetFingerprint)
    {
        if (GetFingerprint->objectName().isEmpty())
            GetFingerprint->setObjectName(QStringLiteral
                ("GetFingerprint"));
        GetFingerprint->resize(516, 397);
        gridLayout = new QGridLayout(GetFingerprint);
        gridLayout->setObjectName(QStringLiteral("
            gridLayout"));
        horizontalLayout = new QHBoxLayout();
        horizontalLayout->setObjectName(QStringLiteral("
            horizontalLayout"));
        horizontalSpacer = new QSpacerItem(40, 20,
            QSizePolicy::Expanding, QSizePolicy::Minimum
            );

        horizontalLayout->addItem(horizontalSpacer);

        pushButton = new QPushButton(GetFingerprint);
        pushButton->setObjectName(QStringLiteral("
            pushButton"));

        horizontalLayout->addWidget(pushButton);


        gridLayout->addLayout(horizontalLayout, 1, 0, 1, 1);

        groupBox = new QGroupBox(GetFingerprint);
        groupBox->setObjectName(QStringLiteral("
            groupBox"));
        QFont font;
        font.setFamily(QStringLiteral("Calibri"));
        font.setPointSize(15);
        font.setBold(true);
        font.setWeight(75);
        groupBox->setFont(font);
        gridLayout_2 = new QGridLayout(groupBox);
        gridLayout_2->setObjectName(QStringLiteral("
            gridLayout_2"));
        verticalSpacer = new QSpacerItem(20, 40,
```

```
        QSizePolicy::Minimum, QSizePolicy::Expanding
        );

gridLayout_2->addItem(verticalSpacer, 14, 0, 1, 1);

label_5 = new QLabel(groupBox);
label_5->setObjectName(QStringLiteral("label_5"));
QFont font1;
font1.setFamily(QStringLiteral("MS Shell Dlg 2"));
font1.setPointSize(10);
font1.setBold(false);
font1.setWeight(50);
label_5->setFont(font1);

gridLayout_2->addWidget(label_5, 7, 0, 1, 2);

line_4 = new QFrame(groupBox);
line_4->setObjectName(QStringLiteral("line_4"));
line_4->setFrameShape(QFrame::HLine);
line_4->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_4, 15, 0, 1, 2);

label_7 = new QLabel(groupBox);
label_7->setObjectName(QStringLiteral("label_7"));
label_7->setFont(font1);

gridLayout_2->addWidget(label_7, 9, 0, 1, 2);

line_2 = new QFrame(groupBox);
line_2->setObjectName(QStringLiteral("line_2"));
line_2->setFrameShape(QFrame::HLine);
line_2->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_2, 4, 0, 1, 2);

line_3 = new QFrame(groupBox);
line_3->setObjectName(QStringLiteral("line_3"));
line_3->setFrameShape(QFrame::HLine);
line_3->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_3, 2, 0, 1, 2);

label_4 = new QLabel(groupBox);
label_4->setObjectName(QStringLiteral("label_4"));

gridLayout_2->addWidget(label_4, 13, 0, 1, 2);

label = new QLabel(groupBox);
label->setObjectName(QStringLiteral("label"));
label->setFont(font1);

gridLayout_2->addWidget(label, 5, 0, 1, 1);

label_3 = new QLabel(groupBox);
label_3->setObjectName(QStringLiteral("label_3"));

gridLayout_2->addWidget(label_3, 1, 0, 1, 1);

label_6 = new QLabel(groupBox);
label_6->setObjectName(QStringLiteral("label_6"));
label_6->setFont(font1);

gridLayout_2->addWidget(label_6, 8, 0, 1, 2);

line = new QFrame(groupBox);
line->setObjectName(QStringLiteral("line"));
line->setFrameShape(QFrame::HLine);
line->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line, 0, 0, 1, 2);

horizontalLayout_2 = new QHBoxLayout();
horizontalLayout_2->setObjectName(QStringLiteral
        ("horizontalLayout_2"));
line_5 = new QFrame(groupBox);
line_5->setObjectName(QStringLiteral("line_5"));
line_5->setFrameShape(QFrame::VLine);
line_5->setFrameShadow(QFrame::Sunken);

horizontalLayout_2->addWidget(line_5);

verticalLayout = new QVBoxLayout();
verticalLayout->setObjectName(QStringLiteral("
        verticalLayout"));
label_1 = new QLabel(groupBox);
label_1->setObjectName(QStringLiteral("label_1"));
QFont font2;
font2.setFamily(QStringLiteral("MS Shell Dlg 2"));
font2.setBold(false);
font2.setWeight(50);
label_1->setFont(font2);
label_1->setAlignment(Qt::AlignBottom|Qt::
        AlignHCenter);

verticalLayout->addWidget(label_1);

label_2 = new QLabel(groupBox);
label_2->setObjectName(QStringLiteral("label_2"));
label_2->setFont(font2);
label_2->setAlignment(Qt::AlignHCenter|Qt::
        AlignTop);

verticalLayout->addWidget(label_2);


horizontalLayout_2->addLayout(verticalLayout);

line_6 = new QFrame(groupBox);
line_6->setObjectName(QStringLiteral("line_6"));
line_6->setFrameShape(QFrame::VLine);
line_6->setFrameShadow(QFrame::Sunken);

horizontalLayout_2->addWidget(line_6);


gridLayout_2->addLayout(horizontalLayout_2, 3, 0,
        1, 2);

label_8 = new QLabel(groupBox);
label_8->setObjectName(QStringLiteral("label_8"));
label_8->setFont(font1);

gridLayout_2->addWidget(label_8, 6, 0, 1, 1);


gridLayout->addWidget(groupBox, 0, 0, 1, 1);


retranslateUi(GetFingerprint);

QMetaObject::connectSlotsByName(GetFingerprint);
} // setupUi

void retranslateUi(QDialog *GetFingerprint)
{
GetFingerprint->setWindowTitle(QApplication::
        translate("GetFingerprint", "Get Fingerprint of
         Patient", nullptr));
pushButton->setText(QApplication::translate("
        GetFingerprint", "Close", nullptr));
groupBox->setTitle(QApplication::translate("
        GetFingerprint", "Register Fingerprint", nullptr
        ));
label_5->setText(QApplication::translate("
        GetFingerprint", "2. Please place your right
        thumb in the fingerprint scanner when LED1
        blinks.", nullptr));
label_7->setText(QApplication::translate("
        GetFingerprint", "4. Lastly, place again your
        finger in the fingerprint scanner when LED1
        blinks.", nullptr));
label_4->setText(QString());
label->setText(QApplication::translate("
        GetFingerprint", "Instructions:", nullptr));
label_3->setText(QString());
label_6->setText(QApplication::translate("
        GetFingerprint", "3. Then, press the button
        when LED2 blinks.", nullptr));
label_1->setText(QApplication::translate("
        GetFingerprint", "Please place your right
        thumb on", nullptr));
label_2->setText(QApplication::translate("
        GetFingerprint", "the fingerprint scanner.",
        nullptr));
label_8->setText(QApplication::translate("
        GetFingerprint", "1. Press the green button on
        the IoT Glucometer twice. ", nullptr));
} // retranslateUi

};

namespace Ui {
    class GetFingerprint: public Ui_GetFingerprint {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_GETFINGERPRINT_H

/********************************************************************

** Form generated from reading UI file 'getpatientiotdata.ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
       recompiling UI file!
********************************************************************


#ifndef UI_GETPATIENTIOTDATA_H
#define UI_GETPATIENTIOTDATA_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
```

```
#include <QtWidgets/QDialog>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QTableView>

QT_BEGIN_NAMESPACE

class Ui_GetPatientIoTData
{
public:
    QGridLayout *gridLayout;
    QGroupBox *groupBox;
    QGridLayout *gridLayout_2;
    QTableView *patient_data;
    QHBoxLayout *horizontalLayout;
    QLabel *label;
    QPushButton *close;
    QLabel *label_2;

    void setupUi(QDialog *GetPatientIoTData)
    {
        if (GetPatientIoTData->objectName().isEmpty())
            GetPatientIoTData->setObjectName(
                QStringLiteral("GetPatientIoTData"));
        GetPatientIoTData->resize(628, 520);
        gridLayout = new QGridLayout(GetPatientIoTData);
        gridLayout->setObjectName(QStringLiteral("
            gridLayout"));
        groupBox = new QGroupBox(GetPatientIoTData);
        groupBox->setObjectName(QStringLiteral("
            groupBox"));
        QFont font;
        font.setFamily(QStringLiteral("Calibri"));
        font.setPointSize(15);
        font.setBold(true);
        font.setWeight(75);
        groupBox->setFont(font);
        gridLayout_2 = new QGridLayout(groupBox);
        gridLayout_2->setObjectName(QStringLiteral("
            gridLayout_2"));
        patient_data = new QTableView(groupBox);
        patient_data->setObjectName(QStringLiteral("
            patient_data"));
        QFont font1;
        font1.setFamily(QStringLiteral("Segoe UI"));
        font1.setPointSize(10);
        font1.setBold(false);
        font1.setWeight(50);
        patient_data->setFont(font1);

        gridLayout_2->addWidget(patient_data, 0, 0, 1, 1);


        gridLayout->addWidget(groupBox, 2, 0, 1, 1);

        horizontalLayout = new QHBoxLayout();
        horizontalLayout->setObjectName(QStringLiteral("
            horizontalLayout"));
        label = new QLabel(GetPatientIoTData);
        label->setObjectName(QStringLiteral("label"));
        QFont font2;
        font2.setFamily(QStringLiteral("Segoe UI"));
        font2.setPointSize(10);
        label->setFont(font2);

        horizontalLayout->addWidget(label);

        close = new QPushButton(GetPatientIoTData);
        close->setObjectName(QStringLiteral("close"));
        QFont font3;
        font3.setFamily(QStringLiteral("Segoe UI"));
        font3.setPointSize(11);
        font3.setBold(true);
        font3.setWeight(75);
        close->setFont(font3);

        horizontalLayout->addWidget(close);

        label_2 = new QLabel(GetPatientIoTData);
        label_2->setObjectName(QStringLiteral("label_2"));
        label_2->setFont(font2);

        horizontalLayout->addWidget(label_2);


        gridLayout->addLayout(horizontalLayout, 3, 0, 1, 1);


        retranslateUi(GetPatientIoTData);

        QMetaObject::connectSlotsByName(
            GetPatientIoTData);
    } // setupUi

    void retranslateUi(QDialog *GetPatientIoTData)
    {
        GetPatientIoTData->setWindowTitle(QApplication::
            translate("GetPatientIoTData", "IoT
            Glucometer Data", nullptr));
        groupBox->setTitle(QApplication::translate("
            GetPatientIoTData", "Get Patient IoT
            Glucometer Data", nullptr));
        label->setText(QString());
        close->setText(QApplication::translate("
            GetPatientIoTData", "Close", nullptr));
        label_2->setText(QString());
    } // retranslateUi

};

namespace Ui {
    class GetPatientIoTData: public Ui_GetPatientIoTData
        {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_GETPATIENTIOTDATA_H

/********************************************************************

** Form generated from reading UI file 'mainmenu.ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
    recompiling UI file!
********************************************************************


#ifndef UI_MAINMENU_H
#define UI_MAINMENU_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QFrame>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QSpacerItem>
#include <QtWidgets/QVBoxLayout>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_MainMenu
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout_2;
    QFrame *line_4;
    QHBoxLayout *horizontalLayout_8;
    QFrame *line_3;
    QLabel *label_3;
    QLabel *nameLabel;
    QSpacerItem *horizontalSpacer_6;
    QPushButton *logout;
    QFrame *line;
    QGroupBox *groupBox_6;
    QGridLayout *gridLayout_6;
    QLabel *label_20;
    QLabel *label_19;
    QGroupBox *groupBox_2;
    QGridLayout *gridLayout_7;
    QLabel *label_24;
    QLabel *label_21;
    QVBoxLayout *verticalLayout_4;
    QHBoxLayout *horizontalLayout_9;
    QSpacerItem *horizontalSpacer_7;
    QLabel *label_22;
    QSpacerItem *horizontalSpacer_8;
    QHBoxLayout *horizontalLayout_10;
    QSpacerItem *horizontalSpacer_9;
    QLabel *label_23;
    QSpacerItem *horizontalSpacer_10;
    QGroupBox *groupBox_7;
    QGridLayout *gridLayout;
    QLabel *label_28;
    QVBoxLayout *verticalLayout;
    QHBoxLayout *horizontalLayout_4;
    QPushButton *menu_addPatient;
    QPushButton *menu_searchPatient;
    QHBoxLayout *horizontalLayout;
    QPushButton *consultations;
    QHBoxLayout *horizontalLayout_5;
    QPushButton *menu_getData;
    QLabel *label_2;
    QLabel *label_4;
```

```
QLabel *label;

void setupUi(QMainWindow *MainMenu)
{
    if (MainMenu->objectName().isEmpty())
        MainMenu->setObjectName(QStringLiteral("
            MainMenu"));
    MainMenu->resize(800, 607);
    centralwidget = new QWidget(MainMenu);
    centralwidget->setObjectName(QStringLiteral("
        centralwidget"));
    gridLayout_2 = new QGridLayout(centralwidget);
    gridLayout_2->setObjectName(QStringLiteral("
        gridLayout_2"));
    line_4 = new QFrame(centralwidget);
    line_4->setObjectName(QStringLiteral("line_4"));
    line_4->setFrameShape(QFrame::HLine);
    line_4->setFrameShadow(QFrame::Sunken);

    gridLayout_2->addWidget(line_4, 0, 0, 1, 1);

    horizontalLayout_8 = new QHBoxLayout();
    horizontalLayout_8->setObjectName(QStringLiteral
        ("horizontalLayout_8"));
    line_3 = new QFrame(centralwidget);
    line_3->setObjectName(QStringLiteral("line_3"));
    line_3->setFrameShape(QFrame::HLine);
    line_3->setFrameShadow(QFrame::Sunken);

    horizontalLayout_8->addWidget(line_3);

    label_3 = new QLabel(centralwidget);
    label_3->setObjectName(QStringLiteral("label_3"));
    QFont font;
    font.setFamily(QStringLiteral("Segoe UI Semibold"));
    font.setPointSize(10);
    font.setBold(false);
    font.setWeight(50);
    font.setKerning(false);
    label_3->setFont(font);

    horizontalLayout_8->addWidget(label_3);

    nameLabel = new QLabel(centralwidget);
    nameLabel->setObjectName(QStringLiteral("
        nameLabel"));
    QFont font1;
    font1.setFamily(QStringLiteral("Segoe UI"));
    font1.setPointSize(10);
    font1.setBold(false);
    font1.setWeight(50);
    nameLabel->setFont(font1);

    horizontalLayout_8->addWidget(nameLabel);

    horizontalSpacer_6 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

    horizontalLayout_8->addItem(horizontalSpacer_6);

    logout = new QPushButton(centralwidget);
    logout->setObjectName(QStringLiteral("logout"));
    QFont font2;
    font2.setFamily(QStringLiteral("Segoe UI"));
    font2.setPointSize(10);
    font2.setBold(true);
    font2.setWeight(75);
    logout->setFont(font2);

    horizontalLayout_8->addWidget(logout);


    gridLayout_2->addLayout(horizontalLayout_8, 1, 0,
        1, 1);

    line = new QFrame(centralwidget);
    line->setObjectName(QStringLiteral("line"));
    line->setFrameShape(QFrame::HLine);
    line->setFrameShadow(QFrame::Sunken);

    gridLayout_2->addWidget(line, 2, 0, 1, 1);

    groupBox_6 = new QGroupBox(centralwidget);
    groupBox_6->setObjectName(QStringLiteral("
        groupBox_6"));
    gridLayout_6 = new QGridLayout(groupBox_6);
    gridLayout_6->setObjectName(QStringLiteral("
        gridLayout_6"));
    label_20 = new QLabel(groupBox_6);
    label_20->setObjectName(QStringLiteral("label_20")
        );

    gridLayout_6->addWidget(label_20, 0, 0, 1, 1);

    label_19 = new QLabel(groupBox_6);
    label_19->setObjectName(QStringLiteral("label_19")
        );

    gridLayout_6->addWidget(label_19, 9, 0, 1, 1);

    groupBox_2 = new QGroupBox(groupBox_6);
    groupBox_2->setObjectName(QStringLiteral("
        groupBox_2"));
    gridLayout_7 = new QGridLayout(groupBox_2);
    gridLayout_7->setObjectName(QStringLiteral("
        gridLayout_7"));
    label_24 = new QLabel(groupBox_2);
    label_24->setObjectName(QStringLiteral("label_24")
        );

    gridLayout_7->addWidget(label_24, 2, 0, 1, 1);

    label_21 = new QLabel(groupBox_2);
    label_21->setObjectName(QStringLiteral("label_21")
        );

    gridLayout_7->addWidget(label_21, 0, 0, 1, 1);

    verticalLayout_4 = new QVBoxLayout();
    verticalLayout_4->setObjectName(QStringLiteral("
        verticalLayout_4"));
    horizontalLayout_9 = new QHBoxLayout();
    horizontalLayout_9->setObjectName(QStringLiteral
        ("horizontalLayout_9"));
    horizontalSpacer_7 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

    horizontalLayout_9->addItem(horizontalSpacer_7);

    label_22 = new QLabel(groupBox_2);
    label_22->setObjectName(QStringLiteral("label_22")
        );
    QFont font3;
    font3.setFamily(QStringLiteral("Calibri"));
    font3.setPointSize(80);
    font3.setBold(true);
    font3.setUnderline(false);
    font3.setWeight(75);
    label_22->setFont(font3);
    label_22->setLayoutDirection(Qt::LeftToRight);

    horizontalLayout_9->addWidget(label_22);

    horizontalSpacer_8 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

    horizontalLayout_9->addItem(horizontalSpacer_8);


    verticalLayout_4->addLayout(horizontalLayout_9);

    horizontalLayout_10 = new QHBoxLayout();
    horizontalLayout_10->setObjectName(QStringLiteral
        ("horizontalLayout_10"));
    horizontalSpacer_9 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

    horizontalLayout_10->addItem(horizontalSpacer_9);

    label_23 = new QLabel(groupBox_2);
    label_23->setObjectName(QStringLiteral("label_23")
        );
    QFont font4;
    font4.setFamily(QStringLiteral("Calibri"));
    font4.setPointSize(10);
    font4.setBold(false);
    font4.setUnderline(false);
    font4.setWeight(50);
    label_23->setFont(font4);
    label_23->setLayoutDirection(Qt::LeftToRight);

    horizontalLayout_10->addWidget(label_23);

    horizontalSpacer_10 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

    horizontalLayout_10->addItem(horizontalSpacer_10);


    verticalLayout_4->addLayout(horizontalLayout_10);


    gridLayout_7->addLayout(verticalLayout_4, 1, 0, 1,
        1);


    gridLayout_6->addWidget(groupBox_2, 6, 0, 1, 1);

    groupBox_7 = new QGroupBox(groupBox_6);
    groupBox_7->setObjectName(QStringLiteral("
        groupBox_7"));
    QFont font5;
    font5.setFamily(QStringLiteral("Segoe UI Semibold")
```

```
        );
font5.setPointSize(15);
groupBox_7->setFont(font5);
gridLayout = new QGridLayout(groupBox_7);
gridLayout->setObjectName(QStringLiteral("
        gridLayout"));
label_28 = new QLabel(groupBox_7);
label_28->setObjectName(QStringLiteral("label_28")
        );

gridLayout->addWidget(label_28, 0, 1, 1, 1);

verticalLayout = new QVBoxLayout();
verticalLayout->setObjectName(QStringLiteral("
        verticalLayout"));
horizontalLayout_4 = new QHBoxLayout();
horizontalLayout_4->setObjectName(QStringLiteral
        ("horizontalLayout_4"));
menu_addPatient = new QPushButton(groupBox_7);
menu_addPatient->setObjectName(QStringLiteral("
        menu_addPatient"));
QFont font6;
font6.setFamily(QStringLiteral("Segoe UI Emoji"));
font6.setPointSize(20);
font6.setBold(false);
font6.setWeight(50);
menu_addPatient->setFont(font6);

horizontalLayout_4->addWidget(menu_addPatient);

menu_searchPatient = new QPushButton(groupBox_7)
        ;
menu_searchPatient->setObjectName(QStringLiteral
        ("menu_searchPatient"));
menu_searchPatient->setFont(font6);

horizontalLayout_4->addWidget(menu_searchPatient)
        ;


verticalLayout->addLayout(horizontalLayout_4);

horizontalLayout = new QHBoxLayout();
horizontalLayout->setObjectName(QStringLiteral("
        horizontalLayout"));
consultations = new QPushButton(groupBox_7);
consultations->setObjectName(QStringLiteral("
        consultations"));
QFont font7;
font7.setFamily(QStringLiteral("Segoe UI Emoji"));
font7.setPointSize(20);
consultations->setFont(font7);

horizontalLayout->addWidget(consultations);


verticalLayout->addLayout(horizontalLayout);

horizontalLayout_5 = new QHBoxLayout();
horizontalLayout_5->setObjectName(QStringLiteral
        ("horizontalLayout_5"));
menu_getData = new QPushButton(groupBox_7);
menu_getData->setObjectName(QStringLiteral("
        menu_getData"));
menu_getData->setFont(font6);

horizontalLayout_5->addWidget(menu_getData);


verticalLayout->addLayout(horizontalLayout_5);


gridLayout->addLayout(verticalLayout, 1, 1, 1, 1);

label_2 = new QLabel(groupBox_7);
label_2->setObjectName(QStringLiteral("label_2"));

gridLayout->addWidget(label_2, 1, 0, 1, 1);

label_4 = new QLabel(groupBox_7);
label_4->setObjectName(QStringLiteral("label_4"));

gridLayout->addWidget(label_4, 1, 2, 1, 1);


gridLayout_6->addWidget(groupBox_7, 8, 0, 1, 1);

label = new QLabel(groupBox_6);
label->setObjectName(QStringLiteral("label"));

gridLayout_6->addWidget(label, 7, 0, 1, 1);


gridLayout_2->addWidget(groupBox_6, 3, 0, 1, 1);

MainMenu->setCentralWidget(centralwidget);

retranslateUi(MainMenu);

        QMetaObject::connectSlotsByName(MainMenu);
    } // setupUi

    void retranslateUi(QMainWindow *MainMenu)
    {
        MainMenu->setWindowTitle(QApplication::translate
                ("MainMenu", "IoT-based Recommender
                System for Diabetic Patients", nullptr));
        label_3->setText(QApplication::translate("
                MainMenu", "User Account:", nullptr));
        nameLabel->setText(QString());
        logout->setText(QApplication::translate("MainMenu
                ", "Logout", nullptr));
        groupBox_6->setTitle(QString());
        label_20->setText(QString());
        label_19->setText(QString());
        groupBox_2->setTitle(QString());
        label_24->setText(QString());
        label_21->setText(QString());
        label_22->setText(QApplication::translate("
                MainMenu", "DiAbVi", nullptr));
        label_23->setText(QApplication::translate("
                MainMenu", "IoT-based Recommender System
                for Diabetic Patients", nullptr));
        groupBox_7->setTitle(QApplication::translate("
                MainMenu", "Main Menu", nullptr));
        label_28->setText(QString());
        menu_addPatient->setText(QApplication::translate("
                MainMenu", "Add Patient", nullptr));
        menu_searchPatient->setText(QApplication::translate
                ("MainMenu", "Search Patient", nullptr));
        consultations->setText(QApplication::translate("
                MainMenu", "Consultations", nullptr));
        menu_getData->setText(QApplication::translate("
                MainMenu", "Retrieve IoT Glucometer Data",
                nullptr));
        label_2->setText(QString());
        label_4->setText(QString());
        label->setText(QString());
    } // retranslateUi

};

namespace Ui {
    class MainMenu: public Ui_MainMenu {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_MAINMENU_H

/********************************************************************************

** Form generated from reading UI file 'mainmenuadmin.ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
       recompiling UI file!
********************************************************************************


#ifndef UI_MAINMENUADMIN_H
#define UI_MAINMENUADMIN_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QFrame>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QSpacerItem>
#include <QtWidgets/QVBoxLayout>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_MainMenuAdmin
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout;
    QFrame *line_3;
    QFrame *line_4;
    QGroupBox *groupBox_6;
    QGridLayout *gridLayout_3;
    QGroupBox *groupBox_5;
    QGridLayout *gridLayout_5;
    QGridLayout *gridLayout_2;
    QPushButton *viewUser;
    QPushButton *addUser;
    QLabel *label;
    QLabel *label_2;
```

```
QLabel *label_10;
QGroupBox *groupBox;
QGridLayout *gridLayout_4;
QLabel *label_7;
QVBoxLayout *verticalLayout_2;
QHBoxLayout *horizontalLayout_2;
QSpacerItem *horizontalSpacer_2;
QLabel *label_3;
QSpacerItem *horizontalSpacer_3;
QHBoxLayout *horizontalLayout_3;
QSpacerItem *horizontalSpacer_4;
QLabel *label_4;
QSpacerItem *horizontalSpacer_5;
QLabel *label_8;
QLabel *label_6;
QLabel *label_5;
QLabel *label_9;
QHBoxLayout *horizontalLayout;
QFrame *line_2;
QLabel *label_11;
QLabel *nameLabel;
QSpacerItem *horizontalSpacer;
QPushButton *logout;

void setupUi(QMainWindow *MainMenuAdmin)
{
    if (MainMenuAdmin->objectName().isEmpty())
        MainMenuAdmin->setObjectName(
                QStringLiteral("MainMenuAdmin"));
    MainMenuAdmin->resize(800, 600);
    centralwidget = new QWidget(MainMenuAdmin);
    centralwidget->setObjectName(QStringLiteral("
            centralwidget"));
    gridLayout = new QGridLayout(centralwidget);
    gridLayout->setObjectName(QStringLiteral("
            gridLayout"));
    line_3 = new QFrame(centralwidget);
    line_3->setObjectName(QStringLiteral("line_3"));
    line_3->setFrameShape(QFrame::HLine);
    line_3->setFrameShadow(QFrame::Sunken);

    gridLayout->addWidget(line_3, 3, 0, 1, 1);

    line_4 = new QFrame(centralwidget);
    line_4->setObjectName(QStringLiteral("line_4"));
    line_4->setFrameShape(QFrame::HLine);
    line_4->setFrameShadow(QFrame::Sunken);

    gridLayout->addWidget(line_4, 0, 0, 1, 1);

    groupBox_6 = new QGroupBox(centralwidget);
    groupBox_6->setObjectName(QStringLiteral("
            groupBox_6"));
    gridLayout_3 = new QGridLayout(groupBox_6);
    gridLayout_3->setObjectName(QStringLiteral("
            gridLayout_3"));
    groupBox_5 = new QGroupBox(groupBox_6);
    groupBox_5->setObjectName(QStringLiteral("
            groupBox_5"));
    QFont font;
    font.setFamily(QStringLiteral("Segoe UI"));
    font.setPointSize(11);
    groupBox_5->setFont(font);
    gridLayout_5 = new QGridLayout(groupBox_5);
    gridLayout_5->setObjectName(QStringLiteral("
            gridLayout_5"));
    gridLayout_2 = new QGridLayout();
    gridLayout_2->setObjectName(QStringLiteral("
            gridLayout_2"));
    viewUser = new QPushButton(groupBox_5);
    viewUser->setObjectName(QStringLiteral("viewUser
            "));
    QFont font1;
    font1.setFamily(QStringLiteral("Segoe UI Emoji"));
    font1.setPointSize(20);
    font1.setBold(false);
    font1.setWeight(50);
    viewUser->setFont(font1);

    gridLayout_2->addWidget(viewUser, 1, 2, 1, 1);

    addUser = new QPushButton(groupBox_5);
    addUser->setObjectName(QStringLiteral("addUser")
            );
    addUser->setFont(font1);

    gridLayout_2->addWidget(addUser, 1, 1, 1, 1);

    label = new QLabel(groupBox_5);
    label->setObjectName(QStringLiteral("label"));

    gridLayout_2->addWidget(label, 4, 0, 1, 1);

    label_2 = new QLabel(groupBox_5);
    label_2->setObjectName(QStringLiteral("label_2"));

    gridLayout_2->addWidget(label_2, 1, 3, 1, 1);

    label_10 = new QLabel(groupBox_5);
    label_10->setObjectName(QStringLiteral("label_10")
            );

    gridLayout_2->addWidget(label_10, 0, 1, 1, 1);


    gridLayout_5->addLayout(gridLayout_2, 0, 0, 1, 1);


    gridLayout_3->addWidget(groupBox_5, 9, 0, 1, 1);

    groupBox = new QGroupBox(groupBox_6);
    groupBox->setObjectName(QStringLiteral("
            groupBox"));
    gridLayout_4 = new QGridLayout(groupBox);
    gridLayout_4->setObjectName(QStringLiteral("
            gridLayout_4"));
    label_7 = new QLabel(groupBox);
    label_7->setObjectName(QStringLiteral("label_7"));

    gridLayout_4->addWidget(label_7, 0, 0, 1, 1);

    verticalLayout_2 = new QVBoxLayout();
    verticalLayout_2->setObjectName(QStringLiteral("
            verticalLayout_2"));
    horizontalLayout_2 = new QHBoxLayout();
    horizontalLayout_2->setObjectName(QStringLiteral
            ("horizontalLayout_2"));
    horizontalSpacer_2 = new QSpacerItem(40, 20,
            QSizePolicy::Expanding, QSizePolicy::Minimum
            );

    horizontalLayout_2->addItem(horizontalSpacer_2);

    label_3 = new QLabel(groupBox);
    label_3->setObjectName(QStringLiteral("label_3"));
    QFont font2;
    font2.setFamily(QStringLiteral("Calibri"));
    font2.setPointSize(80);
    font2.setBold(true);
    font2.setUnderline(false);
    font2.setWeight(75);
    label_3->setFont(font2);
    label_3->setLayoutDirection(Qt::LeftToRight);

    horizontalLayout_2->addWidget(label_3);

    horizontalSpacer_3 = new QSpacerItem(40, 20,
            QSizePolicy::Expanding, QSizePolicy::Minimum
            );

    horizontalLayout_2->addItem(horizontalSpacer_3);


    verticalLayout_2->addLayout(horizontalLayout_2);

    horizontalLayout_3 = new QHBoxLayout();
    horizontalLayout_3->setObjectName(QStringLiteral
            ("horizontalLayout_3"));
    horizontalSpacer_4 = new QSpacerItem(40, 20,
            QSizePolicy::Expanding, QSizePolicy::Minimum
            );

    horizontalLayout_3->addItem(horizontalSpacer_4);

    label_4 = new QLabel(groupBox);
    label_4->setObjectName(QStringLiteral("label_4"));
    QFont font3;
    font3.setFamily(QStringLiteral("Calibri"));
    font3.setPointSize(10);
    font3.setBold(false);
    font3.setUnderline(false);
    font3.setWeight(50);
    label_4->setFont(font3);
    label_4->setLayoutDirection(Qt::LeftToRight);

    horizontalLayout_3->addWidget(label_4);

    horizontalSpacer_5 = new QSpacerItem(40, 20,
            QSizePolicy::Expanding, QSizePolicy::Minimum
            );

    horizontalLayout_3->addItem(horizontalSpacer_5);


    verticalLayout_2->addLayout(horizontalLayout_3);


    gridLayout_4->addLayout(verticalLayout_2, 1, 0, 1,
            1);

    label_8 = new QLabel(groupBox);
    label_8->setObjectName(QStringLiteral("label_8"));

    gridLayout_4->addWidget(label_8, 2, 0, 1, 1);


    gridLayout_3->addWidget(groupBox, 7, 0, 1, 1);
```

```
    label_6 = new QLabel(groupBox_6);
    label_6->setObjectName(QStringLiteral("label_6"));

    gridLayout_3->addWidget(label_6, 10, 0, 1, 1);

    label_5 = new QLabel(groupBox_6);
    label_5->setObjectName(QStringLiteral("label_5"));

    gridLayout_3->addWidget(label_5, 1, 0, 1, 1);

    label_9 = new QLabel(groupBox_6);
    label_9->setObjectName(QStringLiteral("label_9"));

    gridLayout_3->addWidget(label_9, 8, 0, 1, 1);


    gridLayout->addWidget(groupBox_6, 4, 0, 1, 1);

    horizontalLayout = new QHBoxLayout();
    horizontalLayout->setObjectName(QStringLiteral("
        horizontalLayout"));
    line_2 = new QFrame(centralwidget);
    line_2->setObjectName(QStringLiteral("line_2"));
    line_2->setFrameShape(QFrame::HLine);
    line_2->setFrameShadow(QFrame::Sunken);

    horizontalLayout->addWidget(line_2);

    label_11 = new QLabel(centralwidget);
    label_11->setObjectName(QStringLiteral("label_11")
        );
    QFont font4;
    font4.setFamily(QStringLiteral("Segoe UI Semibold")
        );
    font4.setPointSize(10);
    font4.setBold(false);
    font4.setWeight(50);
    label_11->setFont(font4);

    horizontalLayout->addWidget(label_11);

    nameLabel = new QLabel(centralwidget);
    nameLabel->setObjectName(QStringLiteral("
        nameLabel"));
    QFont font5;
    font5.setFamily(QStringLiteral("Segoe UI"));
    font5.setPointSize(10);
    font5.setBold(false);
    font5.setWeight(50);
    nameLabel->setFont(font5);

    horizontalLayout->addWidget(nameLabel);

    horizontalSpacer = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

    horizontalLayout->addItem(horizontalSpacer);

    logout = new QPushButton(centralwidget);
    logout->setObjectName(QStringLiteral("logout"));
    QFont font6;
    font6.setFamily(QStringLiteral("Segoe UI"));
    font6.setPointSize(11);
    font6.setBold(true);
    font6.setWeight(75);
    logout->setFont(font6);

    horizontalLayout->addWidget(logout);


    gridLayout->addLayout(horizontalLayout, 2, 0, 1, 1);

    MainMenuAdmin->setCentralWidget(centralwidget);

    retranslateUi(MainMenuAdmin);

    QMetaObject::connectSlotsByName(MainMenuAdmin)
        ;
} // setupUi

void retranslateUi(QMainWindow *MainMenuAdmin)
{
    MainMenuAdmin->setWindowTitle(QApplication::
        translate("MainMenuAdmin", "IoT-based
        Recommender System for Diabetic Patients",
        nullptr));
    groupBox_6->setTitle(QString());
    groupBox_5->setTitle(QApplication::translate("
        MainMenuAdmin", "Main Menu", nullptr));
    viewUser->setText(QApplication::translate("
        MainMenuAdmin", "View User Account",
        nullptr));
    addUser->setText(QApplication::translate("
        MainMenuAdmin", "Add User Account",
        nullptr));
    label->setText(QString());
    label_2->setText(QString());
    label_10->setText(QString());
    groupBox->setTitle(QString());
    label_7->setText(QString());
    label_3->setText(QApplication::translate("
        MainMenuAdmin", "DiAbVi", nullptr));
    label_4->setText(QApplication::translate("
        MainMenuAdmin", "IoT-based Recommender
        System for Diabetic Patients", nullptr));
    label_8->setText(QString());
    label_6->setText(QString());
    label_5->setText(QString());
    label_9->setText(QString());
    label_11->setText(QApplication::translate("
        MainMenuAdmin", "User Account:", nullptr));
    nameLabel->setText(QApplication::translate("
        MainMenuAdmin", "Admin Account", nullptr));
    logout->setText(QApplication::translate("
        MainMenuAdmin", "Logout", nullptr));
} // retranslateUi

};

namespace Ui {
    class MainMenuAdmin: public Ui_MainMenuAdmin {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_MAINMENUADMIN_H

/********************************************************************

** Form generated from reading UI file 'mainmenudoctor.ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
    recompiling UI file!
********************************************************************


#ifndef UI_MAINMENUDOCTOR_H
#define UI_MAINMENUDOCTOR_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QFrame>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QSpacerItem>
#include <QtWidgets/QVBoxLayout>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_MainMenuDoctor
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout;
    QGroupBox *groupBox_6;
    QGridLayout *gridLayout_8;
    QLabel *label_15;
    QLabel *label_16;
    QLabel *label_24;
    QGroupBox *groupBox_2;
    QGridLayout *gridLayout_9;
    QLabel *label_17;
    QVBoxLayout *verticalLayout_3;
    QHBoxLayout *horizontalLayout_4;
    QSpacerItem *horizontalSpacer_6;
    QLabel *label_18;
    QSpacerItem *horizontalSpacer_7;
    QHBoxLayout *horizontalLayout_5;
    QLabel *label_20;
    QSpacerItem *horizontalSpacer_8;
    QLabel *label_19;
    QSpacerItem *horizontalSpacer_9;
    QGroupBox *groupBox_7;
    QGridLayout *gridLayout_2;
    QVBoxLayout *verticalLayout_2;
    QSpacerItem *verticalSpacer_3;
    QVBoxLayout *verticalLayout;
    QHBoxLayout *horizontalLayout;
    QPushButton *pushButton_2;
    QPushButton *searchPatient;
    QPushButton *consultations;
    QPushButton *retrieveData;
    QSpacerItem *verticalSpacer_2;
    QLabel *label_2;
    QLabel *label;
    QFrame *line_3;
    QHBoxLayout *horizontalLayout_6;
```

```
QFrame *line_4;
QLabel *label_3;
QLabel *nameLabel;
QSpacerItem *horizontalSpacer_10;
QPushButton *logout;
QFrame *line;
QFrame *line_2;

void setupUi(QMainWindow *MainMenuDoctor)
{
    if (MainMenuDoctor->objectName().isEmpty())
        MainMenuDoctor->setObjectName(
            QStringLiteral("MainMenuDoctor"));
    MainMenuDoctor->resize(800, 600);
    centralwidget = new QWidget(MainMenuDoctor);
    centralwidget->setObjectName(QStringLiteral("
        centralwidget"));
    gridLayout = new QGridLayout(centralwidget);
    gridLayout->setObjectName(QStringLiteral("
        gridLayout"));
    groupBox_6 = new QGroupBox(centralwidget);
    groupBox_6->setObjectName(QStringLiteral("
        groupBox_6"));
    gridLayout_8 = new QGridLayout(groupBox_6);
    gridLayout_8->setObjectName(QStringLiteral("
        gridLayout_8"));
    label_15 = new QLabel(groupBox_6);
    label_15->setObjectName(QStringLiteral("label_15")
        );

    gridLayout_8->addWidget(label_15, 10, 0, 1, 1);

    label_16 = new QLabel(groupBox_6);
    label_16->setObjectName(QStringLiteral("label_16")
        );

    gridLayout_8->addWidget(label_16, 0, 0, 1, 1);

    label_24 = new QLabel(groupBox_6);
    label_24->setObjectName(QStringLiteral("label_24")
        );

    gridLayout_8->addWidget(label_24, 7, 0, 1, 1);

    groupBox_2 = new QGroupBox(groupBox_6);
    groupBox_2->setObjectName(QStringLiteral("
        groupBox_2"));
    gridLayout_9 = new QGridLayout(groupBox_2);
    gridLayout_9->setObjectName(QStringLiteral("
        gridLayout_9"));
    label_17 = new QLabel(groupBox_2);
    label_17->setObjectName(QStringLiteral("label_17")
        );

    gridLayout_9->addWidget(label_17, 0, 0, 1, 1);

    verticalLayout_3 = new QVBoxLayout();
    verticalLayout_3->setObjectName(QStringLiteral("
        verticalLayout_3"));
    horizontalLayout_4 = new QHBoxLayout();
    horizontalLayout_4->setObjectName(QStringLiteral
        ("horizontalLayout_4"));
    horizontalSpacer_6 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

    horizontalLayout_4->addItem(horizontalSpacer_6);

    label_18 = new QLabel(groupBox_2);
    label_18->setObjectName(QStringLiteral("label_18")
        );
    QFont font;
    font.setFamily(QStringLiteral("Calibri"));
    font.setPointSize(80);
    font.setBold(true);
    font.setUnderline(false);
    font.setWeight(75);
    label_18->setFont(font);
    label_18->setLayoutDirection(Qt::LeftToRight);

    horizontalLayout_4->addWidget(label_18);

    horizontalSpacer_7 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

    horizontalLayout_4->addItem(horizontalSpacer_7);


    verticalLayout_3->addLayout(horizontalLayout_4);

    horizontalLayout_5 = new QHBoxLayout();
    horizontalLayout_5->setObjectName(QStringLiteral
        ("horizontalLayout_5"));
    label_20 = new QLabel(groupBox_2);
    label_20->setObjectName(QStringLiteral("label_20")
        );

    horizontalLayout_5->addWidget(label_20);

    horizontalSpacer_8 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

    horizontalLayout_5->addItem(horizontalSpacer_8);

    label_19 = new QLabel(groupBox_2);
    label_19->setObjectName(QStringLiteral("label_19")
        );
    QFont font1;
    font1.setFamily(QStringLiteral("Calibri"));
    font1.setPointSize(10);
    font1.setBold(false);
    font1.setUnderline(false);
    font1.setWeight(50);
    label_19->setFont(font1);
    label_19->setLayoutDirection(Qt::LeftToRight);

    horizontalLayout_5->addWidget(label_19);

    horizontalSpacer_9 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

    horizontalLayout_5->addItem(horizontalSpacer_9);


    verticalLayout_3->addLayout(horizontalLayout_5);


    gridLayout_9->addLayout(verticalLayout_3, 1, 0, 1,
        1);


    gridLayout_8->addWidget(groupBox_2, 6, 0, 1, 1);

    groupBox_7 = new QGroupBox(groupBox_6);
    groupBox_7->setObjectName(QStringLiteral("
        groupBox_7"));
    QFont font2;
    font2.setFamily(QStringLiteral("Segoe UI"));
    font2.setPointSize(10);
    font2.setBold(false);
    font2.setWeight(50);
    groupBox_7->setFont(font2);
    gridLayout_2 = new QGridLayout(groupBox_7);
    gridLayout_2->setObjectName(QStringLiteral("
        gridLayout_2"));
    verticalLayout_2 = new QVBoxLayout();
    verticalLayout_2->setObjectName(QStringLiteral("
        verticalLayout_2"));
    verticalSpacer_3 = new QSpacerItem(20, 40,
        QSizePolicy::Minimum, QSizePolicy::Expanding
        );

    verticalLayout_2->addItem(verticalSpacer_3);

    verticalLayout = new QVBoxLayout();
    verticalLayout->setObjectName(QStringLiteral("
        verticalLayout"));
    horizontalLayout = new QHBoxLayout();
    horizontalLayout->setObjectName(QStringLiteral("
        horizontalLayout"));
    pushButton_2 = new QPushButton(groupBox_7);
    pushButton_2->setObjectName(QStringLiteral("
        pushButton_2"));
    QFont font3;
    font3.setFamily(QStringLiteral("Segoe UI Emoji"));
    font3.setPointSize(20);
    font3.setBold(false);
    font3.setItalic(false);
    font3.setWeight(50);
    pushButton_2->setFont(font3);

    horizontalLayout->addWidget(pushButton_2);

    searchPatient = new QPushButton(groupBox_7);
    searchPatient->setObjectName(QStringLiteral("
        searchPatient"));
    searchPatient->setFont(font3);

    horizontalLayout->addWidget(searchPatient);


    verticalLayout->addLayout(horizontalLayout);

    consultations = new QPushButton(groupBox_7);
    consultations->setObjectName(QStringLiteral("
        consultations"));
    consultations->setFont(font3);

    verticalLayout->addWidget(consultations);

    retrieveData = new QPushButton(groupBox_7);
    retrieveData->setObjectName(QStringLiteral("
        retrieveData"));
    retrieveData->setFont(font3);
```

```
verticalLayout->addWidget(retrieveData);


verticalLayout_2->addLayout(verticalLayout);

verticalSpacer_2 = new QSpacerItem(20, 40,
        QSizePolicy::Minimum, QSizePolicy::Expanding
        );

verticalLayout_2->addItem(verticalSpacer_2);


gridLayout_2->addLayout(verticalLayout_2, 0, 1, 2,
        1);

label_2 = new QLabel(groupBox_7);
label_2->setObjectName(QStringLiteral("label_2"));

gridLayout_2->addWidget(label_2, 0, 2, 1, 1);

label = new QLabel(groupBox_7);
label->setObjectName(QStringLiteral("label"));

gridLayout_2->addWidget(label, 1, 0, 1, 1);


gridLayout_8->addWidget(groupBox_7, 9, 0, 1, 1);


gridLayout->addWidget(groupBox_6, 3, 0, 1, 3);

line_3 = new QFrame(centralwidget);
line_3->setObjectName(QStringLiteral("line_3"));
line_3->setFrameShape(QFrame::HLine);
line_3->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_3, 1, 0, 1, 1);

horizontalLayout_6 = new QHBoxLayout();
horizontalLayout_6->setObjectName(QStringLiteral
        ("horizontalLayout_6"));
line_4 = new QFrame(centralwidget);
line_4->setObjectName(QStringLiteral("line_4"));
line_4->setFrameShape(QFrame::HLine);
line_4->setFrameShadow(QFrame::Sunken);

horizontalLayout_6->addWidget(line_4);

label_3 = new QLabel(centralwidget);
label_3->setObjectName(QStringLiteral("label_3"));
QFont font4;
font4.setFamily(QStringLiteral("Segoe UI Semibold")
        );
font4.setPointSize(10);
font4.setBold(false);
font4.setWeight(50);
label_3->setFont(font4);

horizontalLayout_6->addWidget(label_3);

nameLabel = new QLabel(centralwidget);
nameLabel->setObjectName(QStringLiteral("
        nameLabel"));
nameLabel->setFont(font2);

horizontalLayout_6->addWidget(nameLabel);

horizontalSpacer_10 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

horizontalLayout_6->addItem(horizontalSpacer_10);

logout = new QPushButton(centralwidget);
logout->setObjectName(QStringLiteral("logout"));
QFont font5;
font5.setFamily(QStringLiteral("Segoe UI"));
font5.setPointSize(10);
font5.setBold(true);
font5.setWeight(75);
logout->setFont(font5);

horizontalLayout_6->addWidget(logout);


gridLayout->addLayout(horizontalLayout_6, 1, 1, 1,
        1);

line = new QFrame(centralwidget);
line->setObjectName(QStringLiteral("line"));
line->setFrameShape(QFrame::HLine);
line->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line, 2, 0, 1, 3);

line_2 = new QFrame(centralwidget);
line_2->setObjectName(QStringLiteral("line_2"));
line_2->setFrameShape(QFrame::HLine);
line_2->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_2, 0, 1, 1, 1);

MainMenuDoctor->setCentralWidget(centralwidget);

retranslateUi(MainMenuDoctor);

QMetaObject::connectSlotsByName(MainMenuDoctor
        );
} // setupUi

void retranslateUi(QMainWindow *MainMenuDoctor)
{
    MainMenuDoctor->setWindowTitle(QApplication::
            translate("MainMenuDoctor", "IoT-based
            Recommender System for Diabetic Patients",
            nullptr));
    groupBox_6->setTitle(QString());
    label_15->setText(QString());
    label_16->setText(QString());
    label_24->setText(QString());
    groupBox_2->setTitle(QString());
    label_17->setText(QString());
    label_18->setText(QApplication::translate("
            MainMenuDoctor", "DiAbVi", nullptr));
    label_20->setText(QString());
    label_19->setText(QApplication::translate("
            MainMenuDoctor", "IoT-based Recommender
            System for Diabetic Patients", nullptr));
    groupBox_7->setTitle(QApplication::translate("
            MainMenuDoctor", "Main Menu", nullptr));
    pushButton_2->setText(QApplication::translate("
            MainMenuDoctor", "Add Patient", nullptr));
    searchPatient->setText(QApplication::translate("
            MainMenuDoctor", "Search Patient", nullptr));
    consultations->setText(QApplication::translate("
            MainMenuDoctor", "Consultations", nullptr));
    retrieveData->setText(QApplication::translate("
            MainMenuDoctor", "Retrieve IoT Glucometer
            Data", nullptr));
    label_2->setText(QString());
    label->setText(QString());
    label_3->setText(QApplication::translate("
            MainMenuDoctor", "User Account: ", nullptr));
    nameLabel->setText(QString());
    logout->setText(QApplication::translate("
            MainMenuDoctor", "Logout", nullptr));
} // retranslateUi

};

namespace Ui {
    class MainMenuDoctor: public Ui_MainMenuDoctor {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_MAINMENUDOCTOR_H


/********************************************************************************

** Form generated from reading UI file 'mainwindow.ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
      recompiling UI file!
********************************************************************************


#ifndef UI_MAINWINDOW_H
#define UI_MAINWINDOW_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QLineEdit>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QSpacerItem>
#include <QtWidgets/QVBoxLayout>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_MainWindow
{
public:
    QWidget *centralWidget;
    QGridLayout *gridLayout_3;
    QGroupBox *groupBox_2;
    QGridLayout *gridLayout;
    QVBoxLayout *verticalLayout_3;
```

```
QSpacerItem *verticalSpacer_3;
QLabel *label_logo;
QSpacerItem *verticalSpacer_6;
QVBoxLayout *verticalLayout_2;
QSpacerItem *verticalSpacer_14;
QHBoxLayout *horizontalLayout_3;
QLabel *label_19;
QLabel *label;
QLabel *label_20;
QHBoxLayout *horizontalLayout_4;
QLabel *label_21;
QLabel *label_2;
QLabel *label_22;
QSpacerItem *verticalSpacer_15;
QVBoxLayout *verticalLayout_6;
QSpacerItem *verticalSpacer_12;
QLabel *label_pic;
QSpacerItem *verticalSpacer_13;
QGroupBox *groupBox;
QGridLayout *gridLayout_2;
QVBoxLayout *verticalLayout;
QHBoxLayout *horizontalLayout_6;
QHBoxLayout *horizontalLayout;
QSpacerItem *horizontalSpacer_2;
QLabel *label_user;
QLineEdit *lineEdit_username;
QSpacerItem *horizontalSpacer;
QHBoxLayout *horizontalLayout_7;
QHBoxLayout *horizontalLayout_2;
QSpacerItem *horizontalSpacer_3;
QLabel *label_pw;
QLineEdit *lineEdit_password;
QSpacerItem *horizontalSpacer_4;
QHBoxLayout *horizontalLayout_5;
QLabel *label_8;
QLabel *label_18;
QLabel *label_12;
QLabel *label_15;
QLabel *label_14;
QLabel *label_4;
QLabel *label_17;
QLabel *label_23;
QLabel *label_10;
QLabel *label_5;
QPushButton *pushButton_Login;
QLabel *label_6;
QLabel *label_3;
QLabel *label_11;
QLabel *label_16;
QLabel *label_13;
QLabel *label_7;
QLabel *label_9;
QLabel *status_label;

void setupUi(QMainWindow *MainWindow)
{
    if (MainWindow->objectName().isEmpty())
        MainWindow->setObjectName(QStringLiteral("
            MainWindow"));
    MainWindow->resize(864, 464);
    MainWindow->setMaximumSize(QSize(1114, 464));
    QIcon icon;
    icon.addFile(QStringLiteral("treatmentPlan.png"),
        QSize(), QIcon::Normal, QIcon::Off);
    MainWindow->setWindowIcon(icon);
    MainWindow->setAutoFillBackground(true);
    centralWidget = new QWidget(MainWindow);
    centralWidget->setObjectName(QStringLiteral("
        centralWidget"));
    centralWidget->setMaximumSize(QSize(1114, 464));
    gridLayout_3 = new QGridLayout(centralWidget);
    gridLayout_3->setSpacing(6);
    gridLayout_3->setContentsMargins(11, 11, 11, 11);
    gridLayout_3->setObjectName(QStringLiteral("
        gridLayout_3"));
    groupBox_2 = new QGroupBox(centralWidget);
    groupBox_2->setObjectName(QStringLiteral("
        groupBox_2"));
    gridLayout = new QGridLayout(groupBox_2);
    gridLayout->setSpacing(6);
    gridLayout->setContentsMargins(11, 11, 11, 11);
    gridLayout->setObjectName(QStringLiteral("
        gridLayout"));
    verticalLayout_3 = new QVBoxLayout();
    verticalLayout_3->setSpacing(6);
    verticalLayout_3->setObjectName(QStringLiteral("
        verticalLayout_3"));
    verticalSpacer_3 = new QSpacerItem(20, 40,
        QSizePolicy::Minimum, QSizePolicy::Expanding
        );

    verticalLayout_3->addItem(verticalSpacer_3);

    label_logo = new QLabel(groupBox_2);
    label_logo->setObjectName(QStringLiteral("
        label_logo"));
    label_logo->setAlignment(Qt::AlignCenter);

    verticalLayout_3->addWidget(label_logo);

    verticalSpacer_6 = new QSpacerItem(20, 40,
        QSizePolicy::Minimum, QSizePolicy::Expanding
        );

    verticalLayout_3->addItem(verticalSpacer_6);


    gridLayout->addLayout(verticalLayout_3, 0, 0, 1, 1);

    verticalLayout_2 = new QVBoxLayout();
    verticalLayout_2->setSpacing(6);
    verticalLayout_2->setObjectName(QStringLiteral("
        verticalLayout_2"));
    verticalSpacer_14 = new QSpacerItem(20, 40,
        QSizePolicy::Minimum, QSizePolicy::Expanding
        );

    verticalLayout_2->addItem(verticalSpacer_14);

    horizontalLayout_3 = new QHBoxLayout();
    horizontalLayout_3->setSpacing(6);
    horizontalLayout_3->setObjectName(QStringLiteral
        ("horizontalLayout_3"));
    label_19 = new QLabel(groupBox_2);
    label_19->setObjectName(QStringLiteral("label_19")
        );

    horizontalLayout_3->addWidget(label_19);

    label = new QLabel(groupBox_2);
    label->setObjectName(QStringLiteral("label"));
    QFont font;
    font.setFamily(QStringLiteral("Calibri"));
    font.setPointSize(80);
    font.setBold(true);
    font.setItalic(false);
    font.setWeight(75);
    label->setFont(font);

    horizontalLayout_3->addWidget(label);

    label_20 = new QLabel(groupBox_2);
    label_20->setObjectName(QStringLiteral("label_20")
        );

    horizontalLayout_3->addWidget(label_20);


    verticalLayout_2->addLayout(horizontalLayout_3);

    horizontalLayout_4 = new QHBoxLayout();
    horizontalLayout_4->setSpacing(6);
    horizontalLayout_4->setObjectName(QStringLiteral
        ("horizontalLayout_4"));
    label_21 = new QLabel(groupBox_2);
    label_21->setObjectName(QStringLiteral("label_21")
        );

    horizontalLayout_4->addWidget(label_21);

    label_2 = new QLabel(groupBox_2);
    label_2->setObjectName(QStringLiteral("label_2"));
    QFont font1;
    font1.setFamily(QStringLiteral("Calibri"));
    font1.setPointSize(10);
    font1.setBold(false);
    font1.setItalic(false);
    font1.setWeight(50);
    label_2->setFont(font1);

    horizontalLayout_4->addWidget(label_2);

    label_22 = new QLabel(groupBox_2);
    label_22->setObjectName(QStringLiteral("label_22")
        );

    horizontalLayout_4->addWidget(label_22);


    verticalLayout_2->addLayout(horizontalLayout_4);

    verticalSpacer_15 = new QSpacerItem(20, 40,
        QSizePolicy::Minimum, QSizePolicy::Expanding
        );

    verticalLayout_2->addItem(verticalSpacer_15);


    gridLayout->addLayout(verticalLayout_2, 0, 1, 1, 1);

    verticalLayout_6 = new QVBoxLayout();
    verticalLayout_6->setSpacing(6);
    verticalLayout_6->setObjectName(QStringLiteral("
        verticalLayout_6"));
    verticalSpacer_12 = new QSpacerItem(20, 40,
        QSizePolicy::Minimum, QSizePolicy::Expanding
        );
```

```
verticalLayout_6->addItem(verticalSpacer_12);

label_pic = new QLabel(groupBox_2);
label_pic->setObjectName(QStringLiteral("label_pic
    "));
label_pic->setAlignment(Qt::AlignCenter);

verticalLayout_6->addWidget(label_pic);

verticalSpacer_13 = new QSpacerItem(20, 40,
    QSizePolicy::Minimum, QSizePolicy::Expanding
    );

verticalLayout_6->addItem(verticalSpacer_13);


gridLayout->addLayout(verticalLayout_6, 0, 2, 1, 1);


gridLayout_3->addWidget(groupBox_2, 0, 0, 1, 1);

groupBox = new QGroupBox(centralWidget);
groupBox->setObjectName(QStringLiteral("
    groupBox"));
groupBox->setEnabled(true);
gridLayout_2 = new QGridLayout(groupBox);
gridLayout_2->setSpacing(6);
gridLayout_2->setContentsMargins(11, 11, 11, 11);
gridLayout_2->setObjectName(QStringLiteral("
    gridLayout_2"));
verticalLayout = new QVBoxLayout();
verticalLayout->setSpacing(6);
verticalLayout->setObjectName(QStringLiteral("
    verticalLayout"));
horizontalLayout_6 = new QHBoxLayout();
horizontalLayout_6->setSpacing(6);
horizontalLayout_6->setObjectName(QStringLiteral
    ("horizontalLayout_6"));
horizontalLayout = new QHBoxLayout();
horizontalLayout->setSpacing(6);
horizontalLayout->setObjectName(QStringLiteral("
    horizontalLayout"));
horizontalSpacer_2 = new QSpacerItem(40, 20,
    QSizePolicy::Expanding, QSizePolicy::Minimum
    );

horizontalLayout->addItem(horizontalSpacer_2);

label_user = new QLabel(groupBox);
label_user->setObjectName(QStringLiteral("
    label_user"));
QFont font2;
font2.setFamily(QStringLiteral("Segoe UI Semibold")
    );
font2.setPointSize(10);
font2.setBold(false);
font2.setWeight(50);
label_user->setFont(font2);

horizontalLayout->addWidget(label_user);

lineEdit_username = new QLineEdit(groupBox);
lineEdit_username->setObjectName(QStringLiteral("
    lineEdit_username"));
QFont font3;
font3.setFamily(QStringLiteral("Segoe UI"));
font3.setPointSize(10);
lineEdit_username->setFont(font3);

horizontalLayout->addWidget(lineEdit_username);

horizontalSpacer = new QSpacerItem(40, 20,
    QSizePolicy::Expanding, QSizePolicy::Minimum
    );

horizontalLayout->addItem(horizontalSpacer);


horizontalLayout_6->addLayout(horizontalLayout);


verticalLayout->addLayout(horizontalLayout_6);

horizontalLayout_7 = new QHBoxLayout();
horizontalLayout_7->setSpacing(6);
horizontalLayout_7->setObjectName(QStringLiteral
    ("horizontalLayout_7"));
horizontalLayout_2 = new QHBoxLayout();
horizontalLayout_2->setSpacing(6);
horizontalLayout_2->setObjectName(QStringLiteral
    ("horizontalLayout_2"));
horizontalSpacer_3 = new QSpacerItem(40, 20,
    QSizePolicy::Expanding, QSizePolicy::Minimum
    );

horizontalLayout_2->addItem(horizontalSpacer_3);

label_pw = new QLabel(groupBox);
label_pw->setObjectName(QStringLiteral("label_pw
    "));
label_pw->setFont(font2);

horizontalLayout_2->addWidget(label_pw);

lineEdit_password = new QLineEdit(groupBox);
lineEdit_password->setObjectName(QStringLiteral("
    lineEdit_password"));
lineEdit_password->setFont(font3);
lineEdit_password->setEchoMode(QLineEdit::
    Password);

horizontalLayout_2->addWidget(lineEdit_password);

horizontalSpacer_4 = new QSpacerItem(40, 20,
    QSizePolicy::Expanding, QSizePolicy::Minimum
    );

horizontalLayout_2->addItem(horizontalSpacer_4);


horizontalLayout_7->addLayout(horizontalLayout_2);


verticalLayout->addLayout(horizontalLayout_7);

horizontalLayout_5 = new QHBoxLayout();
horizontalLayout_5->setSpacing(6);
horizontalLayout_5->setObjectName(QStringLiteral
    ("horizontalLayout_5"));
label_8 = new QLabel(groupBox);
label_8->setObjectName(QStringLiteral("label_8"));

horizontalLayout_5->addWidget(label_8);

label_18 = new QLabel(groupBox);
label_18->setObjectName(QStringLiteral("label_18")
    );

horizontalLayout_5->addWidget(label_18);

label_12 = new QLabel(groupBox);
label_12->setObjectName(QStringLiteral("label_12")
    );

horizontalLayout_5->addWidget(label_12);

label_15 = new QLabel(groupBox);
label_15->setObjectName(QStringLiteral("label_15")
    );

horizontalLayout_5->addWidget(label_15);

label_14 = new QLabel(groupBox);
label_14->setObjectName(QStringLiteral("label_14")
    );

horizontalLayout_5->addWidget(label_14);

label_4 = new QLabel(groupBox);
label_4->setObjectName(QStringLiteral("label_4"));

horizontalLayout_5->addWidget(label_4);

label_17 = new QLabel(groupBox);
label_17->setObjectName(QStringLiteral("label_17")
    );

horizontalLayout_5->addWidget(label_17);

label_23 = new QLabel(groupBox);
label_23->setObjectName(QStringLiteral("label_23")
    );

horizontalLayout_5->addWidget(label_23);

label_10 = new QLabel(groupBox);
label_10->setObjectName(QStringLiteral("label_10")
    );

horizontalLayout_5->addWidget(label_10);

label_5 = new QLabel(groupBox);
label_5->setObjectName(QStringLiteral("label_5"));

horizontalLayout_5->addWidget(label_5);

pushButton_Login = new QPushButton(groupBox);
pushButton_Login->setObjectName(QStringLiteral("
    pushButton_Login"));
QFont font4;
font4.setFamily(QStringLiteral("Segoe UI"));
font4.setPointSize(10);
font4.setBold(false);
font4.setWeight(50);
pushButton_Login->setFont(font4);
pushButton_Login->setLayoutDirection(Qt::
    LeftToRight);
pushButton_Login->setAutoFillBackground(true);
```

```
    horizontalLayout_5->addWidget(pushButton_Login);

    label_6 = new QLabel(groupBox);
    label_6->setObjectName(QStringLiteral("label_6"));

    horizontalLayout_5->addWidget(label_6);

    label_3 = new QLabel(groupBox);
    label_3->setObjectName(QStringLiteral("label_3"));

    horizontalLayout_5->addWidget(label_3);

    label_11 = new QLabel(groupBox);
    label_11->setObjectName(QStringLiteral("label_11")
        );

    horizontalLayout_5->addWidget(label_11);

    label_16 = new QLabel(groupBox);
    label_16->setObjectName(QStringLiteral("label_16")
        );

    horizontalLayout_5->addWidget(label_16);

    label_13 = new QLabel(groupBox);
    label_13->setObjectName(QStringLiteral("label_13")
        );

    horizontalLayout_5->addWidget(label_13);


    verticalLayout->addLayout(horizontalLayout_5);


    gridLayout_2->addLayout(verticalLayout, 0, 1, 1, 1);

    label_7 = new QLabel(groupBox);
    label_7->setObjectName(QStringLiteral("label_7"));
    QFont font5;
    font5.setPointSize(50);
    label_7->setFont(font5);

    gridLayout_2->addWidget(label_7, 0, 0, 1, 1);

    label_9 = new QLabel(groupBox);
    label_9->setObjectName(QStringLiteral("label_9"));
    label_9->setFont(font5);

    gridLayout_2->addWidget(label_9, 0, 2, 1, 1);


    gridLayout_3->addWidget(groupBox, 1, 0, 1, 1);

    status_label = new QLabel(centralWidget);
    status_label->setObjectName(QStringLiteral("
        status_label"));

    gridLayout_3->addWidget(status_label, 2, 0, 1, 1);

    MainWindow->setCentralWidget(centralWidget);

    retranslateUi(MainWindow);

    QMetaObject::connectSlotsByName(MainWindow);
} // setupUi

void retranslateUi(QMainWindow *MainWindow)
{
    MainWindow->setWindowTitle(QApplication::
        translate("MainWindow", "IoT-based
        Recommender System for Diabetic Patients",
        nullptr));
    groupBox_2->setTitle(QString());
    label_logo->setText(QApplication::translate("
        MainWindow", "TextLabel", nullptr));
    label_19->setText(QString());
    label->setText(QApplication::translate("
        MainWindow", "DiAbVi", nullptr));
    label_20->setText(QString());
    label_21->setText(QString());
    label_2->setText(QApplication::translate("
        MainWindow", "IoT-based Recommender
        System for Diabetic Patients", nullptr));
    label_22->setText(QString());
    label_pic->setText(QApplication::translate("
        MainWindow", "TextLabel", nullptr));
    groupBox->setTitle(QApplication::translate("
        MainWindow", "Sign in", nullptr));
    label_user->setText(QApplication::translate("
        MainWindow", "Username:", nullptr));
    label_pw->setText(QApplication::translate("
        MainWindow", "Password: ", nullptr));
    label_8->setText(QString());
    label_18->setText(QString());
    label_12->setText(QString());
    label_15->setText(QString());
    label_14->setText(QString());
    label_4->setText(QString());
    label_17->setText(QString());
    label_23->setText(QString());
    label_10->setText(QString());
    label_5->setText(QString());
    pushButton_Login->setText(QApplication::translate
        ("MainWindow", "Login", nullptr));
    label_6->setText(QString());
    label_3->setText(QString());
    label_11->setText(QString());
    label_16->setText(QString());
    label_13->setText(QString());
    label_7->setText(QString());
    label_9->setText(QString());
    status_label->setText(QApplication::translate("
        MainWindow", "TextLabel", nullptr));
} // retranslateUi

};

namespace Ui {
    class MainWindow: public Ui_MainWindow {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_MAINWINDOW_H

/********************************************************************************

** Form generated from reading UI file 'patienthealthprofile.
    ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
    recompiling UI file!
********************************************************************************


#ifndef UI_PATIENTHEALTHPROFILE_H
#define UI_PATIENTHEALTHPROFILE_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QFrame>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QLineEdit>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QTextBrowser>
#include <QtWidgets/QVBoxLayout>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_PatientHealthProfile
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout;
    QGroupBox *groupBox;
    QGridLayout *gridLayout_4;
    QFrame *line_13;
    QFrame *line_3;
    QFrame *line;
    QFrame *line_14;
    QFrame *line_2;
    QHBoxLayout *horizontalLayout_14;
    QLabel *label_12;
    QLineEdit *patient_fullname;
    QFrame *line_12;
    QHBoxLayout *horizontalLayout_27;
    QHBoxLayout *horizontalLayout_16;
    QLabel *label_14;
    QTextBrowser *patient_allergy;
    QFrame *line_7;
    QHBoxLayout *horizontalLayout_22;
    QVBoxLayout *verticalLayout_4;
    QLabel *label_20;
    QLabel *label_21;
    QTextBrowser *patient_illness;
    QHBoxLayout *horizontalLayout_8;
    QHBoxLayout *horizontalLayout_18;
    QVBoxLayout *verticalLayout_2;
    QLabel *label_16;
    QLabel *label_17;
    QLineEdit *em_name;
    QFrame *line_4;
    QHBoxLayout *horizontalLayout_17;
    QHBoxLayout *horizontalLayout_3;
    QLabel *label_2;
    QLineEdit *patient_bday;
    QFrame *line_11;
```

```
QHBoxLayout *horizontalLayout_4;
QLabel *label_3;
QLineEdit *patient_sex;
QHBoxLayout *horizontalLayout_5;
QLabel *label_4;
QLineEdit *patient_bt;
QHBoxLayout *horizontalLayout_12;
QLabel *label;
QLineEdit *patient_conc;
QHBoxLayout *horizontalLayout_11;
QLabel *label_15;
QLineEdit *healthUnitPatient;
QHBoxLayout *horizontalLayout_25;
QHBoxLayout *horizontalLayout_20;
QLabel *label_10;
QLineEdit *patient_add;
QFrame *line_8;
QHBoxLayout *horizontalLayout_15;
QLabel *label_13;
QLineEdit *patient_emailadd;
QFrame *line_15;
QHBoxLayout *horizontalLayout_21;
QHBoxLayout *horizontalLayout_7;
QVBoxLayout *verticalLayout_6;
QLabel *label_24;
QLabel *label_25;
QLineEdit *em_num;
QFrame *line_6;
QHBoxLayout *horizontalLayout;
QVBoxLayout *verticalLayout_7;
QLabel *label_26;
QLabel *label_27;
QLineEdit *em_relation;
QGroupBox *groupBox_2;
QGridLayout *gridLayout_3;
QHBoxLayout *horizontalLayout_19;
QLabel *label_5;
QLabel *label_6;
QPushButton *pushButton_2;
QGroupBox *groupBox_3;
QGridLayout *gridLayout_2;
QVBoxLayout *verticalLayout_5;
QHBoxLayout *horizontalLayout_9;
QLabel *label_7;
QPushButton *back;
QLabel *label_8;
QHBoxLayout *horizontalLayout_13;
QLabel *label_9;
QPushButton *pushButton_3;
QPushButton *pushButton;
QLabel *label_11;

void setupUi(QMainWindow *PatientHealthProfile)
{
    if (PatientHealthProfile->objectName().isEmpty())
        PatientHealthProfile->setObjectName(
                QStringLiteral("PatientHealthProfile"));
    PatientHealthProfile->resize(804, 648);
    centralwidget = new QWidget(PatientHealthProfile);
    centralwidget->setObjectName(QStringLiteral("
            centralwidget"));
    gridLayout = new QGridLayout(centralwidget);
    gridLayout->setObjectName(QStringLiteral("
            gridLayout"));
    groupBox = new QGroupBox(centralwidget);
    groupBox->setObjectName(QStringLiteral("
            groupBox"));
    QFont font;
    font.setFamily(QStringLiteral("Calibri"));
    font.setPointSize(15);
    font.setBold(true);
    font.setWeight(75);
    groupBox->setFont(font);
    gridLayout_4 = new QGridLayout(groupBox);
    gridLayout_4->setObjectName(QStringLiteral("
            gridLayout_4"));
    line_13 = new QFrame(groupBox);
    line_13->setObjectName(QStringLiteral("line_13"));
    QFont font1;
    font1.setFamily(QStringLiteral("Segoe UI"));
    font1.setPointSize(10);
    font1.setBold(false);
    font1.setWeight(50);
    line_13->setFont(font1);
    line_13->setFrameShape(QFrame::HLine);
    line_13->setFrameShadow(QFrame::Sunken);

    gridLayout_4->addWidget(line_13, 5, 0, 1, 4);

    line_3 = new QFrame(groupBox);
    line_3->setObjectName(QStringLiteral("line_3"));
    line_3->setFont(font1);
    line_3->setFrameShape(QFrame::HLine);
    line_3->setFrameShadow(QFrame::Sunken);

    gridLayout_4->addWidget(line_3, 15, 0, 1, 4);

    line = new QFrame(groupBox);
    line->setObjectName(QStringLiteral("line"));
    line->setFont(font1);
    line->setFrameShape(QFrame::HLine);
    line->setFrameShadow(QFrame::Sunken);

    gridLayout_4->addWidget(line, 1, 0, 1, 4);

    line_14 = new QFrame(groupBox);
    line_14->setObjectName(QStringLiteral("line_14"));
    line_14->setFont(font1);
    line_14->setFrameShape(QFrame::HLine);
    line_14->setFrameShadow(QFrame::Sunken);

    gridLayout_4->addWidget(line_14, 7, 0, 1, 4);

    line_2 = new QFrame(groupBox);
    line_2->setObjectName(QStringLiteral("line_2"));
    line_2->setFont(font1);
    line_2->setFrameShape(QFrame::HLine);
    line_2->setFrameShadow(QFrame::Sunken);

    gridLayout_4->addWidget(line_2, 9, 0, 1, 4);

    horizontalLayout_14 = new QHBoxLayout();
    horizontalLayout_14->setObjectName(QStringLiteral
            ("horizontalLayout_14"));
    label_12 = new QLabel(groupBox);
    label_12->setObjectName(QStringLiteral("label_12")
            );
    QFont font2;
    font2.setFamily(QStringLiteral("Segoe UI Semibold")
            );
    font2.setPointSize(10);
    font2.setBold(false);
    font2.setWeight(50);
    label_12->setFont(font2);

    horizontalLayout_14->addWidget(label_12);

    patient_fullname = new QLineEdit(groupBox);
    patient_fullname->setObjectName(QStringLiteral("
            patient_fullname"));
    patient_fullname->setFont(font1);

    horizontalLayout_14->addWidget(patient_fullname);


    gridLayout_4->addLayout(horizontalLayout_14, 2, 0,
            1, 4);

    line_12 = new QFrame(groupBox);
    line_12->setObjectName(QStringLiteral("line_12"));
    line_12->setFont(font1);
    line_12->setFrameShape(QFrame::HLine);
    line_12->setFrameShadow(QFrame::Sunken);

    gridLayout_4->addWidget(line_12, 3, 0, 1, 4);

    horizontalLayout_27 = new QHBoxLayout();
    horizontalLayout_27->setObjectName(QStringLiteral
            ("horizontalLayout_27"));
    horizontalLayout_16 = new QHBoxLayout();
    horizontalLayout_16->setObjectName(QStringLiteral
            ("horizontalLayout_16"));
    label_14 = new QLabel(groupBox);
    label_14->setObjectName(QStringLiteral("label_14")
            );
    label_14->setFont(font2);

    horizontalLayout_16->addWidget(label_14);

    patient_allergy = new QTextBrowser(groupBox);
    patient_allergy->setObjectName(QStringLiteral("
            patient_allergy"));
    patient_allergy->setFont(font1);
    patient_allergy->setFrameShape(QFrame::
            StyledPanel);

    horizontalLayout_16->addWidget(patient_allergy);


    horizontalLayout_27->addLayout(
            horizontalLayout_16);

    line_7 = new QFrame(groupBox);
    line_7->setObjectName(QStringLiteral("line_7"));
    line_7->setFont(font1);
    line_7->setFrameShape(QFrame::VLine);
    line_7->setFrameShadow(QFrame::Sunken);

    horizontalLayout_27->addWidget(line_7);

    horizontalLayout_22 = new QHBoxLayout();
    horizontalLayout_22->setObjectName(QStringLiteral
            ("horizontalLayout_22"));
    verticalLayout_4 = new QVBoxLayout();
    verticalLayout_4->setObjectName(QStringLiteral("
            verticalLayout_4"));
    label_20 = new QLabel(groupBox);
    label_20->setObjectName(QStringLiteral("label_20")
```

```
        );
label_20->setFont(font2);

verticalLayout_4->addWidget(label_20, 0, Qt::
        AlignBottom);

label_21 = new QLabel(groupBox);
label_21->setObjectName(QStringLiteral("label_21")
        );
label_21->setFont(font2);

verticalLayout_4->addWidget(label_21, 0, Qt::
        AlignTop);


horizontalLayout_22->addLayout(verticalLayout_4);

 patient_illness = new QTextBrowser(groupBox);
 patient_illness->setObjectName(QStringLiteral("
        patient_illness"));
 patient_illness->setFont(font1);
 patient_illness->setFrameShape(QFrame::
        StyledPanel);

horizontalLayout_22->addWidget(patient_illness);


horizontalLayout_27->addLayout(
        horizontalLayout_22);


gridLayout_4->addLayout(horizontalLayout_27, 8, 0,
        1, 4);

horizontalLayout_8 = new QHBoxLayout();
horizontalLayout_8->setObjectName(QStringLiteral
        ("horizontalLayout_8"));
horizontalLayout_18 = new QHBoxLayout();
horizontalLayout_18->setObjectName(QStringLiteral
        ("horizontalLayout_18"));
verticalLayout_2 = new QVBoxLayout();
verticalLayout_2->setObjectName(QStringLiteral("
        verticalLayout_2"));
label_16 = new QLabel(groupBox);
label_16->setObjectName(QStringLiteral("label_16")
        );
label_16->setFont(font2);

verticalLayout_2->addWidget(label_16, 0, Qt::
        AlignBottom);

label_17 = new QLabel(groupBox);
label_17->setObjectName(QStringLiteral("label_17")
        );
label_17->setFont(font2);

verticalLayout_2->addWidget(label_17, 0, Qt::
        AlignTop);


horizontalLayout_18->addLayout(verticalLayout_2);


horizontalLayout_8->addLayout(horizontalLayout_18)
        ;

em_name = new QLineEdit(groupBox);
em_name->setObjectName(QStringLiteral("em_name
        "));
em_name->setFont(font1);

horizontalLayout_8->addWidget(em_name);


gridLayout_4->addLayout(horizontalLayout_8, 10, 0,
        1, 4);

 line_4 = new QFrame(groupBox);
 line_4->setObjectName(QStringLiteral("line_4"));
 line_4->setFont(font1);
 line_4->setFrameShape(QFrame::HLine);
 line_4->setFrameShadow(QFrame::Sunken);

gridLayout_4->addWidget(line_4, 13, 0, 1, 4);

horizontalLayout_17 = new QHBoxLayout();
horizontalLayout_17->setObjectName(QStringLiteral
        ("horizontalLayout_17"));
horizontalLayout_3 = new QHBoxLayout();
horizontalLayout_3->setObjectName(QStringLiteral
        ("horizontalLayout_3"));
label_2 = new QLabel(groupBox);
label_2->setObjectName(QStringLiteral("label_2"));
label_2->setFont(font2);

horizontalLayout_3->addWidget(label_2);

patient_bday = new QLineEdit(groupBox);
patient_bday->setObjectName(QStringLiteral("
        patient_bday"));
patient_bday->setFont(font1);

horizontalLayout_3->addWidget(patient_bday);


horizontalLayout_17->addLayout(horizontalLayout_3)
        ;

line_11 = new QFrame(groupBox);
line_11->setObjectName(QStringLiteral("line_11"));
line_11->setFont(font1);
line_11->setFrameShape(QFrame::VLine);
line_11->setFrameShadow(QFrame::Sunken);

horizontalLayout_17->addWidget(line_11);

horizontalLayout_4 = new QHBoxLayout();
horizontalLayout_4->setObjectName(QStringLiteral
        ("horizontalLayout_4"));
label_3 = new QLabel(groupBox);
label_3->setObjectName(QStringLiteral("label_3"));
label_3->setFont(font2);

horizontalLayout_4->addWidget(label_3);

patient_sex = new QLineEdit(groupBox);
patient_sex->setObjectName(QStringLiteral("
        patient_sex"));
patient_sex->setFont(font1);

horizontalLayout_4->addWidget(patient_sex);


horizontalLayout_17->addLayout(horizontalLayout_4)
        ;

horizontalLayout_5 = new QHBoxLayout();
horizontalLayout_5->setObjectName(QStringLiteral
        ("horizontalLayout_5"));
label_4 = new QLabel(groupBox);
label_4->setObjectName(QStringLiteral("label_4"));
label_4->setFont(font2);

horizontalLayout_5->addWidget(label_4);

patient_bt = new QLineEdit(groupBox);
patient_bt->setObjectName(QStringLiteral("
        patient_bt"));
patient_bt->setFont(font1);

horizontalLayout_5->addWidget(patient_bt);


horizontalLayout_17->addLayout(horizontalLayout_5)
        ;

horizontalLayout_12 = new QHBoxLayout();
horizontalLayout_12->setObjectName(QStringLiteral
        ("horizontalLayout_12"));
label = new QLabel(groupBox);
label->setObjectName(QStringLiteral("label"));
label->setFont(font2);

horizontalLayout_12->addWidget(label);

patient_conc = new QLineEdit(groupBox);
patient_conc->setObjectName(QStringLiteral("
        patient_conc"));
patient_conc->setFont(font1);

horizontalLayout_12->addWidget(patient_conc);


horizontalLayout_17->addLayout(
        horizontalLayout_12);


gridLayout_4->addLayout(horizontalLayout_17, 4, 0,
        1, 4);

horizontalLayout_11 = new QHBoxLayout();
horizontalLayout_11->setObjectName(QStringLiteral
        ("horizontalLayout_11"));
label_15 = new QLabel(groupBox);
label_15->setObjectName(QStringLiteral("label_15")
        );
label_15->setFont(font2);

horizontalLayout_11->addWidget(label_15);

healthUnitPatient = new QLineEdit(groupBox);
healthUnitPatient->setObjectName(QStringLiteral("
        healthUnitPatient"));
healthUnitPatient->setFont(font1);

horizontalLayout_11->addWidget(healthUnitPatient);
```

```
gridLayout_4->addLayout(horizontalLayout_11, 14, 0,
        1, 4);

horizontalLayout_25 = new QHBoxLayout();
horizontalLayout_25->setObjectName(QStringLiteral
        ("horizontalLayout_25"));
horizontalLayout_20 = new QHBoxLayout();
horizontalLayout_20->setObjectName(QStringLiteral
        ("horizontalLayout_20"));
label_10 = new QLabel(groupBox);
label_10->setObjectName(QStringLiteral("label_10")
        );
label_10->setFont(font2);

horizontalLayout_20->addWidget(label_10);

patient_add = new QLineEdit(groupBox);
patient_add->setObjectName(QStringLiteral("
        patient_add"));
patient_add->setFont(font1);

horizontalLayout_20->addWidget(patient_add);


horizontalLayout_25->addLayout(
        horizontalLayout_20);

line_8 = new QFrame(groupBox);
line_8->setObjectName(QStringLiteral("line_8"));
line_8->setFont(font1);
line_8->setFrameShape(QFrame::VLine);
line_8->setFrameShadow(QFrame::Sunken);

horizontalLayout_25->addWidget(line_8);

horizontalLayout_15 = new QHBoxLayout();
horizontalLayout_15->setObjectName(QStringLiteral
        ("horizontalLayout_15"));
label_13 = new QLabel(groupBox);
label_13->setObjectName(QStringLiteral("label_13")
        );
label_13->setFont(font1);

horizontalLayout_15->addWidget(label_13);

patient_emailadd = new QLineEdit(groupBox);
patient_emailadd->setObjectName(QStringLiteral("
        patient_emailadd"));
patient_emailadd->setFont(font1);

horizontalLayout_15->addWidget(patient_emailadd);


horizontalLayout_25->addLayout(
        horizontalLayout_15);


gridLayout_4->addLayout(horizontalLayout_25, 6, 0,
        1, 4);

line_15 = new QFrame(groupBox);
line_15->setObjectName(QStringLiteral("line_15"));
line_15->setFont(font1);
line_15->setFrameShape(QFrame::HLine);
line_15->setFrameShadow(QFrame::Sunken);

gridLayout_4->addWidget(line_15, 11, 0, 1, 4);

horizontalLayout_21 = new QHBoxLayout();
horizontalLayout_21->setObjectName(QStringLiteral
        ("horizontalLayout_21"));
horizontalLayout_7 = new QHBoxLayout();
horizontalLayout_7->setObjectName(QStringLiteral
        ("horizontalLayout_7"));
verticalLayout_6 = new QVBoxLayout();
verticalLayout_6->setObjectName(QStringLiteral("
        verticalLayout_6"));
label_24 = new QLabel(groupBox);
label_24->setObjectName(QStringLiteral("label_24")
        );
label_24->setFont(font2);

verticalLayout_6->addWidget(label_24, 0, Qt::
        AlignBottom);

label_25 = new QLabel(groupBox);
label_25->setObjectName(QStringLiteral("label_25")
        );
label_25->setFont(font2);

verticalLayout_6->addWidget(label_25, 0, Qt::
        AlignTop);


horizontalLayout_7->addLayout(verticalLayout_6);

em_num = new QLineEdit(groupBox);
em_num->setObjectName(QStringLiteral("em_num")
        );
em_num->setFont(font1);

horizontalLayout_7->addWidget(em_num);


horizontalLayout_21->addLayout(horizontalLayout_7)
        ;

line_6 = new QFrame(groupBox);
line_6->setObjectName(QStringLiteral("line_6"));
line_6->setFont(font1);
line_6->setFrameShape(QFrame::VLine);
line_6->setFrameShadow(QFrame::Sunken);

horizontalLayout_21->addWidget(line_6);

horizontalLayout = new QHBoxLayout();
horizontalLayout->setObjectName(QStringLiteral("
        horizontalLayout"));
verticalLayout_7 = new QVBoxLayout();
verticalLayout_7->setObjectName(QStringLiteral("
        verticalLayout_7"));
label_26 = new QLabel(groupBox);
label_26->setObjectName(QStringLiteral("label_26")
        );
label_26->setFont(font2);

verticalLayout_7->addWidget(label_26, 0, Qt::
        AlignBottom);

label_27 = new QLabel(groupBox);
label_27->setObjectName(QStringLiteral("label_27")
        );
label_27->setFont(font2);

verticalLayout_7->addWidget(label_27, 0, Qt::
        AlignTop);


horizontalLayout->addLayout(verticalLayout_7);

em_relation = new QLineEdit(groupBox);
em_relation->setObjectName(QStringLiteral("
        em_relation"));
em_relation->setFont(font1);

horizontalLayout->addWidget(em_relation);


horizontalLayout_21->addLayout(horizontalLayout);


gridLayout_4->addLayout(horizontalLayout_21, 12, 0,
        1, 4);

groupBox_2 = new QGroupBox(groupBox);
groupBox_2->setObjectName(QStringLiteral("
        groupBox_2"));
groupBox_2->setFont(font1);
gridLayout_3 = new QGridLayout(groupBox_2);
gridLayout_3->setObjectName(QStringLiteral("
        gridLayout_3"));
horizontalLayout_19 = new QHBoxLayout();
horizontalLayout_19->setObjectName(QStringLiteral
        ("horizontalLayout_19"));
label_5 = new QLabel(groupBox_2);
label_5->setObjectName(QStringLiteral("label_5"));
label_5->setFont(font1);

horizontalLayout_19->addWidget(label_5);

label_6 = new QLabel(groupBox_2);
label_6->setObjectName(QStringLiteral("label_6"));
label_6->setFont(font1);

horizontalLayout_19->addWidget(label_6);

pushButton_2 = new QPushButton(groupBox_2);
pushButton_2->setObjectName(QStringLiteral("
        pushButton_2"));
QFont font3;
font3.setFamily(QStringLiteral("Segoe UI"));
font3.setPointSize(11);
font3.setBold(true);
font3.setWeight(75);
pushButton_2->setFont(font3);

horizontalLayout_19->addWidget(pushButton_2);


gridLayout_3->addLayout(horizontalLayout_19, 0, 0,
        1, 1);


gridLayout_4->addWidget(groupBox_2, 0, 0, 1, 4);


gridLayout->addWidget(groupBox, 0, 1, 1, 1);
```

```
    groupBox_3 = new QGroupBox(centralwidget);
    groupBox_3->setObjectName(QStringLiteral("
        groupBox_3"));
    groupBox_3->setFont(font1);
    gridLayout_2 = new QGridLayout(groupBox_3);
    gridLayout_2->setObjectName(QStringLiteral("
        gridLayout_2"));
    verticalLayout_5 = new QVBoxLayout();
    verticalLayout_5->setObjectName(QStringLiteral("
        verticalLayout_5"));
    horizontalLayout_9 = new QHBoxLayout();
    horizontalLayout_9->setObjectName(QStringLiteral
        ("horizontalLayout_9"));
    label_7 = new QLabel(groupBox_3);
    label_7->setObjectName(QStringLiteral("label_7"));
    label_7->setFont(font1);

    horizontalLayout_9->addWidget(label_7);

    back = new QPushButton(groupBox_3);
    back->setObjectName(QStringLiteral("back"));
    back->setFont(font3);

    horizontalLayout_9->addWidget(back);

    label_8 = new QLabel(groupBox_3);
    label_8->setObjectName(QStringLiteral("label_8"));
    label_8->setFont(font1);

    horizontalLayout_9->addWidget(label_8);


    verticalLayout_5->addLayout(horizontalLayout_9);


    gridLayout_2->addLayout(verticalLayout_5, 1, 0, 1,
        1);

    horizontalLayout_13 = new QHBoxLayout();
    horizontalLayout_13->setObjectName(QStringLiteral
        ("horizontalLayout_13"));
    label_9 = new QLabel(groupBox_3);
    label_9->setObjectName(QStringLiteral("label_9"));
    label_9->setFont(font1);

    horizontalLayout_13->addWidget(label_9);

    pushButton_3 = new QPushButton(groupBox_3);
    pushButton_3->setObjectName(QStringLiteral("
        pushButton_3"));
    pushButton_3->setFont(font3);

    horizontalLayout_13->addWidget(pushButton_3);

    pushButton = new QPushButton(groupBox_3);
    pushButton->setObjectName(QStringLiteral("
        pushButton"));
    pushButton->setFont(font3);

    horizontalLayout_13->addWidget(pushButton);

    label_11 = new QLabel(groupBox_3);
    label_11->setObjectName(QStringLiteral("label_11")
        );
    label_11->setFont(font1);

    horizontalLayout_13->addWidget(label_11);


    gridLayout_2->addLayout(horizontalLayout_13, 0, 0,
        1, 1);


    gridLayout->addWidget(groupBox_3, 1, 1, 1, 1);

    PatientHealthProfile->setCentralWidget(
        centralwidget);

    retranslateUi(PatientHealthProfile);

    QMetaObject::connectSlotsByName(
        PatientHealthProfile);
} // setupUi

void retranslateUi(QMainWindow *PatientHealthProfile)
{
    PatientHealthProfile->setWindowTitle(QApplication
        ::translate("PatientHealthProfile", "IoT-based
        Recommender System for Diabetic Patients",
        nullptr));
    groupBox->setTitle(QApplication::translate("
        PatientHealthProfile", " Patient Health Profile",
         nullptr));
    label_12->setText(QApplication::translate("
        PatientHealthProfile", "Patient Full Name:",
        nullptr));
    patient_fullname->setText(QString());
    label_14->setText(QApplication::translate("
        PatientHealthProfile", "Allergy:", nullptr));
    label_20->setText(QApplication::translate("
        PatientHealthProfile", "History of ", nullptr));
    label_21->setText(QApplication::translate("
        PatientHealthProfile", "Illness:", nullptr));
    label_16->setText(QApplication::translate("
        PatientHealthProfile", "Emergency", nullptr));
    label_17->setText(QApplication::translate("
        PatientHealthProfile", "Contact Name:", nullptr
        ));
    label_2->setText(QApplication::translate("
        PatientHealthProfile", "Birthday:", nullptr));
    label_3->setText(QApplication::translate("
        PatientHealthProfile", "Sex:", nullptr));
    label_4->setText(QApplication::translate("
        PatientHealthProfile", "Blood Type:", nullptr));
    label->setText(QApplication::translate("
        PatientHealthProfile", "Contact Number:",
        nullptr));
    label_15->setText(QApplication::translate("
        PatientHealthProfile", "Health Unit of the
        Patient:", nullptr));
    label_10->setText(QApplication::translate("
        PatientHealthProfile", "Address:", nullptr));
    label_13->setText(QApplication::translate("
        PatientHealthProfile", "Email:", nullptr));
    label_24->setText(QApplication::translate("
        PatientHealthProfile", "Emergency", nullptr));
    label_25->setText(QApplication::translate("
        PatientHealthProfile", "Contact Number:",
        nullptr));
    label_26->setText(QApplication::translate("
        PatientHealthProfile", "Relationship to the",
        nullptr));
    label_27->setText(QApplication::translate("
        PatientHealthProfile", "Emergency Contact:",
        nullptr));
    groupBox_2->setTitle(QString());
    label_5->setText(QString());
    label_6->setText(QString());
    pushButton_2->setText(QApplication::translate("
        PatientHealthProfile", "Edit", nullptr));
    groupBox_3->setTitle(QString());
    label_7->setText(QString());
    back->setText(QApplication::translate("
        PatientHealthProfile", "Back", nullptr));
    label_8->setText(QString());
    label_9->setText(QString());
    pushButton_3->setText(QApplication::translate("
        PatientHealthProfile", "Add Patient Visit
        Record", nullptr));
    pushButton->setText(QApplication::translate("
        PatientHealthProfile", "Patient Visit Records",
        nullptr));
    label_11->setText(QString());
} // retranslateUi

};

namespace Ui {
    class PatientHealthProfile: public
        Ui_PatientHealthProfile {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_PATIENTHEALTHPROFILE_H

/********************************************************************

** Form generated from reading UI file '
    patienthealthprofiledoc.ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
    recompiling UI file!
********************************************************************


#ifndef UI_PATIENTHEALTHPROFILEDOC_H
#define UI_PATIENTHEALTHPROFILEDOC_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QFrame>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QLineEdit>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QTextBrowser>
#include <QtWidgets/QVBoxLayout>
#include <QtWidgets/QWidget>
```

```
QT_BEGIN_NAMESPACE

class Ui_PatientHealthProfileDoc
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout;
    QGroupBox *groupBox_3;
    QGridLayout *gridLayout_2;
    QVBoxLayout *verticalLayout_5;
    QHBoxLayout *horizontalLayout_9;
    QLabel *label_7;
    QPushButton *back;
    QLabel *label_8;
    QHBoxLayout *horizontalLayout_13;
    QLabel *label_9;
    QPushButton *pushButton_3;
    QPushButton *pushButton;
    QLabel *label_11;
    QGroupBox *groupBox;
    QGridLayout *gridLayout_4;
    QGroupBox *groupBox_2;
    QGridLayout *gridLayout_3;
    QHBoxLayout *horizontalLayout_19;
    QLabel *label_5;
    QLabel *label_6;
    QPushButton *pushButton_2;
    QFrame *line_13;
    QFrame *line_3;
    QHBoxLayout *horizontalLayout_14;
    QLabel *label_12;
    QLineEdit *patient_fullname;
    QFrame *line_14;
    QFrame *line;
    QFrame *line_2;
    QFrame *line_12;
    QHBoxLayout *horizontalLayout_27;
    QHBoxLayout *horizontalLayout_16;
    QLabel *label_14;
    QTextBrowser *patient_allergy;
    QFrame *line_7;
    QHBoxLayout *horizontalLayout_22;
    QVBoxLayout *verticalLayout_4;
    QLabel *label_20;
    QLabel *label_21;
    QTextBrowser *patient_illness;
    QHBoxLayout *horizontalLayout_8;
    QHBoxLayout *horizontalLayout_18;
    QVBoxLayout *verticalLayout_2;
    QLabel *label_16;
    QLabel *label_17;
    QLineEdit *em_name;
    QFrame *line_4;
    QHBoxLayout *horizontalLayout_17;
    QHBoxLayout *horizontalLayout_3;
    QLabel *label_2;
    QLineEdit *patient_bday;
    QFrame *line_11;
    QHBoxLayout *horizontalLayout_4;
    QLabel *label_3;
    QLineEdit *patient_sex;
    QHBoxLayout *horizontalLayout_5;
    QLabel *label_4;
    QLineEdit *patient_bt;
    QHBoxLayout *horizontalLayout_12;
    QLabel *label;
    QLineEdit *patient_conc;
    QHBoxLayout *horizontalLayout_11;
    QHBoxLayout *horizontalLayout_2;
    QLabel *label_15;
    QLineEdit *healthUnitPatient;
    QHBoxLayout *horizontalLayout_25;
    QHBoxLayout *horizontalLayout_20;
    QLabel *label_10;
    QLineEdit *patient_add;
    QFrame *line_8;
    QHBoxLayout *horizontalLayout_15;
    QLabel *label_13;
    QLineEdit *patient_emailadd;
    QFrame *line_15;
    QHBoxLayout *horizontalLayout_21;
    QHBoxLayout *horizontalLayout_7;
    QVBoxLayout *verticalLayout_6;
    QLabel *label_24;
    QLabel *label_25;
    QLineEdit *em_num;
    QFrame *line_6;
    QHBoxLayout *horizontalLayout;
    QVBoxLayout *verticalLayout_7;
    QLabel *label_26;
    QLabel *label_27;
    QLineEdit *em_relation;

    void setupUi(QMainWindow *PatientHealthProfileDoc)
    {
        if (PatientHealthProfileDoc->objectName().isEmpty
            ())
            PatientHealthProfileDoc->setObjectName(
                QStringLiteral("PatientHealthProfileDoc"));
        PatientHealthProfileDoc->resize(800, 648);
        QIcon icon;
        QString iconThemeName = QStringLiteral("Ok");
        if (QIcon::hasThemeIcon(iconThemeName)) {
            icon = QIcon::fromTheme(iconThemeName);
        } else {
            icon.addFile(QStringLiteral("."), QSize(), QIcon
                ::Normal, QIcon::Off);
        }
        PatientHealthProfileDoc->setWindowIcon(icon);
        centralwidget = new QWidget(
            PatientHealthProfileDoc);
        centralwidget->setObjectName(QStringLiteral("
            centralwidget"));
        gridLayout = new QGridLayout(centralwidget);
        gridLayout->setObjectName(QStringLiteral("
            gridLayout"));
        groupBox_3 = new QGroupBox(centralwidget);
        groupBox_3->setObjectName(QStringLiteral("
            groupBox_3"));
        QFont font;
        font.setFamily(QStringLiteral("Segoe UI"));
        font.setPointSize(10);
        font.setBold(false);
        font.setWeight(50);
        groupBox_3->setFont(font);
        gridLayout_2 = new QGridLayout(groupBox_3);
        gridLayout_2->setObjectName(QStringLiteral("
            gridLayout_2"));
        verticalLayout_5 = new QVBoxLayout();
        verticalLayout_5->setObjectName(QStringLiteral("
            verticalLayout_5"));
        horizontalLayout_9 = new QHBoxLayout();
        horizontalLayout_9->setObjectName(QStringLiteral
            ("horizontalLayout_9"));
        label_7 = new QLabel(groupBox_3);
        label_7->setObjectName(QStringLiteral("label_7"));
        label_7->setFont(font);

        horizontalLayout_9->addWidget(label_7);

        back = new QPushButton(groupBox_3);
        back->setObjectName(QStringLiteral("back"));
        QFont font1;
        font1.setFamily(QStringLiteral("Segoe UI"));
        font1.setPointSize(11);
        font1.setBold(true);
        font1.setWeight(75);
        back->setFont(font1);

        horizontalLayout_9->addWidget(back);

        label_8 = new QLabel(groupBox_3);
        label_8->setObjectName(QStringLiteral("label_8"));
        label_8->setFont(font);

        horizontalLayout_9->addWidget(label_8);


        verticalLayout_5->addLayout(horizontalLayout_9);


        gridLayout_2->addLayout(verticalLayout_5, 1, 0, 1,
            1);

        horizontalLayout_13 = new QHBoxLayout();
        horizontalLayout_13->setObjectName(QStringLiteral
            ("horizontalLayout_13"));
        label_9 = new QLabel(groupBox_3);
        label_9->setObjectName(QStringLiteral("label_9"));
        label_9->setFont(font);

        horizontalLayout_13->addWidget(label_9);

        pushButton_3 = new QPushButton(groupBox_3);
        pushButton_3->setObjectName(QStringLiteral("
            pushButton_3"));
        pushButton_3->setFont(font1);

        horizontalLayout_13->addWidget(pushButton_3);

        pushButton = new QPushButton(groupBox_3);
        pushButton->setObjectName(QStringLiteral("
            pushButton"));
        pushButton->setFont(font1);

        horizontalLayout_13->addWidget(pushButton);

        label_11 = new QLabel(groupBox_3);
        label_11->setObjectName(QStringLiteral("label_11")
            );
        label_11->setFont(font);

        horizontalLayout_13->addWidget(label_11);


        gridLayout_2->addLayout(horizontalLayout_13, 0, 0,
            1, 1);
```

```
gridLayout->addWidget(groupBox_3, 1, 0, 1, 1);

groupBox = new QGroupBox(centralwidget);
groupBox->setObjectName(QStringLiteral("
    groupBox"));
QFont font2;
font2.setFamily(QStringLiteral("Calibri"));
font2.setPointSize(15);
font2.setBold(true);
font2.setWeight(75);
groupBox->setFont(font2);
gridLayout_4 = new QGridLayout(groupBox);
gridLayout_4->setObjectName(QStringLiteral("
    gridLayout_4"));
groupBox_2 = new QGroupBox(groupBox);
groupBox_2->setObjectName(QStringLiteral("
    groupBox_2"));
groupBox_2->setFont(font);
gridLayout_3 = new QGridLayout(groupBox_2);
gridLayout_3->setObjectName(QStringLiteral("
    gridLayout_3"));
horizontalLayout_19 = new QHBoxLayout();
horizontalLayout_19->setObjectName(QStringLiteral
    ("horizontalLayout_19"));
label_5 = new QLabel(groupBox_2);
label_5->setObjectName(QStringLiteral("label_5"));
label_5->setFont(font);

horizontalLayout_19->addWidget(label_5);

label_6 = new QLabel(groupBox_2);
label_6->setObjectName(QStringLiteral("label_6"));
label_6->setFont(font);

horizontalLayout_19->addWidget(label_6);

pushButton_2 = new QPushButton(groupBox_2);
pushButton_2->setObjectName(QStringLiteral("
    pushButton_2"));
pushButton_2->setFont(font1);

horizontalLayout_19->addWidget(pushButton_2);


gridLayout_3->addLayout(horizontalLayout_19, 0, 0,
    1, 1);


gridLayout_4->addWidget(groupBox_2, 0, 0, 1, 4);

line_13 = new QFrame(groupBox);
line_13->setObjectName(QStringLiteral("line_13"));
line_13->setFont(font);
line_13->setFrameShape(QFrame::HLine);
line_13->setFrameShadow(QFrame::Sunken);

gridLayout_4->addWidget(line_13, 5, 0, 1, 4);

line_3 = new QFrame(groupBox);
line_3->setObjectName(QStringLiteral("line_3"));
line_3->setFont(font);
line_3->setFrameShape(QFrame::HLine);
line_3->setFrameShadow(QFrame::Sunken);

gridLayout_4->addWidget(line_3, 15, 0, 1, 4);

horizontalLayout_14 = new QHBoxLayout();
horizontalLayout_14->setObjectName(QStringLiteral
    ("horizontalLayout_14"));
label_12 = new QLabel(groupBox);
label_12->setObjectName(QStringLiteral("label_12")
    );
QFont font3;
font3.setFamily(QStringLiteral("Segoe UI Semibold")
    );
font3.setPointSize(10);
font3.setBold(false);
font3.setWeight(50);
label_12->setFont(font3);

horizontalLayout_14->addWidget(label_12);

patient_fullname = new QLineEdit(groupBox);
patient_fullname->setObjectName(QStringLiteral("
    patient_fullname"));
patient_fullname->setFont(font);

horizontalLayout_14->addWidget(patient_fullname);


gridLayout_4->addLayout(horizontalLayout_14, 2, 0,
    1, 4);

line_14 = new QFrame(groupBox);
line_14->setObjectName(QStringLiteral("line_14"));
line_14->setFont(font);
line_14->setFrameShape(QFrame::HLine);
line_14->setFrameShadow(QFrame::Sunken);

gridLayout_4->addWidget(line_14, 7, 0, 1, 4);

line = new QFrame(groupBox);
line->setObjectName(QStringLiteral("line"));
line->setFont(font);
line->setFrameShape(QFrame::HLine);
line->setFrameShadow(QFrame::Sunken);

gridLayout_4->addWidget(line, 1, 0, 1, 4);

line_2 = new QFrame(groupBox);
line_2->setObjectName(QStringLiteral("line_2"));
line_2->setFont(font);
line_2->setFrameShape(QFrame::HLine);
line_2->setFrameShadow(QFrame::Sunken);

gridLayout_4->addWidget(line_2, 9, 0, 1, 4);

line_12 = new QFrame(groupBox);
line_12->setObjectName(QStringLiteral("line_12"));
line_12->setFont(font);
line_12->setFrameShape(QFrame::HLine);
line_12->setFrameShadow(QFrame::Sunken);

gridLayout_4->addWidget(line_12, 3, 0, 1, 4);

horizontalLayout_27 = new QHBoxLayout();
horizontalLayout_27->setObjectName(QStringLiteral
    ("horizontalLayout_27"));
horizontalLayout_16 = new QHBoxLayout();
horizontalLayout_16->setObjectName(QStringLiteral
    ("horizontalLayout_16"));
label_14 = new QLabel(groupBox);
label_14->setObjectName(QStringLiteral("label_14")
    );
label_14->setFont(font3);

horizontalLayout_16->addWidget(label_14);

patient_allergy = new QTextBrowser(groupBox);
patient_allergy->setObjectName(QStringLiteral("
    patient_allergy"));
patient_allergy->setFont(font);
patient_allergy->setFrameShape(QFrame::
    StyledPanel);

horizontalLayout_16->addWidget(patient_allergy);


horizontalLayout_27->addLayout(
    horizontalLayout_16);

line_7 = new QFrame(groupBox);
line_7->setObjectName(QStringLiteral("line_7"));
line_7->setFont(font);
line_7->setFrameShape(QFrame::VLine);
line_7->setFrameShadow(QFrame::Sunken);

horizontalLayout_27->addWidget(line_7);

horizontalLayout_22 = new QHBoxLayout();
horizontalLayout_22->setObjectName(QStringLiteral
    ("horizontalLayout_22"));
verticalLayout_4 = new QVBoxLayout();
verticalLayout_4->setObjectName(QStringLiteral("
    verticalLayout_4"));
label_20 = new QLabel(groupBox);
label_20->setObjectName(QStringLiteral("label_20")
    );
label_20->setFont(font3);

verticalLayout_4->addWidget(label_20, 0, Qt::
    AlignBottom);

label_21 = new QLabel(groupBox);
label_21->setObjectName(QStringLiteral("label_21")
    );
label_21->setFont(font3);

verticalLayout_4->addWidget(label_21, 0, Qt::
    AlignTop);


horizontalLayout_22->addLayout(verticalLayout_4);

patient_illness = new QTextBrowser(groupBox);
patient_illness->setObjectName(QStringLiteral("
    patient_illness"));
patient_illness->setFont(font);
patient_illness->setFrameShape(QFrame::
    StyledPanel);

horizontalLayout_22->addWidget(patient_illness);


horizontalLayout_27->addLayout(
    horizontalLayout_22);
```

```
gridLayout_4->addLayout(horizontalLayout_27, 8, 0,
        1, 4);

horizontalLayout_8 = new QHBoxLayout();
horizontalLayout_8->setObjectName(QStringLiteral
        ("horizontalLayout_8"));
horizontalLayout_18 = new QHBoxLayout();
horizontalLayout_18->setObjectName(QStringLiteral
        ("horizontalLayout_18"));
verticalLayout_2 = new QVBoxLayout();
verticalLayout_2->setObjectName(QStringLiteral("
        verticalLayout_2"));
label_16 = new QLabel(groupBox);
label_16->setObjectName(QStringLiteral("label_16")
        );
label_16->setFont(font3);

verticalLayout_2->addWidget(label_16, 0, Qt::
        AlignBottom);

label_17 = new QLabel(groupBox);
label_17->setObjectName(QStringLiteral("label_17")
        );
label_17->setFont(font3);

verticalLayout_2->addWidget(label_17, 0, Qt::
        AlignTop);


horizontalLayout_18->addLayout(verticalLayout_2);


horizontalLayout_8->addLayout(horizontalLayout_18)
        ;

em_name = new QLineEdit(groupBox);
em_name->setObjectName(QStringLiteral("em_name
        "));
em_name->setFont(font);

horizontalLayout_8->addWidget(em_name);


gridLayout_4->addLayout(horizontalLayout_8, 10, 0,
        1, 4);

line_4 = new QFrame(groupBox);
line_4->setObjectName(QStringLiteral("line_4"));
line_4->setFont(font);
line_4->setFrameShape(QFrame::HLine);
line_4->setFrameShadow(QFrame::Sunken);

gridLayout_4->addWidget(line_4, 13, 0, 1, 4);

horizontalLayout_17 = new QHBoxLayout();
horizontalLayout_17->setObjectName(QStringLiteral
        ("horizontalLayout_17"));
horizontalLayout_3 = new QHBoxLayout();
horizontalLayout_3->setObjectName(QStringLiteral
        ("horizontalLayout_3"));
label_2 = new QLabel(groupBox);
label_2->setObjectName(QStringLiteral("label_2"));
label_2->setFont(font3);

horizontalLayout_3->addWidget(label_2);

patient_bday = new QLineEdit(groupBox);
patient_bday->setObjectName(QStringLiteral("
        patient_bday"));
patient_bday->setFont(font);

horizontalLayout_3->addWidget(patient_bday);


horizontalLayout_17->addLayout(horizontalLayout_3)
        ;

line_11 = new QFrame(groupBox);
line_11->setObjectName(QStringLiteral("line_11"));
line_11->setFont(font);
line_11->setFrameShape(QFrame::VLine);
line_11->setFrameShadow(QFrame::Sunken);

horizontalLayout_17->addWidget(line_11);

horizontalLayout_4 = new QHBoxLayout();
horizontalLayout_4->setObjectName(QStringLiteral
        ("horizontalLayout_4"));
label_3 = new QLabel(groupBox);
label_3->setObjectName(QStringLiteral("label_3"));
label_3->setFont(font3);

horizontalLayout_4->addWidget(label_3);

patient_sex = new QLineEdit(groupBox);
patient_sex->setObjectName(QStringLiteral("
        patient_sex"));
patient_sex->setFont(font);

horizontalLayout_4->addWidget(patient_sex);


horizontalLayout_17->addLayout(horizontalLayout_4)
        ;

horizontalLayout_5 = new QHBoxLayout();
horizontalLayout_5->setObjectName(QStringLiteral
        ("horizontalLayout_5"));
label_4 = new QLabel(groupBox);
label_4->setObjectName(QStringLiteral("label_4"));
label_4->setFont(font3);

horizontalLayout_5->addWidget(label_4);

patient_bt = new QLineEdit(groupBox);
patient_bt->setObjectName(QStringLiteral("
        patient_bt"));
patient_bt->setFont(font);

horizontalLayout_5->addWidget(patient_bt);


horizontalLayout_17->addLayout(horizontalLayout_5)
        ;

horizontalLayout_12 = new QHBoxLayout();
horizontalLayout_12->setObjectName(QStringLiteral
        ("horizontalLayout_12"));
label = new QLabel(groupBox);
label->setObjectName(QStringLiteral("label"));
label->setFont(font3);

horizontalLayout_12->addWidget(label);

patient_conc = new QLineEdit(groupBox);
patient_conc->setObjectName(QStringLiteral("
        patient_conc"));
patient_conc->setFont(font);

horizontalLayout_12->addWidget(patient_conc);


horizontalLayout_17->addLayout(
        horizontalLayout_12);


gridLayout_4->addLayout(horizontalLayout_17, 4, 0,
        1, 4);

horizontalLayout_11 = new QHBoxLayout();
horizontalLayout_11->setObjectName(QStringLiteral
        ("horizontalLayout_11"));
horizontalLayout_2 = new QHBoxLayout();
horizontalLayout_2->setObjectName(QStringLiteral
        ("horizontalLayout_2"));
label_15 = new QLabel(groupBox);
label_15->setObjectName(QStringLiteral("label_15")
        );
label_15->setFont(font3);

horizontalLayout_2->addWidget(label_15);

healthUnitPatient = new QLineEdit(groupBox);
healthUnitPatient->setObjectName(QStringLiteral("
        healthUnitPatient"));
healthUnitPatient->setFont(font);

horizontalLayout_2->addWidget(healthUnitPatient);


horizontalLayout_11->addLayout(horizontalLayout_2)
        ;


gridLayout_4->addLayout(horizontalLayout_11, 14, 0,
         1, 4);

horizontalLayout_25 = new QHBoxLayout();
horizontalLayout_25->setObjectName(QStringLiteral
        ("horizontalLayout_25"));
horizontalLayout_20 = new QHBoxLayout();
horizontalLayout_20->setObjectName(QStringLiteral
        ("horizontalLayout_20"));
label_10 = new QLabel(groupBox);
label_10->setObjectName(QStringLiteral("label_10")
        );
label_10->setFont(font);

horizontalLayout_20->addWidget(label_10);

patient_add = new QLineEdit(groupBox);
patient_add->setObjectName(QStringLiteral("
        patient_add"));
patient_add->setFont(font);

horizontalLayout_20->addWidget(patient_add);
```

```
horizontalLayout_25->addLayout(
        horizontalLayout_20);

line_8 = new QFrame(groupBox);
line_8->setObjectName(QStringLiteral("line_8"));
line_8->setFont(font);
line_8->setFrameShape(QFrame::VLine);
line_8->setFrameShadow(QFrame::Sunken);

horizontalLayout_25->addWidget(line_8);

horizontalLayout_15 = new QHBoxLayout();
horizontalLayout_15->setObjectName(QStringLiteral
        ("horizontalLayout_15"));
label_13 = new QLabel(groupBox);
label_13->setObjectName(QStringLiteral("label_13")
        );
label_13->setFont(font3);

horizontalLayout_15->addWidget(label_13);

patient_emailadd = new QLineEdit(groupBox);
patient_emailadd->setObjectName(QStringLiteral("
        patient_emailadd"));
patient_emailadd->setFont(font);

horizontalLayout_15->addWidget(patient_emailadd);


horizontalLayout_25->addLayout(
        horizontalLayout_15);


gridLayout_4->addLayout(horizontalLayout_25, 6, 0,
        1, 4);

line_15 = new QFrame(groupBox);
line_15->setObjectName(QStringLiteral("line_15"));
line_15->setFont(font);
line_15->setFrameShape(QFrame::HLine);
line_15->setFrameShadow(QFrame::Sunken);

gridLayout_4->addWidget(line_15, 11, 0, 1, 4);

horizontalLayout_21 = new QHBoxLayout();
horizontalLayout_21->setObjectName(QStringLiteral
        ("horizontalLayout_21"));
horizontalLayout_7 = new QHBoxLayout();
horizontalLayout_7->setObjectName(QStringLiteral
        ("horizontalLayout_7"));
verticalLayout_6 = new QVBoxLayout();
verticalLayout_6->setObjectName(QStringLiteral("
        verticalLayout_6"));
label_24 = new QLabel(groupBox);
label_24->setObjectName(QStringLiteral("label_24")
        );
label_24->setFont(font3);

verticalLayout_6->addWidget(label_24, 0, Qt::
        AlignBottom);

label_25 = new QLabel(groupBox);
label_25->setObjectName(QStringLiteral("label_25")
        );
label_25->setFont(font3);

verticalLayout_6->addWidget(label_25, 0, Qt::
        AlignTop);


horizontalLayout_7->addLayout(verticalLayout_6);

em_num = new QLineEdit(groupBox);
em_num->setObjectName(QStringLiteral("em_num")
        );
em_num->setFont(font);

horizontalLayout_7->addWidget(em_num);


horizontalLayout_21->addLayout(horizontalLayout_7)
        ;

line_6 = new QFrame(groupBox);
line_6->setObjectName(QStringLiteral("line_6"));
line_6->setFont(font);
line_6->setFrameShape(QFrame::VLine);
line_6->setFrameShadow(QFrame::Sunken);

horizontalLayout_21->addWidget(line_6);

horizontalLayout = new QHBoxLayout();
horizontalLayout->setObjectName(QStringLiteral("
        horizontalLayout"));
verticalLayout_7 = new QVBoxLayout();
verticalLayout_7->setObjectName(QStringLiteral("
        verticalLayout_7"));
label_26 = new QLabel(groupBox);
label_26->setObjectName(QStringLiteral("label_26")
        );
label_26->setFont(font3);

verticalLayout_7->addWidget(label_26, 0, Qt::
        AlignBottom);

label_27 = new QLabel(groupBox);
label_27->setObjectName(QStringLiteral("label_27")
        );
label_27->setFont(font3);

verticalLayout_7->addWidget(label_27, 0, Qt::
        AlignTop);


horizontalLayout->addLayout(verticalLayout_7);

em_relation = new QLineEdit(groupBox);
em_relation->setObjectName(QStringLiteral("
        em_relation"));
em_relation->setFont(font);

horizontalLayout->addWidget(em_relation);


horizontalLayout_21->addLayout(horizontalLayout);


gridLayout_4->addLayout(horizontalLayout_21, 12, 0,
        1, 4);


gridLayout->addWidget(groupBox, 0, 0, 1, 1);

PatientHealthProfileDoc->setCentralWidget(
        centralwidget);

retranslateUi(PatientHealthProfileDoc);

QMetaObject::connectSlotsByName(
        PatientHealthProfileDoc);
} // setupUi

void retranslateUi(QMainWindow *
     PatientHealthProfileDoc)
{
    PatientHealthProfileDoc->setWindowTitle(
            QApplication::translate("
            PatientHealthProfileDoc", "IoT-based
            Recommender System for Diabetic Patients",
            nullptr));
    groupBox_3->setTitle(QString());
    label_7->setText(QString());
    back->setText(QApplication::translate("
            PatientHealthProfileDoc", "Back", nullptr));
    label_8->setText(QString());
    label_9->setText(QString());
    pushButton_3->setText(QApplication::translate("
            PatientHealthProfileDoc", "Add Patient Visit
            Record", nullptr));
    pushButton->setText(QApplication::translate("
            PatientHealthProfileDoc", "Patient Visit
            Records", nullptr));
    label_11->setText(QString());
    groupBox->setTitle(QApplication::translate("
            PatientHealthProfileDoc", " Patient Health
            Profile", nullptr));
    groupBox_2->setTitle(QString());
    label_5->setText(QString());
    label_6->setText(QString());
    pushButton_2->setText(QApplication::translate("
            PatientHealthProfileDoc", "Edit", nullptr));
    label_12->setText(QApplication::translate("
            PatientHealthProfileDoc", "Patient Full Name
            :", nullptr));
    patient_fullname->setText(QString());
    label_14->setText(QApplication::translate("
            PatientHealthProfileDoc", "Allergy:", nullptr));
    label_20->setText(QApplication::translate("
            PatientHealthProfileDoc", "History of ", nullptr
            ));
    label_21->setText(QApplication::translate("
            PatientHealthProfileDoc", "Illness:", nullptr));
    label_16->setText(QApplication::translate("
            PatientHealthProfileDoc", "Emergency", nullptr
            ));
    label_17->setText(QApplication::translate("
            PatientHealthProfileDoc", "Contact Name:",
            nullptr));
    label_2->setText(QApplication::translate("
            PatientHealthProfileDoc", "Birthday:", nullptr)
            );
    label_3->setText(QApplication::translate("
            PatientHealthProfileDoc", "Sex:", nullptr));
    label_4->setText(QApplication::translate("
            PatientHealthProfileDoc", "Blood Type:",
            nullptr));
    label->setText(QApplication::translate("
```

```
            PatientHealthProfileDoc", "Contact Number:",
            nullptr));
        label_15->setText(QApplication::translate("
            PatientHealthProfileDoc", "Health Unit of the
            Patient:", nullptr));
        label_10->setText(QApplication::translate("
            PatientHealthProfileDoc", "Address:", nullptr));
        label_13->setText(QApplication::translate("
            PatientHealthProfileDoc", "Email:", nullptr));
        label_24->setText(QApplication::translate("
            PatientHealthProfileDoc", "Emergency", nullptr
            ));
        label_25->setText(QApplication::translate("
            PatientHealthProfileDoc", "Contact Number:",
            nullptr));
        label_26->setText(QApplication::translate("
            PatientHealthProfileDoc", "Relationship to the
            ", nullptr));
        label_27->setText(QApplication::translate("
            PatientHealthProfileDoc", "Emergency Contact
            :", nullptr));
    } // retranslateUi

};

namespace Ui {
    class  PatientHealthProfileDoc: public
        Ui_PatientHealthProfileDoc {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_PATIENTHEALTHPROFILEDOC_H

/********************************************************************************

** Form generated from reading UI file ' patientvisitrecord . ui
    '
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
    recompiling UI file!
********************************************************************************/


#ifndef UI_PATIENTVISITRECORD_H
#define UI_PATIENTVISITRECORD_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QCheckBox>
#include <QtWidgets/QFrame>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QLineEdit>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QSpacerItem>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class  Ui_PatientVisitRecord
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout;
    QGroupBox *groupBox;
    QGridLayout *gridLayout_2;
    QGroupBox *groupBox_2;
    QGridLayout *gridLayout_3;
    QPushButton *pushButton;
    QLabel *label_3;
    QLabel *label_15;
    QHBoxLayout *horizontalLayout_5;
    QCheckBox *bb1;
    QCheckBox *bb2;
    QGridLayout *gridLayout_5;
    QLabel *label_14;
    QLineEdit *lineEdit_currDosage;
    QSpacerItem *horizontalSpacer_7;
    QSpacerItem *horizontalSpacer_9;
    QSpacerItem *horizontalSpacer_8;
    QSpacerItem *horizontalSpacer_5;
    QHBoxLayout *horizontalLayout_2;
    QLabel *label_2;
    QLineEdit *lineEdit_a1c;
    QSpacerItem *horizontalSpacer_3;
    QSpacerItem *horizontalSpacer_2;
    QSpacerItem *horizontalSpacer;
    QFrame *line_9;
    QHBoxLayout *horizontalLayout;
    QLabel *label;
    QLineEdit *blood_glucose_level;
    QFrame *line_13;
    QLabel *label_13;
    QLineEdit *lineEdit_fbg;
    QHBoxLayout *horizontalLayout_4;
    QLabel *date;
    QLineEdit *lineEdit_dateTime;
    QSpacerItem *horizontalSpacer_4;
    QFrame *line_4;
    QHBoxLayout *horizontalLayout_8;
    QLabel *label_4;
    QLineEdit *lineEdit_insulin_regimen;
    QLabel *label_11;
    QLabel *label_5;
    QFrame *line_6;
    QFrame *line_7;
    QFrame *line_5;
    QFrame *line;
    QHBoxLayout *horizontalLayout_3;
    QLabel *label_6;
    QLineEdit *lineEdit_weight;
    QLabel *label_8;
    QFrame *line_2;
    QLabel *label_7;
    QLineEdit *lineEdit_height;
    QLabel *label_12;
    QFrame *line_11;
    QHBoxLayout *horizontalLayout_9;
    QCheckBox *b3;
    QCheckBox *b4;
    QCheckBox *bb3;
    QCheckBox *b5;
    QFrame *line_3;
    QFrame *line_10;
    QHBoxLayout *horizontalLayout_7;
    QCheckBox *p3;
    QCheckBox *p4;
    QFrame *line_12;
    QHBoxLayout *horizontalLayout_10;
    QCheckBox *p1;
    QCheckBox *p2;
    QHBoxLayout *horizontalLayout_6;
    QCheckBox *b1;
    QCheckBox *b2;
    QGroupBox *groupBox_4;
    QGridLayout *gridLayout_4;
    QPushButton *pushButton_3;
    QPushButton *viewPlan;
    QLabel *label_9;
    QLabel *label_10;

    void setupUi(QMainWindow *PatientVisitRecord)
    {
        if (PatientVisitRecord->objectName().isEmpty())
            PatientVisitRecord->setObjectName(
                QStringLiteral("PatientVisitRecord"));
        PatientVisitRecord->resize(742, 649);
        QFont font;
        font.setFamily(QStringLiteral("Arial"));
        font.setPointSize(10);
        PatientVisitRecord->setFont(font);
        centralwidget = new QWidget(PatientVisitRecord);
        centralwidget->setObjectName(QStringLiteral("
            centralwidget"));
        gridLayout = new QGridLayout(centralwidget);
        gridLayout->setObjectName(QStringLiteral("
            gridLayout"));
        groupBox = new QGroupBox(centralwidget);
        groupBox->setObjectName(QStringLiteral("
            groupBox"));
        QFont font1;
        font1.setFamily(QStringLiteral("Calibri"));
        font1.setPointSize(15);
        font1.setBold(true);
        font1.setWeight(75);
        groupBox->setFont(font1);
        gridLayout_2 = new QGridLayout(groupBox);
        gridLayout_2->setObjectName(QStringLiteral("
            gridLayout_2"));
        groupBox_2 = new QGroupBox(groupBox);
        groupBox_2->setObjectName(QStringLiteral("
            groupBox_2"));
        QFont font2;
        font2.setFamily(QStringLiteral("Segoe UI"));
        font2.setBold(false);
        font2.setWeight(50);
        font2.setKerning(true);
        groupBox_2->setFont(font2);
        gridLayout_3 = new QGridLayout(groupBox_2);
        gridLayout_3->setObjectName(QStringLiteral("
            gridLayout_3"));
        pushButton = new QPushButton(groupBox_2);
        pushButton->setObjectName(QStringLiteral("
            pushButton"));
        QFont font3;
        font3.setFamily(QStringLiteral("Segoe UI"));
        font3.setPointSize(11);
        font3.setBold(true);
        font3.setWeight(75);
```

```
pushButton->setFont(font3);

gridLayout_3->addWidget(pushButton, 0, 2, 1, 1);

label_3 = new QLabel(groupBox_2);
label_3->setObjectName(QStringLiteral("label_3"));
label_3->setFont(font2);

gridLayout_3->addWidget(label_3, 0, 0, 1, 1);

label_15 = new QLabel(groupBox_2);
label_15->setObjectName(QStringLiteral("label_15")
    );
label_15->setFont(font2);

gridLayout_3->addWidget(label_15, 0, 1, 1, 1);


gridLayout_2->addWidget(groupBox_2, 0, 0, 1, 1);

horizontalLayout_5 = new QHBoxLayout();
horizontalLayout_5->setObjectName(QStringLiteral
    ("horizontalLayout_5"));
bb1 = new QCheckBox(groupBox);
bb1->setObjectName(QStringLiteral("bb1"));
QFont font4;
font4.setFamily(QStringLiteral("Segoe UI"));
font4.setPointSize(10);
font4.setBold(false);
font4.setWeight(50);
font4.setKerning(true);
bb1->setFont(font4);

horizontalLayout_5->addWidget(bb1);

bb2 = new QCheckBox(groupBox);
bb2->setObjectName(QStringLiteral("bb2"));
bb2->setFont(font4);

horizontalLayout_5->addWidget(bb2);


gridLayout_2->addLayout(horizontalLayout_5, 28, 0,
    1, 1);

gridLayout_5 = new QGridLayout();
gridLayout_5->setObjectName(QStringLiteral("
    gridLayout_5"));
label_14 = new QLabel(groupBox);
label_14->setObjectName(QStringLiteral("label_14")
    );
QFont font5;
font5.setFamily(QStringLiteral("Segoe UI Semibold")
    );
font5.setPointSize(10);
font5.setBold(false);
font5.setWeight(50);
font5.setKerning(true);
label_14->setFont(font5);

gridLayout_5->addWidget(label_14, 0, 0, 1, 1);

lineEdit_currDosage = new QLineEdit(groupBox);
lineEdit_currDosage->setObjectName(QStringLiteral
    ("lineEdit_currDosage"));
lineEdit_currDosage->setFont(font4);

gridLayout_5->addWidget(lineEdit_currDosage, 0, 1,
    1, 1);

horizontalSpacer_7 = new QSpacerItem(40, 20,
    QSizePolicy::Expanding, QSizePolicy::Minimum
    );

gridLayout_5->addItem(horizontalSpacer_7, 0, 2, 1,
    1);

horizontalSpacer_9 = new QSpacerItem(40, 20,
    QSizePolicy::Expanding, QSizePolicy::Minimum
    );

gridLayout_5->addItem(horizontalSpacer_9, 0, 3, 1,
    1);

horizontalSpacer_8 = new QSpacerItem(40, 20,
    QSizePolicy::Expanding, QSizePolicy::Minimum
    );

gridLayout_5->addItem(horizontalSpacer_8, 0, 4, 1,
    1);

horizontalSpacer_5 = new QSpacerItem(40, 20,
    QSizePolicy::Expanding, QSizePolicy::Minimum
    );

gridLayout_5->addItem(horizontalSpacer_5, 0, 5, 1,
    1);

gridLayout_2->addLayout(gridLayout_5, 13, 0, 1, 1);

horizontalLayout_2 = new QHBoxLayout();
horizontalLayout_2->setObjectName(QStringLiteral
    ("horizontalLayout_2"));
label_2 = new QLabel(groupBox);
label_2->setObjectName(QStringLiteral("label_2"));
label_2->setFont(font5);

horizontalLayout_2->addWidget(label_2);

lineEdit_a1c = new QLineEdit(groupBox);
lineEdit_a1c->setObjectName(QStringLiteral("
    lineEdit_a1c"));
lineEdit_a1c->setFont(font4);

horizontalLayout_2->addWidget(lineEdit_a1c);

horizontalSpacer_3 = new QSpacerItem(40, 20,
    QSizePolicy::Expanding, QSizePolicy::Minimum
    );

horizontalLayout_2->addItem(horizontalSpacer_3);

horizontalSpacer_2 = new QSpacerItem(40, 20,
    QSizePolicy::Expanding, QSizePolicy::Minimum
    );

horizontalLayout_2->addItem(horizontalSpacer_2);

horizontalSpacer = new QSpacerItem(40, 20,
    QSizePolicy::Expanding, QSizePolicy::Minimum
    );

horizontalLayout_2->addItem(horizontalSpacer);


gridLayout_2->addLayout(horizontalLayout_2, 8, 0,
    1, 1);

line_9 = new QFrame(groupBox);
line_9->setObjectName(QStringLiteral("line_9"));
line_9->setFont(font2);
line_9->setFrameShape(QFrame::HLine);
line_9->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_9, 10, 0, 1, 1);

horizontalLayout = new QHBoxLayout();
horizontalLayout->setObjectName(QStringLiteral("
    horizontalLayout"));
label = new QLabel(groupBox);
label->setObjectName(QStringLiteral("label"));
label->setFont(font5);

horizontalLayout->addWidget(label);

blood_glucose_level = new QLineEdit(groupBox);
blood_glucose_level->setObjectName(QStringLiteral
    ("blood_glucose_level"));
blood_glucose_level->setFont(font4);

horizontalLayout->addWidget(blood_glucose_level);

line_13 = new QFrame(groupBox);
line_13->setObjectName(QStringLiteral("line_13"));
line_13->setFont(font2);
line_13->setFrameShape(QFrame::VLine);
line_13->setFrameShadow(QFrame::Sunken);

horizontalLayout->addWidget(line_13);

label_13 = new QLabel(groupBox);
label_13->setObjectName(QStringLiteral("label_13")
    );
label_13->setFont(font5);

horizontalLayout->addWidget(label_13);

lineEdit_fbg = new QLineEdit(groupBox);
lineEdit_fbg->setObjectName(QStringLiteral("
    lineEdit_fbg"));
lineEdit_fbg->setFont(font4);

horizontalLayout->addWidget(lineEdit_fbg);


gridLayout_2->addLayout(horizontalLayout, 6, 0, 1,
    1);

horizontalLayout_4 = new QHBoxLayout();
horizontalLayout_4->setObjectName(QStringLiteral
    ("horizontalLayout_4"));
date = new QLabel(groupBox);
date->setObjectName(QStringLiteral("date"));
date->setFont(font5);

horizontalLayout_4->addWidget(date);
```

```
lineEdit_dateTime = new QLineEdit(groupBox);
lineEdit_dateTime->setObjectName(QStringLiteral("
        lineEdit_dateTime"));
lineEdit_dateTime->setFont(font4);

horizontalLayout_4->addWidget(lineEdit_dateTime);

horizontalSpacer_4 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

horizontalLayout_4->addItem(horizontalSpacer_4);


gridLayout_2->addLayout(horizontalLayout_4, 2, 0,
        1, 1);

line_4 = new QFrame(groupBox);
line_4->setObjectName(QStringLiteral("line_4"));
line_4->setFont(font2);
line_4->setFrameShape(QFrame::HLine);
line_4->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_4, 5, 0, 1, 1);

horizontalLayout_8 = new QHBoxLayout();
horizontalLayout_8->setObjectName(QStringLiteral
        ("horizontalLayout_8"));
label_4 = new QLabel(groupBox);
label_4->setObjectName(QStringLiteral("label_4"));
label_4->setFont(font5);

horizontalLayout_8->addWidget(label_4);

lineEdit_insulin_regimen = new QLineEdit(groupBox)
        ;
lineEdit_insulin_regimen->setObjectName(
        QStringLiteral("lineEdit_insulin_regimen"));
lineEdit_insulin_regimen->setFont(font4);

horizontalLayout_8->addWidget(
        lineEdit_insulin_regimen);

label_11 = new QLabel(groupBox);
label_11->setObjectName(QStringLiteral("label_11")
        );
label_11->setFont(font2);

horizontalLayout_8->addWidget(label_11);

label_5 = new QLabel(groupBox);
label_5->setObjectName(QStringLiteral("label_5"));
label_5->setFont(font4);

horizontalLayout_8->addWidget(label_5);


gridLayout_2->addLayout(horizontalLayout_8, 11, 0,
        1, 1);

line_6 = new QFrame(groupBox);
line_6->setObjectName(QStringLiteral("line_6"));
line_6->setFont(font2);
line_6->setFrameShape(QFrame::HLine);
line_6->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_6, 7, 0, 1, 1);

line_7 = new QFrame(groupBox);
line_7->setObjectName(QStringLiteral("line_7"));
line_7->setFont(font2);
line_7->setFrameShape(QFrame::HLine);
line_7->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_7, 1, 0, 1, 1);

line_5 = new QFrame(groupBox);
line_5->setObjectName(QStringLiteral("line_5"));
line_5->setFont(font2);
line_5->setFrameShape(QFrame::HLine);
line_5->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_5, 12, 0, 1, 1);

line = new QFrame(groupBox);
line->setObjectName(QStringLiteral("line"));
line->setFont(font2);
line->setFrameShape(QFrame::HLine);
line->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line, 3, 0, 1, 1);

horizontalLayout_3 = new QHBoxLayout();
horizontalLayout_3->setObjectName(QStringLiteral
        ("horizontalLayout_3"));
label_6 = new QLabel(groupBox);
label_6->setObjectName(QStringLiteral("label_6"));
label_6->setFont(font5);

horizontalLayout_3->addWidget(label_6);

lineEdit_weight = new QLineEdit(groupBox);
lineEdit_weight->setObjectName(QStringLiteral("
        lineEdit_weight"));
lineEdit_weight->setFont(font4);

horizontalLayout_3->addWidget(lineEdit_weight);

label_8 = new QLabel(groupBox);
label_8->setObjectName(QStringLiteral("label_8"));
label_8->setFont(font2);

horizontalLayout_3->addWidget(label_8);

line_2 = new QFrame(groupBox);
line_2->setObjectName(QStringLiteral("line_2"));
line_2->setFont(font2);
line_2->setFrameShape(QFrame::VLine);
line_2->setFrameShadow(QFrame::Sunken);

horizontalLayout_3->addWidget(line_2);

label_7 = new QLabel(groupBox);
label_7->setObjectName(QStringLiteral("label_7"));
label_7->setFont(font5);

horizontalLayout_3->addWidget(label_7);

lineEdit_height = new QLineEdit(groupBox);
lineEdit_height->setObjectName(QStringLiteral("
        lineEdit_height"));
lineEdit_height->setFont(font4);

horizontalLayout_3->addWidget(lineEdit_height);

label_12 = new QLabel(groupBox);
label_12->setObjectName(QStringLiteral("label_12")
        );
label_12->setFont(font2);

horizontalLayout_3->addWidget(label_12);


gridLayout_2->addLayout(horizontalLayout_3, 4, 0,
        1, 1);

line_11 = new QFrame(groupBox);
line_11->setObjectName(QStringLiteral("line_11"));
line_11->setFont(font2);
line_11->setFrameShape(QFrame::HLine);
line_11->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_11, 30, 0, 1, 1);

horizontalLayout_9 = new QHBoxLayout();
horizontalLayout_9->setObjectName(QStringLiteral
        ("horizontalLayout_9"));
b3 = new QCheckBox(groupBox);
b3->setObjectName(QStringLiteral("b3"));
b3->setFont(font4);

horizontalLayout_9->addWidget(b3);

b4 = new QCheckBox(groupBox);
b4->setObjectName(QStringLiteral("b4"));
b4->setFont(font4);

horizontalLayout_9->addWidget(b4);


gridLayout_2->addLayout(horizontalLayout_9, 19, 0,
        1, 1);

bb3 = new QCheckBox(groupBox);
bb3->setObjectName(QStringLiteral("bb3"));
bb3->setFont(font4);

gridLayout_2->addWidget(bb3, 29, 0, 1, 1);

b5 = new QCheckBox(groupBox);
b5->setObjectName(QStringLiteral("b5"));
b5->setFont(font4);

gridLayout_2->addWidget(b5, 20, 0, 1, 1);

line_3 = new QFrame(groupBox);
line_3->setObjectName(QStringLiteral("line_3"));
line_3->setFont(font2);
line_3->setFrameShape(QFrame::HLine);
line_3->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_3, 27, 0, 1, 1);

line_10 = new QFrame(groupBox);
line_10->setObjectName(QStringLiteral("line_10"));
line_10->setFont(font2);
line_10->setFrameShape(QFrame::HLine);
line_10->setFrameShadow(QFrame::Sunken);
```

```
gridLayout_2->addWidget(line_10, 21, 0, 1, 1);

horizontalLayout_7 = new QHBoxLayout();
horizontalLayout_7->setObjectName(QStringLiteral
        ("horizontalLayout_7"));
p3 = new QCheckBox(groupBox);
p3->setObjectName(QStringLiteral("p3"));
p3->setFont(font4);

horizontalLayout_7->addWidget(p3);

p4 = new QCheckBox(groupBox);
p4->setObjectName(QStringLiteral("p4"));
p4->setFont(font4);

horizontalLayout_7->addWidget(p4);


gridLayout_2->addLayout(horizontalLayout_7, 26, 0,
        1, 1);

line_12 = new QFrame(groupBox);
line_12->setObjectName(QStringLiteral("line_12"));
line_12->setFont(font2);
line_12->setFrameShape(QFrame::HLine);
line_12->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_12, 15, 0, 1, 1);

horizontalLayout_10 = new QHBoxLayout();
horizontalLayout_10->setObjectName(QStringLiteral
        ("horizontalLayout_10"));
p1 = new QCheckBox(groupBox);
p1->setObjectName(QStringLiteral("p1"));
p1->setFont(font4);

horizontalLayout_10->addWidget(p1);

p2 = new QCheckBox(groupBox);
p2->setObjectName(QStringLiteral("p2"));
p2->setFont(font4);

horizontalLayout_10->addWidget(p2);


gridLayout_2->addLayout(horizontalLayout_10, 25, 0,
         1, 1);

horizontalLayout_6 = new QHBoxLayout();
horizontalLayout_6->setObjectName(QStringLiteral
        ("horizontalLayout_6"));
b1 = new QCheckBox(groupBox);
b1->setObjectName(QStringLiteral("b1"));
b1->setFont(font4);

horizontalLayout_6->addWidget(b1);

b2 = new QCheckBox(groupBox);
b2->setObjectName(QStringLiteral("b2"));
b2->setFont(font4);

horizontalLayout_6->addWidget(b2);


gridLayout_2->addLayout(horizontalLayout_6, 16, 0,
        1, 1);


gridLayout->addWidget(groupBox, 0, 0, 1, 1);

groupBox_4 = new QGroupBox(centralwidget);
groupBox_4->setObjectName(QStringLiteral("
        groupBox_4"));
QFont font6;
font6.setFamily(QStringLiteral("Segoe UI"));
font6.setPointSize(12);
font6.setBold(false);
font6.setWeight(50);
font6.setKerning(true);
groupBox_4->setFont(font6);
gridLayout_4 = new QGridLayout(groupBox_4);
gridLayout_4->setObjectName(QStringLiteral("
        gridLayout_4"));
pushButton_3 = new QPushButton(groupBox_4);
pushButton_3->setObjectName(QStringLiteral("
        pushButton_3"));
pushButton_3->setFont(font3);

gridLayout_4->addWidget(pushButton_3, 0, 1, 1, 1);

viewPlan = new QPushButton(groupBox_4);
viewPlan->setObjectName(QStringLiteral("viewPlan
        "));
viewPlan->setFont(font3);

gridLayout_4->addWidget(viewPlan, 0, 2, 1, 1);

label_9 = new QLabel(groupBox_4);
label_9->setObjectName(QStringLiteral("label_9"));
label_9->setFont(font2);

gridLayout_4->addWidget(label_9, 0, 0, 1, 1);

label_10 = new QLabel(groupBox_4);
label_10->setObjectName(QStringLiteral("label_10")
        );
label_10->setFont(font2);

gridLayout_4->addWidget(label_10, 0, 3, 1, 1);


gridLayout->addWidget(groupBox_4, 1, 0, 1, 1);

PatientVisitRecord->setCentralWidget(centralwidget
        );

retranslateUi(PatientVisitRecord);

QMetaObject::connectSlotsByName(
        PatientVisitRecord);
} // setupUi

void retranslateUi(QMainWindow *PatientVisitRecord)
{
    PatientVisitRecord->setWindowTitle(QApplication::
            translate("PatientVisitRecord", "IoT-based
            Recommender System for Diabetic Patients",
            nullptr));
    groupBox->setTitle(QApplication::translate("
            PatientVisitRecord", "Patient Visit Record",
            nullptr));
    groupBox_2->setTitle(QString());
    pushButton->setText(QApplication::translate("
            PatientVisitRecord", "Edit", nullptr));
    label_3->setText(QString());
    label_15->setText(QString());
    bb1->setText(QApplication::translate("
            PatientVisitRecord", "Pregnant", nullptr));
    bb2->setText(QApplication::translate("
            PatientVisitRecord", "Planning a pregnancy",
            nullptr));
    label_14->setText(QApplication::translate("
            PatientVisitRecord", "Current Insulin Dosage (
            units): ", nullptr));
    lineEdit_currDosage->setText(QString());
    label_2->setText(QApplication::translate("
            PatientVisitRecord", "A1C test:", nullptr));
    label->setText(QApplication::translate("
            PatientVisitRecord", "Latest Blood Glucose
            Level:", nullptr));
    blood_glucose_level->setText(QString());
    label_13->setText(QApplication::translate("
            PatientVisitRecord", "Blood Testing Schedule:",
             nullptr));
    date->setText(QApplication::translate("
            PatientVisitRecord", "Date Time Performed (
            YYYY-MM-DD HH:MM:SS):", nullptr));
    label_4->setText(QApplication::translate("
            PatientVisitRecord", "Curent Insulin Regimen
            :", nullptr));
    label_11->setText(QString());
    label_5->setText(QString());
    label_6->setText(QApplication::translate("
            PatientVisitRecord", "Weight (kg):", nullptr));
    label_8->setText(QString());
    label_7->setText(QApplication::translate("
            PatientVisitRecord", "Height (cm):", nullptr));
    label_12->setText(QString());
    b3->setText(QApplication::translate("
            PatientVisitRecord", "Daytime hypoglycemia",
            nullptr));
    b4->setText(QApplication::translate("
            PatientVisitRecord", "Nocturnal Hypoglycemia
            (Consistently <5.5 mmol/L)", nullptr));
    bb3->setText(QApplication::translate("
            PatientVisitRecord", "Hospitalized or acutely ill
            ", nullptr));
    b5->setText(QApplication::translate("
            PatientVisitRecord", "Two (2) episodes of
            hypoglycemia (BG < 4.0 mmol/L) in a week",
            nullptr));
    p3->setText(QApplication::translate("
            PatientVisitRecord", "Starting a new
            medication known to cause hyperglycemia",
            nullptr));
    p4->setText(QApplication::translate("
            PatientVisitRecord", "Experiencing an illness
            known to cause hyperglycemia", nullptr));
    p1->setText(QApplication::translate("
            PatientVisitRecord", "Opposed to more than 2
            injections a day", nullptr));
    p2->setText(QApplication::translate("
            PatientVisitRecord", "Has consistent meal times
             and food intake", nullptr));
    b1->setText(QApplication::translate("
            PatientVisitRecord", "Newly diagnosed with
            diabetes (less than 6 months)", nullptr));
```

```
        b2->setText(QApplication::translate("
            PatientVisitRecord", "Using drugs known to
            cause hypoglycemia", nullptr));
        groupBox_4->setTitle(QString());
        pushButton_3->setText(QApplication::translate("
            PatientVisitRecord", "Back", nullptr));
        viewPlan->setText(QApplication::translate("
            PatientVisitRecord", "View Treatment Plan",
            nullptr));
        label_9->setText(QString());
        label_10->setText(QString());
    } // retranslateUi

};

namespace Ui {
    class PatientVisitRecord: public Ui_PatientVisitRecord
        {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_PATIENTVISITRECORD_H

/********************************************************************************

** Form generated from reading UI file '
    patientvisitrecordconsult.ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
    recompiling UI file!
********************************************************************************/


#ifndef UI_PATIENTVISITRECORDCONSULT_H
#define UI_PATIENTVISITRECORDCONSULT_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QCheckBox>
#include <QtWidgets/QFrame>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QLineEdit>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QSpacerItem>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_PatientVisitRecordConsult
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout;
    QGroupBox *groupBox;
    QGridLayout *gridLayout_2;
    QHBoxLayout *horizontalLayout_7;
    QCheckBox *p3;
    QCheckBox *p4;
    QFrame *line_12;
    QCheckBox *b5;
    QHBoxLayout *horizontalLayout_10;
    QCheckBox *p1;
    QCheckBox *p2;
    QHBoxLayout *horizontalLayout_6;
    QCheckBox *b1;
    QCheckBox *b2;
    QHBoxLayout *horizontalLayout_5;
    QCheckBox *bb1;
    QCheckBox *bb2;
    QGridLayout *gridLayout_5;
    QLabel *label_14;
    QLineEdit *lineEdit_currDosage;
    QSpacerItem *horizontalSpacer_7;
    QSpacerItem *horizontalSpacer_9;
    QSpacerItem *horizontalSpacer_8;
    QSpacerItem *horizontalSpacer_5;
    QHBoxLayout *horizontalLayout;
    QLabel *label;
    QLineEdit *blood_glucose_level;
    QFrame *line_13;
    QLabel *label_13;
    QLineEdit *lineEdit_fbg;
    QHBoxLayout *horizontalLayout_2;
    QLabel *label_2;
    QLineEdit *lineEdit_a1c;
    QSpacerItem *horizontalSpacer_3;
    QSpacerItem *horizontalSpacer_2;
    QSpacerItem *horizontalSpacer;
    QFrame *line_9;
    QHBoxLayout *horizontalLayout_8;
    QLabel *label_4;
    QLineEdit *lineEdit_insulin_regimen;
    QLabel *label_11;
    QLabel *label_5;
    QFrame *line_4;
    QHBoxLayout *horizontalLayout_4;
    QLabel *date;
    QLineEdit *lineEdit_dateTime;
    QSpacerItem *horizontalSpacer_4;
    QFrame *line;
    QHBoxLayout *horizontalLayout_3;
    QLabel *label_6;
    QLineEdit *lineEdit_weight;
    QLabel *label_8;
    QFrame *line_2;
    QLabel *label_7;
    QLineEdit *lineEdit_height;
    QLabel *label_12;
    QFrame *line_5;
    QFrame *line_6;
    QFrame *line_3;
    QFrame *line_7;
    QHBoxLayout *horizontalLayout_9;
    QCheckBox *b3;
    QCheckBox *b4;
    QFrame *line_10;
    QCheckBox *bb3;
    QFrame *line_11;
    QGroupBox *groupBox_4;
    QGridLayout *gridLayout_4;
    QPushButton *back;
    QPushButton *viewPlan;
    QLabel *label_9;
    QLabel *label_10;

    void setupUi(QMainWindow *PatientVisitRecordConsult)
    {
        if (PatientVisitRecordConsult->objectName().
            isEmpty())
            PatientVisitRecordConsult->setObjectName(
                QStringLiteral("PatientVisitRecordConsult
                "));
        PatientVisitRecordConsult->resize(800, 585);
        centralwidget = new QWidget(
            PatientVisitRecordConsult);
        centralwidget->setObjectName(QStringLiteral("
            centralwidget"));
        gridLayout = new QGridLayout(centralwidget);
        gridLayout->setObjectName(QStringLiteral("
            gridLayout"));
        groupBox = new QGroupBox(centralwidget);
        groupBox->setObjectName(QStringLiteral("
            groupBox"));
        QFont font;
        font.setFamily(QStringLiteral("Calibri"));
        font.setPointSize(15);
        font.setBold(true);
        font.setWeight(75);
        groupBox->setFont(font);
        gridLayout_2 = new QGridLayout(groupBox);
        gridLayout_2->setObjectName(QStringLiteral("
            gridLayout_2"));
        horizontalLayout_7 = new QHBoxLayout();
        horizontalLayout_7->setObjectName(QStringLiteral
            ("horizontalLayout_7"));
        p3 = new QCheckBox(groupBox);
        p3->setObjectName(QStringLiteral("p3"));
        QFont font1;
        font1.setFamily(QStringLiteral("Segoe UI"));
        font1.setPointSize(10);
        font1.setBold(false);
        font1.setWeight(50);
        p3->setFont(font1);

        horizontalLayout_7->addWidget(p3);

        p4 = new QCheckBox(groupBox);
        p4->setObjectName(QStringLiteral("p4"));
        p4->setFont(font1);

        horizontalLayout_7->addWidget(p4);


        gridLayout_2->addLayout(horizontalLayout_7, 25, 0,
            1, 1);

        line_12 = new QFrame(groupBox);
        line_12->setObjectName(QStringLiteral("line_12"));
        line_12->setFont(font1);
        line_12->setFrameShape(QFrame::HLine);
        line_12->setFrameShadow(QFrame::Sunken);

        gridLayout_2->addWidget(line_12, 14, 0, 1, 1);

        b5 = new QCheckBox(groupBox);
        b5->setObjectName(QStringLiteral("b5"));
        b5->setFont(font1);
```

```
gridLayout_2->addWidget(b5, 19, 0, 1, 1);

horizontalLayout_10 = new QHBoxLayout();
horizontalLayout_10->setObjectName(QStringLiteral
        ("horizontalLayout_10"));
p1 = new QCheckBox(groupBox);
p1->setObjectName(QStringLiteral("p1"));
p1->setFont(font1);

horizontalLayout_10->addWidget(p1);

p2 = new QCheckBox(groupBox);
p2->setObjectName(QStringLiteral("p2"));
p2->setFont(font1);

horizontalLayout_10->addWidget(p2);


gridLayout_2->addLayout(horizontalLayout_10, 24, 0,
         1, 1);

horizontalLayout_6 = new QHBoxLayout();
horizontalLayout_6->setObjectName(QStringLiteral
        ("horizontalLayout_6"));
b1 = new QCheckBox(groupBox);
b1->setObjectName(QStringLiteral("b1"));
b1->setFont(font1);

horizontalLayout_6->addWidget(b1);

b2 = new QCheckBox(groupBox);
b2->setObjectName(QStringLiteral("b2"));
b2->setFont(font1);

horizontalLayout_6->addWidget(b2);


gridLayout_2->addLayout(horizontalLayout_6, 15, 0,
        1, 1);

horizontalLayout_5 = new QHBoxLayout();
horizontalLayout_5->setObjectName(QStringLiteral
        ("horizontalLayout_5"));
bb1 = new QCheckBox(groupBox);
bb1->setObjectName(QStringLiteral("bb1"));
bb1->setFont(font1);

horizontalLayout_5->addWidget(bb1);

bb2 = new QCheckBox(groupBox);
bb2->setObjectName(QStringLiteral("bb2"));
bb2->setFont(font1);

horizontalLayout_5->addWidget(bb2);


gridLayout_2->addLayout(horizontalLayout_5, 27, 0,
        1, 1);

gridLayout_5 = new QGridLayout();
gridLayout_5->setObjectName(QStringLiteral("
        gridLayout_5"));
label_14 = new QLabel(groupBox);
label_14->setObjectName(QStringLiteral("label_14")
        );
QFont font2;
font2.setFamily(QStringLiteral("Segoe UI Semibold")
        );
font2.setPointSize(10);
font2.setBold(false);
font2.setWeight(50);
label_14->setFont(font2);

gridLayout_5->addWidget(label_14, 0, 0, 1, 1);

lineEdit_currDosage = new QLineEdit(groupBox);
lineEdit_currDosage->setObjectName(QStringLiteral
        ("lineEdit_currDosage"));
lineEdit_currDosage->setFont(font1);

gridLayout_5->addWidget(lineEdit_currDosage, 0, 1,
        1, 1);

horizontalSpacer_7 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

gridLayout_5->addItem(horizontalSpacer_7, 0, 2, 1,
        1);

horizontalSpacer_9 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

gridLayout_5->addItem(horizontalSpacer_9, 0, 3, 1,
        1);

horizontalSpacer_8 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

gridLayout_5->addItem(horizontalSpacer_8, 0, 4, 1,
        1);

horizontalSpacer_5 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

gridLayout_5->addItem(horizontalSpacer_5, 0, 5, 1,
        1);


gridLayout_2->addLayout(gridLayout_5, 12, 0, 1, 1);

horizontalLayout = new QHBoxLayout();
horizontalLayout->setObjectName(QStringLiteral("
        horizontalLayout"));
label = new QLabel(groupBox);
label->setObjectName(QStringLiteral("label"));
label->setFont(font2);

horizontalLayout->addWidget(label);

blood_glucose_level = new QLineEdit(groupBox);
blood_glucose_level->setObjectName(QStringLiteral
        ("blood_glucose_level"));
blood_glucose_level->setFont(font1);

horizontalLayout->addWidget(blood_glucose_level);

line_13 = new QFrame(groupBox);
line_13->setObjectName(QStringLiteral("line_13"));
line_13->setFont(font1);
line_13->setFrameShape(QFrame::VLine);
line_13->setFrameShadow(QFrame::Sunken);

horizontalLayout->addWidget(line_13);

label_13 = new QLabel(groupBox);
label_13->setObjectName(QStringLiteral("label_13")
        );
label_13->setFont(font2);

horizontalLayout->addWidget(label_13);

lineEdit_fbg = new QLineEdit(groupBox);
lineEdit_fbg->setObjectName(QStringLiteral("
        lineEdit_fbg"));
lineEdit_fbg->setFont(font1);

horizontalLayout->addWidget(lineEdit_fbg);


gridLayout_2->addLayout(horizontalLayout, 5, 0, 1,
        1);

horizontalLayout_2 = new QHBoxLayout();
horizontalLayout_2->setObjectName(QStringLiteral
        ("horizontalLayout_2"));
label_2 = new QLabel(groupBox);
label_2->setObjectName(QStringLiteral("label_2"));
label_2->setFont(font2);

horizontalLayout_2->addWidget(label_2);

lineEdit_a1c = new QLineEdit(groupBox);
lineEdit_a1c->setObjectName(QStringLiteral("
        lineEdit_a1c"));
lineEdit_a1c->setFont(font1);

horizontalLayout_2->addWidget(lineEdit_a1c);

horizontalSpacer_3 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

horizontalLayout_2->addItem(horizontalSpacer_3);

horizontalSpacer_2 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

horizontalLayout_2->addItem(horizontalSpacer_2);

horizontalSpacer = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

horizontalLayout_2->addItem(horizontalSpacer);


gridLayout_2->addLayout(horizontalLayout_2, 7, 0,
        1, 1);

line_9 = new QFrame(groupBox);
line_9->setObjectName(QStringLiteral("line_9"));
line_9->setFont(font1);
line_9->setFrameShape(QFrame::HLine);
```

```
line_9->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_9, 9, 0, 1, 1);

horizontalLayout_8 = new QHBoxLayout();
horizontalLayout_8->setObjectName(QStringLiteral
        ("horizontalLayout_8"));
label_4 = new QLabel(groupBox);
label_4->setObjectName(QStringLiteral("label_4"));
label_4->setFont(font2);

horizontalLayout_8->addWidget(label_4);

lineEdit_insulin_regimen = new QLineEdit(groupBox)
        ;
lineEdit_insulin_regimen->setObjectName(
        QStringLiteral("lineEdit_insulin_regimen"));
lineEdit_insulin_regimen->setFont(font1);

horizontalLayout_8->addWidget(
        lineEdit_insulin_regimen);

label_11 = new QLabel(groupBox);
label_11->setObjectName(QStringLiteral("label_11")
        );
label_11->setFont(font1);

horizontalLayout_8->addWidget(label_11);

label_5 = new QLabel(groupBox);
label_5->setObjectName(QStringLiteral("label_5"));
label_5->setFont(font1);

horizontalLayout_8->addWidget(label_5);


gridLayout_2->addLayout(horizontalLayout_8, 10, 0,
        1, 1);

line_4 = new QFrame(groupBox);
line_4->setObjectName(QStringLiteral("line_4"));
line_4->setFont(font1);
line_4->setFrameShape(QFrame::HLine);
line_4->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_4, 4, 0, 1, 1);

horizontalLayout_4 = new QHBoxLayout();
horizontalLayout_4->setObjectName(QStringLiteral
        ("horizontalLayout_4"));
date = new QLabel(groupBox);
date->setObjectName(QStringLiteral("date"));
date->setFont(font2);

horizontalLayout_4->addWidget(date);

lineEdit_dateTime = new QLineEdit(groupBox);
lineEdit_dateTime->setObjectName(QStringLiteral("
        lineEdit_dateTime"));
lineEdit_dateTime->setFont(font1);

horizontalLayout_4->addWidget(lineEdit_dateTime);

horizontalSpacer_4 = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

horizontalLayout_4->addItem(horizontalSpacer_4);


gridLayout_2->addLayout(horizontalLayout_4, 1, 0,
        1, 1);

line = new QFrame(groupBox);
line->setObjectName(QStringLiteral("line"));
line->setFont(font1);
line->setFrameShape(QFrame::HLine);
line->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line, 2, 0, 1, 1);

horizontalLayout_3 = new QHBoxLayout();
horizontalLayout_3->setObjectName(QStringLiteral
        ("horizontalLayout_3"));
label_6 = new QLabel(groupBox);
label_6->setObjectName(QStringLiteral("label_6"));
label_6->setFont(font2);

horizontalLayout_3->addWidget(label_6);

lineEdit_weight = new QLineEdit(groupBox);
lineEdit_weight->setObjectName(QStringLiteral("
        lineEdit_weight"));
lineEdit_weight->setFont(font1);

horizontalLayout_3->addWidget(lineEdit_weight);

label_8 = new QLabel(groupBox);
label_8->setObjectName(QStringLiteral("label_8"));
label_8->setFont(font1);

horizontalLayout_3->addWidget(label_8);

line_2 = new QFrame(groupBox);
line_2->setObjectName(QStringLiteral("line_2"));
line_2->setFont(font1);
line_2->setFrameShape(QFrame::VLine);
line_2->setFrameShadow(QFrame::Sunken);

horizontalLayout_3->addWidget(line_2);

label_7 = new QLabel(groupBox);
label_7->setObjectName(QStringLiteral("label_7"));
label_7->setFont(font2);

horizontalLayout_3->addWidget(label_7);

lineEdit_height = new QLineEdit(groupBox);
lineEdit_height->setObjectName(QStringLiteral("
        lineEdit_height"));
lineEdit_height->setFont(font1);

horizontalLayout_3->addWidget(lineEdit_height);

label_12 = new QLabel(groupBox);
label_12->setObjectName(QStringLiteral("label_12")
        );
label_12->setFont(font1);

horizontalLayout_3->addWidget(label_12);


gridLayout_2->addLayout(horizontalLayout_3, 3, 0,
        1, 1);

line_5 = new QFrame(groupBox);
line_5->setObjectName(QStringLiteral("line_5"));
line_5->setFont(font1);
line_5->setFrameShape(QFrame::HLine);
line_5->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_5, 11, 0, 1, 1);

line_6 = new QFrame(groupBox);
line_6->setObjectName(QStringLiteral("line_6"));
line_6->setFont(font1);
line_6->setFrameShape(QFrame::HLine);
line_6->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_6, 6, 0, 1, 1);

line_3 = new QFrame(groupBox);
line_3->setObjectName(QStringLiteral("line_3"));
line_3->setFont(font1);
line_3->setFrameShape(QFrame::HLine);
line_3->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_3, 26, 0, 1, 1);

line_7 = new QFrame(groupBox);
line_7->setObjectName(QStringLiteral("line_7"));
line_7->setFont(font1);
line_7->setFrameShape(QFrame::HLine);
line_7->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_7, 0, 0, 1, 1);

horizontalLayout_9 = new QHBoxLayout();
horizontalLayout_9->setObjectName(QStringLiteral
        ("horizontalLayout_9"));
b3 = new QCheckBox(groupBox);
b3->setObjectName(QStringLiteral("b3"));
b3->setFont(font1);

horizontalLayout_9->addWidget(b3);

b4 = new QCheckBox(groupBox);
b4->setObjectName(QStringLiteral("b4"));
b4->setFont(font1);

horizontalLayout_9->addWidget(b4);


gridLayout_2->addLayout(horizontalLayout_9, 18, 0,
        1, 1);

line_10 = new QFrame(groupBox);
line_10->setObjectName(QStringLiteral("line_10"));
line_10->setFont(font1);
line_10->setFrameShape(QFrame::HLine);
line_10->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_10, 20, 0, 1, 1);

bb3 = new QCheckBox(groupBox);
bb3->setObjectName(QStringLiteral("bb3"));
bb3->setFont(font1);
```

```
    gridLayout_2->addWidget(bb3, 28, 0, 1, 1);

    line_11 = new QFrame(groupBox);
    line_11->setObjectName(QStringLiteral("line_11"));
    line_11->setFont(font1);
    line_11->setFrameShape(QFrame::HLine);
    line_11->setFrameShadow(QFrame::Sunken);

    gridLayout_2->addWidget(line_11, 29, 0, 1, 1);


    gridLayout->addWidget(groupBox, 0, 0, 1, 1);

    groupBox_4 = new QGroupBox(centralwidget);
    groupBox_4->setObjectName(QStringLiteral("
        groupBox_4"));
    groupBox_4->setFont(font1);
    gridLayout_4 = new QGridLayout(groupBox_4);
    gridLayout_4->setObjectName(QStringLiteral("
        gridLayout_4"));
    back = new QPushButton(groupBox_4);
    back->setObjectName(QStringLiteral("back"));
    QFont font3;
    font3.setFamily(QStringLiteral("Segoe UI"));
    font3.setPointSize(11);
    font3.setBold(true);
    font3.setWeight(75);
    back->setFont(font3);

    gridLayout_4->addWidget(back, 0, 1, 1, 1);

    viewPlan = new QPushButton(groupBox_4);
    viewPlan->setObjectName(QStringLiteral("viewPlan
        "));
    viewPlan->setFont(font3);

    gridLayout_4->addWidget(viewPlan, 0, 2, 1, 1);

    label_9 = new QLabel(groupBox_4);
    label_9->setObjectName(QStringLiteral("label_9"));
    label_9->setFont(font1);

    gridLayout_4->addWidget(label_9, 0, 0, 1, 1);

    label_10 = new QLabel(groupBox_4);
    label_10->setObjectName(QStringLiteral("label_10")
        );
    label_10->setFont(font1);

    gridLayout_4->addWidget(label_10, 0, 3, 1, 1);


    gridLayout->addWidget(groupBox_4, 1, 0, 1, 1);

    PatientVisitRecordConsult->setCentralWidget(
        centralwidget);

    retranslateUi(PatientVisitRecordConsult);

    QMetaObject::connectSlotsByName(
        PatientVisitRecordConsult);
} // setupUi

void retranslateUi(QMainWindow *
    PatientVisitRecordConsult)
{
    PatientVisitRecordConsult->setWindowTitle(
        QApplication::translate("
        PatientVisitRecordConsult", "IoT-based
        Recommender System for Diabetic Patients",
        nullptr));
    groupBox->setTitle(QApplication::translate("
        PatientVisitRecordConsult", "Patient Visit
        Record", nullptr));
    p3->setText(QApplication::translate("
        PatientVisitRecordConsult", "Starting a new
        medication known to cause hyperglycemia",
        nullptr));
    p4->setText(QApplication::translate("
        PatientVisitRecordConsult", "Experiencing an
        illness known to cause hyperglycemia", nullptr))
        ;
    b5->setText(QApplication::translate("
        PatientVisitRecordConsult", "Two (2) episodes
        of hypoglycemia (BG < 4.0 mmol/L) in a week
        ", nullptr));
    p1->setText(QApplication::translate("
        PatientVisitRecordConsult", "Opposed to more
        than 2 injections a day", nullptr));
    p2->setText(QApplication::translate("
        PatientVisitRecordConsult", "Has consistent
        meal times and food intake", nullptr));
    b1->setText(QApplication::translate("
        PatientVisitRecordConsult", "Newly diagnosed
        with diabetes (less than 6 months)", nullptr));
    b2->setText(QApplication::translate("
        PatientVisitRecordConsult", "Using drugs
        known to cause hypoglycemia", nullptr));
    bb1->setText(QApplication::translate("
        PatientVisitRecordConsult", "Pregnant",
        nullptr));
    bb2->setText(QApplication::translate("
        PatientVisitRecordConsult", "Planning a
        pregnancy", nullptr));
    label_14->setText(QApplication::translate("
        PatientVisitRecordConsult", "Current Insulin
        Dosage (units): ", nullptr));
    lineEdit_currDosage->setText(QString());
    label->setText(QApplication::translate("
        PatientVisitRecordConsult", "Latest Blood
        Glucose Level:", nullptr));
    blood_glucose_level->setText(QString());
    label_13->setText(QApplication::translate("
        PatientVisitRecordConsult", "Blood Testing
        Schedule:", nullptr));
    label_2->setText(QApplication::translate("
        PatientVisitRecordConsult", "A1C test:",
        nullptr));
    label_4->setText(QApplication::translate("
        PatientVisitRecordConsult", "Curent Insulin
        Regimen:", nullptr));
    label_11->setText(QString());
    label_5->setText(QString());
    date->setText(QApplication::translate("
        PatientVisitRecordConsult", "Date Time
        Performed (YYYY-MM-DD HH:MM:SS):",
        nullptr));
    label_6->setText(QApplication::translate("
        PatientVisitRecordConsult", "Weight (kg):",
        nullptr));
    label_8->setText(QString());
    label_7->setText(QApplication::translate("
        PatientVisitRecordConsult", "Height (cm):",
        nullptr));
    label_12->setText(QString());
    b3->setText(QApplication::translate("
        PatientVisitRecordConsult", "Daytime
        hypoglycemia", nullptr));
    b4->setText(QApplication::translate("
        PatientVisitRecordConsult", "Nocturnal
        Hypoglycemia (Consistently <5.5 mmol/L)",
        nullptr));
    bb3->setText(QApplication::translate("
        PatientVisitRecordConsult", "Hospitalized or
        acutely ill", nullptr));
    groupBox_4->setTitle(QString());
    back->setText(QApplication::translate("
        PatientVisitRecordConsult", "Back", nullptr));
    viewPlan->setText(QApplication::translate("
        PatientVisitRecordConsult", "View Treatment
        Plan", nullptr));
    label_9->setText(QString());
    label_10->setText(QString());
} // retranslateUi

};

namespace Ui {
    class PatientVisitRecordConsult: public
        Ui_PatientVisitRecordConsult {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_PATIENTVISITRECORDCONSULT_H

/********************************************************************************

** Form generated from reading UI file 'patientvisitrecorddoc
    .ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
    recompiling UI file!
********************************************************************************/


#ifndef UI_PATIENTVISITRECORDDOC_H
#define UI_PATIENTVISITRECORDDOC_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QCheckBox>
#include <QtWidgets/QFrame>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QLineEdit>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QSpacerItem>
#include <QtWidgets/QWidget>
```

```
QT_BEGIN_NAMESPACE

class Ui_PatientVisitRecordDoc
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout;
    QGroupBox *groupBox;
    QGridLayout *gridLayout_2;
    QGridLayout *gridLayout_5;
    QLabel *label_14;
    QLineEdit *lineEdit_currDosage;
    QSpacerItem *horizontalSpacer_7;
    QSpacerItem *horizontalSpacer_9;
    QSpacerItem *horizontalSpacer_8;
    QSpacerItem *horizontalSpacer_5;
    QHBoxLayout *horizontalLayout_5;
    QCheckBox *bb1;
    QCheckBox *bb2;
    QHBoxLayout *horizontalLayout;
    QLabel *label;
    QLineEdit *blood_glucose_level;
    QFrame *line_13;
    QLabel *label_13;
    QLineEdit *lineEdit_fbg;
    QHBoxLayout *horizontalLayout_2;
    QLabel *label_2;
    QLineEdit *lineEdit_a1c;
    QSpacerItem *horizontalSpacer_3;
    QSpacerItem *horizontalSpacer_2;
    QSpacerItem *horizontalSpacer;
    QFrame *line_9;
    QHBoxLayout *horizontalLayout_8;
    QLabel *label_4;
    QLineEdit *lineEdit_insulin_regimen;
    QLabel *label_11;
    QLabel *label_5;
    QFrame *line_4;
    QHBoxLayout *horizontalLayout_4;
    QLabel *date;
    QLineEdit *lineEdit_dateTime;
    QSpacerItem *horizontalSpacer_4;
    QHBoxLayout *horizontalLayout_3;
    QLabel *label_6;
    QLineEdit *lineEdit_weight;
    QLabel *label_8;
    QFrame *line_2;
    QLabel *label_7;
    QLineEdit *lineEdit_height;
    QLabel *label_12;
    QFrame *line;
    QFrame *line_5;
    QFrame *line_6;
    QFrame *line_7;
    QHBoxLayout *horizontalLayout_9;
    QCheckBox *b3;
    QCheckBox *b4;
    QFrame *line_3;
    QFrame *line_10;
    QFrame *line_11;
    QCheckBox *bb3;
    QHBoxLayout *horizontalLayout_7;
    QCheckBox *p3;
    QCheckBox *p4;
    QFrame *line_12;
    QCheckBox *b5;
    QHBoxLayout *horizontalLayout_10;
    QCheckBox *p1;
    QCheckBox *p2;
    QGroupBox *groupBox_2;
    QGridLayout *gridLayout_3;
    QPushButton *pushButton;
    QLabel *label_3;
    QLabel *label_15;
    QHBoxLayout *horizontalLayout_6;
    QCheckBox *b1;
    QCheckBox *b2;
    QGroupBox *groupBox_4;
    QGridLayout *gridLayout_4;
    QPushButton *pushButton_3;
    QPushButton *viewPlan;
    QLabel *label_9;
    QLabel *label_10;

    void setupUi(QMainWindow *PatientVisitRecordDoc)
    {
        if (PatientVisitRecordDoc->objectName().isEmpty
            ())
            PatientVisitRecordDoc->setObjectName(
                QStringLiteral("PatientVisitRecordDoc"));
        PatientVisitRecordDoc->resize(800, 639);
        centralwidget = new QWidget(PatientVisitRecordDoc
            );
        centralwidget->setObjectName(QStringLiteral("
            centralwidget"));
        gridLayout = new QGridLayout(centralwidget);
        gridLayout->setObjectName(QStringLiteral("
            gridLayout"));
        groupBox = new QGroupBox(centralwidget);
        groupBox->setObjectName(QStringLiteral("
            groupBox"));
        QFont font;
        font.setFamily(QStringLiteral("Calibri"));
        font.setPointSize(15);
        font.setBold(true);
        font.setWeight(75);
        groupBox->setFont(font);
        gridLayout_2 = new QGridLayout(groupBox);
        gridLayout_2->setObjectName(QStringLiteral("
            gridLayout_2"));
        gridLayout_5 = new QGridLayout();
        gridLayout_5->setObjectName(QStringLiteral("
            gridLayout_5"));
        label_14 = new QLabel(groupBox);
        label_14->setObjectName(QStringLiteral("label_14")
            );
        QFont font1;
        font1.setFamily(QStringLiteral("Segoe UI Semibold")
            );
        font1.setPointSize(10);
        font1.setBold(false);
        font1.setWeight(50);
        label_14->setFont(font1);

        gridLayout_5->addWidget(label_14, 0, 0, 1, 1);

        lineEdit_currDosage = new QLineEdit(groupBox);
        lineEdit_currDosage->setObjectName(QStringLiteral
            ("lineEdit_currDosage"));
        QFont font2;
        font2.setFamily(QStringLiteral("Segoe UI"));
        font2.setPointSize(10);
        font2.setBold(false);
        font2.setWeight(50);
        lineEdit_currDosage->setFont(font2);

        gridLayout_5->addWidget(lineEdit_currDosage, 0, 1,
            1, 1);

        horizontalSpacer_7 = new QSpacerItem(40, 20,
            QSizePolicy::Expanding, QSizePolicy::Minimum
            );

        gridLayout_5->addItem(horizontalSpacer_7, 0, 2, 1,
            1);

        horizontalSpacer_9 = new QSpacerItem(40, 20,
            QSizePolicy::Expanding, QSizePolicy::Minimum
            );

        gridLayout_5->addItem(horizontalSpacer_9, 0, 3, 1,
            1);

        horizontalSpacer_8 = new QSpacerItem(40, 20,
            QSizePolicy::Expanding, QSizePolicy::Minimum
            );

        gridLayout_5->addItem(horizontalSpacer_8, 0, 4, 1,
            1);

        horizontalSpacer_5 = new QSpacerItem(40, 20,
            QSizePolicy::Expanding, QSizePolicy::Minimum
            );

        gridLayout_5->addItem(horizontalSpacer_5, 0, 5, 1,
            1);


        gridLayout_2->addLayout(gridLayout_5, 13, 0, 1, 1);

        horizontalLayout_5 = new QHBoxLayout();
        horizontalLayout_5->setObjectName(QStringLiteral
            ("horizontalLayout_5"));
        bb1 = new QCheckBox(groupBox);
        bb1->setObjectName(QStringLiteral("bb1"));
        bb1->setFont(font2);

        horizontalLayout_5->addWidget(bb1);

        bb2 = new QCheckBox(groupBox);
        bb2->setObjectName(QStringLiteral("bb2"));
        bb2->setFont(font2);

        horizontalLayout_5->addWidget(bb2);


        gridLayout_2->addLayout(horizontalLayout_5, 28, 0,
            1, 1);

        horizontalLayout = new QHBoxLayout();
        horizontalLayout->setObjectName(QStringLiteral("
            horizontalLayout"));
        label = new QLabel(groupBox);
        label->setObjectName(QStringLiteral("label"));
        label->setFont(font1);

        horizontalLayout->addWidget(label);
```

```
blood_glucose_level = new QLineEdit(groupBox);
blood_glucose_level->setObjectName(QStringLiteral
    ("blood_glucose_level"));
blood_glucose_level->setFont(font2);

horizontalLayout->addWidget(blood_glucose_level);

line_13 = new QFrame(groupBox);
line_13->setObjectName(QStringLiteral("line_13"));
line_13->setFont(font2);
line_13->setFrameShape(QFrame::VLine);
line_13->setFrameShadow(QFrame::Sunken);

horizontalLayout->addWidget(line_13);

label_13 = new QLabel(groupBox);
label_13->setObjectName(QStringLiteral("label_13")
    );
label_13->setFont(font1);

horizontalLayout->addWidget(label_13);

lineEdit_fbg = new QLineEdit(groupBox);
lineEdit_fbg->setObjectName(QStringLiteral("
    lineEdit_fbg"));
lineEdit_fbg->setFont(font2);

horizontalLayout->addWidget(lineEdit_fbg);


gridLayout_2->addLayout(horizontalLayout, 6, 0, 1,
    1);

horizontalLayout_2 = new QHBoxLayout();
horizontalLayout_2->setObjectName(QStringLiteral
    ("horizontalLayout_2"));
label_2 = new QLabel(groupBox);
label_2->setObjectName(QStringLiteral("label_2"));
label_2->setFont(font1);

horizontalLayout_2->addWidget(label_2);

lineEdit_a1c = new QLineEdit(groupBox);
lineEdit_a1c->setObjectName(QStringLiteral("
    lineEdit_a1c"));
lineEdit_a1c->setFont(font2);

horizontalLayout_2->addWidget(lineEdit_a1c);

horizontalSpacer_3 = new QSpacerItem(40, 20,
    QSizePolicy::Expanding, QSizePolicy::Minimum
    );

horizontalLayout_2->addItem(horizontalSpacer_3);

horizontalSpacer_2 = new QSpacerItem(40, 20,
    QSizePolicy::Expanding, QSizePolicy::Minimum
    );

horizontalLayout_2->addItem(horizontalSpacer_2);

horizontalSpacer = new QSpacerItem(40, 20,
    QSizePolicy::Expanding, QSizePolicy::Minimum
    );

horizontalLayout_2->addItem(horizontalSpacer);


gridLayout_2->addLayout(horizontalLayout_2, 8, 0,
    1, 1);

line_9 = new QFrame(groupBox);
line_9->setObjectName(QStringLiteral("line_9"));
line_9->setFont(font2);
line_9->setFrameShape(QFrame::HLine);
line_9->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_9, 10, 0, 1, 1);

horizontalLayout_8 = new QHBoxLayout();
horizontalLayout_8->setObjectName(QStringLiteral
    ("horizontalLayout_8"));
label_4 = new QLabel(groupBox);
label_4->setObjectName(QStringLiteral("label_4"));
label_4->setFont(font1);

horizontalLayout_8->addWidget(label_4);

lineEdit_insulin_regimen = new QLineEdit(groupBox)
    ;
lineEdit_insulin_regimen->setObjectName(
    QStringLiteral("lineEdit_insulin_regimen"));
lineEdit_insulin_regimen->setFont(font2);

horizontalLayout_8->addWidget(
    lineEdit_insulin_regimen);

label_11 = new QLabel(groupBox);
label_11->setObjectName(QStringLiteral("label_11")
    );
label_11->setFont(font2);

horizontalLayout_8->addWidget(label_11);

label_5 = new QLabel(groupBox);
label_5->setObjectName(QStringLiteral("label_5"));
label_5->setFont(font2);

horizontalLayout_8->addWidget(label_5);


gridLayout_2->addLayout(horizontalLayout_8, 11, 0,
    1, 1);

line_4 = new QFrame(groupBox);
line_4->setObjectName(QStringLiteral("line_4"));
line_4->setFont(font2);
line_4->setFrameShape(QFrame::HLine);
line_4->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_4, 5, 0, 1, 1);

horizontalLayout_4 = new QHBoxLayout();
horizontalLayout_4->setObjectName(QStringLiteral
    ("horizontalLayout_4"));
date = new QLabel(groupBox);
date->setObjectName(QStringLiteral("date"));
date->setFont(font1);

horizontalLayout_4->addWidget(date);

lineEdit_dateTime = new QLineEdit(groupBox);
lineEdit_dateTime->setObjectName(QStringLiteral("
    lineEdit_dateTime"));
lineEdit_dateTime->setFont(font2);

horizontalLayout_4->addWidget(lineEdit_dateTime);

horizontalSpacer_4 = new QSpacerItem(40, 20,
    QSizePolicy::Expanding, QSizePolicy::Minimum
    );

horizontalLayout_4->addItem(horizontalSpacer_4);


gridLayout_2->addLayout(horizontalLayout_4, 2, 0,
    1, 1);

horizontalLayout_3 = new QHBoxLayout();
horizontalLayout_3->setObjectName(QStringLiteral
    ("horizontalLayout_3"));
label_6 = new QLabel(groupBox);
label_6->setObjectName(QStringLiteral("label_6"));
label_6->setFont(font1);

horizontalLayout_3->addWidget(label_6);

lineEdit_weight = new QLineEdit(groupBox);
lineEdit_weight->setObjectName(QStringLiteral("
    lineEdit_weight"));
lineEdit_weight->setFont(font2);

horizontalLayout_3->addWidget(lineEdit_weight);

label_8 = new QLabel(groupBox);
label_8->setObjectName(QStringLiteral("label_8"));
label_8->setFont(font2);

horizontalLayout_3->addWidget(label_8);

line_2 = new QFrame(groupBox);
line_2->setObjectName(QStringLiteral("line_2"));
line_2->setFont(font2);
line_2->setFrameShape(QFrame::VLine);
line_2->setFrameShadow(QFrame::Sunken);

horizontalLayout_3->addWidget(line_2);

label_7 = new QLabel(groupBox);
label_7->setObjectName(QStringLiteral("label_7"));
label_7->setFont(font1);

horizontalLayout_3->addWidget(label_7);

lineEdit_height = new QLineEdit(groupBox);
lineEdit_height->setObjectName(QStringLiteral("
    lineEdit_height"));
lineEdit_height->setFont(font2);

horizontalLayout_3->addWidget(lineEdit_height);

label_12 = new QLabel(groupBox);
label_12->setObjectName(QStringLiteral("label_12")
    );
label_12->setFont(font2);

horizontalLayout_3->addWidget(label_12);
```

```
gridLayout_2->addLayout(horizontalLayout_3, 4, 0,
        1, 1);

line = new QFrame(groupBox);
line->setObjectName(QStringLiteral("line"));
line->setFont(font2);
line->setFrameShape(QFrame::HLine);
line->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line, 3, 0, 1, 1);

line_5 = new QFrame(groupBox);
line_5->setObjectName(QStringLiteral("line_5"));
line_5->setFont(font2);
line_5->setFrameShape(QFrame::HLine);
line_5->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_5, 12, 0, 1, 1);

line_6 = new QFrame(groupBox);
line_6->setObjectName(QStringLiteral("line_6"));
line_6->setFont(font2);
line_6->setFrameShape(QFrame::HLine);
line_6->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_6, 7, 0, 1, 1);

line_7 = new QFrame(groupBox);
line_7->setObjectName(QStringLiteral("line_7"));
line_7->setFont(font2);
line_7->setFrameShape(QFrame::HLine);
line_7->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_7, 1, 0, 1, 1);

horizontalLayout_9 = new QHBoxLayout();
horizontalLayout_9->setObjectName(QStringLiteral
        ("horizontalLayout_9"));
b3 = new QCheckBox(groupBox);
b3->setObjectName(QStringLiteral("b3"));
b3->setFont(font2);

horizontalLayout_9->addWidget(b3);

b4 = new QCheckBox(groupBox);
b4->setObjectName(QStringLiteral("b4"));
b4->setFont(font2);

horizontalLayout_9->addWidget(b4);


gridLayout_2->addLayout(horizontalLayout_9, 19, 0,
        1, 1);

line_3 = new QFrame(groupBox);
line_3->setObjectName(QStringLiteral("line_3"));
line_3->setFont(font2);
line_3->setFrameShape(QFrame::HLine);
line_3->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_3, 27, 0, 1, 1);

line_10 = new QFrame(groupBox);
line_10->setObjectName(QStringLiteral("line_10"));
line_10->setFont(font2);
line_10->setFrameShape(QFrame::HLine);
line_10->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_10, 21, 0, 1, 1);

line_11 = new QFrame(groupBox);
line_11->setObjectName(QStringLiteral("line_11"));
line_11->setFont(font2);
line_11->setFrameShape(QFrame::HLine);
line_11->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_11, 30, 0, 1, 1);

bb3 = new QCheckBox(groupBox);
bb3->setObjectName(QStringLiteral("bb3"));
bb3->setFont(font2);

gridLayout_2->addWidget(bb3, 29, 0, 1, 1);

horizontalLayout_7 = new QHBoxLayout();
horizontalLayout_7->setObjectName(QStringLiteral
        ("horizontalLayout_7"));
p3 = new QCheckBox(groupBox);
p3->setObjectName(QStringLiteral("p3"));
p3->setFont(font2);

horizontalLayout_7->addWidget(p3);

p4 = new QCheckBox(groupBox);
p4->setObjectName(QStringLiteral("p4"));
p4->setFont(font2);

horizontalLayout_7->addWidget(p4);

gridLayout_2->addLayout(horizontalLayout_7, 26, 0,
        1, 1);

line_12 = new QFrame(groupBox);
line_12->setObjectName(QStringLiteral("line_12"));
line_12->setFont(font2);
line_12->setFrameShape(QFrame::HLine);
line_12->setFrameShadow(QFrame::Sunken);

gridLayout_2->addWidget(line_12, 15, 0, 1, 1);

b5 = new QCheckBox(groupBox);
b5->setObjectName(QStringLiteral("b5"));
b5->setFont(font2);

gridLayout_2->addWidget(b5, 20, 0, 1, 1);

horizontalLayout_10 = new QHBoxLayout();
horizontalLayout_10->setObjectName(QStringLiteral
        ("horizontalLayout_10"));
p1 = new QCheckBox(groupBox);
p1->setObjectName(QStringLiteral("p1"));
p1->setFont(font2);

horizontalLayout_10->addWidget(p1);

p2 = new QCheckBox(groupBox);
p2->setObjectName(QStringLiteral("p2"));
p2->setFont(font2);

horizontalLayout_10->addWidget(p2);


gridLayout_2->addLayout(horizontalLayout_10, 25, 0,
        1, 1);

groupBox_2 = new QGroupBox(groupBox);
groupBox_2->setObjectName(QStringLiteral("
        groupBox_2"));
groupBox_2->setFont(font2);
gridLayout_3 = new QGridLayout(groupBox_2);
gridLayout_3->setObjectName(QStringLiteral("
        gridLayout_3"));
pushButton = new QPushButton(groupBox_2);
pushButton->setObjectName(QStringLiteral("
        pushButton"));
QFont font3;
font3.setFamily(QStringLiteral("Segoe UI"));
font3.setPointSize(11);
font3.setBold(true);
font3.setWeight(75);
pushButton->setFont(font3);

gridLayout_3->addWidget(pushButton, 0, 2, 1, 1);

label_3 = new QLabel(groupBox_2);
label_3->setObjectName(QStringLiteral("label_3"));
label_3->setFont(font2);

gridLayout_3->addWidget(label_3, 0, 0, 1, 1);

label_15 = new QLabel(groupBox_2);
label_15->setObjectName(QStringLiteral("label_15")
        );
label_15->setFont(font2);

gridLayout_3->addWidget(label_15, 0, 1, 1, 1);


gridLayout_2->addWidget(groupBox_2, 0, 0, 1, 1);

horizontalLayout_6 = new QHBoxLayout();
horizontalLayout_6->setObjectName(QStringLiteral
        ("horizontalLayout_6"));
b1 = new QCheckBox(groupBox);
b1->setObjectName(QStringLiteral("b1"));
b1->setFont(font2);

horizontalLayout_6->addWidget(b1);

b2 = new QCheckBox(groupBox);
b2->setObjectName(QStringLiteral("b2"));
b2->setFont(font2);

horizontalLayout_6->addWidget(b2);


gridLayout_2->addLayout(horizontalLayout_6, 16, 0,
        1, 1);


gridLayout->addWidget(groupBox, 0, 0, 1, 1);

groupBox_4 = new QGroupBox(centralwidget);
groupBox_4->setObjectName(QStringLiteral("
        groupBox_4"));
groupBox_4->setFont(font2);
```

```
    gridLayout_4 = new QGridLayout(groupBox_4);
    gridLayout_4->setObjectName(QStringLiteral("
        gridLayout_4"));
    pushButton_3 = new QPushButton(groupBox_4);
    pushButton_3->setObjectName(QStringLiteral("
        pushButton_3"));
    pushButton_3->setFont(font3);

    gridLayout_4->addWidget(pushButton_3, 0, 1, 1, 1);

    viewPlan = new QPushButton(groupBox_4);
    viewPlan->setObjectName(QStringLiteral("viewPlan
        "));
    viewPlan->setFont(font3);

    gridLayout_4->addWidget(viewPlan, 0, 2, 1, 1);

    label_9 = new QLabel(groupBox_4);
    label_9->setObjectName(QStringLiteral("label_9"));
    label_9->setFont(font2);

    gridLayout_4->addWidget(label_9, 0, 0, 1, 1);

    label_10 = new QLabel(groupBox_4);
    label_10->setObjectName(QStringLiteral("label_10")
        );
    label_10->setFont(font2);

    gridLayout_4->addWidget(label_10, 0, 3, 1, 1);


    gridLayout->addWidget(groupBox_4, 1, 0, 1, 1);

    PatientVisitRecordDoc->setCentralWidget(
        centralwidget);

    retranslateUi(PatientVisitRecordDoc);

    QMetaObject::connectSlotsByName(
        PatientVisitRecordDoc);
} // setupUi

void retranslateUi(QMainWindow *
    PatientVisitRecordDoc)
{
    PatientVisitRecordDoc->setWindowTitle(
        QApplication::translate("PatientVisitRecordDoc
        ", "IoT-based Recommender System for
        Diabetic Patients", nullptr));
    groupBox->setTitle(QApplication::translate("
        PatientVisitRecordDoc", "Patient Visit Record
        ", nullptr));
    label_14->setText(QApplication::translate("
        PatientVisitRecordDoc", "Current Insulin
        Dosage (units): ", nullptr));
    lineEdit_currDosage->setText(QString());
    bb1->setText(QApplication::translate("
        PatientVisitRecordDoc", "Pregnant", nullptr));
    bb2->setText(QApplication::translate("
        PatientVisitRecordDoc", "Planning a pregnancy
        ", nullptr));
    label->setText(QApplication::translate("
        PatientVisitRecordDoc", "Latest Blood Glucose
         Level:", nullptr));
    blood_glucose_level->setText(QString());
    label_13->setText(QApplication::translate("
        PatientVisitRecordDoc", "Blood Testing
        Schedule:", nullptr));
    label_2->setText(QApplication::translate("
        PatientVisitRecordDoc", "A1C test:", nullptr));
    label_4->setText(QApplication::translate("
        PatientVisitRecordDoc", "Curent Insulin
        Regimen:", nullptr));
    label_11->setText(QString());
    label_5->setText(QString());
    date->setText(QApplication::translate("
        PatientVisitRecordDoc", "Date Time Performed
         (YYYY-MM-DD HH:MM:SS):", nullptr));
    label_6->setText(QApplication::translate("
        PatientVisitRecordDoc", "Weight (kg):", nullptr
        ));
    label_8->setText(QString());
    label_7->setText(QApplication::translate("
        PatientVisitRecordDoc", "Height (cm):", nullptr
        ));
    label_12->setText(QString());
    b3->setText(QApplication::translate("
        PatientVisitRecordDoc", "Daytime
        hypoglycemia", nullptr));
    b4->setText(QApplication::translate("
        PatientVisitRecordDoc", "Nocturnal
        Hypoglycemia (Consistently <5.5 mmol/L)",
        nullptr));
    bb3->setText(QApplication::translate("
        PatientVisitRecordDoc", "Hospitalized or
        acutely ill", nullptr));
    p3->setText(QApplication::translate("
        PatientVisitRecordDoc", "Starting a new
        medication known to cause hyperglycemia",
        nullptr));
    p4->setText(QApplication::translate("
        PatientVisitRecordDoc", "Experiencing an
        illness known to cause hyperglycemia", nullptr))
        ;
    b5->setText(QApplication::translate("
        PatientVisitRecordDoc", "Two (2) episodes of
        hypoglycemia (BG < 4.0 mmol/L) in a week",
        nullptr));
    p1->setText(QApplication::translate("
        PatientVisitRecordDoc", "Opposed to more
        than 2 injections a day", nullptr));
    p2->setText(QApplication::translate("
        PatientVisitRecordDoc", "Has consistent meal
        times and food intake", nullptr));
    groupBox_2->setTitle(QString());
    pushButton->setText(QApplication::translate("
        PatientVisitRecordDoc", "Edit", nullptr));
    label_3->setText(QString());
    label_15->setText(QString());
    b1->setText(QApplication::translate("
        PatientVisitRecordDoc", "Newly diagnosed with
         diabetes (less than 6 months)", nullptr));
    b2->setText(QApplication::translate("
        PatientVisitRecordDoc", "Using drugs known to
         cause hypoglycemia", nullptr));
    groupBox_4->setTitle(QString());
    pushButton_3->setText(QApplication::translate("
        PatientVisitRecordDoc", "Back", nullptr));
    viewPlan->setText(QApplication::translate("
        PatientVisitRecordDoc", "View Treatment Plan
        ", nullptr));
    label_9->setText(QString());
    label_10->setText(QString());
  } // retranslateUi

};

namespace Ui {
  class PatientVisitRecordDoc: public
      Ui_PatientVisitRecordDoc {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_PATIENTVISITRECORDDOC_H

/********************************************************************************

** Form generated from reading UI file '
    patientvisitrecordlist.ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
    recompiling UI file!
********************************************************************************


#ifndef UI_PATIENTVISITRECORDLIST_H
#define UI_PATIENTVISITRECORDLIST_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QDialog>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QTableView>

QT_BEGIN_NAMESPACE

class Ui_PatientVisitRecordList
{
public:
  QGridLayout *gridLayout_3;
  QGroupBox *groupBox;
  QGridLayout *gridLayout_2;
  QTableView *visitRecordList;
  QGroupBox *groupBox_2;
  QGridLayout *gridLayout;
  QHBoxLayout *horizontalLayout;
  QLabel *label;
  QLabel *label_3;
  QPushButton *pushButton;
  QLabel *label_4;
  QLabel *label_2;

  void setupUi(QDialog *PatientVisitRecordList)
  {
    if (PatientVisitRecordList->objectName().isEmpty()
        )
      PatientVisitRecordList->setObjectName(
          QStringLiteral("PatientVisitRecordList"));
```

```
    PatientVisitRecordList->resize(756, 617);
    gridLayout_3 = new QGridLayout(
        PatientVisitRecordList);
    gridLayout_3->setObjectName(QStringLiteral("
        gridLayout_3"));
    groupBox = new QGroupBox(PatientVisitRecordList);
    groupBox->setObjectName(QStringLiteral("
        groupBox"));
    QFont font;
    font.setFamily(QStringLiteral("Calibri"));
    font.setPointSize(15);
    font.setBold(true);
    font.setWeight(75);
    groupBox->setFont(font);
    gridLayout_2 = new QGridLayout(groupBox);
    gridLayout_2->setObjectName(QStringLiteral("
        gridLayout_2"));
    visitRecordList = new QTableView(groupBox);
    visitRecordList->setObjectName(QStringLiteral("
        visitRecordList"));
    QFont font1;
    font1.setFamily(QStringLiteral("Segoe UI"));
    font1.setPointSize(10);
    font1.setBold(false);
    font1.setWeight(50);
    visitRecordList->setFont(font1);

    gridLayout_2->addWidget(visitRecordList, 1, 0, 1, 1)
        ;


    gridLayout_3->addWidget(groupBox, 0, 0, 1, 1);

    groupBox_2 = new QGroupBox(
        PatientVisitRecordList);
    groupBox_2->setObjectName(QStringLiteral("
        groupBox_2"));
    groupBox_2->setFont(font1);
    gridLayout = new QGridLayout(groupBox_2);
    gridLayout->setObjectName(QStringLiteral("
        gridLayout"));
    horizontalLayout = new QHBoxLayout();
    horizontalLayout->setObjectName(QStringLiteral("
        horizontalLayout"));
    label = new QLabel(groupBox_2);
    label->setObjectName(QStringLiteral("label"));
    label->setFont(font1);

    horizontalLayout->addWidget(label);

    label_3 = new QLabel(groupBox_2);
    label_3->setObjectName(QStringLiteral("label_3"));

    horizontalLayout->addWidget(label_3);

    pushButton = new QPushButton(groupBox_2);
    pushButton->setObjectName(QStringLiteral("
        pushButton"));
    QFont font2;
    font2.setFamily(QStringLiteral("Segoe UI"));
    font2.setPointSize(11);
    font2.setBold(true);
    font2.setWeight(75);
    pushButton->setFont(font2);

    horizontalLayout->addWidget(pushButton);

    label_4 = new QLabel(groupBox_2);
    label_4->setObjectName(QStringLiteral("label_4"));

    horizontalLayout->addWidget(label_4);

    label_2 = new QLabel(groupBox_2);
    label_2->setObjectName(QStringLiteral("label_2"));
    label_2->setFont(font1);

    horizontalLayout->addWidget(label_2);


    gridLayout->addLayout(horizontalLayout, 0, 0, 1, 1);


    gridLayout_3->addWidget(groupBox_2, 1, 0, 1, 1);


    retranslateUi(PatientVisitRecordList);

    QMetaObject::connectSlotsByName(
        PatientVisitRecordList);
} // setupUi

void retranslateUi(QDialog *PatientVisitRecordList)
{
    PatientVisitRecordList->setWindowTitle(
        QApplication::translate("PatientVisitRecordList
        ", "IoT-based Recommender System for
        Diabetic Patients", nullptr));
    groupBox->setTitle(QApplication::translate("
        PatientVisitRecordList", "Patient Visit Record
        List", nullptr));
    groupBox_2->setTitle(QString());
    label->setText(QString());
    label_3->setText(QString());
    pushButton->setText(QApplication::translate("
        PatientVisitRecordList", "Back", nullptr));
    label_4->setText(QString());
    label_2->setText(QString());
} // retranslateUi

};

namespace Ui {
    class PatientVisitRecordList: public
        Ui_PatientVisitRecordList {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_PATIENTVISITRECORDLIST_H


/********************************************************************************

** Form generated from reading UI file '
    patientvisitrecordlistconsultations.ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
    recompiling UI file!
********************************************************************************


#ifndef
    UI_PATIENTVISITRECORDLISTCONSULTATIONS_H
#define
    UI_PATIENTVISITRECORDLISTCONSULTATIONS_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QTableView>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_PatientVisitRecordListConsultations
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout_3;
    QGroupBox *groupBox;
    QGridLayout *gridLayout_2;
    QTableView *visitRecordList;
    QGroupBox *groupBox_2;
    QGridLayout *gridLayout;
    QHBoxLayout *horizontalLayout;
    QLabel *label;
    QLabel *label_3;
    QPushButton *back;
    QLabel *label_4;
    QLabel *label_2;

    void setupUi(QMainWindow *
        PatientVisitRecordListConsultations)
    {
        if (PatientVisitRecordListConsultations->
            objectName().isEmpty())
            PatientVisitRecordListConsultations->
                setObjectName(QStringLiteral("
                PatientVisitRecordListConsultations"));
        PatientVisitRecordListConsultations->resize(800,
            600);
        PatientVisitRecordListConsultations->
            setAcceptDrops(false);
        centralwidget = new QWidget(
            PatientVisitRecordListConsultations);
        centralwidget->setObjectName(QStringLiteral("
            centralwidget"));
        gridLayout_3 = new QGridLayout(centralwidget);
        gridLayout_3->setObjectName(QStringLiteral("
            gridLayout_3"));
        groupBox = new QGroupBox(centralwidget);
        groupBox->setObjectName(QStringLiteral("
            groupBox"));
        QFont font;
        font.setFamily(QStringLiteral("Calibri"));
        font.setPointSize(15);
        font.setBold(true);
        font.setWeight(75);
        groupBox->setFont(font);
```

```
        gridLayout_2 = new QGridLayout(groupBox);
        gridLayout_2->setObjectName(QStringLiteral("
            gridLayout_2"));
        visitRecordList = new QTableView(groupBox);
        visitRecordList->setObjectName(QStringLiteral("
            visitRecordList"));
        QFont font1;
        font1.setFamily(QStringLiteral("Segoe UI"));
        font1.setPointSize(10);
        font1.setBold(false);
        font1.setWeight(50);
        visitRecordList->setFont(font1);

        gridLayout_2->addWidget(visitRecordList, 1, 0, 1, 1)
            ;


        gridLayout_3->addWidget(groupBox, 0, 0, 1, 1);

        groupBox_2 = new QGroupBox(centralwidget);
        groupBox_2->setObjectName(QStringLiteral("
            groupBox_2"));
        groupBox_2->setFont(font1);
        gridLayout = new QGridLayout(groupBox_2);
        gridLayout->setObjectName(QStringLiteral("
            gridLayout"));
        horizontalLayout = new QHBoxLayout();
        horizontalLayout->setObjectName(QStringLiteral("
            horizontalLayout"));
        label = new QLabel(groupBox_2);
        label->setObjectName(QStringLiteral("label"));
        label->setFont(font1);

        horizontalLayout->addWidget(label);

        label_3 = new QLabel(groupBox_2);
        label_3->setObjectName(QStringLiteral("label_3"));

        horizontalLayout->addWidget(label_3);

        back = new QPushButton(groupBox_2);
        back->setObjectName(QStringLiteral("back"));
        QFont font2;
        font2.setFamily(QStringLiteral("Segoe UI"));
        font2.setPointSize(11);
        font2.setBold(true);
        font2.setWeight(75);
        back->setFont(font2);

        horizontalLayout->addWidget(back);

        label_4 = new QLabel(groupBox_2);
        label_4->setObjectName(QStringLiteral("label_4"));

        horizontalLayout->addWidget(label_4);

        label_2 = new QLabel(groupBox_2);
        label_2->setObjectName(QStringLiteral("label_2"));
        label_2->setFont(font1);

        horizontalLayout->addWidget(label_2);


        gridLayout->addLayout(horizontalLayout, 0, 0, 1, 1);


        gridLayout_3->addWidget(groupBox_2, 1, 0, 1, 1);

        PatientVisitRecordListConsultations->
            setCentralWidget(centralwidget);

        retranslateUi(PatientVisitRecordListConsultations);

        QMetaObject::connectSlotsByName(
            PatientVisitRecordListConsultations);
    } // setupUi

    void retranslateUi(QMainWindow *
        PatientVisitRecordListConsultations)
    {
        PatientVisitRecordListConsultations->
            setWindowTitle(QApplication::translate("
            PatientVisitRecordListConsultations", "IoT-
            based Recommender System for Diabetic
            Patients", nullptr));
        groupBox->setTitle(QApplication::translate("
            PatientVisitRecordListConsultations", "Patient
            Visit Record List", nullptr));
        groupBox_2->setTitle(QString());
        label->setText(QString());
        label_3->setText(QString());
        back->setText(QApplication::translate("
            PatientVisitRecordListConsultations", "Back",
            nullptr));
        label_4->setText(QString());
        label_2->setText(QString());
    } // retranslateUi

};

namespace Ui {
    class PatientVisitRecordListConsultations: public
        Ui_PatientVisitRecordListConsultations {};
} // namespace Ui

QT_END_NAMESPACE

#endif //
    UI_PATIENTVISITRECORDLISTCONSULTATIONS_H


/********************************************************************************

** Form generated from reading UI file '
    patientvisitrecordlistdoc.ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
    recompiling UI file!
********************************************************************************


#ifndef UI_PATIENTVISITRECORDLISTDOC_H
#define UI_PATIENTVISITRECORDLISTDOC_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QDialog>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QTableView>

QT_BEGIN_NAMESPACE

class Ui_PatientVisitRecordListDoc
{
public:
    QGridLayout *gridLayout_3;
    QGroupBox *groupBox_2;
    QGridLayout *gridLayout;
    QHBoxLayout *horizontalLayout;
    QLabel *label_3;
    QLabel *label;
    QPushButton *pushButton;
    QLabel *label_4;
    QLabel *label_2;
    QGroupBox *groupBox;
    QGridLayout *gridLayout_2;
    QTableView *visitRecordList;

    void setupUi(QDialog *PatientVisitRecordListDoc)
    {
        if (PatientVisitRecordListDoc->objectName().
            isEmpty())
            PatientVisitRecordListDoc->setObjectName(
                QStringLiteral("PatientVisitRecordListDoc
                "));
        PatientVisitRecordListDoc->resize(756, 617);
        gridLayout_3 = new QGridLayout(
            PatientVisitRecordListDoc);
        gridLayout_3->setObjectName(QStringLiteral("
            gridLayout_3"));
        groupBox_2 = new QGroupBox(
            PatientVisitRecordListDoc);
        groupBox_2->setObjectName(QStringLiteral("
            groupBox_2"));
        QFont font;
        font.setFamily(QStringLiteral("Segoe UI"));
        font.setPointSize(10);
        font.setBold(false);
        font.setWeight(50);
        groupBox_2->setFont(font);
        gridLayout = new QGridLayout(groupBox_2);
        gridLayout->setObjectName(QStringLiteral("
            gridLayout"));
        horizontalLayout = new QHBoxLayout();
        horizontalLayout->setObjectName(QStringLiteral("
            horizontalLayout"));
        label_3 = new QLabel(groupBox_2);
        label_3->setObjectName(QStringLiteral("label_3"));

        horizontalLayout->addWidget(label_3);

        label = new QLabel(groupBox_2);
        label->setObjectName(QStringLiteral("label"));
        label->setFont(font);

        horizontalLayout->addWidget(label);

        pushButton = new QPushButton(groupBox_2);
        pushButton->setObjectName(QStringLiteral("
            pushButton"));
```

```
        QFont font1;
        font1.setFamily(QStringLiteral("Segoe UI"));
        font1.setPointSize(11);
        font1.setBold(true);
        font1.setWeight(75);
        pushButton->setFont(font1);

        horizontalLayout->addWidget(pushButton);

        label_4 = new QLabel(groupBox_2);
        label_4->setObjectName(QStringLiteral("label_4"));

        horizontalLayout->addWidget(label_4);

        label_2 = new QLabel(groupBox_2);
        label_2->setObjectName(QStringLiteral("label_2"));
        label_2->setFont(font);

        horizontalLayout->addWidget(label_2);


        gridLayout->addLayout(horizontalLayout, 0, 0, 1, 1);


        gridLayout_3->addWidget(groupBox_2, 1, 0, 1, 1);

        groupBox = new QGroupBox(
                PatientVisitRecordListDoc);
        groupBox->setObjectName(QStringLiteral("
                groupBox"));
        QFont font2;
        font2.setFamily(QStringLiteral("Calibri"));
        font2.setPointSize(15);
        font2.setBold(true);
        font2.setWeight(75);
        groupBox->setFont(font2);
        gridLayout_2 = new QGridLayout(groupBox);
        gridLayout_2->setObjectName(QStringLiteral("
                gridLayout_2"));
        visitRecordList = new QTableView(groupBox);
        visitRecordList->setObjectName(QStringLiteral("
                visitRecordList"));
        visitRecordList->setFont(font);

        gridLayout_2->addWidget(visitRecordList, 1, 0, 1, 1)
                ;


        gridLayout_3->addWidget(groupBox, 0, 0, 1, 1);


        retranslateUi(PatientVisitRecordListDoc);

        QMetaObject::connectSlotsByName(
                PatientVisitRecordListDoc);
    } // setupUi

    void retranslateUi(QDialog *PatientVisitRecordListDoc)
    {
        PatientVisitRecordListDoc->setWindowTitle(
                QApplication::translate("
                PatientVisitRecordListDoc", "IoT-based
                Recommender System for Diabetic Patients",
                nullptr));
        groupBox_2->setTitle(QString());
        label_3->setText(QString());
        label->setText(QString());
        pushButton->setText(QApplication::translate("
                PatientVisitRecordListDoc", "Back", nullptr));
        label_4->setText(QString());
        label_2->setText(QString());
        groupBox->setTitle(QApplication::translate("
                PatientVisitRecordListDoc", "Patient Visit
                Record List", nullptr));
    } // retranslateUi

};

namespace Ui {
    class PatientVisitRecordListDoc: public
            Ui_PatientVisitRecordListDoc {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_PATIENTVISITRECORDLISTDOC_H

/********************************************************************************

** Form generated from reading UI file 'profileconsultation.
       ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
       recompiling UI file!
********************************************************************************/
```

```
#ifndef UI_PROFILECONSULTATION_H
#define UI_PROFILECONSULTATION_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QFrame>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QLineEdit>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QTextBrowser>
#include <QtWidgets/QVBoxLayout>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_ProfileConsultation
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout;
    QGroupBox *groupBox;
    QGridLayout *gridLayout_4;
    QFrame *line;
    QFrame *line_14;
    QFrame *line_13;
    QFrame *line_3;
    QFrame *line_2;
    QFrame *line_12;
    QHBoxLayout *horizontalLayout_14;
    QLabel *label_12;
    QLineEdit *patient_fullname;
    QHBoxLayout *horizontalLayout_27;
    QHBoxLayout *horizontalLayout_16;
    QLabel *label_14;
    QTextBrowser *patient_allergy;
    QFrame *line_7;
    QHBoxLayout *horizontalLayout_22;
    QVBoxLayout *verticalLayout_4;
    QLabel *label_20;
    QLabel *label_21;
    QTextBrowser *patient_illness;
    QHBoxLayout *horizontalLayout_8;
    QHBoxLayout *horizontalLayout_18;
    QVBoxLayout *verticalLayout_2;
    QLabel *label_16;
    QLabel *label_17;
    QLineEdit *em_name;
    QFrame *line_4;
    QHBoxLayout *horizontalLayout_17;
    QHBoxLayout *horizontalLayout_3;
    QLabel *label_2;
    QLineEdit *patient_bday;
    QFrame *line_11;
    QHBoxLayout *horizontalLayout_4;
    QLabel *label_3;
    QLineEdit *patient_sex;
    QHBoxLayout *horizontalLayout_5;
    QLabel *label_4;
    QLineEdit *patient_bt;
    QHBoxLayout *horizontalLayout_12;
    QLabel *label;
    QLineEdit *patient_conc;
    QHBoxLayout *horizontalLayout_11;
    QLabel *label_5;
    QLineEdit *healthUnitPatient;
    QHBoxLayout *horizontalLayout_25;
    QHBoxLayout *horizontalLayout_20;
    QLabel *label_10;
    QLineEdit *patient_add;
    QFrame *line_8;
    QHBoxLayout *horizontalLayout_15;
    QLabel *label_13;
    QLineEdit *patient_emailadd;
    QFrame *line_15;
    QHBoxLayout *horizontalLayout_21;
    QHBoxLayout *horizontalLayout_7;
    QVBoxLayout *verticalLayout_6;
    QLabel *label_24;
    QLabel *label_25;
    QLineEdit *em_num;
    QFrame *line_6;
    QHBoxLayout *horizontalLayout;
    QVBoxLayout *verticalLayout_7;
    QLabel *label_26;
    QLabel *label_27;
    QLineEdit *em_relation;
    QGroupBox *groupBox_3;
    QGridLayout *gridLayout_2;
    QHBoxLayout *horizontalLayout_13;
    QLabel *label_9;
    QPushButton *back;
    QPushButton *patientRecords;
```

```
QLabel *label_11;

void setupUi(QMainWindow *ProfileConsultation)
{
    if (ProfileConsultation->objectName().isEmpty())
        ProfileConsultation->setObjectName(
            QStringLiteral("ProfileConsultation"));
    ProfileConsultation->resize(800, 564);
    centralwidget = new QWidget(ProfileConsultation);
    centralwidget->setObjectName(QStringLiteral("
        centralwidget"));
    gridLayout = new QGridLayout(centralwidget);
    gridLayout->setObjectName(QStringLiteral("
        gridLayout"));
    groupBox = new QGroupBox(centralwidget);
    groupBox->setObjectName(QStringLiteral("
        groupBox"));
    QFont font;
    font.setFamily(QStringLiteral("Calibri"));
    font.setPointSize(15);
    font.setBold(true);
    font.setWeight(75);
    groupBox->setFont(font);
    gridLayout_4 = new QGridLayout(groupBox);
    gridLayout_4->setObjectName(QStringLiteral("
        gridLayout_4"));
    line = new QFrame(groupBox);
    line->setObjectName(QStringLiteral("line"));
    QFont font1;
    font1.setFamily(QStringLiteral("Segoe UI"));
    font1.setPointSize(10);
    font1.setBold(false);
    font1.setWeight(50);
    line->setFont(font1);
    line->setFrameShape(QFrame::HLine);
    line->setFrameShadow(QFrame::Sunken);

    gridLayout_4->addWidget(line, 0, 0, 1, 2);

    line_14 = new QFrame(groupBox);
    line_14->setObjectName(QStringLiteral("line_14"));
    line_14->setFont(font1);
    line_14->setFrameShape(QFrame::HLine);
    line_14->setFrameShadow(QFrame::Sunken);

    gridLayout_4->addWidget(line_14, 6, 0, 1, 2);

    line_13 = new QFrame(groupBox);
    line_13->setObjectName(QStringLiteral("line_13"));
    line_13->setFont(font1);
    line_13->setFrameShape(QFrame::HLine);
    line_13->setFrameShadow(QFrame::Sunken);

    gridLayout_4->addWidget(line_13, 4, 0, 1, 2);

    line_3 = new QFrame(groupBox);
    line_3->setObjectName(QStringLiteral("line_3"));
    line_3->setFont(font1);
    line_3->setFrameShape(QFrame::HLine);
    line_3->setFrameShadow(QFrame::Sunken);

    gridLayout_4->addWidget(line_3, 14, 0, 1, 2);

    line_2 = new QFrame(groupBox);
    line_2->setObjectName(QStringLiteral("line_2"));
    line_2->setFont(font1);
    line_2->setFrameShape(QFrame::HLine);
    line_2->setFrameShadow(QFrame::Sunken);

    gridLayout_4->addWidget(line_2, 8, 0, 1, 2);

    line_12 = new QFrame(groupBox);
    line_12->setObjectName(QStringLiteral("line_12"));
    line_12->setFont(font1);
    line_12->setFrameShape(QFrame::HLine);
    line_12->setFrameShadow(QFrame::Sunken);

    gridLayout_4->addWidget(line_12, 2, 0, 1, 2);

    horizontalLayout_14 = new QHBoxLayout();
    horizontalLayout_14->setObjectName(QStringLiteral
        ("horizontalLayout_14"));
    label_12 = new QLabel(groupBox);
    label_12->setObjectName(QStringLiteral("label_12")
        );
    QFont font2;
    font2.setFamily(QStringLiteral("Segoe UI Semibold")
        );
    font2.setPointSize(10);
    font2.setBold(false);
    font2.setWeight(50);
    label_12->setFont(font2);

    horizontalLayout_14->addWidget(label_12);

    patient_fullname = new QLineEdit(groupBox);
    patient_fullname->setObjectName(QStringLiteral("
        patient_fullname"));
    patient_fullname->setFont(font1);

    horizontalLayout_14->addWidget(patient_fullname);


    gridLayout_4->addLayout(horizontalLayout_14, 1, 0,
        1, 2);

    horizontalLayout_27 = new QHBoxLayout();
    horizontalLayout_27->setObjectName(QStringLiteral
        ("horizontalLayout_27"));
    horizontalLayout_16 = new QHBoxLayout();
    horizontalLayout_16->setObjectName(QStringLiteral
        ("horizontalLayout_16"));
    label_14 = new QLabel(groupBox);
    label_14->setObjectName(QStringLiteral("label_14")
        );
    label_14->setFont(font2);

    horizontalLayout_16->addWidget(label_14);

    patient_allergy = new QTextBrowser(groupBox);
    patient_allergy->setObjectName(QStringLiteral("
        patient_allergy"));
    patient_allergy->setFont(font1);
    patient_allergy->setFrameShape(QFrame::
        StyledPanel);

    horizontalLayout_16->addWidget(patient_allergy);


    horizontalLayout_27->addLayout(
        horizontalLayout_16);

    line_7 = new QFrame(groupBox);
    line_7->setObjectName(QStringLiteral("line_7"));
    line_7->setFont(font1);
    line_7->setFrameShape(QFrame::VLine);
    line_7->setFrameShadow(QFrame::Sunken);

    horizontalLayout_27->addWidget(line_7);

    horizontalLayout_22 = new QHBoxLayout();
    horizontalLayout_22->setObjectName(QStringLiteral
        ("horizontalLayout_22"));
    verticalLayout_4 = new QVBoxLayout();
    verticalLayout_4->setObjectName(QStringLiteral("
        verticalLayout_4"));
    label_20 = new QLabel(groupBox);
    label_20->setObjectName(QStringLiteral("label_20")
        );
    label_20->setFont(font2);

    verticalLayout_4->addWidget(label_20, 0, Qt::
        AlignBottom);

    label_21 = new QLabel(groupBox);
    label_21->setObjectName(QStringLiteral("label_21")
        );
    label_21->setFont(font2);

    verticalLayout_4->addWidget(label_21, 0, Qt::
        AlignTop);


    horizontalLayout_22->addLayout(verticalLayout_4);

    patient_illness = new QTextBrowser(groupBox);
    patient_illness->setObjectName(QStringLiteral("
        patient_illness"));
    patient_illness->setFont(font1);
    patient_illness->setFrameShape(QFrame::
        StyledPanel);

    horizontalLayout_22->addWidget(patient_illness);


    horizontalLayout_27->addLayout(
        horizontalLayout_22);


    gridLayout_4->addLayout(horizontalLayout_27, 7, 0,
        1, 2);

    horizontalLayout_8 = new QHBoxLayout();
    horizontalLayout_8->setObjectName(QStringLiteral
        ("horizontalLayout_8"));
    horizontalLayout_18 = new QHBoxLayout();
    horizontalLayout_18->setObjectName(QStringLiteral
        ("horizontalLayout_18"));
    verticalLayout_2 = new QVBoxLayout();
    verticalLayout_2->setObjectName(QStringLiteral("
        verticalLayout_2"));
    label_16 = new QLabel(groupBox);
    label_16->setObjectName(QStringLiteral("label_16")
        );
    label_16->setFont(font2);

    verticalLayout_2->addWidget(label_16, 0, Qt::
        AlignBottom);
```

```
label_17 = new QLabel(groupBox);
label_17->setObjectName(QStringLiteral("label_17")
    );
label_17->setFont(font2);

verticalLayout_2->addWidget(label_17, 0, Qt::
    AlignTop);


horizontalLayout_18->addLayout(verticalLayout_2);


horizontalLayout_8->addLayout(horizontalLayout_18)
    ;

em_name = new QLineEdit(groupBox);
em_name->setObjectName(QStringLiteral("em_name
    "));
em_name->setFont(font1);

horizontalLayout_8->addWidget(em_name);


gridLayout_4->addLayout(horizontalLayout_8, 9, 0,
    1, 2);

line_4 = new QFrame(groupBox);
line_4->setObjectName(QStringLiteral("line_4"));
line_4->setFont(font1);
line_4->setFrameShape(QFrame::HLine);
line_4->setFrameShadow(QFrame::Sunken);

gridLayout_4->addWidget(line_4, 12, 0, 1, 2);

horizontalLayout_17 = new QHBoxLayout();
horizontalLayout_17->setObjectName(QStringLiteral
    ("horizontalLayout_17"));
horizontalLayout_3 = new QHBoxLayout();
horizontalLayout_3->setObjectName(QStringLiteral
    ("horizontalLayout_3"));
label_2 = new QLabel(groupBox);
label_2->setObjectName(QStringLiteral("label_2"));
label_2->setFont(font2);

horizontalLayout_3->addWidget(label_2);

patient_bday = new QLineEdit(groupBox);
patient_bday->setObjectName(QStringLiteral("
    patient_bday"));
patient_bday->setFont(font1);

horizontalLayout_3->addWidget(patient_bday);


horizontalLayout_17->addLayout(horizontalLayout_3)
    ;

line_11 = new QFrame(groupBox);
line_11->setObjectName(QStringLiteral("line_11"));
line_11->setFont(font1);
line_11->setFrameShape(QFrame::VLine);
line_11->setFrameShadow(QFrame::Sunken);

horizontalLayout_17->addWidget(line_11);

horizontalLayout_4 = new QHBoxLayout();
horizontalLayout_4->setObjectName(QStringLiteral
    ("horizontalLayout_4"));
label_3 = new QLabel(groupBox);
label_3->setObjectName(QStringLiteral("label_3"));
label_3->setFont(font2);

horizontalLayout_4->addWidget(label_3);

patient_sex = new QLineEdit(groupBox);
patient_sex->setObjectName(QStringLiteral("
    patient_sex"));
patient_sex->setFont(font1);

horizontalLayout_4->addWidget(patient_sex);


horizontalLayout_17->addLayout(horizontalLayout_4)
    ;

horizontalLayout_5 = new QHBoxLayout();
horizontalLayout_5->setObjectName(QStringLiteral
    ("horizontalLayout_5"));
label_4 = new QLabel(groupBox);
label_4->setObjectName(QStringLiteral("label_4"));
label_4->setFont(font2);

horizontalLayout_5->addWidget(label_4);

patient_bt = new QLineEdit(groupBox);
patient_bt->setObjectName(QStringLiteral("
    patient_bt"));
patient_bt->setFont(font1);

horizontalLayout_5->addWidget(patient_bt);


horizontalLayout_17->addLayout(horizontalLayout_5)
    ;

horizontalLayout_12 = new QHBoxLayout();
horizontalLayout_12->setObjectName(QStringLiteral
    ("horizontalLayout_12"));
label = new QLabel(groupBox);
label->setObjectName(QStringLiteral("label"));
label->setFont(font2);

horizontalLayout_12->addWidget(label);

patient_conc = new QLineEdit(groupBox);
patient_conc->setObjectName(QStringLiteral("
    patient_conc"));
patient_conc->setFont(font1);

horizontalLayout_12->addWidget(patient_conc);


horizontalLayout_17->addLayout(
    horizontalLayout_12);


gridLayout_4->addLayout(horizontalLayout_17, 3, 0,
    1, 2);

horizontalLayout_11 = new QHBoxLayout();
horizontalLayout_11->setObjectName(QStringLiteral
    ("horizontalLayout_11"));
label_5 = new QLabel(groupBox);
label_5->setObjectName(QStringLiteral("label_5"));
label_5->setFont(font2);

horizontalLayout_11->addWidget(label_5);

healthUnitPatient = new QLineEdit(groupBox);
healthUnitPatient->setObjectName(QStringLiteral("
    healthUnitPatient"));
healthUnitPatient->setFont(font1);

horizontalLayout_11->addWidget(healthUnitPatient);


gridLayout_4->addLayout(horizontalLayout_11, 13, 0,
     1, 2);

horizontalLayout_25 = new QHBoxLayout();
horizontalLayout_25->setObjectName(QStringLiteral
    ("horizontalLayout_25"));
horizontalLayout_20 = new QHBoxLayout();
horizontalLayout_20->setObjectName(QStringLiteral
    ("horizontalLayout_20"));
label_10 = new QLabel(groupBox);
label_10->setObjectName(QStringLiteral("label_10")
    );
label_10->setFont(font2);

horizontalLayout_20->addWidget(label_10);

patient_add = new QLineEdit(groupBox);
patient_add->setObjectName(QStringLiteral("
    patient_add"));
patient_add->setFont(font1);

horizontalLayout_20->addWidget(patient_add);


horizontalLayout_25->addLayout(
    horizontalLayout_20);

line_8 = new QFrame(groupBox);
line_8->setObjectName(QStringLiteral("line_8"));
line_8->setFont(font1);
line_8->setFrameShape(QFrame::VLine);
line_8->setFrameShadow(QFrame::Sunken);

horizontalLayout_25->addWidget(line_8);

horizontalLayout_15 = new QHBoxLayout();
horizontalLayout_15->setObjectName(QStringLiteral
    ("horizontalLayout_15"));
label_13 = new QLabel(groupBox);
label_13->setObjectName(QStringLiteral("label_13")
    );
label_13->setFont(font2);

horizontalLayout_15->addWidget(label_13);

patient_emailadd = new QLineEdit(groupBox);
patient_emailadd->setObjectName(QStringLiteral("
    patient_emailadd"));
patient_emailadd->setFont(font1);

horizontalLayout_15->addWidget(patient_emailadd);
```

```
horizontalLayout_25->addLayout(
        horizontalLayout_15);


gridLayout_4->addLayout(horizontalLayout_25, 5, 0,
        1, 2);

line_15 = new QFrame(groupBox);
line_15->setObjectName(QStringLiteral("line_15"));
line_15->setFont(font1);
line_15->setFrameShape(QFrame::HLine);
line_15->setFrameShadow(QFrame::Sunken);

gridLayout_4->addWidget(line_15, 10, 0, 1, 2);

horizontalLayout_21 = new QHBoxLayout();
horizontalLayout_21->setObjectName(QStringLiteral
        ("horizontalLayout_21"));
horizontalLayout_7 = new QHBoxLayout();
horizontalLayout_7->setObjectName(QStringLiteral
        ("horizontalLayout_7"));
verticalLayout_6 = new QVBoxLayout();
verticalLayout_6->setObjectName(QStringLiteral("
        verticalLayout_6"));
label_24 = new QLabel(groupBox);
label_24->setObjectName(QStringLiteral("label_24")
        );
label_24->setFont(font2);

verticalLayout_6->addWidget(label_24, 0, Qt::
        AlignBottom);

label_25 = new QLabel(groupBox);
label_25->setObjectName(QStringLiteral("label_25")
        );
label_25->setFont(font2);

verticalLayout_6->addWidget(label_25, 0, Qt::
        AlignTop);


horizontalLayout_7->addLayout(verticalLayout_6);

em_num = new QLineEdit(groupBox);
em_num->setObjectName(QStringLiteral("em_num")
        );
em_num->setFont(font1);

horizontalLayout_7->addWidget(em_num);


horizontalLayout_21->addLayout(horizontalLayout_7)
        ;

line_6 = new QFrame(groupBox);
line_6->setObjectName(QStringLiteral("line_6"));
line_6->setFont(font1);
line_6->setFrameShape(QFrame::VLine);
line_6->setFrameShadow(QFrame::Sunken);

horizontalLayout_21->addWidget(line_6);

horizontalLayout = new QHBoxLayout();
horizontalLayout->setObjectName(QStringLiteral("
        horizontalLayout"));
verticalLayout_7 = new QVBoxLayout();
verticalLayout_7->setObjectName(QStringLiteral("
        verticalLayout_7"));
label_26 = new QLabel(groupBox);
label_26->setObjectName(QStringLiteral("label_26")
        );
label_26->setFont(font2);

verticalLayout_7->addWidget(label_26, 0, Qt::
        AlignBottom);

label_27 = new QLabel(groupBox);
label_27->setObjectName(QStringLiteral("label_27")
        );
label_27->setFont(font2);

verticalLayout_7->addWidget(label_27, 0, Qt::
        AlignTop);


horizontalLayout->addLayout(verticalLayout_7);

em_relation = new QLineEdit(groupBox);
em_relation->setObjectName(QStringLiteral("
        em_relation"));
em_relation->setFont(font1);

horizontalLayout->addWidget(em_relation);


horizontalLayout_21->addLayout(horizontalLayout);

gridLayout_4->addLayout(horizontalLayout_21, 11, 0,
        1, 2);


gridLayout->addWidget(groupBox, 0, 0, 1, 1);

groupBox_3 = new QGroupBox(centralwidget);
groupBox_3->setObjectName(QStringLiteral("
        groupBox_3"));
groupBox_3->setFont(font1);
gridLayout_2 = new QGridLayout(groupBox_3);
gridLayout_2->setObjectName(QStringLiteral("
        gridLayout_2"));
horizontalLayout_13 = new QHBoxLayout();
horizontalLayout_13->setObjectName(QStringLiteral
        ("horizontalLayout_13"));
label_9 = new QLabel(groupBox_3);
label_9->setObjectName(QStringLiteral("label_9"));
label_9->setFont(font1);

horizontalLayout_13->addWidget(label_9);

back = new QPushButton(groupBox_3);
back->setObjectName(QStringLiteral("back"));
QFont font3;
font3.setFamily(QStringLiteral("Segoe UI"));
font3.setPointSize(11);
font3.setBold(true);
font3.setWeight(75);
back->setFont(font3);

horizontalLayout_13->addWidget(back);

patientRecords = new QPushButton(groupBox_3);
patientRecords->setObjectName(QStringLiteral("
        patientRecords"));
patientRecords->setFont(font3);

horizontalLayout_13->addWidget(patientRecords);

label_11 = new QLabel(groupBox_3);
label_11->setObjectName(QStringLiteral("label_11")
        );
label_11->setFont(font1);

horizontalLayout_13->addWidget(label_11);


gridLayout_2->addLayout(horizontalLayout_13, 0, 0,
        1, 1);


gridLayout->addWidget(groupBox_3, 1, 0, 1, 1);

ProfileConsultation->setCentralWidget(centralwidget
        );

retranslateUi(ProfileConsultation);

QMetaObject::connectSlotsByName(
        ProfileConsultation);
} // setupUi

void retranslateUi(QMainWindow *ProfileConsultation)
{
    ProfileConsultation->setWindowTitle(QApplication::
            translate("ProfileConsultation", "IoT-based
            Recommender System for Diabetic Patients",
            nullptr));
    groupBox->setTitle(QApplication::translate("
            ProfileConsultation", " Patient Health Profile",
            nullptr));
    label_12->setText(QApplication::translate("
            ProfileConsultation", "Patient Full Name:",
            nullptr));
    patient_fullname->setText(QString());
    label_14->setText(QApplication::translate("
            ProfileConsultation", "Allergy:", nullptr));
    label_20->setText(QApplication::translate("
            ProfileConsultation", "History of ", nullptr));
    label_21->setText(QApplication::translate("
            ProfileConsultation", "Illness:", nullptr));
    label_16->setText(QApplication::translate("
            ProfileConsultation", "Emergency", nullptr));
    label_17->setText(QApplication::translate("
            ProfileConsultation", "Contact Name:", nullptr)
            );
    label_2->setText(QApplication::translate("
            ProfileConsultation", "Birthday:", nullptr));
    label_3->setText(QApplication::translate("
            ProfileConsultation", "Sex:", nullptr));
    label_4->setText(QApplication::translate("
            ProfileConsultation", "Blood Type:", nullptr));
    label->setText(QApplication::translate("
            ProfileConsultation", "Contact Number:",
            nullptr));
    label_5->setText(QApplication::translate("
            ProfileConsultation", "Health Unit of the
```

```
            Patient:", nullptr));
        label_10->setText(QApplication::translate("
            ProfileConsultation", "Address:", nullptr));
        label_13->setText(QApplication::translate("
            ProfileConsultation", "Email:", nullptr));
        label_24->setText(QApplication::translate("
            ProfileConsultation", "Emergency", nullptr));
        label_25->setText(QApplication::translate("
            ProfileConsultation", "Contact Number:",
            nullptr));
        label_26->setText(QApplication::translate("
            ProfileConsultation", "Relationship to the",
            nullptr));
        label_27->setText(QApplication::translate("
            ProfileConsultation", "Emergency Contact:",
            nullptr));
        groupBox_3->setTitle(QString());
        label_9->setText(QString());
        back->setText(QApplication::translate("
            ProfileConsultation", "Back", nullptr));
        patientRecords->setText(QApplication::translate("
            ProfileConsultation", "Patient Visit Records",
            nullptr));
        label_11->setText(QString());
    } // retranslateUi

};

namespace Ui {
    class ProfileConsultation: public Ui_ProfileConsultation
        {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_PROFILECONSULTATION_H

/********************************************************************************

** Form generated from reading UI file 'retrievedata.ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
    recompiling UI file!
********************************************************************************/


#ifndef UI_RETRIEVEDATA_H
#define UI_RETRIEVEDATA_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QTableView>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_RetrieveData
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout;
    QGroupBox *groupBox;
    QGridLayout *gridLayout_2;
    QTableView *device_data;
    QHBoxLayout *horizontalLayout;
    QLabel *label;
    QLabel *label_3;
    QPushButton *pushButton;
    QLabel *label_4;
    QLabel *label_2;

    void setupUi(QMainWindow *RetrieveData)
    {
        if (RetrieveData->objectName().isEmpty())
            RetrieveData->setObjectName(QStringLiteral("
                RetrieveData"));
        RetrieveData->resize(800, 600);
        centralwidget = new QWidget(RetrieveData);
        centralwidget->setObjectName(QStringLiteral("
            centralwidget"));
        gridLayout = new QGridLayout(centralwidget);
        gridLayout->setObjectName(QStringLiteral("
            gridLayout"));
        groupBox = new QGroupBox(centralwidget);
        groupBox->setObjectName(QStringLiteral("
            groupBox"));
        QFont font;
        font.setFamily(QStringLiteral("Calibri"));
        font.setPointSize(15);
        font.setBold(true);
        font.setWeight(75);
        groupBox->setFont(font);
        gridLayout_2 = new QGridLayout(groupBox);
        gridLayout_2->setObjectName(QStringLiteral("
            gridLayout_2"));
        device_data = new QTableView(groupBox);
        device_data->setObjectName(QStringLiteral("
            device_data"));
        QFont font1;
        font1.setFamily(QStringLiteral("Segoe UI"));
        font1.setPointSize(10);
        font1.setBold(false);
        font1.setWeight(50);
        device_data->setFont(font1);

        gridLayout_2->addWidget(device_data, 0, 0, 1, 1);


        gridLayout->addWidget(groupBox, 0, 0, 1, 1);

        horizontalLayout = new QHBoxLayout();
        horizontalLayout->setObjectName(QStringLiteral("
            horizontalLayout"));
        label = new QLabel(centralwidget);
        label->setObjectName(QStringLiteral("label"));
        label->setFont(font1);

        horizontalLayout->addWidget(label);

        label_3 = new QLabel(centralwidget);
        label_3->setObjectName(QStringLiteral("label_3"));

        horizontalLayout->addWidget(label_3);

        pushButton = new QPushButton(centralwidget);
        pushButton->setObjectName(QStringLiteral("
            pushButton"));
        QFont font2;
        font2.setFamily(QStringLiteral("Segoe UI"));
        font2.setPointSize(10);
        font2.setBold(true);
        font2.setWeight(75);
        pushButton->setFont(font2);
        horizontalLayout->addWidget(pushButton);

        label_4 = new QLabel(centralwidget);
        label_4->setObjectName(QStringLiteral("label_4"));

        horizontalLayout->addWidget(label_4);

        label_2 = new QLabel(centralwidget);
        label_2->setObjectName(QStringLiteral("label_2"));
        label_2->setFont(font1);

        horizontalLayout->addWidget(label_2);


        gridLayout->addLayout(horizontalLayout, 1, 0, 1, 1);

        RetrieveData->setCentralWidget(centralwidget);

        retranslateUi(RetrieveData);

        QMetaObject::connectSlotsByName(RetrieveData);
    } // setupUi

    void retranslateUi(QMainWindow *RetrieveData)
    {
        RetrieveData->setWindowTitle(QApplication::
            translate("RetrieveData", "IoT-based
            Recommender System for Diabetic Patients",
            nullptr));
        groupBox->setTitle(QApplication::translate("
            RetrieveData", "Get IoT Glucometer Data",
            nullptr));
        label->setText(QString());
        label_3->setText(QString());
        pushButton->setText(QApplication::translate("
            RetrieveData", "Close", nullptr));
        label_4->setText(QString());
        label_2->setText(QString());
    } // retranslateUi

};

namespace Ui {
    class RetrieveData: public Ui_RetrieveData {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_RETRIEVEDATA_H


/********************************************************************************
```

```
** Form generated from reading UI file 'searchconsultations.
      ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
      recompiling UI file!
********************************************************************************


#ifndef UI_SEARCHCONSULTATIONS_H
#define UI_SEARCHCONSULTATIONS_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QLineEdit>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QTableView>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_SearchConsultations
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout_2;
    QHBoxLayout *horizontalLayout;
    QLabel *label;
    QLabel *label_3;
    QPushButton *mainMenuDoctor;
    QLabel *label_4;
    QLabel *label_2;
    QGroupBox *groupBox;
    QGridLayout *gridLayout;
    QHBoxLayout *horizontalLayout_2;
    QLineEdit *searchPatient_lineEdit;
    QPushButton *searchPatient;
    QTableView *healthprofile_list;

    void setupUi(QMainWindow *SearchConsultations)
    {
        if (SearchConsultations->objectName().isEmpty())
            SearchConsultations->setObjectName(
                  QStringLiteral("SearchConsultations"));
        SearchConsultations->resize(800, 600);
        centralwidget = new QWidget(SearchConsultations);
        centralwidget->setObjectName(QStringLiteral("
              centralwidget"));
        gridLayout_2 = new QGridLayout(centralwidget);
        gridLayout_2->setObjectName(QStringLiteral("
              gridLayout_2"));
        horizontalLayout = new QHBoxLayout();
        horizontalLayout->setObjectName(QStringLiteral("
              horizontalLayout"));
        label = new QLabel(centralwidget);
        label->setObjectName(QStringLiteral("label"));
        QFont font;
        font.setFamily(QStringLiteral("Segoe UI"));
        font.setBold(false);
        font.setWeight(50);
        label->setFont(font);

        horizontalLayout->addWidget(label);

        label_3 = new QLabel(centralwidget);
        label_3->setObjectName(QStringLiteral("label_3"));

        horizontalLayout->addWidget(label_3);

        mainMenuDoctor = new QPushButton(centralwidget);
        mainMenuDoctor->setObjectName(QStringLiteral("
              mainMenuDoctor"));
        QFont font1;
        font1.setFamily(QStringLiteral("Segoe UI"));
        font1.setPointSize(11);
        font1.setBold(true);
        font1.setWeight(75);
        mainMenuDoctor->setFont(font1);

        horizontalLayout->addWidget(mainMenuDoctor);

        label_4 = new QLabel(centralwidget);
        label_4->setObjectName(QStringLiteral("label_4"));

        horizontalLayout->addWidget(label_4);

        label_2 = new QLabel(centralwidget);
        label_2->setObjectName(QStringLiteral("label_2"));
        label_2->setFont(font);

        horizontalLayout->addWidget(label_2);


        gridLayout_2->addLayout(horizontalLayout, 1, 0, 2,
              2);

        groupBox = new QGroupBox(centralwidget);
        groupBox->setObjectName(QStringLiteral("
              groupBox"));
        QFont font2;
        font2.setFamily(QStringLiteral("Calibri"));
        font2.setPointSize(15);
        font2.setBold(true);
        font2.setWeight(75);
        groupBox->setFont(font2);
        gridLayout = new QGridLayout(groupBox);
        gridLayout->setObjectName(QStringLiteral("
              gridLayout"));
        horizontalLayout_2 = new QHBoxLayout();
        horizontalLayout_2->setObjectName(QStringLiteral
              ("horizontalLayout_2"));
        searchPatient_lineEdit = new QLineEdit(groupBox);
        searchPatient_lineEdit->setObjectName(
              QStringLiteral("searchPatient_lineEdit"));
        QFont font3;
        font3.setFamily(QStringLiteral("Segoe UI"));
        font3.setPointSize(10);
        font3.setBold(false);
        font3.setWeight(50);
        searchPatient_lineEdit->setFont(font3);

        horizontalLayout_2->addWidget(
              searchPatient_lineEdit);

        searchPatient = new QPushButton(groupBox);
        searchPatient->setObjectName(QStringLiteral("
              searchPatient"));
        searchPatient->setFont(font1);

        horizontalLayout_2->addWidget(searchPatient);


        gridLayout->addLayout(horizontalLayout_2, 0, 0, 1,
              1);

         healthprofile_list  = new QTableView(groupBox);
         healthprofile_list ->setObjectName(QStringLiteral("
              healthprofile_list"));
         healthprofile_list ->setFont(font3);
         healthprofile_list ->setFrameShape(QFrame::
              WinPanel);
         healthprofile_list ->setAlternatingRowColors(false);
         healthprofile_list ->setSortingEnabled(true);

        gridLayout->addWidget(healthprofile_list, 1, 0, 1, 1)
              ;


        gridLayout_2->addWidget(groupBox, 0, 0, 1, 1);

        SearchConsultations->setCentralWidget(
              centralwidget);

        retranslateUi(SearchConsultations);

        QMetaObject::connectSlotsByName(
              SearchConsultations);
    } // setupUi

    void retranslateUi(QMainWindow *SearchConsultations)
    {
        SearchConsultations->setWindowTitle(QApplication
              ::translate("SearchConsultations", "IoT-based
              Recommender System for Diabetic Patients",
              nullptr));
        label->setText(QString());
        label_3->setText(QString());
        mainMenuDoctor->setText(QApplication::translate("
              SearchConsultations", "Main Menu", nullptr));
        label_4->setText(QString());
        label_2->setText(QString());
        groupBox->setTitle(QApplication::translate("
              SearchConsultations", "Consultations", nullptr)
              );
        searchPatient->setText(QApplication::translate("
              SearchConsultations", "Search", nullptr));
    } // retranslateUi

};

namespace Ui {
    class SearchConsultations: public Ui_SearchConsultations
          {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_SEARCHCONSULTATIONS_H
```

```
/********************************************************************************
** Form generated from reading UI file 'searchpatientprofile.ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when recompiling UI file!
********************************************************************************/

#ifndef UI_SEARCHPATIENTPROFILE_H
#define UI_SEARCHPATIENTPROFILE_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QFrame>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QLineEdit>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QTableView>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_SearchPatientProfile
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout_2;
    QHBoxLayout *horizontalLayout;
    QLabel *label;
    QLabel *label_3;
    QPushButton *pushButton_2;
    QLabel *label_2;
    QLabel *label_4;
    QGroupBox *groupBox;
    QGridLayout *gridLayout_3;
    QTableView *healthprofile_list;
    QHBoxLayout *horizontalLayout_2;
    QLineEdit *searchPatient_lineEdit;
    QPushButton *searchPatient;
    QFrame *line;

    void setupUi(QMainWindow *SearchPatientProfile)
    {
        if (SearchPatientProfile->objectName().isEmpty())
            SearchPatientProfile->setObjectName(QStringLiteral("SearchPatientProfile"));
        SearchPatientProfile->resize(800, 600);
        centralwidget = new QWidget(SearchPatientProfile);
        centralwidget->setObjectName(QStringLiteral("centralwidget"));
        gridLayout_2 = new QGridLayout(centralwidget);
        gridLayout_2->setObjectName(QStringLiteral("gridLayout_2"));
        horizontalLayout = new QHBoxLayout();
        horizontalLayout->setObjectName(QStringLiteral("horizontalLayout"));
        label = new QLabel(centralwidget);
        label->setObjectName(QStringLiteral("label"));
        QFont font;
        font.setFamily(QStringLiteral("Segoe UI"));
        font.setPointSize(10);
        font.setBold(false);
        font.setWeight(50);
        label->setFont(font);

        horizontalLayout->addWidget(label);

        label_3 = new QLabel(centralwidget);
        label_3->setObjectName(QStringLiteral("label_3"));

        horizontalLayout->addWidget(label_3);

        pushButton_2 = new QPushButton(centralwidget);
        pushButton_2->setObjectName(QStringLiteral("pushButton_2"));
        QFont font1;
        font1.setFamily(QStringLiteral("Segoe UI"));
        font1.setPointSize(11);
        font1.setBold(true);
        font1.setWeight(75);
        pushButton_2->setFont(font1);

        horizontalLayout->addWidget(pushButton_2);

        label_2 = new QLabel(centralwidget);
        label_2->setObjectName(QStringLiteral("label_2"));
        label_2->setFont(font);

        horizontalLayout->addWidget(label_2);

        label_4 = new QLabel(centralwidget);
        label_4->setObjectName(QStringLiteral("label_4"));

        horizontalLayout->addWidget(label_4);

        gridLayout_2->addLayout(horizontalLayout, 1, 0, 1, 1);

        groupBox = new QGroupBox(centralwidget);
        groupBox->setObjectName(QStringLiteral("groupBox"));
        QFont font2;
        font2.setFamily(QStringLiteral("Calibri"));
        font2.setPointSize(15);
        font2.setBold(true);
        font2.setWeight(75);
        groupBox->setFont(font2);
        gridLayout_3 = new QGridLayout(groupBox);
        gridLayout_3->setObjectName(QStringLiteral("gridLayout_3"));
        healthprofile_list = new QTableView(groupBox);
        healthprofile_list->setObjectName(QStringLiteral("healthprofile_list"));
        healthprofile_list->setFont(font);
        healthprofile_list->setFrameShape(QFrame::WinPanel);
        healthprofile_list->setAlternatingRowColors(false);
        healthprofile_list->setSortingEnabled(true);

        gridLayout_3->addWidget(healthprofile_list, 2, 0, 1, 2);

        horizontalLayout_2 = new QHBoxLayout();
        horizontalLayout_2->setObjectName(QStringLiteral("horizontalLayout_2"));
        searchPatient_lineEdit = new QLineEdit(groupBox);
        searchPatient_lineEdit->setObjectName(QStringLiteral("searchPatient_lineEdit"));
        searchPatient_lineEdit->setFont(font);

        horizontalLayout_2->addWidget(searchPatient_lineEdit);

        searchPatient = new QPushButton(groupBox);
        searchPatient->setObjectName(QStringLiteral("searchPatient"));
        searchPatient->setFont(font1);

        horizontalLayout_2->addWidget(searchPatient);


        gridLayout_3->addLayout(horizontalLayout_2, 0, 0, 1, 2);

        line = new QFrame(groupBox);
        line->setObjectName(QStringLiteral("line"));
        line->setFont(font);
        line->setFrameShape(QFrame::HLine);
        line->setFrameShadow(QFrame::Sunken);

        gridLayout_3->addWidget(line, 1, 0, 1, 2);


        gridLayout_2->addWidget(groupBox, 0, 0, 1, 1);

        SearchPatientProfile->setCentralWidget(centralwidget);

        retranslateUi(SearchPatientProfile);

        QMetaObject::connectSlotsByName(SearchPatientProfile);
    } // setupUi

    void retranslateUi(QMainWindow *SearchPatientProfile)
    {
        SearchPatientProfile->setWindowTitle(QApplication::translate("SearchPatientProfile", "IoT-based Recommender System for Diabetic Patients", nullptr));
        label->setText(QString());
        label_3->setText(QString());
        pushButton_2->setText(QApplication::translate("SearchPatientProfile", "Main Menu", nullptr));
        label_2->setText(QString());
        label_4->setText(QString());
        groupBox->setTitle(QApplication::translate("SearchPatientProfile", "List of Patient Health Profile", nullptr));
        searchPatient->setText(QApplication::translate("SearchPatientProfile", "Search", nullptr));
    } // retranslateUi

};

namespace Ui {
```

```
    class SearchPatientProfile: public
        Ui_SearchPatientProfile {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_SEARCHPATIENTPROFILE_H

/********************************************************************************
** Form generated from reading UI file '
    searchpatientprofiledoctor.ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
    recompiling UI file!
********************************************************************************/


#ifndef UI_SEARCHPATIENTPROFILEDOCTOR_H
#define UI_SEARCHPATIENTPROFILEDOCTOR_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QLineEdit>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QTableView>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_SearchPatientProfileDoctor
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout_2;
    QHBoxLayout *horizontalLayout;
    QLabel *label;
    QLabel *label_3;
    QPushButton *mainMenuDoctor;
    QLabel *label_4;
    QLabel *label_2;
    QGroupBox *groupBox;
    QGridLayout *gridLayout;
    QHBoxLayout *horizontalLayout_2;
    QLineEdit *searchPatient_lineEdit;
    QPushButton *searchPatient;
    QTableView *healthprofile_list;

    void setupUi(QMainWindow *SearchPatientProfileDoctor)
    {
        if (SearchPatientProfileDoctor->objectName().
            isEmpty())
            SearchPatientProfileDoctor->setObjectName(
                QStringLiteral("SearchPatientProfileDoctor
                "));
        SearchPatientProfileDoctor->resize(800, 600);
        centralwidget = new QWidget(
            SearchPatientProfileDoctor);
        centralwidget->setObjectName(QStringLiteral("
            centralwidget"));
        gridLayout_2 = new QGridLayout(centralwidget);
        gridLayout_2->setObjectName(QStringLiteral("
            gridLayout_2"));
        horizontalLayout = new QHBoxLayout();
        horizontalLayout->setObjectName(QStringLiteral("
            horizontalLayout"));
        label = new QLabel(centralwidget);
        label->setObjectName(QStringLiteral("label"));
        QFont font;
        font.setFamily(QStringLiteral("Segoe UI"));
        font.setBold(false);
        font.setWeight(50);
        label->setFont(font);

        horizontalLayout->addWidget(label);

        label_3 = new QLabel(centralwidget);
        label_3->setObjectName(QStringLiteral("label_3"));

        horizontalLayout->addWidget(label_3);

        mainMenuDoctor = new QPushButton(centralwidget);
        mainMenuDoctor->setObjectName(QStringLiteral("
            mainMenuDoctor"));
        QFont font1;
        font1.setFamily(QStringLiteral("Segoe UI"));
        font1.setPointSize(11);
        font1.setBold(true);
        font1.setWeight(75);
        mainMenuDoctor->setFont(font1);

        horizontalLayout->addWidget(mainMenuDoctor);

        label_4 = new QLabel(centralwidget);
        label_4->setObjectName(QStringLiteral("label_4"));

        horizontalLayout->addWidget(label_4);

        label_2 = new QLabel(centralwidget);
        label_2->setObjectName(QStringLiteral("label_2"));
        label_2->setFont(font);

        horizontalLayout->addWidget(label_2);


        gridLayout_2->addLayout(horizontalLayout, 2, 0, 1,
            1);

        groupBox = new QGroupBox(centralwidget);
        groupBox->setObjectName(QStringLiteral("
            groupBox"));
        QFont font2;
        font2.setFamily(QStringLiteral("Calibri"));
        font2.setPointSize(15);
        font2.setBold(true);
        font2.setWeight(75);
        groupBox->setFont(font2);
        gridLayout = new QGridLayout(groupBox);
        gridLayout->setObjectName(QStringLiteral("
            gridLayout"));
        horizontalLayout_2 = new QHBoxLayout();
        horizontalLayout_2->setObjectName(QStringLiteral
            ("horizontalLayout_2"));
        searchPatient_lineEdit = new QLineEdit(groupBox);
        searchPatient_lineEdit->setObjectName(
            QStringLiteral("searchPatient_lineEdit"));
        QFont font3;
        font3.setFamily(QStringLiteral("Segoe UI"));
        font3.setPointSize(10);
        font3.setBold(false);
        font3.setWeight(50);
        searchPatient_lineEdit->setFont(font3);

        horizontalLayout_2->addWidget(
            searchPatient_lineEdit);

        searchPatient = new QPushButton(groupBox);
        searchPatient->setObjectName(QStringLiteral("
            searchPatient"));
        searchPatient->setFont(font1);

        horizontalLayout_2->addWidget(searchPatient);


        gridLayout->addLayout(horizontalLayout_2, 0, 0, 1,
            1);

        healthprofile_list = new QTableView(groupBox);
        healthprofile_list->setObjectName(QStringLiteral("
            healthprofile_list"));
        healthprofile_list->setFont(font3);
        healthprofile_list->setFrameShape(QFrame::
            WinPanel);
        healthprofile_list->setAlternatingRowColors(false);
        healthprofile_list->setSortingEnabled(true);

        gridLayout->addWidget(healthprofile_list, 1, 0, 1, 1)
            ;


        gridLayout_2->addWidget(groupBox, 1, 0, 1, 1);

        SearchPatientProfileDoctor->setCentralWidget(
            centralwidget);

        retranslateUi(SearchPatientProfileDoctor);

        QMetaObject::connectSlotsByName(
            SearchPatientProfileDoctor);
    } // setupUi

    void retranslateUi(QMainWindow *
        SearchPatientProfileDoctor)
    {
        SearchPatientProfileDoctor->setWindowTitle(
            QApplication::translate("
            SearchPatientProfileDoctor", "IoT-based
            Recommender System for Diabetic Patients",
            nullptr));
        label->setText(QString());
        label_3->setText(QString());
        mainMenuDoctor->setText(QApplication::translate("
            SearchPatientProfileDoctor", "Main Menu",
            nullptr));
        label_4->setText(QString());
        label_2->setText(QString());
        groupBox->setTitle(QApplication::translate("
            SearchPatientProfileDoctor", "List of Patient
```

```
            Health Profile", nullptr));
        searchPatient->setText(QApplication::translate("
            SearchPatientProfileDoctor", "Search", nullptr))
            ;
    } // retranslateUi

};

namespace Ui {
    class SearchPatientProfileDoctor: public
        Ui_SearchPatientProfileDoctor {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_SEARCHPATIENTPROFILEDOCTOR_H

/********************************************************************************
** Form generated from reading UI file '
    teleconsultationconsult.ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
    recompiling UI file!
********************************************************************************/

#ifndef UI_TELECONSULTATIONCONSULT_H
#define UI_TELECONSULTATIONCONSULT_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QScrollArea>
#include <QtWidgets/QSpacerItem>
#include <QtWidgets/QTextEdit>
#include <QtWidgets/QVBoxLayout>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_TeleconsultationConsult
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout;
    QGroupBox *groupBox;
    QGridLayout *gridLayout_4;
    QGroupBox *groupBox_3;
    QGridLayout *gridLayout_3;
    QHBoxLayout *horizontalLayout;
    QSpacerItem *horizontalSpacer;
    QPushButton *refresh_consultation;
    QScrollArea *scrollAreaMessages;
    QWidget *scrollAreaWidgetContents;
    QGridLayout *gridLayout_5;
    QVBoxLayout *verticalLayoutMessages;
    QGroupBox *groupBox_2;
    QGridLayout *gridLayout_2;
    QTextEdit *textMessage;
    QVBoxLayout *verticalLayout;
    QPushButton *send;
    QSpacerItem *verticalSpacer;
    QGroupBox *groupBox_4;
    QGridLayout *gridLayout_6;
    QVBoxLayout *verticalLayout_2;
    QHBoxLayout *horizontalLayout_3;
    QLabel *label_4;
    QPushButton *Back;
    QPushButton *closeCase;
    QLabel *label_5;

    void setupUi(QMainWindow *TeleconsultationConsult)
    {
        if (TeleconsultationConsult->objectName().isEmpty
            ())
            TeleconsultationConsult->setObjectName(
                QStringLiteral("TeleconsultationConsult"));
        TeleconsultationConsult->resize(800, 600);
        centralwidget = new QWidget(
            TeleconsultationConsult);
        centralwidget->setObjectName(QStringLiteral("
            centralwidget"));
        gridLayout = new QGridLayout(centralwidget);
        gridLayout->setObjectName(QStringLiteral("
            gridLayout"));
        groupBox = new QGroupBox(centralwidget);
        groupBox->setObjectName(QStringLiteral("
            groupBox"));
        QFont font;
        font.setFamily(QStringLiteral("Calibri"));
        font.setPointSize(15);
        font.setBold(true);
        font.setWeight(75);
        groupBox->setFont(font);
        gridLayout_4 = new QGridLayout(groupBox);
        gridLayout_4->setObjectName(QStringLiteral("
            gridLayout_4"));
        groupBox_3 = new QGroupBox(groupBox);
        groupBox_3->setObjectName(QStringLiteral("
            groupBox_3"));
        QFont font1;
        font1.setFamily(QStringLiteral("Segoe UI"));
        font1.setPointSize(10);
        font1.setBold(false);
        font1.setWeight(50);
        groupBox_3->setFont(font1);
        gridLayout_3 = new QGridLayout(groupBox_3);
        gridLayout_3->setObjectName(QStringLiteral("
            gridLayout_3"));
        horizontalLayout = new QHBoxLayout();
        horizontalLayout->setObjectName(QStringLiteral("
            horizontalLayout"));
        horizontalSpacer = new QSpacerItem(40, 20,
            QSizePolicy::Expanding, QSizePolicy::Minimum
            );

        horizontalLayout->addItem(horizontalSpacer);

        refresh_consultation = new QPushButton(groupBox_3
            );
        refresh_consultation->setObjectName(QStringLiteral
            ("refresh_consultation"));
        QFont font2;
        font2.setFamily(QStringLiteral("Segoe UI"));
        font2.setPointSize(11);
        font2.setBold(true);
        font2.setWeight(75);
        refresh_consultation->setFont(font2);

        horizontalLayout->addWidget(refresh_consultation);


        gridLayout_3->addLayout(horizontalLayout, 0, 0, 1,
            1);

        scrollAreaMessages = new QScrollArea(groupBox_3);
        scrollAreaMessages->setObjectName(QStringLiteral
            ("scrollAreaMessages"));
        scrollAreaMessages->setFont(font1);
        scrollAreaMessages->setWidgetResizable(true);
        scrollAreaWidgetContents = new QWidget();
        scrollAreaWidgetContents->setObjectName(
            QStringLiteral("scrollAreaWidgetContents"));
        scrollAreaWidgetContents->setGeometry(QRect(0, 0,
             740, 162));
        gridLayout_5 = new QGridLayout(
            scrollAreaWidgetContents);
        gridLayout_5->setObjectName(QStringLiteral("
            gridLayout_5"));
        verticalLayoutMessages = new QVBoxLayout();
        verticalLayoutMessages->setObjectName(
            QStringLiteral("verticalLayoutMessages"));

        gridLayout_5->addLayout(verticalLayoutMessages, 0,
             0, 1, 1);

        scrollAreaMessages->setWidget(
            scrollAreaWidgetContents);

        gridLayout_3->addWidget(scrollAreaMessages, 1, 0,
            1, 1);


        gridLayout_4->addWidget(groupBox_3, 1, 0, 1, 1);

        groupBox_2 = new QGroupBox(groupBox);
        groupBox_2->setObjectName(QStringLiteral("
            groupBox_2"));
        groupBox_2->setFont(font1);
        gridLayout_2 = new QGridLayout(groupBox_2);
        gridLayout_2->setObjectName(QStringLiteral("
            gridLayout_2"));
        textMessage = new QTextEdit(groupBox_2);
        textMessage->setObjectName(QStringLiteral("
            textMessage"));
        textMessage->setFont(font1);
        textMessage->setLineWrapMode(QTextEdit::NoWrap
            );

        gridLayout_2->addWidget(textMessage, 0, 0, 1, 1);

        verticalLayout = new QVBoxLayout();
        verticalLayout->setObjectName(QStringLiteral("
            verticalLayout"));
        send = new QPushButton(groupBox_2);
        send->setObjectName(QStringLiteral("send"));
        send->setFont(font2);
```

```
    verticalLayout->addWidget(send);

    verticalSpacer = new QSpacerItem(20, 40,
        QSizePolicy::Minimum, QSizePolicy::Expanding
        );

    verticalLayout->addItem(verticalSpacer);


    gridLayout_2->addLayout(verticalLayout, 0, 1, 1, 1);


    gridLayout_4->addWidget(groupBox_2, 2, 0, 1, 1);


    gridLayout->addWidget(groupBox, 0, 0, 1, 1);

    groupBox_4 = new QGroupBox(centralwidget);
    groupBox_4->setObjectName(QStringLiteral("
        groupBox_4"));
    groupBox_4->setFont(font1);
    gridLayout_6 = new QGridLayout(groupBox_4);
    gridLayout_6->setObjectName(QStringLiteral("
        gridLayout_6"));
    verticalLayout_2 = new QVBoxLayout();
    verticalLayout_2->setObjectName(QStringLiteral("
        verticalLayout_2"));
    horizontalLayout_3 = new QHBoxLayout();
    horizontalLayout_3->setObjectName(QStringLiteral
        ("horizontalLayout_3"));
    label_4 = new QLabel(groupBox_4);
    label_4->setObjectName(QStringLiteral("label_4"));
    label_4->setFont(font1);

    horizontalLayout_3->addWidget(label_4);

    Back = new QPushButton(groupBox_4);
    Back->setObjectName(QStringLiteral("Back"));
    Back->setFont(font2);

    horizontalLayout_3->addWidget(Back);

    closeCase = new QPushButton(groupBox_4);
    closeCase->setObjectName(QStringLiteral("
        closeCase"));
    closeCase->setFont(font2);

    horizontalLayout_3->addWidget(closeCase);

    label_5 = new QLabel(groupBox_4);
    label_5->setObjectName(QStringLiteral("label_5"));
    label_5->setFont(font1);

    horizontalLayout_3->addWidget(label_5);


    verticalLayout_2->addLayout(horizontalLayout_3);


    gridLayout_6->addLayout(verticalLayout_2, 0, 0, 1,
        1);


    gridLayout->addWidget(groupBox_4, 1, 0, 1, 1);

    TeleconsultationConsult->setCentralWidget(
        centralwidget);

    retranslateUi(TeleconsultationConsult);

    QMetaObject::connectSlotsByName(
        TeleconsultationConsult);
} // setupUi

void retranslateUi(QMainWindow *
    TeleconsultationConsult)
{
    TeleconsultationConsult->setWindowTitle(
        QApplication::translate("
        TeleconsultationConsult", "IoT-based
        Recommender System for Diabetic Patients",
        nullptr));
    groupBox->setTitle(QApplication::translate("
        TeleconsultationConsult", "Teleconsultations:",
        nullptr));
    groupBox_3->setTitle(QApplication::translate("
        TeleconsultationConsult", "Consultations:",
        nullptr));
    refresh_consultation->setText(QApplication::
        translate("TeleconsultationConsult", "Refresh
        Consultations", nullptr));
    groupBox_2->setTitle(QApplication::translate("
        TeleconsultationConsult", "Send a Message:",
        nullptr));
    send->setText(QApplication::translate("
        TeleconsultationConsult", "Send", nullptr));
    groupBox_4->setTitle(QString());
    label_4->setText(QString());
    Back->setText(QApplication::translate("
        TeleconsultationConsult", "Back", nullptr));
    closeCase->setText(QApplication::translate("
        TeleconsultationConsult", "Close Case", nullptr
        ));
    label_5->setText(QString());
} // retranslateUi

};

namespace Ui {
    class TeleconsultationConsult: public
        Ui_TeleconsultationConsult {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_TELECONSULTATIONCONSULT_H

/********************************************************************************

** Form generated from reading UI file 'teleconsultationdoc.
    ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
    recompiling UI file!
********************************************************************************


#ifndef UI_TELECONSULTATIONDOC_H
#define UI_TELECONSULTATIONDOC_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QScrollArea>
#include <QtWidgets/QSpacerItem>
#include <QtWidgets/QTextEdit>
#include <QtWidgets/QVBoxLayout>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_TeleconsultationDoc
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout;
    QGroupBox *groupBox_4;
    QGridLayout *gridLayout_6;
    QVBoxLayout *verticalLayout_2;
    QHBoxLayout *horizontalLayout_3;
    QLabel *label_4;
    QPushButton *Back;
    QPushButton *closeCase;
    QLabel *label_5;
    QGroupBox *groupBox;
    QGridLayout *gridLayout_4;
    QGroupBox *groupBox_3;
    QGridLayout *gridLayout_3;
    QHBoxLayout *horizontalLayout;
    QSpacerItem *horizontalSpacer;
    QPushButton *refresh_consultation;
    QScrollArea *scrollAreaMessages;
    QWidget *scrollAreaWidgetContents;
    QGridLayout *gridLayout_5;
    QVBoxLayout *verticalLayoutMessages;
    QGroupBox *groupBox_2;
    QGridLayout *gridLayout_2;
    QTextEdit *textMessage;
    QVBoxLayout *verticalLayout;
    QPushButton *send;
    QSpacerItem *verticalSpacer;

    void setupUi(QMainWindow *TeleconsultationDoc)
    {
        if (TeleconsultationDoc->objectName().isEmpty())
            TeleconsultationDoc->setObjectName(
                QStringLiteral("TeleconsultationDoc"));
        TeleconsultationDoc->resize(800, 600);
        centralwidget = new QWidget(TeleconsultationDoc);
        centralwidget->setObjectName(QStringLiteral("
            centralwidget"));
        gridLayout = new QGridLayout(centralwidget);
        gridLayout->setObjectName(QStringLiteral("
            gridLayout"));
        groupBox_4 = new QGroupBox(centralwidget);
        groupBox_4->setObjectName(QStringLiteral("
            groupBox_4"));
```

```
gridLayout_6 = new QGridLayout(groupBox_4);
gridLayout_6->setObjectName(QStringLiteral("
        gridLayout_6"));
verticalLayout_2 = new QVBoxLayout();
verticalLayout_2->setObjectName(QStringLiteral("
        verticalLayout_2"));
horizontalLayout_3 = new QHBoxLayout();
horizontalLayout_3->setObjectName(QStringLiteral
        ("horizontalLayout_3"));
label_4 = new QLabel(groupBox_4);
label_4->setObjectName(QStringLiteral("label_4"));

horizontalLayout_3->addWidget(label_4);

Back = new QPushButton(groupBox_4);
Back->setObjectName(QStringLiteral("Back"));
QFont font;
font.setFamily(QStringLiteral("Segoe UI"));
font.setPointSize(11);
font.setBold(true);
font.setWeight(75);
Back->setFont(font);

horizontalLayout_3->addWidget(Back);

closeCase = new QPushButton(groupBox_4);
closeCase->setObjectName(QStringLiteral("
        closeCase"));
closeCase->setFont(font);

horizontalLayout_3->addWidget(closeCase);

label_5 = new QLabel(groupBox_4);
label_5->setObjectName(QStringLiteral("label_5"));

horizontalLayout_3->addWidget(label_5);


verticalLayout_2->addLayout(horizontalLayout_3);


gridLayout_6->addLayout(verticalLayout_2, 0, 0, 1,
        1);


gridLayout->addWidget(groupBox_4, 1, 0, 1, 1);

groupBox = new QGroupBox(centralwidget);
groupBox->setObjectName(QStringLiteral("
        groupBox"));
QFont font1;
font1.setFamily(QStringLiteral("Calibri"));
font1.setPointSize(15);
font1.setBold(true);
font1.setWeight(75);
groupBox->setFont(font1);
gridLayout_4 = new QGridLayout(groupBox);
gridLayout_4->setObjectName(QStringLiteral("
        gridLayout_4"));
groupBox_3 = new QGroupBox(groupBox);
groupBox_3->setObjectName(QStringLiteral("
        groupBox_3"));
QFont font2;
font2.setFamily(QStringLiteral("Segoe UI"));
font2.setPointSize(10);
font2.setBold(false);
font2.setWeight(50);
groupBox_3->setFont(font2);
gridLayout_3 = new QGridLayout(groupBox_3);
gridLayout_3->setObjectName(QStringLiteral("
        gridLayout_3"));
horizontalLayout = new QHBoxLayout();
horizontalLayout->setObjectName(QStringLiteral("
        horizontalLayout"));
horizontalSpacer = new QSpacerItem(40, 20,
        QSizePolicy::Expanding, QSizePolicy::Minimum
        );

horizontalLayout->addItem(horizontalSpacer);

refresh_consultation = new QPushButton(groupBox_3
        );
refresh_consultation->setObjectName(QStringLiteral
        ("refresh_consultation"));
refresh_consultation->setFont(font);

horizontalLayout->addWidget(refresh_consultation);


gridLayout_3->addLayout(horizontalLayout, 0, 0, 1,
        1);

scrollAreaMessages = new QScrollArea(groupBox_3);
scrollAreaMessages->setObjectName(QStringLiteral
        ("scrollAreaMessages"));
scrollAreaMessages->setFont(font2);
scrollAreaMessages->setWidgetResizable(true);
scrollAreaWidgetContents = new QWidget();
scrollAreaWidgetContents->setObjectName(
        QStringLiteral("scrollAreaWidgetContents"));
scrollAreaWidgetContents->setGeometry(QRect(0, 0,
        740, 162));
gridLayout_5 = new QGridLayout(
        scrollAreaWidgetContents);
gridLayout_5->setObjectName(QStringLiteral("
        gridLayout_5"));
verticalLayoutMessages = new QVBoxLayout();
verticalLayoutMessages->setObjectName(
        QStringLiteral("verticalLayoutMessages"));

gridLayout_5->addLayout(verticalLayoutMessages, 0,
        0, 1, 1);

scrollAreaMessages->setWidget(
        scrollAreaWidgetContents);

gridLayout_3->addWidget(scrollAreaMessages, 1, 0,
        1, 1);


gridLayout_4->addWidget(groupBox_3, 1, 0, 1, 1);

groupBox_2 = new QGroupBox(groupBox);
groupBox_2->setObjectName(QStringLiteral("
        groupBox_2"));
groupBox_2->setFont(font2);
gridLayout_2 = new QGridLayout(groupBox_2);
gridLayout_2->setObjectName(QStringLiteral("
        gridLayout_2"));
textMessage = new QTextEdit(groupBox_2);
textMessage->setObjectName(QStringLiteral("
        textMessage"));
QFont font3;
font3.setFamily(QStringLiteral("Segoe UI"));
font3.setPointSize(10);
textMessage->setFont(font3);
textMessage->setLineWrapMode(QTextEdit::NoWrap
        );

gridLayout_2->addWidget(textMessage, 0, 0, 1, 1);

verticalLayout = new QVBoxLayout();
verticalLayout->setObjectName(QStringLiteral("
        verticalLayout"));
send = new QPushButton(groupBox_2);
send->setObjectName(QStringLiteral("send"));
send->setFont(font);

verticalLayout->addWidget(send);

verticalSpacer = new QSpacerItem(20, 40,
        QSizePolicy::Minimum, QSizePolicy::Expanding
        );

verticalLayout->addItem(verticalSpacer);


gridLayout_2->addLayout(verticalLayout, 0, 1, 1, 1);


gridLayout_4->addWidget(groupBox_2, 2, 0, 1, 1);


gridLayout->addWidget(groupBox, 0, 0, 1, 1);

TeleconsultationDoc->setCentralWidget(
        centralwidget);

retranslateUi(TeleconsultationDoc);

QMetaObject::connectSlotsByName(
        TeleconsultationDoc);
} // setupUi

void retranslateUi(QMainWindow *TeleconsultationDoc)
{
    TeleconsultationDoc->setWindowTitle(QApplication
        ::translate("TeleconsultationDoc", "IoT-based
        Recommender System for Diabetic Patients",
        nullptr));
    groupBox_4->setTitle(QString());
    label_4->setText(QString());
    Back->setText(QApplication::translate("
        TeleconsultationDoc", "Back", nullptr));
    closeCase->setText(QApplication::translate("
        TeleconsultationDoc", "Close Case", nullptr));
    label_5->setText(QString());
    groupBox->setTitle(QApplication::translate("
        TeleconsultationDoc", "Teleconsultations:",
        nullptr));
    groupBox_3->setTitle(QApplication::translate("
        TeleconsultationDoc", "Consultations:", nullptr)
        );
    refresh_consultation->setText(QApplication::
        translate("TeleconsultationDoc", "Refresh
        Consultations", nullptr));
    groupBox_2->setTitle(QApplication::translate("
        TeleconsultationDoc", "Send a Message:",
```

```
            nullptr));
        send->setText(QApplication::translate("
            TeleconsultationDoc", "Send", nullptr));
    } // retranslateUi

};

namespace Ui {
    class TeleconsultationDoc: public Ui_TeleconsultationDoc
        {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_TELECONSULTATIONDOC_H

/********************************************************************************

** Form generated from reading UI file 'teleconsultationnurse
    .ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
    recompiling UI file!
********************************************************************************/


#ifndef UI_TELECONSULTATIONNURSE_H
#define UI_TELECONSULTATIONNURSE_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QScrollArea>
#include <QtWidgets/QSpacerItem>
#include <QtWidgets/QTextEdit>
#include <QtWidgets/QVBoxLayout>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_TeleconsultationNurse
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout;
    QGroupBox *groupBox;
    QGridLayout *gridLayout_4;
    QGroupBox *groupBox_2;
    QGridLayout *gridLayout_2;
    QTextEdit *textMessage;
    QVBoxLayout *verticalLayout;
    QPushButton *send;
    QSpacerItem *verticalSpacer;
    QGroupBox *groupBox_3;
    QGridLayout *gridLayout_3;
    QScrollArea *scrollAreaMessages;
    QWidget *scrollAreaWidgetContents;
    QGridLayout *gridLayout_5;
    QVBoxLayout *verticalLayoutMessages;
    QHBoxLayout *horizontalLayout;
    QSpacerItem *horizontalSpacer;
    QPushButton *refresh_consultation;
    QGroupBox *groupBox_4;
    QGridLayout *gridLayout_6;
    QHBoxLayout *horizontalLayout_2;
    QLabel *label;
    QPushButton *Back;
    QPushButton *closeCase;
    QLabel *label_2;

    void setupUi(QMainWindow *TeleconsultationNurse)
    {
        if (TeleconsultationNurse->objectName().isEmpty()
            )
            TeleconsultationNurse->setObjectName(
                QStringLiteral("TeleconsultationNurse"));
        TeleconsultationNurse->resize(800, 600);
        centralwidget = new QWidget(TeleconsultationNurse)
            ;
        centralwidget->setObjectName(QStringLiteral("
            centralwidget"));
        gridLayout = new QGridLayout(centralwidget);
        gridLayout->setObjectName(QStringLiteral("
            gridLayout"));
        groupBox = new QGroupBox(centralwidget);
        groupBox->setObjectName(QStringLiteral("
            groupBox"));
        QFont font;
        font.setFamily(QStringLiteral("Calibri"));
        font.setPointSize(15);
        font.setBold(true);
        font.setWeight(75);
        groupBox->setFont(font);
        gridLayout_4 = new QGridLayout(groupBox);
        gridLayout_4->setObjectName(QStringLiteral("
            gridLayout_4"));
        groupBox_2 = new QGroupBox(groupBox);
        groupBox_2->setObjectName(QStringLiteral("
            groupBox_2"));
        QFont font1;
        font1.setFamily(QStringLiteral("Segoe UI"));
        font1.setPointSize(10);
        font1.setBold(false);
        font1.setWeight(50);
        groupBox_2->setFont(font1);
        gridLayout_2 = new QGridLayout(groupBox_2);
        gridLayout_2->setObjectName(QStringLiteral("
            gridLayout_2"));
        textMessage = new QTextEdit(groupBox_2);
        textMessage->setObjectName(QStringLiteral("
            textMessage"));
        textMessage->setFont(font1);

        gridLayout_2->addWidget(textMessage, 0, 0, 1, 1);
        verticalLayout = new QVBoxLayout();
        verticalLayout->setObjectName(QStringLiteral("
            verticalLayout"));
        send = new QPushButton(groupBox_2);
        send->setObjectName(QStringLiteral("send"));
        QFont font2;
        font2.setFamily(QStringLiteral("Segoe UI"));
        font2.setPointSize(11);
        font2.setBold(true);
        font2.setWeight(75);
        send->setFont(font2);

        verticalLayout->addWidget(send);

        verticalSpacer = new QSpacerItem(20, 40,
            QSizePolicy::Minimum, QSizePolicy::Expanding
            );

        verticalLayout->addItem(verticalSpacer);


        gridLayout_2->addLayout(verticalLayout, 0, 1, 1, 1);


        gridLayout_4->addWidget(groupBox_2, 2, 0, 1, 1);

        groupBox_3 = new QGroupBox(groupBox);
        groupBox_3->setObjectName(QStringLiteral("
            groupBox_3"));
        groupBox_3->setFont(font1);
        gridLayout_3 = new QGridLayout(groupBox_3);
        gridLayout_3->setObjectName(QStringLiteral("
            gridLayout_3"));
        scrollAreaMessages = new QScrollArea(groupBox_3);
        scrollAreaMessages->setObjectName(QStringLiteral
            ("scrollAreaMessages"));
        scrollAreaMessages->setFont(font1);
        scrollAreaMessages->setSizeAdjustPolicy(
            QAbstractScrollArea::AdjustIgnored);
        scrollAreaMessages->setWidgetResizable(true);
        scrollAreaWidgetContents = new QWidget();
        scrollAreaWidgetContents->setObjectName(
            QStringLiteral("scrollAreaWidgetContents"));
        scrollAreaWidgetContents->setGeometry(QRect(0, 0,
             740, 163));
        gridLayout_5 = new QGridLayout(
            scrollAreaWidgetContents);
        gridLayout_5->setObjectName(QStringLiteral("
            gridLayout_5"));
        verticalLayoutMessages = new QVBoxLayout();
        verticalLayoutMessages->setObjectName(
            QStringLiteral("verticalLayoutMessages"));

        gridLayout_5->addLayout(verticalLayoutMessages, 0,
             0, 1, 1);

        scrollAreaMessages->setWidget(
            scrollAreaWidgetContents);

        gridLayout_3->addWidget(scrollAreaMessages, 2, 0,
            1, 1);

        horizontalLayout = new QHBoxLayout();
        horizontalLayout->setObjectName(QStringLiteral("
            horizontalLayout"));
        horizontalSpacer = new QSpacerItem(40, 20,
            QSizePolicy::Expanding, QSizePolicy::Minimum
            );

        horizontalLayout->addItem(horizontalSpacer);

        refresh_consultation = new QPushButton(groupBox_3
            );
```

```
        refresh_consultation->setObjectName(QStringLiteral
            ("refresh_consultation"));
        refresh_consultation->setFont(font2);

        horizontalLayout->addWidget(refresh_consultation);


        gridLayout_3->addLayout(horizontalLayout, 0, 0, 1,
            1);


        gridLayout_4->addWidget(groupBox_3, 1, 0, 1, 1);


        gridLayout->addWidget(groupBox, 0, 0, 1, 1);

        groupBox_4 = new QGroupBox(centralwidget);
        groupBox_4->setObjectName(QStringLiteral("
            groupBox_4"));
        groupBox_4->setFont(font1);
        gridLayout_6 = new QGridLayout(groupBox_4);
        gridLayout_6->setObjectName(QStringLiteral("
            gridLayout_6"));
        horizontalLayout_2 = new QHBoxLayout();
        horizontalLayout_2->setObjectName(QStringLiteral
            ("horizontalLayout_2"));
        label = new QLabel(groupBox_4);
        label->setObjectName(QStringLiteral("label"));
        label->setFont(font1);

        horizontalLayout_2->addWidget(label);

        Back = new QPushButton(groupBox_4);
        Back->setObjectName(QStringLiteral("Back"));
        Back->setFont(font2);

        horizontalLayout_2->addWidget(Back);

        closeCase = new QPushButton(groupBox_4);
        closeCase->setObjectName(QStringLiteral("
            closeCase"));
        closeCase->setFont(font2);

        horizontalLayout_2->addWidget(closeCase);

        label_2 = new QLabel(groupBox_4);
        label_2->setObjectName(QStringLiteral("label_2"));
        label_2->setFont(font1);

        horizontalLayout_2->addWidget(label_2);


        gridLayout_6->addLayout(horizontalLayout_2, 0, 0,
            1, 1);


        gridLayout->addWidget(groupBox_4, 1, 0, 1, 1);

        TeleconsultationNurse->setCentralWidget(
            centralwidget);

        retranslateUi(TeleconsultationNurse);

        QMetaObject::connectSlotsByName(
            TeleconsultationNurse);
    } // setupUi

    void retranslateUi(QMainWindow *TeleconsultationNurse
        )
    {
        TeleconsultationNurse->setWindowTitle(
            QApplication::translate("TeleconsultationNurse
            ", "IoT-based Recommender System for
            Diabetic Patients", nullptr));
        groupBox->setTitle(QApplication::translate("
            TeleconsultationNurse", "Teleconsultations:",
            nullptr));
        groupBox_2->setTitle(QApplication::translate("
            TeleconsultationNurse", "Send a Message:",
            nullptr));
        send->setText(QApplication::translate("
            TeleconsultationNurse", "Send", nullptr));
        groupBox_3->setTitle(QApplication::translate("
            TeleconsultationNurse", "Consultations:",
            nullptr));
        refresh_consultation->setText(QApplication::
            translate("TeleconsultationNurse", "Refresh
            Consultations", nullptr));
        groupBox_4->setTitle(QString());
        label->setText(QString());
        Back->setText(QApplication::translate("
            TeleconsultationNurse", "Back", nullptr));
        closeCase->setText(QApplication::translate("
            TeleconsultationNurse", "Close Case", nullptr));
        label_2->setText(QString());
    } // retranslateUi

};

namespace Ui {
    class TeleconsultationNurse: public
        Ui_TeleconsultationNurse {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_TELECONSULTATIONNURSE_H

/********************************************************************************

** Form generated from reading UI file 'treatmentplanconsult.
    ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
    recompiling UI file!
********************************************************************************


#ifndef UI_TREATMENTPLANCONSULT_H
#define UI_TREATMENTPLANCONSULT_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QFrame>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QLineEdit>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QTextBrowser>
#include <QtWidgets/QVBoxLayout>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_TreatmentPlanConsult
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout_2;
    QGroupBox *groupBox;
    QGridLayout *gridLayout;
    QHBoxLayout *horizontalLayout_5;
    QLabel *label_11;
    QLabel *label_10;
    QPushButton *editPlan;
    QGroupBox *groupBox_2;
    QGridLayout *gridLayout_3;
    QPushButton *consult;
    QLabel *label_2;
    QLabel *label_3;
    QFrame *line;
    QHBoxLayout *horizontalLayout_6;
    QLabel *Carbo;
    QLineEdit *treatment_insulin_regimen;
    QFrame *line_2;
    QHBoxLayout *horizontalLayout;
    QLabel *label_4;
    QLineEdit *treatment_insulin_dosage;
    QFrame *line_3;
    QHBoxLayout *horizontalLayout_3;
    QVBoxLayout *verticalLayout_5;
    QLabel *label_9;
    QTextBrowser *treatment_injectsched;
    QFrame *line_7;
    QVBoxLayout *verticalLayout_2;
    QLabel *Carbo_3;
    QTextBrowser *treatment_testingsched;
    QFrame *line_6;
    QVBoxLayout *verticalLayout;
    QLabel *label;
    QTextBrowser *treatment_titration;
    QFrame *line_5;
    QHBoxLayout *horizontalLayout_2;
    QVBoxLayout *verticalLayout_3;
    QLabel *label_5;
    QTextBrowser *treatment_hypoglycemia;
    QFrame *line_8;
    QVBoxLayout *verticalLayout_4;
    QLabel *label_6;
    QTextBrowser *treatment_others;
    QFrame *line_4;
    QGroupBox *groupBox_3;
    QGridLayout *gridLayout_4;
    QHBoxLayout *horizontalLayout_4;
    QLabel *label_7;
    QPushButton *back;
    QLabel *label_8;

    void setupUi(QMainWindow *TreatmentPlanConsult)
    {
```

```
if (TreatmentPlanConsult->objectName().isEmpty()
    )
    TreatmentPlanConsult->setObjectName(
        QStringLiteral("TreatmentPlanConsult"));
TreatmentPlanConsult->resize(800, 677);
centralwidget = new QWidget(TreatmentPlanConsult
    );
centralwidget->setObjectName(QStringLiteral("
    centralwidget"));
gridLayout_2 = new QGridLayout(centralwidget);
gridLayout_2->setObjectName(QStringLiteral("
    gridLayout_2"));
groupBox = new QGroupBox(centralwidget);
groupBox->setObjectName(QStringLiteral("
    groupBox"));
QFont font;
font.setFamily(QStringLiteral("Calibri"));
font.setPointSize(15);
font.setBold(true);
font.setWeight(75);
groupBox->setFont(font);
gridLayout = new QGridLayout(groupBox);
gridLayout->setObjectName(QStringLiteral("
    gridLayout"));
horizontalLayout_5 = new QHBoxLayout();
horizontalLayout_5->setObjectName(QStringLiteral
    ("horizontalLayout_5"));
label_11 = new QLabel(groupBox);
label_11->setObjectName(QStringLiteral("label_11")
    );
QFont font1;
font1.setFamily(QStringLiteral("Segoe UI"));
font1.setPointSize(10);
font1.setBold(false);
font1.setWeight(50);
label_11->setFont(font1);

horizontalLayout_5->addWidget(label_11);

label_10 = new QLabel(groupBox);
label_10->setObjectName(QStringLiteral("label_10")
    );
label_10->setFont(font1);

horizontalLayout_5->addWidget(label_10);

editPlan = new QPushButton(groupBox);
editPlan->setObjectName(QStringLiteral("editPlan
    "));
QFont font2;
font2.setFamily(QStringLiteral("Segoe UI"));
font2.setPointSize(11);
font2.setBold(true);
font2.setWeight(75);
editPlan->setFont(font2);

horizontalLayout_5->addWidget(editPlan);


gridLayout->addLayout(horizontalLayout_5, 0, 0, 1,
    1);

groupBox_2 = new QGroupBox(groupBox);
groupBox_2->setObjectName(QStringLiteral("
    groupBox_2"));
groupBox_2->setFont(font1);
gridLayout_3 = new QGridLayout(groupBox_2);
gridLayout_3->setObjectName(QStringLiteral("
    gridLayout_3"));
consult = new QPushButton(groupBox_2);
consult->setObjectName(QStringLiteral("consult"));
consult->setFont(font2);

gridLayout_3->addWidget(consult, 0, 1, 1, 1);

label_2 = new QLabel(groupBox_2);
label_2->setObjectName(QStringLiteral("label_2"));
label_2->setFont(font1);

gridLayout_3->addWidget(label_2, 0, 0, 1, 1);

label_3 = new QLabel(groupBox_2);
label_3->setObjectName(QStringLiteral("label_3"));
label_3->setFont(font1);

gridLayout_3->addWidget(label_3, 0, 2, 1, 1);


gridLayout->addWidget(groupBox_2, 1, 0, 1, 1);

line = new QFrame(groupBox);
line->setObjectName(QStringLiteral("line"));
line->setFont(font1);
line->setFrameShape(QFrame::HLine);
line->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line, 2, 0, 1, 1);

horizontalLayout_6 = new QHBoxLayout();
horizontalLayout_6->setObjectName(QStringLiteral
    ("horizontalLayout_6"));
Carbo = new QLabel(groupBox);
Carbo->setObjectName(QStringLiteral("Carbo"));
QFont font3;
font3.setFamily(QStringLiteral("Segoe UI Semibold")
    );
font3.setPointSize(10);
font3.setBold(false);
font3.setWeight(50);
Carbo->setFont(font3);

horizontalLayout_6->addWidget(Carbo);

treatment_insulin_regimen = new QLineEdit(groupBox
    );
treatment_insulin_regimen->setObjectName(
    QStringLiteral("treatment_insulin_regimen"));
treatment_insulin_regimen->setFont(font1);

horizontalLayout_6->addWidget(
    treatment_insulin_regimen);


gridLayout->addLayout(horizontalLayout_6, 3, 0, 1,
    1);

line_2 = new QFrame(groupBox);
line_2->setObjectName(QStringLiteral("line_2"));
line_2->setFont(font1);
line_2->setFrameShape(QFrame::HLine);
line_2->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_2, 4, 0, 1, 1);

horizontalLayout = new QHBoxLayout();
horizontalLayout->setObjectName(QStringLiteral("
    horizontalLayout"));
label_4 = new QLabel(groupBox);
label_4->setObjectName(QStringLiteral("label_4"));
label_4->setFont(font3);

horizontalLayout->addWidget(label_4);

treatment_insulin_dosage = new QLineEdit(groupBox)
    ;
treatment_insulin_dosage->setObjectName(
    QStringLiteral("treatment_insulin_dosage"));
treatment_insulin_dosage->setFont(font1);

horizontalLayout->addWidget(
    treatment_insulin_dosage);


gridLayout->addLayout(horizontalLayout, 5, 0, 1, 1);

line_3 = new QFrame(groupBox);
line_3->setObjectName(QStringLiteral("line_3"));
line_3->setFont(font1);
line_3->setFrameShape(QFrame::HLine);
line_3->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_3, 6, 0, 1, 1);

horizontalLayout_3 = new QHBoxLayout();
horizontalLayout_3->setObjectName(QStringLiteral
    ("horizontalLayout_3"));
verticalLayout_5 = new QVBoxLayout();
verticalLayout_5->setObjectName(QStringLiteral("
    verticalLayout_5"));
label_9 = new QLabel(groupBox);
label_9->setObjectName(QStringLiteral("label_9"));
label_9->setFont(font3);

verticalLayout_5->addWidget(label_9);

treatment_injectsched = new QTextBrowser(groupBox
    );
treatment_injectsched->setObjectName(
    QStringLiteral("treatment_injectsched"));
treatment_injectsched->setFont(font1);

verticalLayout_5->addWidget(treatment_injectsched);


horizontalLayout_3->addLayout(verticalLayout_5);

line_7 = new QFrame(groupBox);
line_7->setObjectName(QStringLiteral("line_7"));
line_7->setFont(font1);
line_7->setFrameShape(QFrame::VLine);
line_7->setFrameShadow(QFrame::Sunken);

horizontalLayout_3->addWidget(line_7);

verticalLayout_2 = new QVBoxLayout();
verticalLayout_2->setObjectName(QStringLiteral("
    verticalLayout_2"));
Carbo_3 = new QLabel(groupBox);
```

```
Carbo_3->setObjectName(QStringLiteral("Carbo_3")
        );
Carbo_3->setFont(font3);

verticalLayout_2->addWidget(Carbo_3);

treatment_testingsched = new QTextBrowser(
        groupBox);
treatment_testingsched->setObjectName(
        QStringLiteral("treatment_testingsched"));
treatment_testingsched->setFont(font1);

verticalLayout_2->addWidget(treatment_testingsched
        );


horizontalLayout_3->addLayout(verticalLayout_2);


gridLayout->addLayout(horizontalLayout_3, 7, 0, 1,
        1);

line_6 = new QFrame(groupBox);
line_6->setObjectName(QStringLiteral("line_6"));
line_6->setFont(font1);
line_6->setFrameShape(QFrame::HLine);
line_6->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_6, 8, 0, 1, 1);

verticalLayout = new QVBoxLayout();
verticalLayout->setObjectName(QStringLiteral("
        verticalLayout"));
label = new QLabel(groupBox);
label->setObjectName(QStringLiteral("label"));
label->setFont(font3);

verticalLayout->addWidget(label);

treatment_titration = new QTextBrowser(groupBox);
treatment_titration->setObjectName(QStringLiteral
        ("treatment_titration"));
treatment_titration->setFont(font1);

verticalLayout->addWidget(treatment_titration);


gridLayout->addLayout(verticalLayout, 9, 0, 1, 1);

line_5 = new QFrame(groupBox);
line_5->setObjectName(QStringLiteral("line_5"));
line_5->setFont(font1);
line_5->setFrameShape(QFrame::HLine);
line_5->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_5, 10, 0, 1, 1);

horizontalLayout_2 = new QHBoxLayout();
horizontalLayout_2->setObjectName(QStringLiteral
        ("horizontalLayout_2"));
verticalLayout_3 = new QVBoxLayout();
verticalLayout_3->setObjectName(QStringLiteral("
        verticalLayout_3"));
label_5 = new QLabel(groupBox);
label_5->setObjectName(QStringLiteral("label_5"));
label_5->setFont(font3);

verticalLayout_3->addWidget(label_5);

treatment_hypoglycemia = new QTextBrowser(
        groupBox);
treatment_hypoglycemia->setObjectName(
        QStringLiteral("treatment_hypoglycemia"));
treatment_hypoglycemia->setFont(font1);

verticalLayout_3->addWidget(
        treatment_hypoglycemia);


horizontalLayout_2->addLayout(verticalLayout_3);

line_8 = new QFrame(groupBox);
line_8->setObjectName(QStringLiteral("line_8"));
line_8->setFont(font1);
line_8->setFrameShape(QFrame::VLine);
line_8->setFrameShadow(QFrame::Sunken);

horizontalLayout_2->addWidget(line_8);

verticalLayout_4 = new QVBoxLayout();
verticalLayout_4->setObjectName(QStringLiteral("
        verticalLayout_4"));
label_6 = new QLabel(groupBox);
label_6->setObjectName(QStringLiteral("label_6"));
label_6->setFont(font3);

verticalLayout_4->addWidget(label_6);

treatment_others = new QTextBrowser(groupBox);
treatment_others->setObjectName(QStringLiteral("
        treatment_others"));
treatment_others->setFont(font1);

verticalLayout_4->addWidget(treatment_others);


horizontalLayout_2->addLayout(verticalLayout_4);


gridLayout->addLayout(horizontalLayout_2, 11, 0, 1,
        1);

line_4 = new QFrame(groupBox);
line_4->setObjectName(QStringLiteral("line_4"));
line_4->setFont(font1);
line_4->setFrameShape(QFrame::HLine);
line_4->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_4, 12, 0, 1, 1);


gridLayout_2->addWidget(groupBox, 0, 0, 1, 1);

groupBox_3 = new QGroupBox(centralwidget);
groupBox_3->setObjectName(QStringLiteral("
        groupBox_3"));
groupBox_3->setFont(font1);
gridLayout_4 = new QGridLayout(groupBox_3);
gridLayout_4->setObjectName(QStringLiteral("
        gridLayout_4"));
horizontalLayout_4 = new QHBoxLayout();
horizontalLayout_4->setObjectName(QStringLiteral
        ("horizontalLayout_4"));
label_7 = new QLabel(groupBox_3);
label_7->setObjectName(QStringLiteral("label_7"));
label_7->setFont(font1);

horizontalLayout_4->addWidget(label_7);

back = new QPushButton(groupBox_3);
back->setObjectName(QStringLiteral("back"));
back->setFont(font2);

horizontalLayout_4->addWidget(back);

label_8 = new QLabel(groupBox_3);
label_8->setObjectName(QStringLiteral("label_8"));
label_8->setFont(font1);

horizontalLayout_4->addWidget(label_8);


gridLayout_4->addLayout(horizontalLayout_4, 0, 0,
        1, 1);


gridLayout_2->addWidget(groupBox_3, 1, 0, 1, 1);

TreatmentPlanConsult->setCentralWidget(
        centralwidget);

retranslateUi(TreatmentPlanConsult);

QMetaObject::connectSlotsByName(
        TreatmentPlanConsult);
} // setupUi

void retranslateUi(QMainWindow *
      TreatmentPlanConsult)
{
    TreatmentPlanConsult->setWindowTitle(
            QApplication::translate("TreatmentPlanConsult
            ", "IoT-based Recommender System for
            Diabetic Patients", nullptr));
    groupBox->setTitle(QApplication::translate("
            TreatmentPlanConsult", "Recommended
            Treatment Plan", nullptr));
    label_11->setText(QString());
    label_10->setText(QString());
    editPlan->setText(QApplication::translate("
            TreatmentPlanConsult", "Edit", nullptr));
    groupBox_2->setTitle(QApplication::translate("
            TreatmentPlanConsult", "Consultations:",
            nullptr));
    consult->setText(QApplication::translate("
            TreatmentPlanConsult", "View Messages",
            nullptr));
    label_2->setText(QString());
    label_3->setText(QString());
    Carbo->setText(QApplication::translate("
            TreatmentPlanConsult", "Insulin Regimen:",
            nullptr));
    label_4->setText(QApplication::translate("
            TreatmentPlanConsult", "Insulin Dosage: (units
            )", nullptr));
    label_9->setText(QApplication::translate("
            TreatmentPlanConsult", "Insulin Injection
            Schedule:", nullptr));
```

```
        Carbo_3->setText(QApplication::translate("
                TreatmentPlanConsult", "Testing Schedule:",
                nullptr));
        treatment_testingsched->setHtml(QApplication::
                translate("TreatmentPlanConsult", "<!
                DOCTYPE HTML PUBLIC \"-//W3C//DTD
                HTML 4.0//EN\" \"http://www.w3.org/TR/
                REC-html40/strict.dtd\">\n"
"<html><head><meta name=\"qrichtext\" content=\"1\"
       /><style type=\"text/css\">\n"
"p, li { white-space: pre-wrap; }\n"
"</style></head><body style=\" font-family:'Segoe UI';
       font-size:10pt; font-weight:400; font-style:normal
       ;\">\n"
"<p style=\"-qt-paragraph-type:empty; margin-top:0px;
       margin-bottom:0px; margin-left:0px; margin-right:0
       px; -qt-block-indent:0; text-indent:0px; font-family
       :'MS Shell Dlg 2'; font-size:9pt;\"><br /></p></
       body></html>", nullptr));
        label->setText(QApplication::translate("
                TreatmentPlanConsult", "Titration:", nullptr));
        label_5->setText(QApplication::translate("
                TreatmentPlanConsult", "For hypoglycemia:",
                nullptr));
        label_6->setText(QApplication::translate("
                TreatmentPlanConsult", "Others:", nullptr));
        groupBox_3->setTitle(QString());
        label_7->setText(QString());
        back->setText(QApplication::translate("
                TreatmentPlanConsult", "Back", nullptr));
        label_8->setText(QString());
    } // retranslateUi

};

namespace Ui {
    class TreatmentPlanConsult: public
            Ui_TreatmentPlanConsult {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_TREATMENTPLANCONSULT_H

/********************************************************************************

** Form generated from reading UI file 'treatmentplandoc.ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
       recompiling UI file!
********************************************************************************/


#ifndef UI_TREATMENTPLANDOC_H
#define UI_TREATMENTPLANDOC_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QFrame>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QLineEdit>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QTextBrowser>
#include <QtWidgets/QVBoxLayout>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_TreatmentPlanDoc
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout_2;
    QGroupBox *groupBox;
    QGridLayout *gridLayout;
    QHBoxLayout *horizontalLayout_5;
    QLabel *label_11;
    QLabel *label_10;
    QPushButton *editPlan;
    QGroupBox *groupBox_2;
    QGridLayout *gridLayout_3;
    QPushButton *consult;
    QLabel *label_2;
    QLabel *label_3;
    QFrame *line;
    QHBoxLayout *horizontalLayout_6;
    QLabel *Carbo;
    QLineEdit *treatment_insulin_regimen;
    QFrame *line_2;
    QHBoxLayout *horizontalLayout;
    QLabel *label_4;
    QLineEdit *treatment_insulin_dosage;
    QFrame *line_3;
    QHBoxLayout *horizontalLayout_3;
    QVBoxLayout *verticalLayout_5;
    QLabel *label_9;
    QTextBrowser *treatment_injectsched;
    QFrame *line_7;
    QVBoxLayout *verticalLayout_2;
    QLabel *Carbo_3;
    QTextBrowser *treatment_testingsched;
    QFrame *line_6;
    QVBoxLayout *verticalLayout;
    QLabel *label;
    QTextBrowser *treatment_titration;
    QFrame *line_5;
    QHBoxLayout *horizontalLayout_2;
    QVBoxLayout *verticalLayout_3;
    QLabel *label_5;
    QTextBrowser *treatment_hypoglycemia;
    QFrame *line_8;
    QVBoxLayout *verticalLayout_4;
    QLabel *label_6;
    QTextBrowser *treatment_others;
    QFrame *line_4;
    QGroupBox *groupBox_3;
    QGridLayout *gridLayout_4;
    QHBoxLayout *horizontalLayout_4;
    QLabel *label_7;
    QPushButton *back;
    QLabel *label_8;

    void setupUi(QMainWindow *TreatmentPlanDoc)
    {
        if (TreatmentPlanDoc->objectName().isEmpty())
            TreatmentPlanDoc->setObjectName(
                    QStringLiteral("TreatmentPlanDoc"));
        TreatmentPlanDoc->resize(800, 677);
        centralwidget = new QWidget(TreatmentPlanDoc);
        centralwidget->setObjectName(QStringLiteral("
                centralwidget"));
        gridLayout_2 = new QGridLayout(centralwidget);
        gridLayout_2->setObjectName(QStringLiteral("
                gridLayout_2"));
        groupBox = new QGroupBox(centralwidget);
        groupBox->setObjectName(QStringLiteral("
                groupBox"));
        QFont font;
        font.setFamily(QStringLiteral("Calibri"));
        font.setPointSize(15);
        font.setBold(true);
        font.setWeight(75);
        groupBox->setFont(font);
        gridLayout = new QGridLayout(groupBox);
        gridLayout->setObjectName(QStringLiteral("
                gridLayout"));
        horizontalLayout_5 = new QHBoxLayout();
        horizontalLayout_5->setObjectName(QStringLiteral
                ("horizontalLayout_5"));
        label_11 = new QLabel(groupBox);
        label_11->setObjectName(QStringLiteral("label_11")
                );
        QFont font1;
        font1.setFamily(QStringLiteral("Segoe UI"));
        font1.setPointSize(10);
        font1.setBold(false);
        font1.setWeight(50);
        label_11->setFont(font1);

        horizontalLayout_5->addWidget(label_11);

        label_10 = new QLabel(groupBox);
        label_10->setObjectName(QStringLiteral("label_10")
                );
        label_10->setFont(font1);

        horizontalLayout_5->addWidget(label_10);

        editPlan = new QPushButton(groupBox);
        editPlan->setObjectName(QStringLiteral("editPlan
                "));
        QFont font2;
        font2.setFamily(QStringLiteral("Segoe UI"));
        font2.setPointSize(11);
        font2.setBold(true);
        font2.setWeight(75);
        editPlan->setFont(font2);

        horizontalLayout_5->addWidget(editPlan);


        gridLayout->addLayout(horizontalLayout_5, 0, 0, 1,
                1);

        groupBox_2 = new QGroupBox(groupBox);
        groupBox_2->setObjectName(QStringLiteral("
                groupBox_2"));
        groupBox_2->setFont(font1);
        gridLayout_3 = new QGridLayout(groupBox_2);
```

```
gridLayout_3->setObjectName(QStringLiteral("
        gridLayout_3"));
consult = new QPushButton(groupBox_2);
consult->setObjectName(QStringLiteral("consult"));
consult->setFont(font2);

gridLayout_3->addWidget(consult, 0, 1, 1, 1);

label_2 = new QLabel(groupBox_2);
label_2->setObjectName(QStringLiteral("label_2"));
label_2->setFont(font1);

gridLayout_3->addWidget(label_2, 0, 0, 1, 1);

label_3 = new QLabel(groupBox_2);
label_3->setObjectName(QStringLiteral("label_3"));
label_3->setFont(font1);

gridLayout_3->addWidget(label_3, 0, 2, 1, 1);


gridLayout->addWidget(groupBox_2, 1, 0, 1, 1);

line = new QFrame(groupBox);
line->setObjectName(QStringLiteral("line"));
line->setFont(font1);
line->setFrameShape(QFrame::HLine);
line->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line, 2, 0, 1, 1);

horizontalLayout_6 = new QHBoxLayout();
horizontalLayout_6->setObjectName(QStringLiteral
        ("horizontalLayout_6"));
Carbo = new QLabel(groupBox);
Carbo->setObjectName(QStringLiteral("Carbo"));
QFont font3;
font3.setFamily(QStringLiteral("Segoe UI Semibold")
        );
font3.setPointSize(10);
font3.setBold(false);
font3.setWeight(50);
Carbo->setFont(font3);

horizontalLayout_6->addWidget(Carbo);

treatment_insulin_regimen = new QLineEdit(groupBox
        );
treatment_insulin_regimen->setObjectName(
        QStringLiteral("treatment_insulin_regimen"));
treatment_insulin_regimen->setFont(font1);

horizontalLayout_6->addWidget(
        treatment_insulin_regimen);


gridLayout->addLayout(horizontalLayout_6, 3, 0, 1,
        1);

line_2 = new QFrame(groupBox);
line_2->setObjectName(QStringLiteral("line_2"));
line_2->setFont(font1);
line_2->setFrameShape(QFrame::HLine);
line_2->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_2, 4, 0, 1, 1);

horizontalLayout = new QHBoxLayout();
horizontalLayout->setObjectName(QStringLiteral("
        horizontalLayout"));
label_4 = new QLabel(groupBox);
label_4->setObjectName(QStringLiteral("label_4"));
label_4->setFont(font3);

horizontalLayout->addWidget(label_4);

treatment_insulin_dosage = new QLineEdit(groupBox)
        ;
treatment_insulin_dosage->setObjectName(
        QStringLiteral("treatment_insulin_dosage"));
treatment_insulin_dosage->setFont(font1);

horizontalLayout->addWidget(
        treatment_insulin_dosage);


gridLayout->addLayout(horizontalLayout, 5, 0, 1, 1);

line_3 = new QFrame(groupBox);
line_3->setObjectName(QStringLiteral("line_3"));
line_3->setFont(font1);
line_3->setFrameShape(QFrame::HLine);
line_3->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_3, 6, 0, 1, 1);

horizontalLayout_3 = new QHBoxLayout();
horizontalLayout_3->setObjectName(QStringLiteral
        ("horizontalLayout_3"));
verticalLayout_5 = new QVBoxLayout();
verticalLayout_5->setObjectName(QStringLiteral("
        verticalLayout_5"));
label_9 = new QLabel(groupBox);
label_9->setObjectName(QStringLiteral("label_9"));
label_9->setFont(font3);

verticalLayout_5->addWidget(label_9);

treatment_injectsched = new QTextBrowser(groupBox
        );
treatment_injectsched->setObjectName(
        QStringLiteral("treatment_injectsched"));
treatment_injectsched->setFont(font1);

verticalLayout_5->addWidget(treatment_injectsched);


horizontalLayout_3->addLayout(verticalLayout_5);

line_7 = new QFrame(groupBox);
line_7->setObjectName(QStringLiteral("line_7"));
line_7->setFont(font1);
line_7->setFrameShape(QFrame::VLine);
line_7->setFrameShadow(QFrame::Sunken);

horizontalLayout_3->addWidget(line_7);

verticalLayout_2 = new QVBoxLayout();
verticalLayout_2->setObjectName(QStringLiteral("
        verticalLayout_2"));
Carbo_3 = new QLabel(groupBox);
Carbo_3->setObjectName(QStringLiteral("Carbo_3")
        );
Carbo_3->setFont(font3);

verticalLayout_2->addWidget(Carbo_3);

treatment_testingsched = new QTextBrowser(
        groupBox);
treatment_testingsched->setObjectName(
        QStringLiteral("treatment_testingsched"));
treatment_testingsched->setFont(font1);

verticalLayout_2->addWidget(treatment_testingsched
        );


horizontalLayout_3->addLayout(verticalLayout_2);


gridLayout->addLayout(horizontalLayout_3, 7, 0, 1,
        1);

line_6 = new QFrame(groupBox);
line_6->setObjectName(QStringLiteral("line_6"));
line_6->setFont(font1);
line_6->setFrameShape(QFrame::HLine);
line_6->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_6, 8, 0, 1, 1);

verticalLayout = new QVBoxLayout();
verticalLayout->setObjectName(QStringLiteral("
        verticalLayout"));
label = new QLabel(groupBox);
label->setObjectName(QStringLiteral("label"));
label->setFont(font3);

verticalLayout->addWidget(label);

treatment_titration = new QTextBrowser(groupBox);
treatment_titration->setObjectName(QStringLiteral
        ("treatment_titration"));
treatment_titration->setFont(font1);

verticalLayout->addWidget(treatment_titration);


gridLayout->addLayout(verticalLayout, 9, 0, 1, 1);

line_5 = new QFrame(groupBox);
line_5->setObjectName(QStringLiteral("line_5"));
line_5->setFont(font1);
line_5->setFrameShape(QFrame::HLine);
line_5->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_5, 10, 0, 1, 1);

horizontalLayout_2 = new QHBoxLayout();
horizontalLayout_2->setObjectName(QStringLiteral
        ("horizontalLayout_2"));
verticalLayout_3 = new QVBoxLayout();
verticalLayout_3->setObjectName(QStringLiteral("
        verticalLayout_3"));
label_5 = new QLabel(groupBox);
label_5->setObjectName(QStringLiteral("label_5"));
label_5->setFont(font3);
```

```
    verticalLayout_3->addWidget(label_5);

    treatment_hypoglycemia = new QTextBrowser(
            groupBox);
    treatment_hypoglycemia->setObjectName(
            QStringLiteral("treatment_hypoglycemia"));
    treatment_hypoglycemia->setFont(font1);

    verticalLayout_3->addWidget(
            treatment_hypoglycemia);


    horizontalLayout_2->addLayout(verticalLayout_3);

    line_8 = new QFrame(groupBox);
    line_8->setObjectName(QStringLiteral("line_8"));
    line_8->setFont(font1);
    line_8->setFrameShape(QFrame::VLine);
    line_8->setFrameShadow(QFrame::Sunken);

    horizontalLayout_2->addWidget(line_8);

    verticalLayout_4 = new QVBoxLayout();
    verticalLayout_4->setObjectName(QStringLiteral("
            verticalLayout_4"));
    label_6 = new QLabel(groupBox);
    label_6->setObjectName(QStringLiteral("label_6"));
    label_6->setFont(font3);

    verticalLayout_4->addWidget(label_6);

    treatment_others = new QTextBrowser(groupBox);
    treatment_others->setObjectName(QStringLiteral("
            treatment_others"));
    treatment_others->setFont(font1);

    verticalLayout_4->addWidget(treatment_others);


    horizontalLayout_2->addLayout(verticalLayout_4);


    gridLayout->addLayout(horizontalLayout_2, 11, 0, 1,
            1);

    line_4 = new QFrame(groupBox);
    line_4->setObjectName(QStringLiteral("line_4"));
    line_4->setFont(font1);
    line_4->setFrameShape(QFrame::HLine);
    line_4->setFrameShadow(QFrame::Sunken);

    gridLayout->addWidget(line_4, 12, 0, 1, 1);


    gridLayout_2->addWidget(groupBox, 0, 0, 1, 1);

    groupBox_3 = new QGroupBox(centralwidget);
    groupBox_3->setObjectName(QStringLiteral("
            groupBox_3"));
    groupBox_3->setFont(font1);
    gridLayout_4 = new QGridLayout(groupBox_3);
    gridLayout_4->setObjectName(QStringLiteral("
            gridLayout_4"));
    horizontalLayout_4 = new QHBoxLayout();
    horizontalLayout_4->setObjectName(QStringLiteral
            ("horizontalLayout_4"));
    label_7 = new QLabel(groupBox_3);
    label_7->setObjectName(QStringLiteral("label_7"));
    label_7->setFont(font1);

    horizontalLayout_4->addWidget(label_7);

    back = new QPushButton(groupBox_3);
    back->setObjectName(QStringLiteral("back"));
    back->setFont(font2);

    horizontalLayout_4->addWidget(back);

    label_8 = new QLabel(groupBox_3);
    label_8->setObjectName(QStringLiteral("label_8"));
    label_8->setFont(font1);

    horizontalLayout_4->addWidget(label_8);


    gridLayout_4->addLayout(horizontalLayout_4, 0, 0,
            1, 1);


    gridLayout_2->addWidget(groupBox_3, 1, 0, 1, 1);

    TreatmentPlanDoc->setCentralWidget(centralwidget
            );

    retranslateUi(TreatmentPlanDoc);

    QMetaObject::connectSlotsByName(
            TreatmentPlanDoc);
} // setupUi

    void retranslateUi(QMainWindow *TreatmentPlanDoc)
    {
        TreatmentPlanDoc->setWindowTitle(QApplication::
                translate("TreatmentPlanDoc", "IoT-based
                Recommender System for Diabetic Patients",
                nullptr));
        groupBox->setTitle(QApplication::translate("
                TreatmentPlanDoc", "Recommended Treatment
                 Plan", nullptr));
        label_11->setText(QString());
        label_10->setText(QString());
        editPlan->setText(QApplication::translate("
                TreatmentPlanDoc", "Edit", nullptr));
        groupBox_2->setTitle(QApplication::translate("
                TreatmentPlanDoc", "Consultations:", nullptr))
                ;
        consult->setText(QApplication::translate("
                TreatmentPlanDoc", "View Messages", nullptr))
                ;
        label_2->setText(QString());
        label_3->setText(QString());
        Carbo->setText(QApplication::translate("
                TreatmentPlanDoc", "Insulin Regimen:",
                nullptr));
        label_4->setText(QApplication::translate("
                TreatmentPlanDoc", "Insulin Dosage: (units)",
                nullptr));
        label_9->setText(QApplication::translate("
                TreatmentPlanDoc", "Insulin Injection Schedule
                :", nullptr));
        Carbo_3->setText(QApplication::translate("
                TreatmentPlanDoc", "Testing Schedule:",
                nullptr));
        treatment_testingsched->setHtml(QApplication::
                translate("TreatmentPlanDoc", "<!DOCTYPE
                HTML PUBLIC \"-//W3C//DTD HTML
                4.0//EN\" \"http://www.w3.org/TR/REC-
                html40/strict.dtd\">\n"
"<html><head><meta name=\"qrichtext\" content=\"1\"
        /><style type=\"text/css\">\n"
"p, li { white-space: pre-wrap; }\n"
"</style></head><body style=\" font-family:'Segoe UI';
        font-size:10pt; font-weight:400; font-style:normal
        ;\">\n"
"<p style=\"-qt-paragraph-type:empty; margin-top:0px;
        margin-bottom:0px; margin-left:0px; margin-right:0
        px; -qt-block-indent:0; text-indent:0px; font-family
        :'MS Shell Dlg 2'; font-size:9pt;\"><br /></p></
        body></html>", nullptr));
          label->setText(QApplication::translate("
                TreatmentPlanDoc", "Titration:", nullptr));
          label_5->setText(QApplication::translate("
                TreatmentPlanDoc", "For hypoglycemia:",
                nullptr));
          label_6->setText(QApplication::translate("
                TreatmentPlanDoc", "Others:", nullptr));
          groupBox_3->setTitle(QString());
          label_7->setText(QString());
          back->setText(QApplication::translate("
                TreatmentPlanDoc", "Back", nullptr));
          label_8->setText(QString());
    } // retranslateUi

};

namespace Ui {
    class TreatmentPlanDoc: public Ui_TreatmentPlanDoc
            {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_TREATMENTPLANDOC_H

/********************************************************************************

** Form generated from reading UI file '
        treatmentplaneditconsult.ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
        recompiling UI file!
********************************************************************************


#ifndef UI_TREATMENTPLANEDITCONSULT_H
#define UI_TREATMENTPLANEDITCONSULT_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QFrame>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
```

```
#include <QtWidgets/QLabel>
#include <QtWidgets/QLineEdit>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QTextBrowser>
#include <QtWidgets/QVBoxLayout>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_TreatmentPlanEditConsult
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout_2;
    QGroupBox *groupBox;
    QGridLayout *gridLayout;
    QFrame *line;
    QHBoxLayout *horizontalLayout;
    QLabel *label_4;
    QLineEdit *treatment_insulin_dosage;
    QFrame *line_3;
    QHBoxLayout *horizontalLayout_6;
    QLabel *Carbo;
    QLineEdit *treatment_insulin_regimen;
    QFrame *line_2;
    QHBoxLayout *horizontalLayout_3;
    QVBoxLayout *verticalLayout_5;
    QLabel *label_9;
    QTextBrowser *treatment_injectsched;
    QFrame *line_7;
    QVBoxLayout *verticalLayout_2;
    QLabel *Carbo_3;
    QTextBrowser *treatment_testingsched;
    QFrame *line_6;
    QVBoxLayout *verticalLayout;
    QLabel *label;
    QTextBrowser *treatment_titration;
    QFrame *line_5;
    QHBoxLayout *horizontalLayout_2;
    QVBoxLayout *verticalLayout_3;
    QLabel *label_5;
    QTextBrowser *treatment_hypoglycemia;
    QFrame *line_8;
    QVBoxLayout *verticalLayout_4;
    QLabel *label_6;
    QTextBrowser *treatment_others;
    QFrame *line_4;
    QGroupBox *groupBox_3;
    QGridLayout *gridLayout_4;
    QHBoxLayout *horizontalLayout_4;
    QLabel *label_7;
    QPushButton *back;
    QPushButton *save;
    QLabel *label_8;

    void setupUi(QMainWindow *TreatmentPlanEditConsult)
    {
        if (TreatmentPlanEditConsult->objectName().
            isEmpty())
            TreatmentPlanEditConsult->setObjectName(
                QStringLiteral("TreatmentPlanEditConsult
                "));
        TreatmentPlanEditConsult->resize(800, 600);
        centralwidget = new QWidget(
            TreatmentPlanEditConsult);
        centralwidget->setObjectName(QStringLiteral("
            centralwidget"));
        gridLayout_2 = new QGridLayout(centralwidget);
        gridLayout_2->setObjectName(QStringLiteral("
            gridLayout_2"));
        groupBox = new QGroupBox(centralwidget);
        groupBox->setObjectName(QStringLiteral("
            groupBox"));
        QFont font;
        font.setFamily(QStringLiteral("Calibri"));
        font.setPointSize(15);
        font.setBold(true);
        font.setWeight(75);
        groupBox->setFont(font);
        gridLayout = new QGridLayout(groupBox);
        gridLayout->setObjectName(QStringLiteral("
            gridLayout"));
        line = new QFrame(groupBox);
        line->setObjectName(QStringLiteral("line"));
        QFont font1;
        font1.setFamily(QStringLiteral("Segoe UI"));
        font1.setPointSize(10);
        font1.setBold(false);
        font1.setWeight(50);
        line->setFont(font1);
        line->setFrameShape(QFrame::HLine);
        line->setFrameShadow(QFrame::Sunken);

        gridLayout->addWidget(line, 0, 0, 1, 1);

        horizontalLayout = new QHBoxLayout();
        horizontalLayout->setObjectName(QStringLiteral("
            horizontalLayout"));
        label_4 = new QLabel(groupBox);
        label_4->setObjectName(QStringLiteral("label_4"));
        QFont font2;
        font2.setFamily(QStringLiteral("Segoe UI Semibold")
            );
        font2.setPointSize(10);
        font2.setBold(false);
        font2.setWeight(50);
        label_4->setFont(font2);

        horizontalLayout->addWidget(label_4);

        treatment_insulin_dosage = new QLineEdit(groupBox)
            ;
        treatment_insulin_dosage->setObjectName(
            QStringLiteral("treatment_insulin_dosage"));
        treatment_insulin_dosage->setFont(font1);

        horizontalLayout->addWidget(
            treatment_insulin_dosage);


        gridLayout->addLayout(horizontalLayout, 3, 0, 1, 1);

        line_3 = new QFrame(groupBox);
        line_3->setObjectName(QStringLiteral("line_3"));
        line_3->setFont(font1);
        line_3->setFrameShape(QFrame::HLine);
        line_3->setFrameShadow(QFrame::Sunken);

        gridLayout->addWidget(line_3, 4, 0, 1, 1);

        horizontalLayout_6 = new QHBoxLayout();
        horizontalLayout_6->setObjectName(QStringLiteral
            ("horizontalLayout_6"));
        Carbo = new QLabel(groupBox);
        Carbo->setObjectName(QStringLiteral("Carbo"));
        Carbo->setFont(font2);

        horizontalLayout_6->addWidget(Carbo);

        treatment_insulin_regimen = new QLineEdit(groupBox
            );
        treatment_insulin_regimen->setObjectName(
            QStringLiteral("treatment_insulin_regimen"));
        treatment_insulin_regimen->setFont(font1);

        horizontalLayout_6->addWidget(
            treatment_insulin_regimen);


        gridLayout->addLayout(horizontalLayout_6, 1, 0, 1,
            1);

        line_2 = new QFrame(groupBox);
        line_2->setObjectName(QStringLiteral("line_2"));
        line_2->setFont(font1);
        line_2->setFrameShape(QFrame::HLine);
        line_2->setFrameShadow(QFrame::Sunken);

        gridLayout->addWidget(line_2, 2, 0, 1, 1);

        horizontalLayout_3 = new QHBoxLayout();
        horizontalLayout_3->setObjectName(QStringLiteral
            ("horizontalLayout_3"));
        verticalLayout_5 = new QVBoxLayout();
        verticalLayout_5->setObjectName(QStringLiteral("
            verticalLayout_5"));
        label_9 = new QLabel(groupBox);
        label_9->setObjectName(QStringLiteral("label_9"));
        label_9->setFont(font2);

        verticalLayout_5->addWidget(label_9);

        treatment_injectsched = new QTextBrowser(groupBox
            );
        treatment_injectsched->setObjectName(
            QStringLiteral("treatment_injectsched"));
        treatment_injectsched->setFont(font1);
        treatment_injectsched->setReadOnly(false);

        verticalLayout_5->addWidget(treatment_injectsched);


        horizontalLayout_3->addLayout(verticalLayout_5);

        line_7 = new QFrame(groupBox);
        line_7->setObjectName(QStringLiteral("line_7"));
        line_7->setFont(font1);
        line_7->setFrameShape(QFrame::VLine);
        line_7->setFrameShadow(QFrame::Sunken);

        horizontalLayout_3->addWidget(line_7);

        verticalLayout_2 = new QVBoxLayout();
        verticalLayout_2->setObjectName(QStringLiteral("
            verticalLayout_2"));
        Carbo_3 = new QLabel(groupBox);
        Carbo_3->setObjectName(QStringLiteral("Carbo_3")
```

```
        );
Carbo_3->setFont(font2);

verticalLayout_2->addWidget(Carbo_3);

treatment_testingsched = new QTextBrowser(
        groupBox);
treatment_testingsched->setObjectName(
        QStringLiteral("treatment_testingsched"));
treatment_testingsched->setFont(font1);
treatment_testingsched->setReadOnly(false);

verticalLayout_2->addWidget(treatment_testingsched
        );


horizontalLayout_3->addLayout(verticalLayout_2);


gridLayout->addLayout(horizontalLayout_3, 5, 0, 1,
        1);

line_6 = new QFrame(groupBox);
line_6->setObjectName(QStringLiteral("line_6"));
line_6->setFont(font1);
line_6->setFrameShape(QFrame::HLine);
line_6->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_6, 6, 0, 1, 1);

verticalLayout = new QVBoxLayout();
verticalLayout->setObjectName(QStringLiteral("
        verticalLayout"));
label = new QLabel(groupBox);
label->setObjectName(QStringLiteral("label"));
label->setFont(font2);

verticalLayout->addWidget(label);

treatment_titration = new QTextBrowser(groupBox);
treatment_titration->setObjectName(QStringLiteral
        ("treatment_titration"));
treatment_titration->setFont(font1);
treatment_titration->setReadOnly(false);

verticalLayout->addWidget(treatment_titration);


gridLayout->addLayout(verticalLayout, 7, 0, 1, 1);

line_5 = new QFrame(groupBox);
line_5->setObjectName(QStringLiteral("line_5"));
line_5->setFont(font1);
line_5->setFrameShape(QFrame::HLine);
line_5->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_5, 8, 0, 1, 1);

horizontalLayout_2 = new QHBoxLayout();
horizontalLayout_2->setObjectName(QStringLiteral
        ("horizontalLayout_2"));
verticalLayout_3 = new QVBoxLayout();
verticalLayout_3->setObjectName(QStringLiteral("
        verticalLayout_3"));
label_5 = new QLabel(groupBox);
label_5->setObjectName(QStringLiteral("label_5"));
label_5->setFont(font2);

verticalLayout_3->addWidget(label_5);

treatment_hypoglycemia = new QTextBrowser(
        groupBox);
treatment_hypoglycemia->setObjectName(
        QStringLiteral("treatment_hypoglycemia"));
treatment_hypoglycemia->setFont(font1);
treatment_hypoglycemia->setReadOnly(false);

verticalLayout_3->addWidget(
        treatment_hypoglycemia);


horizontalLayout_2->addLayout(verticalLayout_3);

line_8 = new QFrame(groupBox);
line_8->setObjectName(QStringLiteral("line_8"));
line_8->setFont(font1);
line_8->setFrameShape(QFrame::VLine);
line_8->setFrameShadow(QFrame::Sunken);

horizontalLayout_2->addWidget(line_8);

verticalLayout_4 = new QVBoxLayout();
verticalLayout_4->setObjectName(QStringLiteral("
        verticalLayout_4"));
label_6 = new QLabel(groupBox);
label_6->setObjectName(QStringLiteral("label_6"));
label_6->setFont(font2);

verticalLayout_4->addWidget(label_6);

treatment_others = new QTextBrowser(groupBox);
treatment_others->setObjectName(QStringLiteral("
        treatment_others"));
treatment_others->setFont(font1);
treatment_others->setReadOnly(false);

verticalLayout_4->addWidget(treatment_others);


horizontalLayout_2->addLayout(verticalLayout_4);


gridLayout->addLayout(horizontalLayout_2, 9, 0, 1,
        1);

line_4 = new QFrame(groupBox);
line_4->setObjectName(QStringLiteral("line_4"));
line_4->setFont(font1);
line_4->setFrameShape(QFrame::HLine);
line_4->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_4, 10, 0, 1, 1);


gridLayout_2->addWidget(groupBox, 0, 0, 1, 1);

groupBox_3 = new QGroupBox(centralwidget);
groupBox_3->setObjectName(QStringLiteral("
        groupBox_3"));
groupBox_3->setFont(font1);
gridLayout_4 = new QGridLayout(groupBox_3);
gridLayout_4->setObjectName(QStringLiteral("
        gridLayout_4"));
horizontalLayout_4 = new QHBoxLayout();
horizontalLayout_4->setObjectName(QStringLiteral
        ("horizontalLayout_4"));
label_7 = new QLabel(groupBox_3);
label_7->setObjectName(QStringLiteral("label_7"));
label_7->setFont(font1);

horizontalLayout_4->addWidget(label_7);

back = new QPushButton(groupBox_3);
back->setObjectName(QStringLiteral("back"));
QFont font3;
font3.setFamily(QStringLiteral("Segoe UI"));
font3.setPointSize(11);
font3.setBold(true);
font3.setWeight(75);
back->setFont(font3);

horizontalLayout_4->addWidget(back);

save = new QPushButton(groupBox_3);
save->setObjectName(QStringLiteral("save"));
save->setFont(font3);

horizontalLayout_4->addWidget(save);

label_8 = new QLabel(groupBox_3);
label_8->setObjectName(QStringLiteral("label_8"));
label_8->setFont(font1);

horizontalLayout_4->addWidget(label_8);


gridLayout_4->addLayout(horizontalLayout_4, 0, 0,
        1, 1);


gridLayout_2->addWidget(groupBox_3, 1, 0, 1, 1);

TreatmentPlanEditConsult->setCentralWidget(
        centralwidget);

retranslateUi(TreatmentPlanEditConsult);

QMetaObject::connectSlotsByName(
        TreatmentPlanEditConsult);
} // setupUi

void retranslateUi(QMainWindow *
      TreatmentPlanEditConsult)
{
    TreatmentPlanEditConsult->setWindowTitle(
            QApplication::translate("
            TreatmentPlanEditConsult", "IoT-based
            Recommender System for Diabetic Patients",
            nullptr));
    groupBox->setTitle(QApplication::translate("
            TreatmentPlanEditConsult", "Edit
            Recommended Treatment Plan", nullptr));
    label_4->setText(QApplication::translate("
            TreatmentPlanEditConsult", "Insulin Dosage: (
            units)", nullptr));
    Carbo->setText(QApplication::translate("
            TreatmentPlanEditConsult", "Insulin Regimen
            :", nullptr));
```

```
        label_9->setText(QApplication::translate("
            TreatmentPlanEditConsult", "Insulin Injection
            Schedule:", nullptr));
        Carbo_3->setText(QApplication::translate("
            TreatmentPlanEditConsult", "Testing Schedule
            :", nullptr));
        treatment_testingsched->setHtml(QApplication::
            translate("TreatmentPlanEditConsult", "<!
            DOCTYPE HTML PUBLIC \"-//W3C//DTD
            HTML 4.0//EN\" \"http://www.w3.org/TR/
            REC-html40/strict.dtd\">\n"
"<html><head><meta name=\"qrichtext\" content=\"1\"
    /><style type=\"text/css\">\n"
"p, li { white-space: pre-wrap; }\n"
"</style></head><body style=\" font-family:'Segoe UI';
    font-size:10pt; font-weight:400; font-style:normal
    ;\">\n"
"<p style=\"-qt-paragraph-type:empty; margin-top:0px;
    margin-bottom:0px; margin-left:0px; margin-right:0
    px; -qt-block-indent:0; text-indent:0px; font-family
    :'MS Shell Dlg 2'; font-size:9pt;\"><br /></p></
    body></html>", nullptr));
        label->setText(QApplication::translate("
            TreatmentPlanEditConsult", "Titration:",
            nullptr));
        label_5->setText(QApplication::translate("
            TreatmentPlanEditConsult", "For hypoglycemia
            :", nullptr));
        label_6->setText(QApplication::translate("
            TreatmentPlanEditConsult", "Others:", nullptr)
            );
        groupBox_3->setTitle(QString());
        label_7->setText(QString());
        back->setText(QApplication::translate("
            TreatmentPlanEditConsult", "Back", nullptr));
        save->setText(QApplication::translate("
            TreatmentPlanEditConsult", "Save", nullptr));
        label_8->setText(QString());
    } // retranslateUi

};

namespace Ui {
    class TreatmentPlanEditConsult: public
        Ui_TreatmentPlanEditConsult {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_TREATMENTPLANEDITCONSULT_H

/********************************************************************************
** Form generated from reading UI file 'treatmentplaneditdoc.
    ui'
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
    recompiling UI file!
********************************************************************************/


#ifndef UI_TREATMENTPLANEDITDOC_H
#define UI_TREATMENTPLANEDITDOC_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QFrame>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QLineEdit>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QTextBrowser>
#include <QtWidgets/QVBoxLayout>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_TreatmentPlanEditDoc
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout_2;
    QGroupBox *groupBox;
    QGridLayout *gridLayout;
    QFrame *line;
    QHBoxLayout *horizontalLayout;
    QLabel *label_4;
    QLineEdit *treatment_insulin_dosage;
    QFrame *line_3;
    QHBoxLayout *horizontalLayout_6;
    QLabel *Carbo;
    QLineEdit *treatment_insulin_regimen;
    QFrame *line_2;
    QHBoxLayout *horizontalLayout_3;
    QVBoxLayout *verticalLayout_5;
    QLabel *label_9;
    QTextBrowser *treatment_injectsched;
    QFrame *line_7;
    QVBoxLayout *verticalLayout_2;
    QLabel *Carbo_3;
    QTextBrowser *treatment_testingsched;
    QFrame *line_6;
    QVBoxLayout *verticalLayout;
    QLabel *label;
    QTextBrowser *treatment_titration;
    QFrame *line_5;
    QHBoxLayout *horizontalLayout_2;
    QVBoxLayout *verticalLayout_3;
    QLabel *label_5;
    QTextBrowser *treatment_hypoglycemia;
    QFrame *line_8;
    QVBoxLayout *verticalLayout_4;
    QLabel *label_6;
    QTextBrowser *treatment_others;
    QFrame *line_4;
    QGroupBox *groupBox_3;
    QGridLayout *gridLayout_4;
    QHBoxLayout *horizontalLayout_4;
    QLabel *label_7;
    QPushButton *back;
    QPushButton *save;
    QLabel *label_8;

    void setupUi(QMainWindow *TreatmentPlanEditDoc)
    {
        if (TreatmentPlanEditDoc->objectName().isEmpty
            ())
            TreatmentPlanEditDoc->setObjectName(
                QStringLiteral("TreatmentPlanEditDoc"));
        TreatmentPlanEditDoc->resize(800, 600);
        centralwidget = new QWidget(TreatmentPlanEditDoc
            );
        centralwidget->setObjectName(QStringLiteral("
            centralwidget"));
        gridLayout_2 = new QGridLayout(centralwidget);
        gridLayout_2->setObjectName(QStringLiteral("
            gridLayout_2"));
        groupBox = new QGroupBox(centralwidget);
        groupBox->setObjectName(QStringLiteral("
            groupBox"));
        QFont font;
        font.setFamily(QStringLiteral("Calibri"));
        font.setPointSize(15);
        font.setBold(true);
        font.setWeight(75);
        groupBox->setFont(font);
        gridLayout = new QGridLayout(groupBox);
        gridLayout->setObjectName(QStringLiteral("
            gridLayout"));
        line = new QFrame(groupBox);
        line->setObjectName(QStringLiteral("line"));
        QFont font1;
        font1.setFamily(QStringLiteral("Segoe UI"));
        font1.setPointSize(10);
        font1.setBold(false);
        font1.setWeight(50);
        line->setFont(font1);
        line->setFrameShape(QFrame::HLine);
        line->setFrameShadow(QFrame::Sunken);

        gridLayout->addWidget(line, 0, 0, 1, 1);

        horizontalLayout = new QHBoxLayout();
        horizontalLayout->setObjectName(QStringLiteral("
            horizontalLayout"));
        label_4 = new QLabel(groupBox);
        label_4->setObjectName(QStringLiteral("label_4"));
        QFont font2;
        font2.setFamily(QStringLiteral("Segoe UI Semibold")
            );
        font2.setPointSize(10);
        font2.setBold(false);
        font2.setWeight(50);
        label_4->setFont(font2);

        horizontalLayout->addWidget(label_4);

        treatment_insulin_dosage = new QLineEdit(groupBox)
            ;
        treatment_insulin_dosage->setObjectName(
            QStringLiteral("treatment_insulin_dosage"));
        treatment_insulin_dosage->setFont(font1);

        horizontalLayout->addWidget(
            treatment_insulin_dosage);


        gridLayout->addLayout(horizontalLayout, 3, 0, 1, 1);

        line_3 = new QFrame(groupBox);
```

```
line_3->setObjectName(QStringLiteral("line_3"));
line_3->setFont(font1);
line_3->setFrameShape(QFrame::HLine);
line_3->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_3, 4, 0, 1, 1);

horizontalLayout_6 = new QHBoxLayout();
horizontalLayout_6->setObjectName(QStringLiteral
        ("horizontalLayout_6"));
Carbo = new QLabel(groupBox);
Carbo->setObjectName(QStringLiteral("Carbo"));
Carbo->setFont(font2);

horizontalLayout_6->addWidget(Carbo);

treatment_insulin_regimen = new QLineEdit(groupBox
        );
treatment_insulin_regimen->setObjectName(
        QStringLiteral("treatment_insulin_regimen"));
treatment_insulin_regimen->setFont(font1);

horizontalLayout_6->addWidget(
        treatment_insulin_regimen);


gridLayout->addLayout(horizontalLayout_6, 1, 0, 1,
        1);

line_2 = new QFrame(groupBox);
line_2->setObjectName(QStringLiteral("line_2"));
line_2->setFont(font1);
line_2->setFrameShape(QFrame::HLine);
line_2->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_2, 2, 0, 1, 1);

horizontalLayout_3 = new QHBoxLayout();
horizontalLayout_3->setObjectName(QStringLiteral
        ("horizontalLayout_3"));
verticalLayout_5 = new QVBoxLayout();
verticalLayout_5->setObjectName(QStringLiteral("
        verticalLayout_5"));
label_9 = new QLabel(groupBox);
label_9->setObjectName(QStringLiteral("label_9"));
label_9->setFont(font2);

verticalLayout_5->addWidget(label_9);

treatment_injectsched = new QTextBrowser(groupBox
        );
treatment_injectsched->setObjectName(
        QStringLiteral("treatment_injectsched"));
treatment_injectsched->setFont(font1);
treatment_injectsched->setReadOnly(false);

verticalLayout_5->addWidget(treatment_injectsched);


horizontalLayout_3->addLayout(verticalLayout_5);

line_7 = new QFrame(groupBox);
line_7->setObjectName(QStringLiteral("line_7"));
line_7->setFont(font1);
line_7->setFrameShape(QFrame::VLine);
line_7->setFrameShadow(QFrame::Sunken);

horizontalLayout_3->addWidget(line_7);

verticalLayout_2 = new QVBoxLayout();
verticalLayout_2->setObjectName(QStringLiteral("
        verticalLayout_2"));
Carbo_3 = new QLabel(groupBox);
Carbo_3->setObjectName(QStringLiteral("Carbo_3")
        );
Carbo_3->setFont(font2);

verticalLayout_2->addWidget(Carbo_3);

treatment_testingsched = new QTextBrowser(
        groupBox);
treatment_testingsched->setObjectName(
        QStringLiteral("treatment_testingsched"));
treatment_testingsched->setFont(font1);
treatment_testingsched->setReadOnly(false);

verticalLayout_2->addWidget(treatment_testingsched
        );


horizontalLayout_3->addLayout(verticalLayout_2);


gridLayout->addLayout(horizontalLayout_3, 5, 0, 1,
        1);

line_6 = new QFrame(groupBox);
line_6->setObjectName(QStringLiteral("line_6"));
line_6->setFont(font1);
line_6->setFrameShape(QFrame::HLine);
line_6->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_6, 6, 0, 1, 1);

verticalLayout = new QVBoxLayout();
verticalLayout->setObjectName(QStringLiteral("
        verticalLayout"));
label = new QLabel(groupBox);
label->setObjectName(QStringLiteral("label"));
label->setFont(font2);

verticalLayout->addWidget(label);

treatment_titration = new QTextBrowser(groupBox);
treatment_titration->setObjectName(QStringLiteral
        ("treatment_titration"));
treatment_titration->setFont(font1);
treatment_titration->setReadOnly(false);

verticalLayout->addWidget(treatment_titration);


gridLayout->addLayout(verticalLayout, 7, 0, 1, 1);

line_5 = new QFrame(groupBox);
line_5->setObjectName(QStringLiteral("line_5"));
line_5->setFont(font1);
line_5->setFrameShape(QFrame::HLine);
line_5->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_5, 8, 0, 1, 1);

horizontalLayout_2 = new QHBoxLayout();
horizontalLayout_2->setObjectName(QStringLiteral
        ("horizontalLayout_2"));
verticalLayout_3 = new QVBoxLayout();
verticalLayout_3->setObjectName(QStringLiteral("
        verticalLayout_3"));
label_5 = new QLabel(groupBox);
label_5->setObjectName(QStringLiteral("label_5"));
label_5->setFont(font2);

verticalLayout_3->addWidget(label_5);

treatment_hypoglycemia = new QTextBrowser(
        groupBox);
treatment_hypoglycemia->setObjectName(
        QStringLiteral("treatment_hypoglycemia"));
treatment_hypoglycemia->setFont(font1);
treatment_hypoglycemia->setReadOnly(false);

verticalLayout_3->addWidget(
        treatment_hypoglycemia);


horizontalLayout_2->addLayout(verticalLayout_3);

line_8 = new QFrame(groupBox);
line_8->setObjectName(QStringLiteral("line_8"));
line_8->setFont(font1);
line_8->setFrameShape(QFrame::VLine);
line_8->setFrameShadow(QFrame::Sunken);

horizontalLayout_2->addWidget(line_8);

verticalLayout_4 = new QVBoxLayout();
verticalLayout_4->setObjectName(QStringLiteral("
        verticalLayout_4"));
label_6 = new QLabel(groupBox);
label_6->setObjectName(QStringLiteral("label_6"));
label_6->setFont(font2);

verticalLayout_4->addWidget(label_6);

treatment_others = new QTextBrowser(groupBox);
treatment_others->setObjectName(QStringLiteral("
        treatment_others"));
treatment_others->setFont(font1);
treatment_others->setReadOnly(false);

verticalLayout_4->addWidget(treatment_others);


horizontalLayout_2->addLayout(verticalLayout_4);


gridLayout->addLayout(horizontalLayout_2, 9, 0, 1,
        1);

line_4 = new QFrame(groupBox);
line_4->setObjectName(QStringLiteral("line_4"));
line_4->setFont(font1);
line_4->setFrameShape(QFrame::HLine);
line_4->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_4, 10, 0, 1, 1);
```

```
        gridLayout_2->addWidget(groupBox, 0, 0, 1, 1);

        groupBox_3 = new QGroupBox(centralwidget);
        groupBox_3->setObjectName(QStringLiteral("
            groupBox_3"));
        groupBox_3->setFont(font1);
        gridLayout_4 = new QGridLayout(groupBox_3);
        gridLayout_4->setObjectName(QStringLiteral("
            gridLayout_4"));
        horizontalLayout_4 = new QHBoxLayout();
        horizontalLayout_4->setObjectName(QStringLiteral
            ("horizontalLayout_4"));
        label_7 = new QLabel(groupBox_3);
        label_7->setObjectName(QStringLiteral("label_7"));
        label_7->setFont(font1);

        horizontalLayout_4->addWidget(label_7);

        back = new QPushButton(groupBox_3);
        back->setObjectName(QStringLiteral("back"));
        QFont font3;
        font3.setFamily(QStringLiteral("Segoe UI"));
        font3.setPointSize(11);
        font3.setBold(true);
        font3.setWeight(75);
        back->setFont(font3);

        horizontalLayout_4->addWidget(back);

        save = new QPushButton(groupBox_3);
        save->setObjectName(QStringLiteral("save"));
        save->setFont(font3);

        horizontalLayout_4->addWidget(save);

        label_8 = new QLabel(groupBox_3);
        label_8->setObjectName(QStringLiteral("label_8"));
        label_8->setFont(font1);

        horizontalLayout_4->addWidget(label_8);


        gridLayout_4->addLayout(horizontalLayout_4, 0, 0,
            1, 1);


        gridLayout_2->addWidget(groupBox_3, 1, 0, 1, 1);

        TreatmentPlanEditDoc->setCentralWidget(
            centralwidget);
        QWidget::setTabOrder(treatment_insulin_regimen,
            treatment_insulin_dosage);
        QWidget::setTabOrder(treatment_insulin_dosage,
            treatment_injectsched);
        QWidget::setTabOrder(treatment_injectsched,
            treatment_testingsched);
        QWidget::setTabOrder(treatment_testingsched,
            treatment_titration);
        QWidget::setTabOrder(treatment_titration,
            treatment_hypoglycemia);
        QWidget::setTabOrder(treatment_hypoglycemia,
            treatment_others);
        QWidget::setTabOrder(treatment_others, back);
        QWidget::setTabOrder(back, save);

        retranslateUi(TreatmentPlanEditDoc);

        QMetaObject::connectSlotsByName(
            TreatmentPlanEditDoc);
    } // setupUi

    void retranslateUi(QMainWindow *
        TreatmentPlanEditDoc)
    {
        TreatmentPlanEditDoc->setWindowTitle(
            QApplication::translate("TreatmentPlanEditDoc
            ", "IoT-based Recommender System for
            Diabetic Patients", nullptr));
        groupBox->setTitle(QApplication::translate("
            TreatmentPlanEditDoc", "Edit Recommended
            Treatment Plan", nullptr));
        label_4->setText(QApplication::translate("
            TreatmentPlanEditDoc", "Insulin Dosage: (
            units)", nullptr));
        Carbo->setText(QApplication::translate("
            TreatmentPlanEditDoc", "Insulin Regimen:",
            nullptr));
        label_9->setText(QApplication::translate("
            TreatmentPlanEditDoc", "Insulin Injection
            Schedule:", nullptr));
        Carbo_3->setText(QApplication::translate("
            TreatmentPlanEditDoc", "Testing Schedule:",
            nullptr));
        treatment_testingsched->setHtml(QApplication::
            translate("TreatmentPlanEditDoc", "<!
            DOCTYPE HTML PUBLIC \"-//W3C//DTD
            HTML 4.0//EN\" \"http://www.w3.org/TR/
            REC-html40/strict.dtd\">\n"
"<html><head><meta name=\"qrichtext\" content=\"1\"
        />style type=\"text/css\">\n"
"p, li { white-space: pre-wrap; }\n"
"</style></head><body style=\" font-family:'Segoe UI';
        font-size:10pt; font-weight:400; font-style:normal
        ;\">\n"
"<p style=\"-qt-paragraph-type:empty; margin-top:0px;
        margin-bottom:0px; margin-left:0px; margin-right:0
        px; -qt-block-indent:0; text-indent:0px; font-family
        :'MS Shell Dlg 2'; font-size:9pt;\"><br /></p></
        body></html>", nullptr));
        label->setText(QApplication::translate("
            TreatmentPlanEditDoc", "Titration:", nullptr));
        label_5->setText(QApplication::translate("
            TreatmentPlanEditDoc", "For hypoglycemia:",
            nullptr));
        label_6->setText(QApplication::translate("
            TreatmentPlanEditDoc", "Others:", nullptr));
        groupBox_3->setTitle(QString());
        label_7->setText(QString());
        back->setText(QApplication::translate("
            TreatmentPlanEditDoc", "Back", nullptr));
        save->setText(QApplication::translate("
            TreatmentPlanEditDoc", "Save", nullptr));
        label_8->setText(QString());
    } // retranslateUi

};

namespace Ui {
    class TreatmentPlanEditDoc: public
        Ui_TreatmentPlanEditDoc {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_TREATMENTPLANEDITDOC_H

/********************************************************************************

** Form generated from reading UI file 'treatmentplannurse.ui
        '
**
** Created by: Qt User Interface Compiler version 5.10.0
**
** WARNING! All changes made in this file will be lost when
        recompiling UI file!
********************************************************************************


#ifndef UI_TREATMENTPLANNURSE_H
#define UI_TREATMENTPLANNURSE_H

#include <QtCore/QVariant>
#include <QtWidgets/QAction>
#include <QtWidgets/QApplication>
#include <QtWidgets/QButtonGroup>
#include <QtWidgets/QFrame>
#include <QtWidgets/QGridLayout>
#include <QtWidgets/QGroupBox>
#include <QtWidgets/QHBoxLayout>
#include <QtWidgets/QHeaderView>
#include <QtWidgets/QLabel>
#include <QtWidgets/QLineEdit>
#include <QtWidgets/QMainWindow>
#include <QtWidgets/QPushButton>
#include <QtWidgets/QTextBrowser>
#include <QtWidgets/QVBoxLayout>
#include <QtWidgets/QWidget>

QT_BEGIN_NAMESPACE

class Ui_TreatmentPlanNurse
{
public:
    QWidget *centralwidget;
    QGridLayout *gridLayout_2;
    QGroupBox *groupBox_3;
    QGridLayout *gridLayout_4;
    QHBoxLayout *horizontalLayout_4;
    QLabel *label_7;
    QPushButton *back;
    QLabel *label_8;
    QGroupBox *groupBox;
    QGridLayout *gridLayout;
    QGroupBox *groupBox_2;
    QGridLayout *gridLayout_3;
    QPushButton *consult;
    QLabel *label_2;
    QLabel *label_3;
    QFrame *line;
    QHBoxLayout *horizontalLayout_6;
    QLabel *Carbo;
    QLineEdit *treatment_insulin_regimen;
    QFrame *line_2;
    QHBoxLayout *horizontalLayout;
    QLabel *label_4;
    QLineEdit *treatment_insulin_dosage;
    QFrame *line_3;
    QHBoxLayout *horizontalLayout_3;
```

```
QVBoxLayout *verticalLayout_5;
QLabel *label_9;
QTextBrowser *treatment_injectsched;
QFrame *line_7;
QVBoxLayout *verticalLayout_2;
QLabel *Carbo_3;
QTextBrowser *treatment_testingsched;
QFrame *line_6;
QVBoxLayout *verticalLayout;
QLabel *label;
QTextBrowser *treatment_titration;
QFrame *line_5;
QHBoxLayout *horizontalLayout_2;
QVBoxLayout *verticalLayout_3;
QLabel *label_5;
QTextBrowser *treatment_hypoglycemia;
QFrame *line_8;
QVBoxLayout *verticalLayout_4;
QLabel *label_6;
QTextBrowser *treatment_others;
QFrame *line_4;

void setupUi(QMainWindow *TreatmentPlanNurse)
{
    if (TreatmentPlanNurse->objectName().isEmpty())
        TreatmentPlanNurse->setObjectName(
            QStringLiteral("TreatmentPlanNurse"));
    TreatmentPlanNurse->resize(800, 637);
    QFont font;
    font.setFamily(QStringLiteral("Arial"));
    font.setPointSize(10);
    TreatmentPlanNurse->setFont(font);
    centralwidget = new QWidget(TreatmentPlanNurse);
    centralwidget->setObjectName(QStringLiteral("
        centralwidget"));
    gridLayout_2 = new QGridLayout(centralwidget);
    gridLayout_2->setObjectName(QStringLiteral("
        gridLayout_2"));
    groupBox_3 = new QGroupBox(centralwidget);
    groupBox_3->setObjectName(QStringLiteral("
        groupBox_3"));
    QFont font1;
    font1.setFamily(QStringLiteral("Segoe UI"));
    font1.setBold(false);
    font1.setWeight(50);
    groupBox_3->setFont(font1);
    gridLayout_4 = new QGridLayout(groupBox_3);
    gridLayout_4->setObjectName(QStringLiteral("
        gridLayout_4"));
    horizontalLayout_4 = new QHBoxLayout();
    horizontalLayout_4->setObjectName(QStringLiteral
        ("horizontalLayout_4"));
    label_7 = new QLabel(groupBox_3);
    label_7->setObjectName(QStringLiteral("label_7"));
    label_7->setFont(font1);

    horizontalLayout_4->addWidget(label_7);

    back = new QPushButton(groupBox_3);
    back->setObjectName(QStringLiteral("back"));
    QFont font2;
    font2.setFamily(QStringLiteral("Segoe UI"));
    font2.setPointSize(11);
    font2.setBold(true);
    font2.setWeight(75);
    back->setFont(font2);

    horizontalLayout_4->addWidget(back);

    label_8 = new QLabel(groupBox_3);
    label_8->setObjectName(QStringLiteral("label_8"));
    label_8->setFont(font1);

    horizontalLayout_4->addWidget(label_8);


    gridLayout_4->addLayout(horizontalLayout_4, 0, 0,
        1, 1);


    gridLayout_2->addWidget(groupBox_3, 1, 0, 1, 1);

    groupBox = new QGroupBox(centralwidget);
    groupBox->setObjectName(QStringLiteral("
        groupBox"));
    QFont font3;
    font3.setFamily(QStringLiteral("Calibri"));
    font3.setPointSize(15);
    font3.setBold(true);
    font3.setWeight(75);
    groupBox->setFont(font3);
    gridLayout = new QGridLayout(groupBox);
    gridLayout->setObjectName(QStringLiteral("
        gridLayout"));
    groupBox_2 = new QGroupBox(groupBox);
    groupBox_2->setObjectName(QStringLiteral("
        groupBox_2"));
    QFont font4;
    font4.setFamily(QStringLiteral("Segoe UI"));
    font4.setPointSize(10);
    font4.setBold(false);
    font4.setWeight(50);
    groupBox_2->setFont(font4);
    gridLayout_3 = new QGridLayout(groupBox_2);
    gridLayout_3->setObjectName(QStringLiteral("
        gridLayout_3"));
    consult = new QPushButton(groupBox_2);
    consult->setObjectName(QStringLiteral("consult"));
    consult->setFont(font2);

    gridLayout_3->addWidget(consult, 0, 1, 1, 1);

    label_2 = new QLabel(groupBox_2);
    label_2->setObjectName(QStringLiteral("label_2"));
    label_2->setFont(font1);

    gridLayout_3->addWidget(label_2, 0, 0, 1, 1);

    label_3 = new QLabel(groupBox_2);
    label_3->setObjectName(QStringLiteral("label_3"));
    label_3->setFont(font1);

    gridLayout_3->addWidget(label_3, 0, 2, 1, 1);


    gridLayout->addWidget(groupBox_2, 0, 0, 1, 1);

    line = new QFrame(groupBox);
    line->setObjectName(QStringLiteral("line"));
    line->setFont(font1);
    line->setFrameShape(QFrame::HLine);
    line->setFrameShadow(QFrame::Sunken);

    gridLayout->addWidget(line, 1, 0, 1, 1);

    horizontalLayout_6 = new QHBoxLayout();
    horizontalLayout_6->setObjectName(QStringLiteral
        ("horizontalLayout_6"));
    Carbo = new QLabel(groupBox);
    Carbo->setObjectName(QStringLiteral("Carbo"));
    QFont font5;
    font5.setFamily(QStringLiteral("Segoe UI Semibold")
        );
    font5.setPointSize(10);
    font5.setBold(false);
    font5.setWeight(50);
    Carbo->setFont(font5);

    horizontalLayout_6->addWidget(Carbo);

    treatment_insulin_regimen = new QLineEdit(groupBox
        );
    treatment_insulin_regimen->setObjectName(
        QStringLiteral("treatment_insulin_regimen"));
    treatment_insulin_regimen->setFont(font4);

    horizontalLayout_6->addWidget(
        treatment_insulin_regimen);


    gridLayout->addLayout(horizontalLayout_6, 2, 0, 1,
        1);

    line_2 = new QFrame(groupBox);
    line_2->setObjectName(QStringLiteral("line_2"));
    line_2->setFont(font1);
    line_2->setFrameShape(QFrame::HLine);
    line_2->setFrameShadow(QFrame::Sunken);

    gridLayout->addWidget(line_2, 3, 0, 1, 1);

    horizontalLayout = new QHBoxLayout();
    horizontalLayout->setObjectName(QStringLiteral("
        horizontalLayout"));
    label_4 = new QLabel(groupBox);
    label_4->setObjectName(QStringLiteral("label_4"));
    label_4->setFont(font5);

    horizontalLayout->addWidget(label_4);

    treatment_insulin_dosage = new QLineEdit(groupBox)
        ;
    treatment_insulin_dosage->setObjectName(
        QStringLiteral("treatment_insulin_dosage"));
    treatment_insulin_dosage->setFont(font4);

    horizontalLayout->addWidget(
        treatment_insulin_dosage);


    gridLayout->addLayout(horizontalLayout, 4, 0, 1, 1);

    line_3 = new QFrame(groupBox);
    line_3->setObjectName(QStringLiteral("line_3"));
    line_3->setFont(font1);
    line_3->setFrameShape(QFrame::HLine);
    line_3->setFrameShadow(QFrame::Sunken);
```

```
gridLayout->addWidget(line_3, 5, 0, 1, 1);

horizontalLayout_3 = new QHBoxLayout();
horizontalLayout_3->setObjectName(QStringLiteral
        ("horizontalLayout_3"));
verticalLayout_5 = new QVBoxLayout();
verticalLayout_5->setObjectName(QStringLiteral("
        verticalLayout_5"));
label_9 = new QLabel(groupBox);
label_9->setObjectName(QStringLiteral("label_9"));
label_9->setFont(font5);

verticalLayout_5->addWidget(label_9);

treatment_injectsched = new QTextBrowser(groupBox
        );
treatment_injectsched->setObjectName(
        QStringLiteral("treatment_injectsched"));
treatment_injectsched->setFont(font4);

verticalLayout_5->addWidget(treatment_injectsched);


horizontalLayout_3->addLayout(verticalLayout_5);

line_7 = new QFrame(groupBox);
line_7->setObjectName(QStringLiteral("line_7"));
line_7->setFont(font1);
line_7->setFrameShape(QFrame::VLine);
line_7->setFrameShadow(QFrame::Sunken);

horizontalLayout_3->addWidget(line_7);

verticalLayout_2 = new QVBoxLayout();
verticalLayout_2->setObjectName(QStringLiteral("
        verticalLayout_2"));
Carbo_3 = new QLabel(groupBox);
Carbo_3->setObjectName(QStringLiteral("Carbo_3")
        );
Carbo_3->setFont(font5);

verticalLayout_2->addWidget(Carbo_3);

treatment_testingsched = new QTextBrowser(
        groupBox);
treatment_testingsched->setObjectName(
        QStringLiteral("treatment_testingsched"));
treatment_testingsched->setFont(font4);

verticalLayout_2->addWidget(treatment_testingsched
        );


horizontalLayout_3->addLayout(verticalLayout_2);


gridLayout->addLayout(horizontalLayout_3, 6, 0, 1,
        1);

line_6 = new QFrame(groupBox);
line_6->setObjectName(QStringLiteral("line_6"));
line_6->setFont(font1);
line_6->setFrameShape(QFrame::HLine);
line_6->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_6, 7, 0, 1, 1);

verticalLayout = new QVBoxLayout();
verticalLayout->setObjectName(QStringLiteral("
        verticalLayout"));
label = new QLabel(groupBox);
label->setObjectName(QStringLiteral("label"));
label->setFont(font5);

verticalLayout->addWidget(label);

treatment_titration = new QTextBrowser(groupBox);
treatment_titration->setObjectName(QStringLiteral
        ("treatment_titration"));
treatment_titration->setFont(font4);

verticalLayout->addWidget(treatment_titration);


gridLayout->addLayout(verticalLayout, 8, 0, 1, 1);

line_5 = new QFrame(groupBox);
line_5->setObjectName(QStringLiteral("line_5"));
line_5->setFont(font1);
line_5->setFrameShape(QFrame::HLine);
line_5->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_5, 9, 0, 1, 1);

horizontalLayout_2 = new QHBoxLayout();
horizontalLayout_2->setObjectName(QStringLiteral
        ("horizontalLayout_2"));
verticalLayout_3 = new QVBoxLayout();
verticalLayout_3->setObjectName(QStringLiteral("
        verticalLayout_3"));
label_5 = new QLabel(groupBox);
label_5->setObjectName(QStringLiteral("label_5"));
label_5->setFont(font5);

verticalLayout_3->addWidget(label_5);

treatment_hypoglycemia = new QTextBrowser(
        groupBox);
treatment_hypoglycemia->setObjectName(
        QStringLiteral("treatment_hypoglycemia"));
treatment_hypoglycemia->setFont(font4);

verticalLayout_3->addWidget(
        treatment_hypoglycemia);


horizontalLayout_2->addLayout(verticalLayout_3);

line_8 = new QFrame(groupBox);
line_8->setObjectName(QStringLiteral("line_8"));
line_8->setFont(font1);
line_8->setFrameShape(QFrame::VLine);
line_8->setFrameShadow(QFrame::Sunken);

horizontalLayout_2->addWidget(line_8);

verticalLayout_4 = new QVBoxLayout();
verticalLayout_4->setObjectName(QStringLiteral("
        verticalLayout_4"));
label_6 = new QLabel(groupBox);
label_6->setObjectName(QStringLiteral("label_6"));
label_6->setFont(font5);

verticalLayout_4->addWidget(label_6);

treatment_others = new QTextBrowser(groupBox);
treatment_others->setObjectName(QStringLiteral("
        treatment_others"));
treatment_others->setFont(font4);

verticalLayout_4->addWidget(treatment_others);


horizontalLayout_2->addLayout(verticalLayout_4);


gridLayout->addLayout(horizontalLayout_2, 10, 0, 1,
        1);

line_4 = new QFrame(groupBox);
line_4->setObjectName(QStringLiteral("line_4"));
line_4->setFont(font1);
line_4->setFrameShape(QFrame::HLine);
line_4->setFrameShadow(QFrame::Sunken);

gridLayout->addWidget(line_4, 11, 0, 1, 1);


gridLayout_2->addWidget(groupBox, 0, 0, 1, 1);

TreatmentPlanNurse->setCentralWidget(
        centralwidget);

retranslateUi(TreatmentPlanNurse);

QMetaObject::connectSlotsByName(
        TreatmentPlanNurse);
} // setupUi

void retranslateUi(QMainWindow *TreatmentPlanNurse)
{
    TreatmentPlanNurse->setWindowTitle(QApplication
        ::translate("TreatmentPlanNurse", "IoT-based
        Recommender System for Diabetic Patients",
        nullptr));
    groupBox_3->setTitle(QString());
    label_7->setText(QString());
    back->setText(QApplication::translate("
        TreatmentPlanNurse", "Back", nullptr));
    label_8->setText(QString());
    groupBox->setTitle(QApplication::translate("
        TreatmentPlanNurse", "Recommended
        Treatment Plan", nullptr));
    groupBox_2->setTitle(QApplication::translate("
        TreatmentPlanNurse", "Consult a Doctor",
        nullptr));
    consult->setText(QApplication::translate("
        TreatmentPlanNurse", "Consult", nullptr));
    label_2->setText(QString());
    label_3->setText(QString());
    Carbo->setText(QApplication::translate("
        TreatmentPlanNurse", "Insulin Regimen:",
        nullptr));
    label_4->setText(QApplication::translate("
        TreatmentPlanNurse", "Insulin Dosage: (units)
        ", nullptr));
    label_9->setText(QApplication::translate("
        TreatmentPlanNurse", "Insulin Injection
```

```
            Schedule:", nullptr));
        Carbo_3->setText(QApplication::translate("
            TreatmentPlanNurse", "Testing Schedule:",
            nullptr));
        treatment_testingsched->setHtml(QApplication::
            translate("TreatmentPlanNurse", "<!
            DOCTYPE HTML PUBLIC \"-//W3C//DTD
            HTML 4.0//EN\" \"http://www.w3.org/TR/
            REC-html40/strict.dtd\">\n"
"<html><head><meta name=\"qrichtext\" content=\"1\"
      /><style type=\"text/css\">\n"
"p, li { white-space: pre-wrap; }\n"
"</style></head><body style=\" font-family:'Segoe UI';
      font-size:10pt; font-weight:400; font-style:normal
      ;\">\n"
"<p style=\"-qt-paragraph-type:empty; margin-top:0px;
      margin-bottom:0px; margin-left:0px; margin-right:0
      px; -qt-block-indent:0; text-indent:0px; font-family
      :'MS Shell Dlg 2'; font-size:9pt;\"><br /></p></
      body></html>", nullptr));
        label->setText(QApplication::translate("
            TreatmentPlanNurse", "Titration:", nullptr));
        label_5->setText(QApplication::translate("
            TreatmentPlanNurse", "For hypoglycemia:",
            nullptr));
        label_6->setText(QApplication::translate("
            TreatmentPlanNurse", "Others:", nullptr));
    } // retranslateUi

};

namespace Ui {
    class TreatmentPlanNurse: public Ui_TreatmentPlanNurse
        {};
} // namespace Ui

QT_END_NAMESPACE

#endif // UI_TREATMENTPLANNURSE_H


#ifndef ADDCASE_H
#define ADDCASE_H

#include <QDialog>

namespace Ui {
class AddCase;
}

class AddCase : public QDialog
{
    Q_OBJECT

public:
    explicit AddCase(QWidget *parent = 0);
    ~AddCase();

private:
    Ui::AddCase *ui;
};

#endif // ADDCASE_H


#ifndef ADDPATIENTPROFILE_H
#define ADDPATIENTPROFILE_H

#include <QMainWindow>
#include "getpatientiotdata.h"
#include "mainmenu.h"
#include "patienthealthprofile.h"
#include "getfingerprint.h"
#include "mainwindow.h"


namespace Ui {
class AddPatientProfile;
}

class AddPatientProfile : public QMainWindow
{
    Q_OBJECT

public:
    QString med;
    QString hashID;

public:
//      explicit AddPatientProfile(QString medical_user,
      QString hash_ID="", QWidget *parent = 0);
    explicit AddPatientProfile(QString medical_user,
        QWidget *parent = 0);
    ~AddPatientProfile();

private slots:
    void on_pushButton_clicked();
    void on_pushButton_2_clicked();
    void on_pushButton_3_clicked();
    void on_fingerprint_clicked (QString hash_id);

private:
    Ui::AddPatientProfile *ui;
    class GetPatientIoTData *getPatientIoTData;
    class MainMenu *mainMenu;
    class PatientHealthProfile *patientHealthProfile;
    class GetFingerprint *getFingerprint;
};

#endif // ADDPATIENTPROFILE_H


#ifndef ADDPATIENTPROFILEDOC_H
#define ADDPATIENTPROFILEDOC_H

#include <QMainWindow>
#include "getpatientiotdata.h"
#include "mainmenudoctor.h"
#include "searchpatientprofiledoctor.h"
#include "getfingerprint.h"
#include "mainwindow.h"

namespace Ui {
class AddPatientProfileDoc;
}

class AddPatientProfileDoc : public QMainWindow
{
    Q_OBJECT

public:
    QString med;
    QString hashID;

public:
    explicit AddPatientProfileDoc(QString medical_user,
        QWidget *parent = 0);
    ~AddPatientProfileDoc();

private slots:
    void on_pushButton_clicked();
    void on_pushButton_2_clicked();
    void on_pushButton_3_clicked();
    void on_fingerprint_clicked (QString hash_id);

private:
    Ui::AddPatientProfileDoc *ui;
    class GetPatientIoTData *getPatientIoTData;
    class MainMenuDoctor *mainMenuDoctor;
    class PatientHealthProfileDoc *patientHealthProfileDoc;
    class GetFingerprint *getFingerprint;};

#endif // ADDPATIENTPROFILEDOC_H


#ifndef ADDPATIENTVISITRECORD_H
#define ADDPATIENTVISITRECORD_H

#include <QMainWindow>
#include "getpatientiotdata.h"
#include " patientvisitrecordlist .h"
#include "patienthealthprofile.h"

namespace Ui {
class AddPatientVisitRecord;
}

class AddPatientVisitRecord : public QMainWindow
{
    Q_OBJECT

public:
    QString profileValue;
    QString med;
    QString dataIDValue;
    QString inject;
    QString num;
    QString current_insulin_regimen;



public:
    explicit AddPatientVisitRecord(QString value, QString
        medical_user, QString dataID, QWidget *parent =
        0);
    ~AddPatientVisitRecord();


public slots:
    void on_pushButton_clicked();
    void on_pushButton_3_clicked();
    void on_pushButton_4_clicked();
    void on_record_clicked(QString pd_id);

private:
    Ui::AddPatientVisitRecord *ui;
    class GetPatientIoTData *getPatientIoTData;
    class PatientVisitRecordList *patientVisitRecordList;
    class PatientHealthProfile *patientHealthProfile;
```

```
};

#endif // ADDPATIENTVISITRECORD_H


#ifndef ADDPATIENTVISITRECORDDOC_H
#define ADDPATIENTVISITRECORDDOC_H

#include <QMainWindow>
#include "treatmentplandoc.h"
#include "getpatientiotdata.h"
#include " patientvisitrecordlistdoc .h"
#include "patienthealthprofiledoc.h"

namespace Ui {
class AddPatientVisitRecordDoc;
}

class AddPatientVisitRecordDoc : public QMainWindow
{
    Q_OBJECT

public:
    QString profileValue;
    QString med;
    QString dataIDValue;
    QString inject;

public:
    explicit AddPatientVisitRecordDoc(QString value,
        QString medical_user, QString dataID, QWidget *
        parent = 0);
    ~AddPatientVisitRecordDoc();


private slots:
    void on_pushButton_clicked();
    void on_pushButton_3_clicked();
    void on_pushButton_4_clicked();
    void on_record_clicked(QString pd_id);

private:
    Ui::AddPatientVisitRecordDoc *ui;
    class GetPatientIoTData *getPatientIoTData;
    class PatientVisitRecordListDoc *
        patientVisitRecordListDoc;
    class PatientHealthProfileDoc *patientHealthProfileDoc;
};

#endif // ADDPATIENTVISITRECORDDOC_H


#ifndef ADMINADDACCOUNT_H
#define ADMINADDACCOUNT_H

#include <QMainWindow>
#include <mainmenuadmin.h>
#include <adminsearchuser.h>

namespace Ui {
class AdminAddAccount;
}

class AdminAddAccount : public QMainWindow
{
    Q_OBJECT

public:
    explicit AdminAddAccount(QWidget *parent = 0);
    ~AdminAddAccount();

private slots:
    void on_pushButton_clicked();
    void on_pushButton_2_clicked();

private:
    Ui::AdminAddAccount *ui;
    class MainMenuAdmin *mainMenuAdmin;
    class AdminSearchUser *adminSearchUser;
};

#endif // ADMINADDACCOUNT_H


#ifndef ADMINEDITUSER_H
#define ADMINEDITUSER_H

#include <QMainWindow>
#include "mainwindow.h"
#include "adminviewuser.h"
#include <QMessageBox>

namespace Ui {
class AdminEditUser;
}

class AdminEditUser : public QMainWindow
{
    Q_OBJECT

public:
    explicit AdminEditUser(QString value, QWidget *parent
        = 0);
    ~AdminEditUser();
    QString userProfileValue;

private slots:
    void on_backToUserProfile_clicked();
    void on_saveUserProfile_clicked();

private:
    Ui::AdminEditUser *ui;
    class AdminViewUser *adminViewUser;
};

#endif // ADMINEDITUSER_H


#ifndef ADMINEDITUSER_H
#define ADMINEDITUSER_H

#include <QMainWindow>
#include "mainwindow.h"
#include "adminviewuser.h"
#include <QMessageBox>

namespace Ui {
class AdminEditUser;
}

class AdminEditUser : public QMainWindow
{
    Q_OBJECT

public:
    explicit AdminEditUser(QString value, QWidget *parent
        = 0);
    ~AdminEditUser();
    QString userProfileValue;

private slots:
    void on_backToUserProfile_clicked();
    void on_saveUserProfile_clicked();

private:
    Ui::AdminEditUser *ui;
    class AdminViewUser *adminViewUser;
};

#endif // ADMINEDITUSER_H


#ifndef EDITPATIENTVISITRECORD_H
#define EDITPATIENTVISITRECORD_H

#include <QMainWindow>
#include "patientvisitrecord.h"
#include " patientvisitrecordlist .h"


namespace Ui {
class EditPatientVisitRecord;
}

class EditPatientVisitRecord : public QMainWindow
{
    Q_OBJECT
public:
    QString profileValue;
    QString recordValue;
    QString med;
    QString inject;

public:
    explicit EditPatientVisitRecord(QString value, QString
        record, QString medical_user, QWidget *parent =
        0);
    ~EditPatientVisitRecord();

private slots:
    void on_pushButton_4_clicked();
    void on_pushButton_3_clicked();
    void on_pushButton_5_clicked();

private:
    Ui::EditPatientVisitRecord *ui;
    class PatientVisitRecordList *patientVisitRecordList;
    class PatientVisitRecord *patientVisitRecord;
};

#endif // EDITPATIENTVISITRECORD_H


#ifndef EDITPATIENTVISITRECORDDOC_H
#define EDITPATIENTVISITRECORDDOC_H

#include <QMainWindow>
#include "patientvisitrecorddoc.h"
#include " patientvisitrecordlistdoc .h"
```

```
namespace Ui {
class EditPatientVisitRecordDoc;
}

class EditPatientVisitRecordDoc : public QMainWindow
{
    Q_OBJECT

public:
    explicit EditPatientVisitRecordDoc(QString value,
        QString record, QString medical_user,QWidget *
        parent = 0);
    ~EditPatientVisitRecordDoc();

public:
    QString profileValue;
    QString recordValue;
    QString med;
    QString inject;


private slots:
    void on_pushButton_4_clicked();
    void on_pushButton_3_clicked();
    void on_pushButton_5_clicked();

private:
    Ui::EditPatientVisitRecordDoc *ui;
    class PatientVisitRecordListDoc *
        patientVisitRecordListDoc;
    class PatientVisitRecordDoc *patientVisitRecordDoc;
};

#endif // EDITPATIENTVISITRECORDDOC_H


#ifndef GETFINGERPRINT_H
#define GETFINGERPRINT_H

#include <QDialog>
#include "addpatientprofile.h"
#include <QProcess>

namespace Ui {
class GetFingerprint;
}

class GetFingerprint : public QDialog
{
    Q_OBJECT

public:
    explicit GetFingerprint(QString hash_ID, QString
        medical_user, QWidget *parent = 0);
    QString med, hashID;
    QString dataRep1, dataRep2;
    ~GetFingerprint();

signals:
    void sendFingerprint(QString hash_id);

public slots:
    void on_fingerPrintScanned(int exitCode, QProcess::
        ExitStatus exitStatus);
    void on_pushButton_clicked();

private:
    QProcess *process;
    Ui::GetFingerprint *ui;
    class AddPatientProfile *addPatientProfile;
};

#endif // GETFINGERPRINT_H


#ifndef GETPATIENTIOTDATA_H
#define GETPATIENTIOTDATA_H

#include <QDialog>
#include "mainwindow.h"
#include "addpatientvisitrecord.h"


namespace Ui {
class GetPatientIoTData;
}

class GetPatientIoTData : public QDialog
{
    Q_OBJECT

public:
    explicit GetPatientIoTData(QString value, QString
        medical_user, QWidget *parent = 0);
    QString profileValue;
    QString med;
    QString patientDataVal;
    ~GetPatientIoTData();
    AddPatientVisitRecord *getAddPatientVisitRecord()
        const;
    void setAddPatientVisitRecord(AddPatientVisitRecord *
        value);

signals:
    void sendRecord(QString pd_id);

private slots:
    void on_patient_data_activated(const QModelIndex &
        index);
    void on_close_clicked();

private:
    Ui::GetPatientIoTData *ui;
    class AddPatientVisitRecord *addPatientVisitRecord;
};

#endif // GETPATIENTIOTDATA_H


#ifndef MAINMENU_H
#define MAINMENU_H

#include <QMainWindow>
#include "addpatientprofile.h"
#include "searchpatientprofile.h"
#include "retrievedata.h"
#include "mainwindow.h"
#include <qmessagebox.h>
#include "searchconsultations.h"


namespace Ui {
class MainMenu;
}

class MainMenu : public QMainWindow
{
    Q_OBJECT

public:
    QString med;
    explicit MainMenu(QString medical_user, QWidget *
        parent = 0);
    ~MainMenu();
//    QBluetoothLocalDevice localDevice;


private slots:
    void on_menu_addPatient_clicked();
    void on_menu_searchPatient_clicked();
    void on_menu_getData_clicked();

    void on_logout_clicked();

    void on_consultations_clicked();

private:
    Ui::MainMenu *ui;
    class AddPatientProfile *addPatientProfile;
    class SearchPatientProfile *searchPatientProfile;
    class RetrieveData *retrieveData;
    class MainWindow *mainWindow;
    class SearchConsultations *searchConsultations;

};

#endif // MAINMENU_H


#ifndef MAINMENUADMIN_H
#define MAINMENUADMIN_H

#include <QMainWindow>
#include "adminaddaccount.h"
#include "adminsearchuser.h"

namespace Ui {
class MainMenuAdmin;
}

class MainMenuAdmin : public QMainWindow
{
    Q_OBJECT

public:
    explicit MainMenuAdmin(QWidget *parent = 0);
    ~MainMenuAdmin();

private slots:
    void on_addUser_clicked();
    void on_viewUser_clicked();
    void on_logout_clicked();

private:
    Ui::MainMenuAdmin *ui;
    class AdminAddAccount *adminAddAccount;
    class AdminSearchUser *adminSearchUser;
    class MainWindow *mainWindow;
```

```
};

#endif // MAINMENUADMIN_H


#ifndef MAINMENUDOCTOR_H
#define MAINMENUDOCTOR_H

#include <QMainWindow>
#include "mainmenudoctor.h"
#include "searchpatientprofiledoctor.h"
//#include "addcase.h"
#include "addpatientprofiledoc.h"
#include "retrievedata.h"
#include "searchconsultations.h"

namespace Ui {
class MainMenuDoctor;
}

class MainMenuDoctor : public QMainWindow
{
    Q_OBJECT

public:
    QString med;

public:
    explicit MainMenuDoctor(QString medical_user,
        QWidget *parent = 0);
    ~MainMenuDoctor();

private slots:
    void on_pushButton_2_clicked();
    void on_consultations_clicked();
    void on_logout_clicked();
    void on_retrieveData_clicked();
    void on_searchPatient_clicked();

private:
    Ui::MainMenuDoctor *ui;
    class AddPatientProfileDoc *addPatientProfileDoc;
    class SearchPatientProfileDoctor *
        searchPatientProfileDoctor;
//    class AddCase *addCase;
    class MainWindow *mainWindow;
    class RetrieveData *retrieveData;
    class SearchConsultations *searchConsultations;

};

#endif // MAINMENUDOCTOR_H


#ifndef MAINWINDOW_H
#define MAINWINDOW_H

#include <QMainWindow>
#include "mainmenu.h"
#include "mainmenudoctor.h"
#include "mainmenuadmin.h"
#include <QtSql>
#include <QtDebug>
#include <QFileInfo>
#include <QScrollBar>



namespace Ui {
class MainWindow;
}

class MainWindow : public QMainWindow
{
    Q_OBJECT

public:
    QSqlDatabase recommenderSystem;

    void connClose(){
        recommenderSystem.close();
    }

    bool connOpen(){
        recommenderSystem=QSqlDatabase::addDatabase("
            QMYSQL");
        recommenderSystem.setHostName("localhost");
        recommenderSystem.setUserName("abe");
        //recommenderSystem.setPassword("");
        recommenderSystem.setPort(3306);
        recommenderSystem.setDatabaseName("recommender
            ");

        if(!recommenderSystem.open()){
            qDebug() <<"Failed to open";
            qDebug() << recommenderSystem.lastError().
                text();
            qDebug() << QSqlDatabase::drivers();
            return false;
        }
        else{
            qDebug () <<"Connected";
            QSqlQuery qry;
            return true;
        }
    }

public:
    explicit MainWindow(QWidget *parent = 0);
    ~MainWindow();

private slots:
    void on_pushButton_Login_clicked();

private:
    Ui::MainWindow *ui;
    class MainMenu *mainMenu;
    class MainMenuDoctor *mainMenuDoctor;
    class MainMenuAdmin *mainMenuAdmin;
};

#endif // MAINWINDOW_H


#ifndef PATIENTHEALTHPROFILE_H
#define PATIENTHEALTHPROFILE_H

#include <QMainWindow>
#include "mainmenu.h"
#include " patientvisitrecordlist .h"
#include "patientvisitrecord.h"
#include "searchpatientprofile.h"
#include " editpatientprofile .h"

namespace Ui {
class PatientHealthProfile;
}

class PatientHealthProfile: public QMainWindow
{
    Q_OBJECT

public:
    QString profileValue;
    QString med;
    QString dataID = "";

public:
    explicit PatientHealthProfile(QString value, QString
        medical_user, QWidget *parent = 0);
    ~PatientHealthProfile();

private slots:
    void on_pushButton_2_clicked();
    void on_pushButton_clicked();
    void on_back_clicked();
    void on_pushButton_3_clicked();

private:
    Ui::PatientHealthProfile *ui;
    class MainMenu *mainMenu;
    class SearchPatientProfile *searchPatientProfile;
    class EditPatientProfile *editPatientProfile;
    class AddPatientVisitRecord *addPatientVisitRecord;
    class PatientVisitRecordList *patientVisitRecordList;
};

#endif // PATIENTHEALTHPROFILE_H


 #ifndef PATIENTHEALTHPROFILEDOC_H
#define PATIENTHEALTHPROFILEDOC_H

#include <QMainWindow>
#include "mainmenu.h"
#include " patientvisitrecordlistdoc .h"
#include "patientvisitrecorddoc.h"
#include "searchpatientprofiledoctor.h"
#include "editpatientprofiledoc.h"
#include "addpatientvisitrecorddoc.h"


namespace Ui {
class PatientHealthProfileDoc;
}

class PatientHealthProfileDoc : public QMainWindow
{
    Q_OBJECT

public:
    QString profileValue;
    QString med;
    QString dataID = "";

public:
    explicit PatientHealthProfileDoc(QString value, QString
        medical_user, QWidget *parent = 0);
    ~PatientHealthProfileDoc();
```

```
private slots:
    void on_pushButton_2_clicked();
    void on_pushButton_clicked();
    void on_back_clicked();
    void on_pushButton_3_clicked();

private:
    Ui::PatientHealthProfileDoc *ui;
    class MainMenuDoctor *mainMenuDoctor;
    class SearchPatientProfileDoctor *
        searchPatientProfileDoctor;
    class EditPatientProfileDoc *editPatientProfileDoc;
    class AddPatientVisitRecordDoc *
        addPatientVisitRecordDoc;
    class PatientVisitRecordListDoc *
        patientVisitRecordListDoc;
};

#endif // PATIENTHEALTHPROFILEDOC_H


#ifndef PATIENTVISITRECORD_H
#define PATIENTVISITRECORD_H

#include <QMainWindow>
#include "treatmentPlanNurse.h"
#include "patienthealthprofile.h"
#include "editpatientvisitrecord.h"
//#include " patientvisitrecordlist .h"

namespace Ui {
class PatientVisitRecord;
}

class PatientVisitRecord : public QMainWindow
{
    Q_OBJECT

public:
    QString profileValue;
    QString recordValue;
    QString med;
    QString dataID;
public:
    explicit PatientVisitRecord(QString value, QString
        record, QString medical_user, QString dataID="",
        QWidget *parent = 0);
    ~PatientVisitRecord();

private slots:
    void on_pushButton_clicked(); //Edit -> Edit Patient
        Visit Record
    void on_pushButton_3_clicked(); //Back -> Patient
        Health Profile
    void on_viewPlan_clicked(); //Treatment Plan

private:
    Ui::PatientVisitRecord *ui;
    class TreatmentPlanNurse *treatmentPlanNurse;
    class PatientHealthProfile *patientHealthProfile;
    class EditPatientVisitRecord *editPatientVisitRecord;
};

#endif // PATIENTVISITRECORD_H


#ifndef PATIENTVISITRECORDCONSULT_H
#define PATIENTVISITRECORDCONSULT_H

#include <QMainWindow>
#include "treatmentplanconsult.h"
#include "profileconsultation.h"

namespace Ui {
class PatientVisitRecordConsult;
}

class PatientVisitRecordConsult : public QMainWindow
{
    Q_OBJECT

public:
    explicit PatientVisitRecordConsult(QString value,
        QString record, QString medical_user, QString
        dataID="", QWidget *parent = 0);
    ~PatientVisitRecordConsult();
    QString profileValue;
    QString recordValue;
    QString med;
    QString dataID;


private slots:
    void on_back_clicked();
    void on_viewPlan_clicked();

private:
    Ui::PatientVisitRecordConsult *ui;
    class TreatmentPlanConsult *treatmentPlanConsult;
    class ProfileConsultation *profileConsultation;
};

#endif // PATIENTVISITRECORDCONSULT_H


#ifndef PATIENTVISITRECORDDOC_H
#define PATIENTVISITRECORDDOC_H

#include <QMainWindow>
#include "treatmentplandoc.h"
#include "patienthealthprofiledoc.h"
#include "editpatientvisitrecorddoc.h"

namespace Ui {
class PatientVisitRecordDoc;
}

class PatientVisitRecordDoc : public QMainWindow
{
    Q_OBJECT

public:
    QString profileValue;
    QString recordValue;
    QString med;
    QString dataID;


public:
    explicit PatientVisitRecordDoc(QString value, QString
        record, QString medical_user, QString dataID="",
        QWidget *parent = 0);
    ~PatientVisitRecordDoc();

private slots:
    void on_pushButton_clicked(); //Edit -> Edit Patient
        Visit Record
    void on_pushButton_3_clicked(); //Back -> Patient
        Health Profile
    void on_viewPlan_clicked(); //Treatment Plan

private:
    Ui::PatientVisitRecordDoc *ui;
    class TreatmentPlanDoc *treatmentPlanDoc;
    class PatientHealthProfileDoc *patientHealthProfileDoc;
    class EditPatientVisitRecordDoc *
        editPatientVisitRecordDoc;
};

#endif // PATIENTVISITRECORDDOC_H


#ifndef PATIENTVISITRECORDLIST_H
#define PATIENTVISITRECORDLIST_H

#include <QDialog>
#include "patientvisitrecord.h"
#include "patienthealthprofile.h"

namespace Ui {
class PatientVisitRecordList;
}

class PatientVisitRecordList : public QDialog
{
    Q_OBJECT

public:
    QString profileValue;
//    QString recordValue;
    QString med;

public:
    explicit PatientVisitRecordList(QString value, QString
        medical_user, QWidget *parent = 0);
    ~PatientVisitRecordList();

private slots:
    void on_visitRecordList_activated(const QModelIndex &
        index);
    void on_pushButton_clicked();

private:
   Ui::PatientVisitRecordList *ui;
   class PatientVisitRecord *patientVisitRecord;
   class PatientHealthProfile *patientHealthProfile;
};

#endif // PATIENTVISITRECORDLIST_H


#ifndef PATIENTVISITRECORDLISTCONSULTATIONS_H
#define PATIENTVISITRECORDLISTCONSULTATIONS_H

#include <QMainWindow>
#include "patientvisitrecordconsult.h"
#include "profileconsultation.h"

namespace Ui {
class PatientVisitRecordListConsultations;
```

```
}

class PatientVisitRecordListConsultations : public
      QMainWindow
{
    Q_OBJECT

public:
    explicit PatientVisitRecordListConsultations(QString
          value, QString medical_user, QWidget *parent = 0);
    ~PatientVisitRecordListConsultations();
    QString profileValue;
    QString med;

private slots:
    void on_visitRecordList_activated(const QModelIndex &
          index);
    void on_back_clicked();

private:
    Ui::PatientVisitRecordListConsultations *ui;
    class PatientVisitRecordConsult *
          patientVisitRecordConsult;
    class ProfileConsultation *profileConsultation;

};

#endif //
      PATIENTVISITRECORDLISTCONSULTATIONS_H


#ifndef PATIENTVISITRECORDLISTDOC_H
#define PATIENTVISITRECORDLISTDOC_H

#include <QDialog>
#include "patientvisitrecorddoc.h"
#include "patienthealthprofiledoc.h"

namespace Ui {
class PatientVisitRecordListDoc;
}

class PatientVisitRecordListDoc : public QDialog
{
    Q_OBJECT

public:
    QString profileValue;
    QString med;

public:
    explicit PatientVisitRecordListDoc(QString value,
          QString medical_user, QWidget *parent = 0);
    ~PatientVisitRecordListDoc();

private slots:
    void on_visitRecordList_activated(const QModelIndex &
          index);
    void on_pushButton_clicked();

private:
    Ui::PatientVisitRecordListDoc *ui;
     class PatientVisitRecordDoc *patientVisitRecordDoc;
    class PatientHealthProfileDoc *patientHealthProfileDoc;

};

#endif // PATIENTVISITRECORDLISTDOC_H


#ifndef PROFILECONSULTATION_H
#define PROFILECONSULTATION_H

#include <QMainWindow>
#include "mainwindow.h"
#include "searchconsultations.h"
#include " patientvisitrecordlistconsultations .h"

namespace Ui {
class ProfileConsultation;
}

class ProfileConsultation : public QMainWindow
{
    Q_OBJECT

public:
    explicit ProfileConsultation(QString value, QString
          medical_user, QWidget *parent = 0);
    ~ProfileConsultation();
    QString profileValue;
    QString med;
    QString dataID = "";

private slots:
    void on_back_clicked();
    void on_patientRecords_clicked();

private:
    Ui::ProfileConsultation *ui;
    class SearchConsultations *searchConsultations;
    class PatientVisitRecordListConsultations *
          patientVisitRecordListConsultations;
};

#endif // PROFILECONSULTATION_H


#ifndef RETRIEVEDATA_H
#define RETRIEVEDATA_H

#include <QMainWindow>
#include <QProcess>
#include "mainmenu.h"
#include <QSqlQuery>
#include <QSqlQueryModel>
#include "mainmenu.h"
#include "mainmenudoctor.h"

namespace Ui {
class RetrieveData;
}

class RetrieveData : public QMainWindow
{
    Q_OBJECT

public:
    explicit RetrieveData(QString medical_user, QWidget *
          parent = 0);
    ~RetrieveData();
    QString med;
    QString checker = "0";

private slots:
    void on_pushButton_clicked();
    void on_iotDataReceived(int exitCode, QProcess::
          ExitStatus exitStatus);

private:
    Ui::RetrieveData *ui;
    class MainMenu *mainMenu;
    class MainMenuDoctor *mainMenuDoctor;
    QProcess *process;
    QSqlQuery qry;
    QSqlQueryModel *modal;

};

#endif // RETRIEVEDATA_H


#ifndef SEARCHCONSULTATIONS_H
#define SEARCHCONSULTATIONS_H

#include <QMainWindow>
#include "mainmenudoctor.h"
#include "mainmenu.h"

//#include "patienthealthprofiledoc.h"
#include "profileconsultation.h"

namespace Ui {
class SearchConsultations;
}

class SearchConsultations : public QMainWindow
{
    Q_OBJECT

public:
    explicit SearchConsultations(QString medical_user,
          QWidget *parent = 0);
    ~SearchConsultations();
    QString finalVal;
    QString med;

private slots:
    void on_mainMenuDoctor_clicked();
    void  on_healthprofile_list_activated (const QModelIndex
          &index);
//    void on_searchPatient_clicked();

private:
    Ui::SearchConsultations *ui;
    class MainMenuDoctor *mainMenuDoctor;
    class MainMenu *mainMenu;

//    class PatientHealthProfileDoc *patientHealthProfileDoc
      ;
    class ProfileConsultation *profileConsultation;
};

#endif // SEARCHCONSULTATIONS_H


#ifndef SEARCHPATIENTPROFILE_H
#define SEARCHPATIENTPROFILE_H

#include <QMainWindow>
```

```
#include "patienthealthprofile.h"
#include "mainwindow.h"
#include "mainmenu.h"


namespace Ui {
class SearchPatientProfile;
}


class SearchPatientProfile : public QMainWindow
{
    Q_OBJECT

public:
    QString finalVal;
    QString med;

public:
    explicit SearchPatientProfile(QString medical_user,
        QWidget *parent = 0);
    ~SearchPatientProfile();

private slots:
    void on_healthprofile_list_activated (const QModelIndex
        &index);
    void on_pushButton_2_clicked();

    void on_searchPatient_clicked();

private:
    Ui::SearchPatientProfile *ui;
    class PatientHealthProfile *patientHealthProfile;
    class MainMenu *mainMenu;
};

#endif // SEARCHPATIENTPROFILE_H


#ifndef SEARCHPATIENTPROFILEDOCTOR_H
#define SEARCHPATIENTPROFILEDOCTOR_H

#include <QMainWindow>
#include "mainmenudoctor.h"
#include "patienthealthprofiledoc.h"

namespace Ui {
class SearchPatientProfileDoctor;
}

class SearchPatientProfileDoctor : public QMainWindow
{
    Q_OBJECT

public:
    QString finalVal;
    QString med;

public:
    explicit SearchPatientProfileDoctor(QString medical_user
        , QWidget *parent = 0);
    ~SearchPatientProfileDoctor();

private slots:
    void on_mainMenuDoctor_clicked();
    void on_healthprofile_list_activated (const QModelIndex
        &index);
    void on_searchPatient_clicked();

private:
    Ui::SearchPatientProfileDoctor *ui;
    class MainMenuDoctor *mainMenuDoctor;
    class PatientHealthProfileDoc *patientHealthProfileDoc;
};

#endif // SEARCHPATIENTPROFILEDOCTOR_H


#ifndef TELECONSULTATIONCONSULT_H
#define TELECONSULTATIONCONSULT_H

#include <QMainWindow>
#include "treatmentplanconsult.h"
#include <QPushButton>

namespace Ui {
class TeleconsultationConsult;
}

class TeleconsultationConsult : public QMainWindow
{
    Q_OBJECT

public:
    explicit TeleconsultationConsult(QString value, QString
        record, QString plan, QString medical_user,
        QWidget *parent = 0);
    ~TeleconsultationConsult();
    QString profileValue;
    QString recordValue;
    QString med;
    QString medCreator;
    QString medName, consultation, message;
    QString treatmentPlanPID;
    QString dateTime_message;
    QString dtVal;

private slots:
    void on_refresh_consultation_clicked();
    void on_send_clicked();
    void renderMessage(QString medName, QString message,
        QString dateTime_message);
    void getName(QString medId);
    void renderMessagesView();
    void on_Back_clicked();
    void on_closeCase_clicked();

private:
    Ui::TeleconsultationConsult *ui;
    class TreatmentPlanConsult *treatmentPlanConsult;
    QPushButton *m_button;


};

#endif // TELECONSULTATIONCONSULT_H

#ifndef TELECONSULTATIONDOC_H
#define TELECONSULTATIONDOC_H

#include <QMainWindow>
//#include "addcase.h"
#include "treatmentplandoc.h"
#include <QPushButton>


namespace Ui {
class TeleconsultationDoc;
}

class TeleconsultationDoc : public QMainWindow
{
    Q_OBJECT

public:
    explicit TeleconsultationDoc(QString value, QString
        record, QString plan, QString medical_user,
        QWidget *parent = 0);
    ~TeleconsultationDoc();
    QString profileValue;
    QString recordValue;
    QString med;
    QString medCreator;
    QString medName, consultation, message;
    QString treatmentPlanPID;
    QString dateTime_message;
    QString dtVal;


private slots:
//    void on_addCase_clicked();
    void on_send_clicked();
    void renderMessage(QString medName, QString message,
        QString dateTime_message);
    void getName(QString medId);
    void renderMessagesView();
    void on_Back_clicked();
    void on_closeCase_clicked();
    void on_refresh_consultation_clicked();

private:
    Ui::TeleconsultationDoc *ui;
    class TreatmentPlanDoc *treatmentPlanDoc;
//    class AddCase *addCase;
    QPushButton *m_button;
};

#endif // TELECONSULTATIONDOC_H

#ifndef TELECONSULTATIONNURSE_H
#define TELECONSULTATIONNURSE_H

#include <QMainWindow>
#include "treatmentplannurse.h"
#include <QPushButton>


namespace Ui {
class TeleconsultationNurse;
}

class TeleconsultationNurse : public QMainWindow
{
    Q_OBJECT

public:
    explicit TeleconsultationNurse(QString value, QString
        record, QString plan, QString medical_user,
        QWidget *parent = 0);
```

```
    ~TeleconsultationNurse();
    QString profileValue;
    QString recordValue;
    QString med;
    QString medCreator;
    QString medName, consultation, message;
    QString treatmentPlanPID;
    QString dateTime_message;
    QString dtVal;


private slots:
    void on_send_clicked();
    void renderMessage(QString medName, QString message,
         QString dateTime_message);
    void getName(QString medId);
    void renderMessagesView();
    void on_Back_clicked();
    void on_closeCase_clicked();
    void  on_refresh_consultation_clicked ();


private:
    Ui::TeleconsultationNurse *ui;
    class TreatmentPlanNurse *treatmentPlanNurse;
    QPushButton *m_button;
};

#endif // TELECONSULTATIONNURSE_H


#ifndef TREATMENTPLANCONSULT_H
#define TREATMENTPLANCONSULT_H

#include <QMainWindow>
#include "teleconsultationconsult.h"
#include "patientvisitrecordconsult.h"
#include "treatmentplaneditconsult.h"
#include "mainwindow.h"


namespace Ui {
class TreatmentPlanConsult;
}

class TreatmentPlanConsult : public QMainWindow
{
    Q_OBJECT

public:
    explicit TreatmentPlanConsult(QString value, QString
        record, QString medical_user, QWidget *parent =
        0);
    ~TreatmentPlanConsult();
    QString profileValue;
    QString recordValue;
    QString med;
    QString treatmentPlanID;


private slots:
    void on_editPlan_clicked();
    void on_consult_clicked();
    void on_back_clicked();

private:
    Ui::TreatmentPlanConsult *ui;
    class TeleconsultationConsult *teleconsultationConsult;
    class PatientVisitRecordConsult *
        patientVisitRecordConsult;
    class TreatmentPlanEditConsult *
        treatmentPlanEditConsult;
};

#endif // TREATMENTPLANCONSULT_H


#ifndef TREATMENTPLANDOC_H
#define TREATMENTPLANDOC_H

#include <QMainWindow>
#include "teleconsultationdoc.h"
#include "patientvisitrecorddoc.h"
#include "treatmentplaneditdoc.h"
#include "mainwindow.h"



namespace Ui {
class TreatmentPlanDoc;
}

class TreatmentPlanDoc : public QMainWindow
{
    Q_OBJECT

public:
    QString profileValue;
    QString recordValue;
    QString med;
    QString treatmentPlanID;


public:
    explicit TreatmentPlanDoc(QString value, QString record
        , QString medical_user, QWidget *parent = 0);
    ~TreatmentPlanDoc();

private slots:
    void on_consult_clicked();
    void on_back_clicked();
    void on_editPlan_clicked();

private:
    Ui::TreatmentPlanDoc *ui;
    class TeleconsultationDoc *teleconsultationDoc;
    class PatientVisitRecordDoc *patientVisitRecordDoc;
    class TreatmentPlanEditDoc *treatmentPlanEditDoc;
};

#endif // TREATMENTPLANDOC_H


#ifndef TREATMENTPLANEDITCONSULT_H
#define TREATMENTPLANEDITCONSULT_H

#include <QMainWindow>
#include "mainwindow.h"
#include "treatmentplanconsult.h"

namespace Ui {
class TreatmentPlanEditConsult;
}

class TreatmentPlanEditConsult : public QMainWindow
{
    Q_OBJECT

public:
    explicit TreatmentPlanEditConsult(QString value,
        QString record, QString medical_user, QWidget *
        parent = 0);
    ~TreatmentPlanEditConsult();
    QString profileValue;
    QString recordValue;
    QString med;
    QString treatmentPlanID;

private slots:
    void on_save_clicked();
    void on_back_clicked();

private:
    Ui::TreatmentPlanEditConsult *ui;
    class TreatmentPlanConsult *treatmentPlanConsult;


};

#endif // TREATMENTPLANEDITCONSULT_H


#ifndef TREATMENTPLANEDITDOC_H
#define TREATMENTPLANEDITDOC_H

#include <QMainWindow>
#include "mainwindow.h"

namespace Ui {
class TreatmentPlanEditDoc;
}

class TreatmentPlanEditDoc : public QMainWindow
{
    Q_OBJECT

public:
    explicit TreatmentPlanEditDoc(QString value, QString
        record, QString medical_user, QWidget *parent =
        0);
    ~TreatmentPlanEditDoc();
    QString profileValue;
    QString recordValue;
    QString med;
    QString treatmentPlanID;

private slots:
    void on_save_clicked();
    void on_back_clicked();

private:
    Ui::TreatmentPlanEditDoc *ui;
    class TreatmentPlanDoc *treatmentPlanDoc;
};

#endif // TREATMENTPLANEDITDOC_H


void on_savePlan_clicked();
#ifndef TREATMENTPLANNURSE_H
```

```
#define TREATMENTPLANNURSE_H

#include <QMainWindow>
#include "patientvisitrecord.h"
#include "teleconsultationnurse.h"
//#include "teleconsultationdoc.h"
//#include "patienthealthprofile.h"

namespace Ui {
class TreatmentPlanNurse;
}

class TreatmentPlanNurse : public QMainWindow
{
    Q_OBJECT

public:
    QString profileValue;
    QString recordValue;
    QString med;
    QString treatmentPlanID;

public:
    explicit TreatmentPlanNurse(QString value, QString
        record, QString medical_user, QWidget *parent =
        0);
    ~TreatmentPlanNurse();


private slots:
    void on_consult_clicked();
    void on_back_clicked();

private:
    Ui::TreatmentPlanNurse *ui;
    class TeleconsultationNurse *teleconsultationNurse;
    class PatientVisitRecord *patientVisitRecord;
};

#endif // TREATMENTPLANNURSE_H


#include "addcase.h"
#include "ui_addcase.h"

AddCase::AddCase(QWidget *parent) :
    QDialog(parent),
    ui(new Ui::AddCase)
{
    ui->setupUi(this);
}

AddCase::~AddCase()
{
    delete ui;
}


#include "addpatientprofile.h"
#include "ui_addpatientprofile.h"
#include <QMessageBox>
#include <QIntValidator>
#include "mainmenu.h"


AddPatientProfile::AddPatientProfile(QString medical_user,
      QWidget *parent) :
    QMainWindow(parent),
    ui(new Ui::AddPatientProfile)
{
    ui->setupUi(this);
    med = medical_user;

    QRegularExpression rx("[0-9]*");
    QValidator *validator = new
        QRegularExpressionValidator(rx, this);
    ui->contact_number->setValidator(validator);
    ui->emergency_contact->setValidator(validator);

    QRegularExpression mailREX("\\b[A-Z0-9._%+-]+@[A
        -Z0-9.-]+\\.[A-Z]{2,4}\\b",
                               QRegularExpression::
                                   CaseInsensitiveOption);
    QValidator *validator2 = new
        QRegularExpressionValidator(mailREX, this);
    ui->email->setValidator(validator2);


    ui->pushButton_3->setStyleSheet("padding: 8px;");
    ui->pushButton->setStyleSheet("padding: 8px;");


    MainWindow conn;
    if(!conn.connOpen())
        qDebug("Failed to open");
    else
        qDebug("Connected");
}

AddPatientProfile::~AddPatientProfile()
{
    delete ui;
}


void AddPatientProfile::on_pushButton_clicked() //ADD
    PATIENT
{
    MainWindow conn;
    QString name, sex, blood_type, address, contact_number,
        email, allergy, illness,
          emergency_name, emergency_contact,
              emergency_relation, healthUnitPatient;
    QDate birthday;

    name=ui->name->text();
    birthday=ui->birthday->date();
    sex=ui->sex->currentText();
    blood_type=ui->blood_type->currentText();
    address=ui->address->text();
    contact_number=ui->contact_number->text();
    email=ui->email->text();
    allergy=ui->allergy->toPlainText();
    illness=ui->illness->toPlainText();
    emergency_name=ui->emergency_name->text();
    emergency_contact=ui->emergency_contact->text();
    emergency_relation=ui->emergency_relation->text();
    healthUnitPatient=ui->healthUnitPatient->text();

    if(!conn.connOpen()){
        qDebug()<<"Failed to open";
        return;
    }

    conn.connOpen();
    QSqlQuery qry;
    qry.prepare("insert into healthprofile(name, hash_id,
        birthday,sex,blood_type,address,contact_number,
        email,"
                "allergy, history_of_illness ,emergency_name,
                    emergency_relation,emergency_contact,
                    healthUnitPatient) "
                "values (:name, :hashID, :birthday, :sex, :
                    blood_type, :address, :contact_number,
                     :email, "
                ":allergy, :illness, :emergency_name, :
                    emergency_relation, :emergency_contact,
                     :healthUnitPatient)");

    qry.bindValue(":name",name);
    qry.bindValue(":hashID", hashID);
    qry.bindValue(":birthday",birthday);
    qry.bindValue(":sex",sex);
    qry.bindValue(":blood_type",blood_type);
    qry.bindValue(":address",address);
    qry.bindValue(":contact_number",contact_number);
    qry.bindValue(":email",email);
    qry.bindValue(":allergy",allergy);
    qry.bindValue(":illness", illness);
    qry.bindValue(":emergency_name",emergency_name);
    qry.bindValue(":emergency_contact",emergency_contact);
    qry.bindValue(":emergency_relation",emergency_relation);
    qry.bindValue(":healthUnitPatient",healthUnitPatient);

    if(ui->name->text().isEmpty() || ui->birthday->text
        ().isEmpty() || ui->sex->currentText().isEmpty()
        || ui->blood_type->currentText().isEmpty() || ui
        ->address->text().isEmpty() || ui->
        contact_number->text().isEmpty() || ui->
        emergency_name->text().isEmpty() || ui->
        emergency_contact->text().isEmpty() || ui->
        healthUnitPatient->text().isEmpty()){
        QMessageBox::critical(0, qApp->tr("Error."),
                              qApp->tr("Please fill in all
                                  fields.\n\n"
                                  "Click Ok to exit."),
                                  QMessageBox::
                                  Ok);
    }
    else if(qry.exec()){
        QString profileValue = qry.lastInsertId().toString();
            //patient health profile id
        QMessageBox::information(this,tr("Create Patient
            Health Profile."), tr("New patient health
            profile has been created."));
        conn.connClose();
        close();
        patientHealthProfile = new PatientHealthProfile(
            profileValue, med);
        patientHealthProfile->show();
    }
    else{
        QMessageBox::critical(this,tr("Error::"), qry.
            lastError().text());
    }
}
void AddPatientProfile::on_pushButton_2_clicked() //Get
    Fingerprint
{
```

```
    getFingerprint = new GetFingerprint(hashID, med);
    connect(getFingerprint,SIGNAL(sendFingerprint(QString)
        ),this,SLOT(on_fingerprint_clicked(QString)));
    getFingerprint->show();
}
void AddPatientProfile::on_pushButton_3_clicked() //back
    button
{
    close();
    mainMenu = new MainMenu(med);
    mainMenu->show();
}
void AddPatientProfile:: on_fingerprint_clicked (QString
    hash_id)
{
    qDebug() << "Hash ID: " + hash_id;
    hashID = hash_id;
    if(hashID != ""){
        ui->pushButton_2->setText("Done!");
    }
    else
    {
        ui->pushButton_2->setText("Get fingerprint again
            .");

    }
}


#include "addpatientprofiledoc.h"
#include "ui_addpatientprofiledoc.h"
#include <QMessageBox>
#include <QIntValidator>
#include "mainmenu.h"

AddPatientProfileDoc::AddPatientProfileDoc(QString
    medical_user, QWidget *parent) :
    QMainWindow(parent),
    ui(new Ui::AddPatientProfileDoc)
{
    ui->setupUi(this);
    med = medical_user;

    QRegularExpression rx("[0-9]*");
    QValidator *validator = new
        QRegularExpressionValidator(rx, this);
    ui->contact_number->setValidator(validator);
    ui->emergency_contact->setValidator(validator);

    QRegularExpression mailREX("\\b[A-Z0-9._%+-]+@[A
        -Z0-9.-]+\\.[A-Z]{2,4}\\b",
                               QRegularExpression::
                                   CaseInsensitiveOption);
    QValidator *validator2 = new
        QRegularExpressionValidator(mailREX, this);
    ui->email->setValidator(validator2);


    ui->pushButton_3->setStyleSheet("padding: 8px;");
    ui->pushButton->setStyleSheet("padding: 8px;");

    MainWindow conn;
    if (!conn.connOpen())
        ui->status1_label->setText("Failed to open");
    else
        ui->status1_label->setText("Connected");
}

AddPatientProfileDoc::~AddPatientProfileDoc()
{
    delete ui;
}


void AddPatientProfileDoc::on_pushButton_clicked() //ADD
    PATIENT
{
    MainWindow conn;
    QString name, sex, blood_type, address, contact_number,
        email, allergy,  illness ,
          emergency_name, emergency_contact,
              emergency_relation, healthUnitPatient;
    QDate birthday;

    name=ui->name->text();
    birthday=ui->birthday->date();
    sex=ui->sex->currentText();
    blood_type=ui->blood_type->currentText();
    address=ui->address->text();
    contact_number=ui->contact_number->text();
    email=ui->email->text();
    allergy=ui->allergy->toPlainText();
    illness =ui->illness->toPlainText();
    emergency_name=ui->emergency_name->text();
    emergency_contact=ui->emergency_contact->text();
    emergency_relation=ui->emergency_relation->text();
    healthUnitPatient=ui->healthUnitPatient->text();

    if (!conn.connOpen()){
        qDebug()<<"Failed to open";
        return;
    }

    conn.connOpen();
    QSqlQuery qry;
    qry.prepare("insert into  healthprofile(name, hash_id,
        birthday,sex,blood_type,address,contact_number,
        email,"
            "allergy, history_of_illness ,emergency_name,
                emergency_relation,emergency_contact,
                healthUnitPatient) "
            "values (:name, :hashID, :birthday, :sex, :
                blood_type, :address, :contact_number,
                 :email, "
            ": allergy, : illness , :emergency_name, :
                emergency_relation, :emergency_contact,
                 :healthUnitPatient)");

    qry.bindValue(":name",name);
    qry.bindValue(":hashID", hashID);
    qry.bindValue(":birthday",birthday);
    qry.bindValue(":sex",sex);
    qry.bindValue(":blood_type",blood_type);
    qry.bindValue(":address",address);
    qry.bindValue(":contact_number",contact_number);
    qry.bindValue(":email",email);
    qry.bindValue(":allergy", allergy);
    qry.bindValue(": illness ", illness );
    qry.bindValue(":emergency_name",emergency_name);
    qry.bindValue(":emergency_contact",emergency_contact);
    qry.bindValue(":emergency_relation",emergency_relation);
    qry.bindValue(":healthUnitPatient",healthUnitPatient);

    if(ui->name->text().isEmpty() || ui->birthday->text
        ().isEmpty() || ui->sex->currentText().isEmpty()
        || ui->blood_type->currentText().isEmpty() || ui
        ->address->text().isEmpty() || ui->
        contact_number->text().isEmpty() || ui->
        emergency_name->text().isEmpty() || ui->
        emergency_contact->text().isEmpty() || ui->
        healthUnitPatient->text().isEmpty()){
        QMessageBox::critical(0, qApp->tr("Error."),
                              qApp->tr("Please fill in all
                                  fields.\n\n"
                                  "Click Ok to exit."),
                                      QMessageBox::
                                      Ok);
    }
    else if(qry.exec()){
        QString profileValue = qry.lastInsertId().toString();
            //patient health profile id
        QMessageBox::information(this,tr("Create Patient
            Health Profile."), tr("New patient health
            profile has been created."));
        conn.connClose();
        close();
        patientHealthProfileDoc = new
            PatientHealthProfileDoc(profileValue, med);
        patientHealthProfileDoc->show();
    }
    else{
        QMessageBox::critical(this,tr("Error::"), qry.
            lastError().text());
    }
}
void AddPatientProfileDoc::on_pushButton_2_clicked() //Get
    Fingerprint
{
    getFingerprint = new GetFingerprint(hashID, med);
    connect(getFingerprint,SIGNAL(sendFingerprint(QString)
        ),this,SLOT(on_fingerprint_clicked(QString)));
    getFingerprint->show();
}
void AddPatientProfileDoc::on_pushButton_3_clicked() //back
    button
{
    close();
    mainMenuDoctor = new MainMenuDoctor(med);
    mainMenuDoctor->show();
}
void AddPatientProfileDoc:: on_fingerprint_clicked (QString
    hash_id)
{
    qDebug() << "Hash ID: :" + hash_id;
    hashID = hash_id;
    if(hashID != ""){
        ui->pushButton_2->setText("Done!");
    }
    else
    {
        ui->pushButton_2->setText("Get fingerprint again
            .");

    }
}


#include "addpatientvisitrecord.h"
#include "ui_addpatientvisitrecord.h"
#include "mainwindow.h"
```

```
#include "patienthealthprofile.h"
#include <QMessageBox>
#include <QRect>
#include <QDesktopWidget>


AddPatientVisitRecord::AddPatientVisitRecord(QString value,
        QString medical_user, QString dataID, QWidget *
       parent) :
    QMainWindow(parent),
    ui(new Ui::AddPatientVisitRecord)
{
    ui->setupUi(this);
    QRect position = frameGeometry();
      position.moveCenter(QDesktopWidget().
            availableGeometry().center());
      move(position.topLeft());

    profileValue = value;
    med = medical_user;

    QRegularExpression reDate
          ("[0-9]{0,4}-[0-9]{0,2}-[0-9]{0,2}
          [0-9]{0,2}:[0-9]{0,2}:[0-9]{0,2}");
    QValidator *dateValidator = new
          QRegularExpressionValidator(reDate, this);
    ui->lineEdit_dateTime->setValidator(dateValidator);

    QRegularExpression rx("[0-9]*");
    QValidator *intValidator = new
          QRegularExpressionValidator(rx, this);
    ui->lineEdit_weight->setValidator(intValidator);
    ui->lineEdit_height->setValidator(intValidator);
    ui->lineEdit_currDosage->setValidator(intValidator);

    QRegularExpression intPoint("[0-9]{0,2}.[0-9]{0,2}");
    QValidator *intPointValidator = new
          QRegularExpressionValidator(intPoint, this);
    ui->lineEdit_a1c->setValidator(intPointValidator);
    ui->blood_glucose_level->setValidator(intPointValidator
          );

    QRegularExpression height("[0-9]{0,3}.[0-9]{0,2}");
    QValidator *heightValidator = new
          QRegularExpressionValidator(height, this);
    ui->lineEdit_height->setValidator(heightValidator);

    QRegularExpression weight("[0-9]{0,2}.[0-9]{0,2}");
    QValidator *weightValidator = new
          QRegularExpressionValidator(weight, this);
    ui->lineEdit_weight->setValidator(weightValidator);

    ui->pushButton_3->setStyleSheet("padding: 8px;");
    ui->pushButton_4->setStyleSheet("padding: 8px;");

    MainWindow conn;
    conn.connOpen();
    QSqlQuery qry;
    qry.prepare("SELECT MAX(patient_visit_id) FROM
          patient_visit WHERE healthprofile_pid = '"+
          profileValue+"'");
    qry.exec();
    if(qry.first()){
        num = qry.value(0).toString();
        if(num =="0"){
            num = "0";
            current_insulin_regimen = "Starting Insulin
                  Therapy";
            ui->lineEdit_currDosage->setText("10");
            ui->lineEdit_currDosage->setReadOnly(true);
        }
    }

}

AddPatientVisitRecord::~AddPatientVisitRecord()
{
    delete ui;
}
void AddPatientVisitRecord::on_pushButton_clicked() // GET
      PATIENT IOT GLUCOMETER DATA
{

    getPatientIoTData = new GetPatientIoTData(profileValue
          ,med);
    connect(getPatientIoTData,SIGNAL(sendRecord(QString)
          ),this,SLOT(on_record_clicked(QString)));
    getPatientIoTData->show();
}

void AddPatientVisitRecord::on_pushButton_3_clicked() //
      ADD PATIENT VISIT RECORD
{
    MainWindow conn;

    QString datetime_performed;
    QString latest_bg_level, weight, height, a1c;
    QString current_dosage;
    QString fbg, current_insulin_regimen;
    QString b1, b2, b3, b4, b5, p1, p2, p3, p4, bb1, bb2, bb3
          ;

    datetime_performed = ui->lineEdit_dateTime->text();
    latest_bg_level = ui->blood_glucose_level->text();
    weight=ui->lineEdit_weight->text();
    height=ui->lineEdit_height->text();
    a1c=ui->lineEdit_a1c->text();
    current_dosage=ui->lineEdit_currDosage->text();
    fbg=ui->fbg->currentText();
//    current_insulin_regimen=ui->current_insulin_regimen
      ->currentText();
    double latest_bg_level_num =  latest_bg_level.toDouble();

    if(ui->b1->isChecked()){
        b1 = "1"; }
    else{ b1="0"; }
    if(ui->b2->isChecked()){
        b2 = "1";
    }
    else{ b2="0"; }
    if(ui->b3->isChecked()){
        b3 = "1";
    }
    else{ b3="0"; }
    if(ui->b4->isChecked()){
        b4 = "1";
    }
    else{ b4="0"; }
    if(ui->b5->isChecked()){
        b5 = "1";
    }
    else{ b5="0"; }
    if(ui->p1->isChecked()){
        p1 = "1";
    }
    else{ p1="0"; }
    if(ui->p2->isChecked()){
        p2 = "1";
    }
    else{ p2="0"; }
    if(ui->p3->isChecked()){
        p3 = "1";
    }
    else{ p3="0"; }
    if(ui->p4->isChecked()){
        p4 = "1";
    }
    else{ p4="0"; }
    if(ui->bb1->isChecked()){
        bb1 = "1";
    }
    else{ bb1="0"; }
    if(ui->bb2->isChecked()){
        bb2 = "1";
    }
    else{ bb2="0"; }
    if(ui->bb3->isChecked()){
        bb3 = "1";
    }
    else{ bb3="0"; }

    if(ui->lineEdit_a1c->text().isEmpty()){
        a1c = "NA";
    }

    if(!conn.connOpen()){
        qDebug()<<"Failed to open";
        return;
    }

    conn.connOpen();
    QSqlQuery qry;

    if(num != "0"){
        qDebug()<< "here2";

        qry.prepare("SELECT * from treatment_plan
              WHERE patient_visit_id = '"+num+"'");
        if(qry.exec()){
            while(qry.next()){
                current_insulin_regimen = qry.value(3).
                      toString();
            }
        }
        qDebug() << current_insulin_regimen;
    }
    else if (num == "0"){
        qDebug()<< "here3";
            current_insulin_regimen = "Starting Insulin
                  Therapy";
    }

    qry.prepare("INSERT into patient_visit(healthprofile_pid,
          medical_user_pid, datetime_performed,"
              "weight, height, blood_glucose_level, fbg,
                    a1c, current_insulin_regimen,
                    current_dosage,"
              "b1, b2, b3, b4, b5, p1, p2, p3, p4, bb1, bb2
```

```
                , bb3) "
            "values (:profileValue, :med, :
                datetime_performed, "
            ":weight, :height, :latest_bg_level, :fbg, :
                a1c, :current_insulin_regimen, :
                current_dosage,"
            ":b1, :b2, :b3, :b4, :b5, :p1, :p2, :p3, :p4,
                 :bb1, :bb2, :bb3)");

qry.bindValue(":profileValue", profileValue);
qry.bindValue(":med", med);
qry.bindValue(":datetime_performed", datetime_performed
    );
qry.bindValue(":weight", weight);
qry.bindValue(":height", height);
qry.bindValue(":latest_bg_level", latest_bg_level);
qry.bindValue(":fbg", fbg);
qry.bindValue(":a1c", a1c);
qry.bindValue(":current_insulin_regimen",
    current_insulin_regimen);
qry.bindValue(":current_dosage", current_dosage);
qry.bindValue(":b1", b1);
qry.bindValue(":b2", b2);
qry.bindValue(":b3", b3);
qry.bindValue(":b4", b4);
qry.bindValue(":b5", b5);
qry.bindValue(":p1", p1);
qry.bindValue(":p2", p2);
qry.bindValue(":p3", p3);
qry.bindValue(":p4", p4);
qry.bindValue(":bb1", bb1);
qry.bindValue(":bb2", bb2);
qry.bindValue(":bb3", bb3);


if(ui->blood_glucose_level->text().isEmpty() || ui->
    lineEdit_weight->text().isEmpty() || ui->
    lineEdit_height->text().isEmpty()){
    QMessageBox::critical(0, qApp->tr("Error."),
                          qApp->tr("Please fill in all
                              fields.\n\n"
                              "Click Ok to exit."),
                                  QMessageBox::
                                  Ok);
}
else if(qry.exec())
{
    QString recordVal = qry.lastInsertId().toString(); //
        patient visit id
    QString insulin_regimen, insulin_dosage,
        injection_schedule, testing_schedule, titration
        , hypo, others;

    // Recommendation of Insulin Algorithm
    if(a1c != "NA"){ // if there is a hbA1c available
        //check if hba1c is in target
        if(a1c.toDouble() > 7.0){ // hba1c not in target{
            //change insulin regimen & recommend the
                starting dose
            // 4 if else
            if(current_insulin_regimen == "Starting
                Insulin Therapy"){
                insulin_regimen = "Basal (Background)
                    Insulin";
                int bmiCalc = (weight.toDouble()/(
                    height.toDouble()*height.toDouble
                    ()))*10000;
                if(weight.toDouble()< 50){
                    insulin_dosage = "10";
                }
                else if(bmiCalc > 30){
                    insulin_dosage = weight.toDouble()
                        *0.2;
                }
                injection_schedule = "Bedtime.";
                testing_schedule = "Before Breakfast, \n
                    "
                                    "Before Lunch, \n "
                                    "Before Dinner, \n "
                                    "and Bedtime.";
                titration = "Increase the dose by 1 unit
                    once or twice weekly until the
                    FBG is at target.";
                hypo = "Stop increasing the dose if this
                    occurs.";
                others = "Please continue metformin if
                    indicated, consider tapering
                    sulphonylureas as glycaemic control
                     improves.";

            }
            else if(current_insulin_regimen == "Basal (
                Background) Insulin"){
                insulin_regimen = "Pre-mixed Twice
                    Daily (Before breakfast and dinner)
                    ";
                double bmiCalc = (weight.toDouble()/(
                    height.toDouble()*height.toDouble
                    ()))*10000;
                if(weight.toDouble()< 50){
                    insulin_dosage = "12";
                }
                else if(bmiCalc > 30){
                    insulin_dosage = weight.toDouble()
                        *0.2;
                }
                injection_schedule = "6 units before
                    breakfast and \n"
                                     "6 units before
                                         dinner.";
                testing_schedule = "Before Breakfast, \n
                    "
                                    "Before Lunch, \n"
                                    "Before Dinner, \n"
                                    "Bedtime.";
                titration = "Increase the breakfast dose
                    by 1 unit once or twice weekly
                    until the pre-dinner BG is at
                    target. \n"
                            "Increase the dinner dose by
                                1 unit once or twice
                                weekly until the FBG
                                is at target.";
                hypo = "Recommended to reduce the
                    dose by 10-20% for patients
                    suffering from hypoglycaemia (3.9
                    mmol/L).";
                others = "Patient should adjust only one
                    insulin at a time. "
                           "Please continue metformin if
                               indicated, consider
                               tapering sulphonylureas as
                                glycaemic control
                               improves.";

            }
            else if(current_insulin_regimen == "Pre-
                mixed Twice Daily (Before breakfast
                and dinner)"){
                insulin_regimen = "Basal-bolus";
                double tdi = (0.5)*(weight.toDouble());
                double tdi_basal = tdi*(0.40);
                double tdi_bolus = tdi*(0.20);
                insulin_dosage = tdi;

                injection_schedule = "Basal: " + QString
                    ::number(tdi_basal) +" units, Bolus
                    :(before meals) " + QString::
                    number(tdi_bolus) + " units";
                testing_schedule = "Before Breakfast, \n
                    "
                                    "Before Lunch, \n "
                                    "Before Dinner, \n "
                                    "and Bedtime.";

                titration = "It is recommended to
                    titrate the dose once in a week
                    based on PPG.";
                hypo = "A lower starting dose, slower
                    titration and higher targets may
                    be recommended for those patients
                    at higher risk of hypoglycaemia.";
                others = "Patient should adjust only one
                    insulin at a time. "
                           "Please continue metformin if
                               indicated, consider
                               tapering sulphonylureas as
                                glycaemic control
                               improves.";

            }
            else if(current_insulin_regimen == "Basal-
                bolus"){
                insulin_regimen="Basal-Bolus";
                double tdi = (0.5)*(weight.toDouble());
                double tdi_basal = tdi*(0.40);
                double tdi_bolus = tdi*(0.20);
                insulin_dosage = tdi;

                if(fbg == "Before Breakfast"){
                    if(latest_bg_level_num < 4.4){
                        insulin_dosage = QString::
                            number(current_dosage.
                            toInt() - 2);
                    }
                    else if((4.4 <= latest_bg_level_num)
                        && (latest_bg_level_num <=
                        7.2)){
                        insulin_dosage = QString::
                            number(current_dosage.
                            toInt());
                    }
                    else if((7.3 <= latest_bg_level_num)
                        && (latest_bg_level_num <=
                        8.9)){
                        insulin_dosage = QString::
                            number(current_dosage.
                            toInt() + 2);
```

```
                }
                else if((9.0 <= latest_bg_level_num)
                    && (latest_bg_level_num <=
                    10.0)){
                    insulin_dosage = QString::
                        number(current_dosage.
                        toInt() + 4);
                }
                else if(10.1 <= latest_bg_level_num)
                    {
                    insulin_dosage = QString::
                        number(current_dosage.
                        toInt() + 6);
                }
                injection_schedule = "Basal: " + (
                    insulin_dosage) +"units, \n
                    Bolus:(before meals) " +
                    QString::number(tdi_bolus) + "
                     units.";
            }
            else{
                if((7.8 <= latest_bg_level_num) && (
                    latest_bg_level_num <= 10.0)){
                    insulin_dosage = QString::
                        number(current_dosage.
                        toInt());
                }
                else if((10.1 <= latest_bg_level_num
                    ) && (latest_bg_level_num <=
                    11.1)){
                    insulin_dosage = QString::
                        number(current_dosage.
                        toInt() + 2);
                }
                else if((11.2 <= latest_bg_level_num
                    ) && (latest_bg_level_num <=
                    12.2)){
                    insulin_dosage = QString::
                        number(current_dosage.
                        toInt() + 4);
                }
                else if( latest_bg_level_num <=
                    12.3){
                    insulin_dosage = QString::
                        number(current_dosage.
                        toInt() + 6);
                }
                injection_schedule = "Basal: " +
                    QString::number(tdi_basal) +"
                    units, \n Bolus:(before meals) "
                     + (insulin_dosage + "units");
            }

            testing_schedule = "Before Breakfast (
                Bolus), \n"
                                "Before Lunch (Bolus),
                                    \n"
                                "Before Dinner (Bolus)
                                    , \n"
                                "and Bedtime (Basal)
                                    ";
            titration = "Increase the dose by 1-2
                units or 10-15% once or twice
                weekly until SMBG target reached
                .";
            hypo = "Determine and address cause.
                Decrease coressponding dose by
                2-4 units or 10-20%.";
            others = "Patient should adjust only one
                insulin at a time. "
                    "Please continue metformin if
                        indicated, consider
                        tapering sulphonylureas as
                         glycaemic control
                        improves.";
        }
    }
    else if (a1c.toDouble() < 7.0){ //hba1c in target
        // continue regimen & continue current
            insulin dosage
        if(current_insulin_regimen == "Starting
            Insulin Therapy" ||
            current_insulin_regimen == "Basal (
            Background) Insulin"){
            insulin_regimen = "Basal (Background)
                Insulin";
            insulin_dosage = current_dosage;
            injection_schedule = "Bedtime.";
            testing_schedule = "Before Breakfast
                only.";
            titration = "Increase dose by 1 unit once
                 or twice weekly until the FBG is
                at target.";
            hypo = "Stop increasing the dose if this
                occurs.";
            others = "Patient should adjust only one
                insulin at a time. "
                    "Please continue metformin if
                        indicated, consider
                        tapering sulphonylureas as
                         glycaemic control
                        improves.";
        }
        else if(current_insulin_regimen == "Pre-
            mixed Twice Daily (Before breakfast
            and dinner)"){
            insulin_regimen = "Pre-mixed Twice
                Daily (Before breakfast and dinner)
                ";
            insulin_dosage = current_dosage;
            int pm_dosage = current_dosage.toInt()
                /2;
            QString pm_dosage_string = QString::
                number(pm_dosage);


            injection_schedule = pm_dosage_string +
                " units before breakfast and \n" +
                                pm_dosage_string +
                                    " units before
                                    dinner.";
            testing_schedule = "Before Breakfast, \n
                "
                                "Before Lunch \n";
            titration = "Increase the breakfast dose
                by 1 unit once or twice weekly
                until the pre-dinner BG is at
                target. \n"
                    "Increase the dinner dose by
                        1 unit once or twice
                        weekly until the FBG
                        is at target.";
            hypo = "Recommended to reduce the
                dose by 10-20% for patients
                suffering from hypoglycaemia ( 3.9
                mmol/L)";
            others = "Patient should adjust only one
                insulin at a time. "
                    "Please continue metformin if
                        indicated, consider
                        tapering sulphonylureas as
                         glycaemic control
                        improves.";
        }
        else if(current_insulin_regimen == "Basal-
            bolus"){
            insulin_regimen="Basal-Bolus";
            double tdi = (0.5)*(weight.toDouble());
            double tdi_basal = tdi*(0.40);
            double tdi_bolus = tdi*(0.20);
            insulin_dosage = current_dosage;

            if(fbg == "Before Breakfast"){
                injection_schedule = "Basal: " + (
                    insulin_dosage) +"units, \n
                    Bolus:(before meals) " +
                    QString::number(tdi_bolus) + "
                     units.";
            }
            else{
                injection_schedule = "Basal: " +
                    QString::number(tdi_basal) +"
                    units, \n Bolus:(before meals) "
                     + (insulin_dosage + "units");
            }

            testing_schedule = "Before Breakfast (
                Bolus), \n"
                                "Before Lunch (Bolus),
                                    \n"
                                "Before Dinner (Bolus)
                                    , \n"
                                "and Bedtime (Basal)
                                    ";
            titration = "Increase the dose by 1-2
                units or 10-15% once or twice
                weekly until SMBG target reached
                .";
            hypo = "Determine and address cause.
                Decrease coressponding dose by
                2-4 units or 10-20%.";
            others = "Patient should adjust only one
                insulin at a time."
                    "Please continue metformin if
                        indicated, consider
                        tapering sulphonylureas as
                         glycaemic control
                        improves.";
        }
    }
}
else if (a1c == "NA"){ // if there is no hbA1c
    available
    //check current insulin regimen
    // check current blood glucose
    // if current blood glucose level is in target
    // continue insulin regimen
    // if current blood glucoe level is not in target
```

```
// recommend adjusted insulin dosage
if(current_insulin_regimen == "Starting Insulin
      Therapy"){
    insulin_regimen = "Basal (Background)
          Insulin";
    int bmiCalc = (weight.toDouble()/(height.
          toDouble()*height.toDouble()))*10000;
    if(weight.toDouble()< 50){
        insulin_dosage = "10";
    }
    else if(bmiCalc > 30){
        insulin_dosage = weight.toDouble()*0.2;
    }
    injection_schedule = "Bedtime.";
    testing_schedule = "Before Breakfast, "
                       "Before Lunch, "
                       "Before Dinner, "
                       "and Bedtime";
    titration = "Increase the dose by 1 unit
          every 1 unit every day until the FBG
          is at target.";
    hypo = "Stop increasing the dose if this
          occurs.";
    others = "Patient should adjust only one
          insulin at a time. "
             "Please continue metformin if
                   indicated, consider tapering
                   sulphonylureas as glycaemic
                   control improves.";
}
else if(current_insulin_regimen == "Basal (
      Background) Insulin"){
    insulin_regimen = "Basal (Background)
          Insulin";
    if(fbg == "Before Breakfast"){
        if(latest_bg_level_num < 4.4){
            insulin_dosage = QString::number(
                  current_dosage.toInt() - 2);
        }
        else if((4.4 <= latest_bg_level_num) &&
              (latest_bg_level_num <= 7.2)){
            insulin_dosage = QString::number(
                  current_dosage.toInt());
        }
        else if((7.3 <= latest_bg_level_num) &&
              (latest_bg_level_num <= 8.9)){
            insulin_dosage = QString::number(
                  current_dosage.toInt() + 2);
        }
        else if((9.0 <= latest_bg_level_num) &&
              (latest_bg_level_num <= 10.0)){
            insulin_dosage = QString::number(
                  current_dosage.toInt() + 4);
        }
        else if(10.1 <= latest_bg_level_num ){
            insulin_dosage = QString::number(
                  current_dosage.toInt() + 6);
        }
    }
    else{
        if((7.8 <= latest_bg_level_num) && (
              latest_bg_level_num <= 10.0)){
            insulin_dosage = QString::number(
                  current_dosage.toInt());
        }
        else if((10.1 <= latest_bg_level_num)
              && (latest_bg_level_num <= 11.1))
              {
            insulin_dosage = QString::number(
                  current_dosage.toInt() + 2);
        }
        else if((11.2 <= latest_bg_level_num)
              && (latest_bg_level_num <= 12.2))
              {
            insulin_dosage = QString::number(
                  current_dosage.toInt() + 4);
        }
        else if(12.3 <= latest_bg_level_num ){
            insulin_dosage = QString::number(
                  current_dosage.toInt() + 6);
        }
    }
    injection_schedule = "Bedtime.";
    testing_schedule = "Before Breakfast only.";
    titration = "Increase the breakfast dose by 1
          unit every day until every day until
          the pre-supper BG is at target. "
                "Increase the supper dose by 1
                      unit every 1 unit every day
                      until the FBG is at target
                      .";
    hypo = "Stop increasing the dose if this
          occurs.";
    others = "Please continue metformin if
          indicated, consider tapering
          sulphonylureas as glycaemic control
          improves.";
}
else if(current_insulin_regimen == "Pre-mixed
    Twice Daily (Before breakfast and dinner)")
    {
insulin_regimen = "Pre-mixed Twice Daily (
      Before breakfast and dinner)";
qDebug() << "ano to " ;
qDebug() << latest_bg_level_num;

if(fbg == "Before Breakfast" || fbg == "
      Before Lunch" || fbg == "Before
      Dinner" || fbg == "Bedtime"){
    if(latest_bg_level_num < 4.4){
        insulin_dosage = QString::number(
              current_dosage.toInt() - 2);
    }
    else if((4.4 <= latest_bg_level_num) &&
          (latest_bg_level_num <= 7.2)){
        insulin_dosage = QString::number(
              current_dosage.toInt());
    }
    else if((7.3 <= latest_bg_level_num) &&
          (latest_bg_level_num <= 8.9)){
        insulin_dosage = QString::number(
              current_dosage.toInt() + 2);
    }
    else if((9.0 <= latest_bg_level_num) &&
          (latest_bg_level_num <= 10.0)){
        insulin_dosage = QString::number(
              current_dosage.toInt() + 4);
    }
    else if(10.1 <= latest_bg_level_num ){
        insulin_dosage = QString::number(
              current_dosage.toInt() + 6);
    }
}
else{
    if((7.8 <= latest_bg_level_num) && (
          latest_bg_level_num <= 10.0)){
        insulin_dosage = QString::number(
              current_dosage.toInt());
    }
    else if((10.1 <= latest_bg_level_num)
          && (latest_bg_level_num <= 11.1))
          {
        insulin_dosage = QString::number(
              current_dosage.toInt() + 2);
    }
    else if((11.2 <= latest_bg_level_num)
          && (latest_bg_level_num <= 12.2))
          {
        insulin_dosage = QString::number(
              current_dosage.toInt() + 4);
    }
    else if(12.3 <= latest_bg_level_num){
        insulin_dosage = QString::number(
              current_dosage.toInt() + 6);
    }
}

injection_schedule = "Before Breakfast and
      Before Dinner";
testing_schedule = "Before Breakfast, \n"
                   "Before Lunch, \n"
                   "Before Dinner, \n"
                   "Bedtime.";
qDebug() << fbg + "fbg";

if (fbg=="Before Breakfast"){
    inject = "before dinner";
}
else if (fbg == "Before Lunch"){
    inject = "before breakfast";
}
if (fbg=="Before Dinner"){
    inject = "before Lunch";
}
else if (fbg == "Bedtime"){
    inject = "before dinner";
}

titration = "Inject the adjusted the adjusted
      insulin dosage (" + insulin_dosage + "
      units) " + inject + ". \n"
           "It is recommended to modify
                 dose based on the lowest/
                 mean value of the three
                 most recent pre-breakfast/
                 pre-dinner values. \n"
           "Increase the dinner dose by 1
                 unit once or twice weekly
                 until the FBG is at target
                 .";
hypo = "Stop increasing the dose if this
      occurs.";
others = "Patient should adjust only one
      insulin at a time. "
         "Please continue metformin if
               indicated, consider tapering
               sulphonylureas as glycaemic
               control improves.";
```

```
}
else  if(current_insulin_regimen == "Basal-bolus
      "){
    insulin_regimen="Basal-Bolus";
    double tdi = (0.5)*(weight.toDouble());
    double tdi_basal = tdi*(0.40);
    double tdi_bolus = tdi*(0.20);
    insulin_dosage = tdi;

    if(fbg == "Before Breakfast" || fbg == "
          Before Lunch" || fbg == "Before
          Dinner" || fbg == "Bedtime"){
        if(latest_bg_level_num < 4.4){
            insulin_dosage = QString::number(
                  current_dosage.toInt() - 2);
        }
        else  if((4.4 <= latest_bg_level_num) &&
              (latest_bg_level_num <= 7.2)){
            insulin_dosage = QString::number(
                  current_dosage.toInt());
        }
        else  if((7.3 <= latest_bg_level_num) &&
              (latest_bg_level_num <= 8.9)){
            insulin_dosage = QString::number(
                  current_dosage.toInt() + 2);
        }
        else  if((9.0 <= latest_bg_level_num) &&
              (latest_bg_level_num <= 10.0)){
            insulin_dosage = QString::number(
                  current_dosage.toInt() + 4);
        }
        else  if( 10.1 <= latest_bg_level_num){
            insulin_dosage = QString::number(
                  current_dosage.toInt() + 6);
        }
        injection_schedule = "Basal: " + (
              insulin_dosage) +"units, \n Bolus:(
              before meals) " + QString::number(
              tdi_bolus) + " units.";
    }
    else  if(fbg == "After Breakfast" || fbg == "
          After Lunch" || fbg == "After Dinner")
          {
        if((latest_bg_level_num <= 7.8) && (
              latest_bg_level_num <= 10.0)){
            insulin_dosage = QString::number(
                  current_dosage.toInt());
        }
        else  if((10.1 <= latest_bg_level_num)
              && (latest_bg_level_num <= 11.1))
              {
            insulin_dosage = QString::number(
                  current_dosage.toInt() + 2);
        }
        else  if((11.2 <= latest_bg_level_num)
              && (latest_bg_level_num <= 12.2))
              {
            insulin_dosage = QString::number(
                  current_dosage.toInt() + 4);
        }
        else  if( 12.3 <= latest_bg_level_num ){
            insulin_dosage = QString::number(
                  current_dosage.toInt() + 6);
        }
        injection_schedule = "Basal: " + QString
              ::number(tdi_basal) +" units, \n
              Bolus:(before meals) " + (
              insulin_dosage + "units");
    }

    testing_schedule = "Before Breakfast (Bolus),
          \n"
                       "Before Lunch (Bolus), \n
                             "
                       "Before Dinner (Bolus), \n
                             "
                       "and Bedtime (Basal)";
    titration = "The recommended target for
          titration of prandial component is 2-
          hour PPG value of <10.0 mmol/L. \n"
            "The recommended target for
                  titration of basal component is
                  FPG value of 4.4-7.2 mg/dL. \
                  n"
            "It  is  recommended to titrate the
                  dose once in a week based on
                  PPG.";
    hypo = "A lower starting dose, slower
          titration  and higher targets may be
          recommended for those patients at
          higher risk of hypoglycaemia. "
            "Determine and address cause.
                  Decrease coressponding dose by
                   2-4 units or 10-20%.";
    others = "Patient should adjust only one
          insulin  at  a time. "
              "Please continue metformin if
                    indicated,  consider tapering
                    sulphonylureas as glycaemic
                                control improves.";
        }
    }

    qry.prepare("INSERT into treatment_plan (
          treatment_plan_id, patient_visit_id,
          insulin_regimen, insulin_dosage,
          injection_schedule, testing_schedule, titration
          , hypo, others) "
                "values (:recordVal, :recordVal, :
                      insulin_regimen, :insulin_dosage, :
                      injection_schedule, :
                      testing_schedule, :titration, :
                      hypo, :others)");


    qry.bindValue(":recordVal",recordVal);
    qry.bindValue(":insulin_regimen",insulin_regimen);
    qry.bindValue(":insulin_dosage",insulin_dosage);
    qry.bindValue(":injection_schedule",
          injection_schedule);
    qry.bindValue(":testing_schedule",testing_schedule);
    qry.bindValue(":titration",titration);
    qry.bindValue(":hypo",hypo);
    qry.bindValue(":others",others);


    if(qry.exec()){
        qry.prepare("UPDATE get_patient_data SET
              status = '1' WHERE get_patient_data_id =
              '"+dataIDValue+"'");

        if(qry.exec()){
            qDebug() << "done";
            QMessageBox::information(0, qApp->tr("
                  Create Patient Visit Record."),
                                     qApp->tr("New
                                           patient visit
                                           record has
                                           been created.\
                                           n\n"
                                              "Click Ok
                                                    to
                                                    exit
                                                    .."),
                                           QMessageBox
                                           ::Ok)
                                           ;
            patientVisitRecordList = new
                  PatientVisitRecordList(profileValue,
                  med);
            patientVisitRecordList->show();
            conn.connClose();
            close();

        }
        else{
            QMessageBox::critical(this,tr("Error::"), qry
                  .lastError().text());
        }

    }
    else{
        QMessageBox::critical(this,tr("Error::"), qry.
              lastError().text());
    }

  }
  else
  {
      QMessageBox::critical(this,tr("Error::"), qry.
            lastError().text());
  }
}

void AddPatientVisitRecord::on_pushButton_4_clicked() //
      BACK
{
    close();
    patientHealthProfile = new PatientHealthProfile(
          profileValue, med);
    patientHealthProfile->show();
}

void AddPatientVisitRecord::on_record_clicked(QString pd_id)
{
    dataIDValue = pd_id;

    MainWindow conn;
     if(!conn.connOpen()){
         qDebug()<<"Failed to open.";
         return;
     }
     conn.connOpen();
     QSqlQuery qry;

     qry.prepare("select * from get_patient_data where
           get_patient_data_id ='"+pd_id+"'");
```

```
        if(qry.exec()){
            while(qry.next()){
                ui->blood_glucose_level->setText(qry.value(2).
                    toString());
                ui->blood_glucose_level->setReadOnly(true);
                ui->lineEdit_dateTime->setText(qry.value(3).
                    toString());
                ui->lineEdit_dateTime->setReadOnly(true);
            }
        }
        conn.close();
}

#include "addpatientvisitrecorddoc.h"
#include "ui_addpatientvisitrecorddoc.h"
#include "mainwindow.h"
#include "patienthealthprofiledoc.h"
#include <QMessageBox>
#include <QRect>
#include <QDesktopWidget>


AddPatientVisitRecordDoc::AddPatientVisitRecordDoc(
        QString value, QString medical_user, QString dataID,
        QWidget *parent) :
    QMainWindow(parent),
    ui(new Ui::AddPatientVisitRecordDoc)
{
    ui->setupUi(this);
    QRect position = frameGeometry();
    position.moveCenter(QDesktopWidget().
            availableGeometry().center());
    move(position.topLeft());

    profileValue = value;
    med = medical_user;

    QRegularExpression reDate
            ("[0-9]{0,4}-[0-9]{0,2}-[0-9]{0,2}
            [0-9]{0,2}:[0-9]{0,2}:[0-9]{0,2}");
    QValidator *dateValidator = new
            QRegularExpressionValidator(reDate, this);
    ui->lineEdit_dateTime->setValidator(dateValidator);

    QRegularExpression rx("[0-9]*");
    QValidator *intValidator = new
            QRegularExpressionValidator(rx, this);
    ui->lineEdit_weight->setValidator(intValidator);
    ui->lineEdit_height->setValidator(intValidator);
    ui->lineEdit_currDosage->setValidator(intValidator);

    QRegularExpression intPoint("[0-9]{0,2}.[0-9]{0,2}");
    QValidator *intPointValidator = new
            QRegularExpressionValidator(intPoint, this);
    ui->lineEdit_a1c->setValidator(intPointValidator);
    ui->blood_glucose_level->setValidator(intPointValidator
            );

    QRegularExpression height("[0-9]{0,3}.[0-9]{0,2}");
    QValidator *heightValidator = new
            QRegularExpressionValidator(height, this);
    ui->lineEdit_height->setValidator(heightValidator);

    QRegularExpression weight("[0-9]{0,2}.[0-9]{0,2}");
    QValidator *weightValidator = new
            QRegularExpressionValidator(weight, this);
    ui->lineEdit_weight->setValidator(weightValidator);

    ui->pushButton_3->setStyleSheet("padding: 8px;");
    ui->pushButton_4->setStyleSheet("padding: 8px;");
}

AddPatientVisitRecordDoc::~AddPatientVisitRecordDoc()
{
    delete ui;
}


void AddPatientVisitRecordDoc::on_pushButton_clicked()
{
    getPatientIoTData = new GetPatientIoTData(profileValue
            , med);
    connect(getPatientIoTData,SIGNAL(sendRecord(QString)
            ),this,SLOT(on_record_clicked(QString)));
    getPatientIoTData->show();
}

void AddPatientVisitRecordDoc::on_pushButton_3_clicked() //
        ADD PATIENT VISIT RECORD
{
    MainWindow conn;

    QString datetime_performed;
    QString latest_bg_level, weight, height, a1c;
    QString current_dosage;
    QString fbg, current_insulin_regimen;
    QString b1, b2, b3, b4, b5, p1, p2, p3, p4, bb1, bb2, bb3
            ;

    datetime_performed = ui->lineEdit_dateTime->text();
    latest_bg_level = ui->blood_glucose_level->text();
    weight=ui->lineEdit_weight->text();
    height=ui->lineEdit_height->text();
    a1c=ui->lineEdit_a1c->text();
    current_dosage=ui->lineEdit_currDosage->text();
    fbg=ui->fbg->currentText();
//    current_insulin_regimen=ui->current_insulin_regimen
    ->currentText();
    double latest_bg_level_num =  latest_bg_level.toDouble();

    if(ui->b1->isChecked()){
        b1 = "1"; }
    else{ b1="0"; }
    if(ui->b2->isChecked()){
        b2 = "1";
    }
    else{ b2="0"; }
    if(ui->b3->isChecked()){
        b3 = "1";
    }
    else{ b3="0"; }
    if(ui->b4->isChecked()){
        b4 = "1";
    }
    else{ b4="0"; }
    if(ui->b5->isChecked()){
        b5 = "1";
    }
    else{ b5="0"; }
    if(ui->p1->isChecked()){
        p1 = "1";
    }
    else{ p1="0"; }
    if(ui->p2->isChecked()){
        p2 = "1";
    }
    else{ p2="0"; }
    if(ui->p3->isChecked()){
        p3 = "1";
    }
    else{ p3="0"; }
    if(ui->p4->isChecked()){
        p4 = "1";
    }
    else{ p4="0"; }
    if(ui->bb1->isChecked()){
        bb1 = "1";
    }
    else{ bb1="0"; }
    if(ui->bb2->isChecked()){
        bb2 = "1";
    }
    else{ bb2="0"; }
    if(ui->bb3->isChecked()){
        bb3 = "1";
    }
    else{ bb3="0"; }

    if(ui->lineEdit_a1c->text().isEmpty()){
        a1c = "NA";
    }

    if(!conn.connOpen()){
        qDebug()<<"Failed to open";
        return;
    }

    conn.connOpen();
    QSqlQuery qry;
    qry.prepare("SELECT MAX(patient_visit_id) FROM
            patient_visit WHERE healthprofile_pid = '"+
            profileValue+"'");
    qry.exec();
    QString num;
    if(qry.first()){
        num = qry.value(0).toString();
    }

    qry.prepare("SELECT * from treatment_plan WHERE
            patient_visit_id = '"+num+"'");
    if(qry.exec()){
        while(qry.next()){
            current_insulin_regimen = qry.value(3).toString()
                    ;
        }
    }
    qDebug() << current_insulin_regimen;

    qry.prepare("INSERT into patient_visit(healthprofile_pid,
            medical_user_pid, datetime_performed,"
                "weight, height, blood_glucose_level, fbg,
                        a1c, current_insulin_regimen,
                        current_dosage,"
                "b1, b2, b3, b4, b5, p1, p2, p3, p4, bb1, bb2
                        , bb3) "
                "values (:profileValue, :med, :
                        datetime_performed, "
                ":weight, :height, :latest_bg_level, :fbg, :
```

```
                    a1c, :current_insulin_regimen, :
                    current_dosage,"
                ":b1, :b2, :b3, :b4, :b5, :p1, :p2, :p3, :p4,
                     :bb1, :bb2, :bb3)");

qry.bindValue(":profileValue", profileValue);
qry.bindValue(":med", med);
qry.bindValue(":datetime_performed", datetime_performed
    );
qry.bindValue(":weight", weight);
qry.bindValue(":height", height);
qry.bindValue(": latest_bg_level ", latest_bg_level );
qry.bindValue(":fbg", fbg);
qry.bindValue(":a1c", a1c);
qry.bindValue(":current_insulin_regimen",
    current_insulin_regimen);
qry.bindValue(":current_dosage", current_dosage);
qry.bindValue(":b1", b1);
qry.bindValue(":b2", b2);
qry.bindValue(":b3", b3);
qry.bindValue(":b4", b4);
qry.bindValue(":b5", b5);
qry.bindValue(":p1", p1);
qry.bindValue(":p2", p2);
qry.bindValue(":p3", p3);
qry.bindValue(":p4", p4);
qry.bindValue(":bb1", bb1);
qry.bindValue(":bb2", bb2);
qry.bindValue(":bb3", bb3);


if(ui->blood_glucose_level->text().isEmpty() || ui->
    lineEdit_weight->text().isEmpty() || ui->
    lineEdit_height->text().isEmpty()){
    QMessageBox::critical(0, qApp->tr("Error."),
                          qApp->tr("Please fill in all
                                  fields.\n\n"
                                  "Click Ok to exit."),
                                  QMessageBox::
                                  Ok);
}
else if(qry.exec())
{
    QString recordVal = qry.lastInsertId().toString(); //
        patient visit id
    QString insulin_regimen, insulin_dosage,
        injection_schedule, testing_schedule, titration
        , hypo, others;

    // Recommendation of Insulin Algorithm
    if(a1c != "NA"){ // if there is a hbA1c available
        //check if hba1c is in target
        if(a1c.toDouble() > 7.0){ // hba1c not in target{
            //change insulin regimen & recommend the
                starting dose
            // 4 if else
            if(current_insulin_regimen == "Starting
                Insulin Therapy"){
                insulin_regimen = "Basal (Background)
                    Insulin";
                int bmiCalc = (weight.toDouble()/(
                    height.toDouble()*height.toDouble
                    ()))*10000;
                if(weight.toDouble()< 50){
                    insulin_dosage = "10";
                }
                else if(bmiCalc > 30){
                    insulin_dosage = weight.toDouble()
                        *0.2;
                }
                injection_schedule = "Bedtime.";
                testing_schedule = "Before Breakfast, \n
                    "
                                   "Before Lunch, \n "
                                   "Before Dinner, \n "
                                   "and Bedtime.";
                titration = "Increase the dose by 1 unit
                    once or twice weekly until the
                    FBG is at target.";
                hypo = "Stop increasing the dose if this
                    occurs.";
                others = "Please continue metformin if
                    indicated, consider tapering
                    sulphonylureas as glycaemic control
                     improves.";

            }
            else if(current_insulin_regimen == "Basal (
                Background) Insulin"){
                insulin_regimen = "Pre-mixed Twice
                    Daily (Before breakfast and dinner)
                    ";
                double bmiCalc = (weight.toDouble()/(
                    height.toDouble()*height.toDouble
                    ()))*10000;
                if(weight.toDouble()< 50){
                    insulin_dosage = "12";
                }
                else if(bmiCalc > 30){
                    insulin_dosage = weight.toDouble()
                        *0.2;
                }
                injection_schedule = "6 units before
                    breakfast and \n"
                                     "6 units before
                                         dinner.";
                testing_schedule = "Before Breakfast, \n
                    "
                                   "Before Lunch, \n"
                                   "Before Dinner, \n"
                                   "Bedtime.";
                titration = "Increase the breakfast dose
                    by 1 unit once or twice weekly
                    until the pre-dinner BG is at
                    target. \n"
                            "Increase the dinner dose by
                                1 unit once or twice
                                weekly until the FBG
                                is at target.";
                hypo = "Recommended to reduce the
                    dose by 10-20% for patients
                    suffering from hypoglycaemia (3.9
                    mmol/L).";
                others = "Patient should adjust only one
                    insulin at a time. "
                         "Please continue metformin if
                             indicated, consider
                             tapering sulphonylureas as
                              glycaemic control
                             improves.";

            }
        else if(current_insulin_regimen == "Pre-
            mixed Twice Daily (Before breakfast
            and dinner)"){
            insulin_regimen = "Basal-bolus";
            double tdi = (0.5)*(weight.toDouble());
            double tdi_basal = tdi*(0.40);
            double tdi_bolus = tdi*(0.20);
            insulin_dosage = tdi;

            injection_schedule = "Basal: " + QString
                ::number(tdi_basal) +" units, Bolus
                :(before meals) " + QString::
                number(tdi_bolus) + " units";
            testing_schedule = "Before Breakfast, \n
                "
                               "Before Lunch, \n "
                               "Before Dinner, \n "
                               "and Bedtime.";

            titration = "It is recommended to
                titrate the dose once in a week
                based on PPG.";
            hypo = "A lower starting dose, slower
                titration and higher targets may
                be recommended for those patients
                at higher risk of hypoglycaemia.";
            others = "Patient should adjust only one
                insulin at a time. "
                     "Please continue metformin if
                         indicated, consider
                         tapering sulphonylureas as
                          glycaemic control
                         improves.";

        }
        else if(current_insulin_regimen == "Basal-
            bolus"){
            insulin_regimen="Basal-Bolus";
            double tdi = (0.5)*(weight.toDouble());
            double tdi_basal = tdi*(0.40);
            double tdi_bolus = tdi*(0.20);
            insulin_dosage = tdi;

            if(fbg == "Before Breakfast"){
                if(latest_bg_level_num < 4.4){
                    insulin_dosage = QString::
                        number(current_dosage.
                        toInt() - 2);
                }
                else if((4.4 <= latest_bg_level_num)
                    && (latest_bg_level_num <=
                    7.2)){
                    insulin_dosage = QString::
                        number(current_dosage.
                        toInt());
                }
                else if((7.3 <= latest_bg_level_num)
                    && (latest_bg_level_num <=
                    8.9)){
                    insulin_dosage = QString::
                        number(current_dosage.
                        toInt() + 2);
                }
                else if((9.0 <= latest_bg_level_num)
                    && (latest_bg_level_num <=
                    10.0)){
```

```
                    insulin_dosage = QString::
                        number(current_dosage.
                        toInt() + 4);
                }
                else if(10.1 <= latest_bg_level_num)
                    {
                    insulin_dosage = QString::
                        number(current_dosage.
                        toInt() + 6);
                }
                injection_schedule = "Basal: " + (
                    insulin_dosage) +"units, \n
                    Bolus:(before meals) " +
                    QString::number(tdi_bolus) + "
                     units.";
            }
            else{
                if((7.8 <= latest_bg_level_num) && (
                    latest_bg_level_num <= 10.0)){
                    insulin_dosage = QString::
                        number(current_dosage.
                        toInt());
                }
                else if((10.1 <= latest_bg_level_num
                    ) && (latest_bg_level_num <=
                    11.1)){
                    insulin_dosage = QString::
                        number(current_dosage.
                        toInt() + 2);
                }
                else if((11.2 <= latest_bg_level_num
                    ) && (latest_bg_level_num <=
                    12.2)){
                    insulin_dosage = QString::
                        number(current_dosage.
                        toInt() + 4);
                }
                else if( latest_bg_level_num <=
                    12.3){
                    insulin_dosage = QString::
                        number(current_dosage.
                        toInt() + 6);
                }
                injection_schedule = "Basal: " +
                    QString::number(tdi_basal) +"
                    units, \n Bolus:(before meals) "
                     + (insulin_dosage + "units");
            }

            testing_schedule = "Before Breakfast (
                Bolus), \n"
                                "Before Lunch (Bolus),
                                    \n"
                                "Before Dinner (Bolus)
                                    , \n"
                                "and Bedtime (Basal)
                                    ";
            titration = "Increase the dose by 1-2
                units or 10-15% once or twice
                weekly until SMBG target reached
                .";
            hypo = "Determine and address cause.
                Decrease coressponding dose by
                2-4 units or 10-20%.";
            others = "Patient should adjust only one
                insulin at a time. "
                    "Please continue metformin if
                        indicated, consider
                        tapering sulphonylureas as
                         glycaemic control
                        improves.";
        }
    }
    else if (a1c.toDouble() < 7.0){ //hba1c in target
        // continue regimen & continue current
            insulin dosage
        if(current_insulin_regimen == "Starting
            Insulin Therapy" ||
            current_insulin_regimen == "Basal (
            Background) Insulin"){
            insulin_regimen = "Basal (Background)
                Insulin";
            insulin_dosage = current_dosage;
            injection_schedule = "Bedtime.";
            testing_schedule = "Before Breakfast
                only.";
            titration = "Increase dose by 1 unit once
                 or twice weekly until the FBG is
                at target.";
            hypo = "Stop increasing the dose if this
                occurs.";
            others = "Patient should adjust only one
                insulin at a time. "
                    "Please continue metformin if
                        indicated, consider
                        tapering sulphonylureas as
                         glycaemic control
                        improves.";
        }
        else if(current_insulin_regimen == "Pre-
            mixed Twice Daily (Before breakfast
            and dinner)"){
            insulin_regimen = "Pre-mixed Twice
                Daily (Before breakfast and dinner)
                ";
            insulin_dosage = current_dosage;
            int pm_dosage = current_dosage.toInt()
                /2;
            QString pm_dosage_string = QString::
                number(pm_dosage);


            injection_schedule = pm_dosage_string +
                " units before breakfast and \n" +
                                pm_dosage_string +
                                    " units before
                                    dinner.";
            testing_schedule = "Before Breakfast, \n
                "
                                "Before Lunch \n";
            titration = "Increase the breakfast dose
                by 1 unit once or twice weekly
                until the pre-dinner BG is at
                target. \n"
                        "Increase the dinner dose by
                            1 unit once or twice
                            weekly until the FBG
                            is at target.";
            hypo = "Recommended to reduce the
                dose by 10-20% for patients
                suffering from hypoglycaemia ( 3.9
                mmol/L)";
            others = "Patient should adjust only one
                insulin at a time. "
                    "Please continue metformin if
                        indicated, consider
                        tapering sulphonylureas as
                         glycaemic control
                        improves.";
        }
        else if(current_insulin_regimen == "Basal-
            bolus"){
            insulin_regimen="Basal-Bolus";
            double tdi = (0.5)*(weight.toDouble());
            double tdi_basal = tdi*(0.40);
            double tdi_bolus = tdi*(0.20);
            insulin_dosage = current_dosage;

            if(fbg == "Before Breakfast"){
                injection_schedule = "Basal: " + (
                    insulin_dosage) +"units, \n
                    Bolus:(before meals) " +
                    QString::number(tdi_bolus) + "
                     units.";
            }
            else{
                injection_schedule = "Basal: " +
                    QString::number(tdi_basal) +"
                    units, \n Bolus:(before meals) "
                     + (insulin_dosage + "units");
            }

            testing_schedule = "Before Breakfast (
                Bolus), \n"
                                "Before Lunch (Bolus),
                                    \n"
                                "Before Dinner (Bolus)
                                    , \n"
                                "and Bedtime (Basal)
                                    ";
            titration = "Increase the dose by 1-2
                units or 10-15% once or twice
                weekly until SMBG target reached
                .";
            hypo = "Determine and address cause.
                Decrease coressponding dose by
                2-4 units or 10-20%.";
            others = "Patient should adjust only one
                insulin at a time."
                    "Please continue metformin if
                        indicated, consider
                        tapering sulphonylureas as
                         glycaemic control
                        improves.";
        }
    }
}
else if (a1c == "NA"){ // if there is no hbA1c
    available
    //check current insulin regimen
    // check current blood glucose
    // if current blood glucose level is in target
    // continue insulin regimen
    // if current blood glucoe level is not in target
    // recommend adjusted insulin dosage
    if(current_insulin_regimen == "Starting Insulin
        Therapy"){
        insulin_regimen = "Basal (Background)
```

```
            Insulin";
        int bmiCalc = (weight.toDouble()/(height.
            toDouble()*height.toDouble()))*10000;
        if(weight.toDouble()< 50){
            insulin_dosage = "10";
        }
        else if(bmiCalc > 30){
            insulin_dosage = weight.toDouble()*0.2;
        }
        injection_schedule = "Bedtime.";
        testing_schedule = "Before Breakfast, "
                           "Before Lunch, "
                           "Before Dinner, "
                           "and Bedtime";
        titration = "Increase the dose by 1 unit
            every 1 unit every day until the FBG
            is at target.";
        hypo = "Stop increasing the dose if this
            occurs.";
        others = "Patient should adjust only one
            insulin at a time. "
               "Please continue metformin if
                    indicated, consider tapering
                    sulphonylureas as glycaemic
                    control improves.";
    }
    else if(current_insulin_regimen == "Basal (
        Background) Insulin"){
        insulin_regimen = "Basal (Background)
            Insulin";
        if(fbg == "Before Breakfast"){
            if(latest_bg_level_num < 4.4){
                insulin_dosage = QString::number(
                    current_dosage.toInt() - 2);
            }
            else if((4.4 <= latest_bg_level_num) &&
                (latest_bg_level_num <= 7.2)){
                insulin_dosage = QString::number(
                    current_dosage.toInt());
            }
            else if((7.3 <= latest_bg_level_num) &&
                (latest_bg_level_num <= 8.9)){
                insulin_dosage = QString::number(
                    current_dosage.toInt() + 2);
            }
            else if((9.0 <= latest_bg_level_num) &&
                (latest_bg_level_num <= 10.0)){
                insulin_dosage = QString::number(
                    current_dosage.toInt() + 4);
            }
            else if(10.1 <= latest_bg_level_num ){
                insulin_dosage = QString::number(
                    current_dosage.toInt() + 6);
            }
        }
        else{
            if((7.8 <= latest_bg_level_num) && (
                latest_bg_level_num <= 10.0)){
                insulin_dosage = QString::number(
                    current_dosage.toInt());
            }
            else if((10.1 <= latest_bg_level_num)
                && (latest_bg_level_num <= 11.1))
                {
                insulin_dosage = QString::number(
                    current_dosage.toInt() + 2);
            }
            else if((11.2 <= latest_bg_level_num)
                && (latest_bg_level_num <= 12.2))
                {
                insulin_dosage = QString::number(
                    current_dosage.toInt() + 4);
            }
            else if(12.3 <= latest_bg_level_num ){
                insulin_dosage = QString::number(
                    current_dosage.toInt() + 6);
            }
        }
        injection_schedule = "Bedtime.";
        testing_schedule = "Before Breakfast only.";
        titration = "Increase the breakfast dose by 1
             unit every day until every day until
            the pre-supper BG is at target. "
                  "Increase the supper dose by 1
                       unit every 1 unit every day
                        until the FBG is at target
                       .";
        hypo = "Stop increasing the dose if this
            occurs.";
        others = "Please continue metformin if
            indicated, consider tapering
            sulphonylureas as glycaemic control
            improves.";
    }
    else if(current_insulin_regimen == "Pre-mixed
        Twice Daily (Before breakfast and dinner)")
        {
        insulin_regimen = "Pre-mixed Twice Daily (
            Before breakfast and dinner)";
        qDebug() << "ano to " ;
        qDebug() << latest_bg_level_num;

        if(fbg == "Before Breakfast" || fbg == "
            Before Lunch" || fbg == "Before
            Dinner" || fbg == "Bedtime"){
            if(latest_bg_level_num < 4.4){
                insulin_dosage = QString::number(
                    current_dosage.toInt() - 2);
                qDebug() << "dito ka1";
                qDebug() << latest_bg_level_num;
                qDebug() << current_dosage;
                qDebug() << current_dosage.toInt()
                    -2;
                qDebug() << QString::number(
                    current_dosage.toInt() - 2);
                qDebug() << insulin_dosage;
            }
            else if((4.4 <= latest_bg_level_num) &&
                (latest_bg_level_num <= 7.2)){
                insulin_dosage = QString::number(
                    current_dosage.toInt());
                qDebug() << "dito ka2";
                qDebug() << latest_bg_level_num;
                qDebug() << current_dosage;
                qDebug() << current_dosage.toInt();
                qDebug() << QString::number(
                    current_dosage.toInt());
                qDebug() << insulin_dosage;
            }
            else if((7.3 <= latest_bg_level_num) &&
                (latest_bg_level_num <= 8.9)){
                insulin_dosage = QString::number(
                    current_dosage.toInt() + 2);
                qDebug() << "dito ka3";
                qDebug() << latest_bg_level_num;
                qDebug() << latest_bg_level_num;
                qDebug() << current_dosage;
                qDebug() << current_dosage.toInt()
                    +2;
                qDebug() << QString::number(
                    current_dosage.toInt() +2);
                qDebug() << insulin_dosage;
            }
            else if((9.0 <= latest_bg_level_num) &&
                (latest_bg_level_num <= 10.0)){
                insulin_dosage = QString::number(
                    current_dosage.toInt() + 4);
                qDebug() << "dito ka4";
                qDebug() << latest_bg_level_num;
                 qDebug() << latest_bg_level_num;
                  qDebug() << current_dosage;
                  qDebug() << current_dosage.toInt
                      () +4;
                  qDebug() << QString::number(
                      current_dosage.toInt() +4);
                  qDebug() << insulin_dosage;
            }
            else if(10.1 <= latest_bg_level_num ){
                insulin_dosage = QString::number(
                    current_dosage.toInt() + 6);
                qDebug() << "dito ka5";
                qDebug() << latest_bg_level_num;
                qDebug() << current_dosage;
                qDebug() << current_dosage.toInt()
                    +6;
                qDebug() << QString::number(
                    current_dosage.toInt() +6);
                qDebug() << insulin_dosage;
                                    }
        }
        else{
            if((7.8 <= latest_bg_level_num) && (
                latest_bg_level_num <= 10.0)){
                insulin_dosage = QString::number(
                    current_dosage.toInt());
            }
            else if((10.1 <= latest_bg_level_num)
                && (latest_bg_level_num <= 11.1))
                {
                insulin_dosage = QString::number(
                    current_dosage.toInt() + 2);
            }
            else if((11.2 <= latest_bg_level_num)
                && (latest_bg_level_num <= 12.2))
                {
                insulin_dosage = QString::number(
                    current_dosage.toInt() + 4);
            }
            else if(12.3 <= latest_bg_level_num){
                insulin_dosage = QString::number(
                    current_dosage.toInt() + 6);
            }
        }

        injection_schedule = "Before Breakfast and
            Before Dinner";
        testing_schedule = "Before Breakfast, \n"
                           "Before Lunch, \n"
```

```
                        "Before Dinner, \n"
                        "Bedtime.";
    qDebug() << fbg + "fbg";

    if (fbg=="Before Breakfast"){
        inject = "before dinner";
    }
    else if (fbg == "Before Lunch"){
        inject = "before breakfast";
    }
    if (fbg=="Before Dinner"){
        inject = "before Lunch";
    }
    else if (fbg == "Bedtime"){
        inject = "before dinner";
    }

    titration = "Inject the adjusted the adjusted
          insulin dosage (" + insulin_dosage + "
          units) " + inject + ". \n"
              "It is recommended to modify
                   dose based on the lowest/
                   mean value of the three
                   most recent pre-breakfast/
                   pre-dinner values. \n"
              "Increase the dinner dose by 1
                   unit once or twice weekly
                   until the FBG is at target
                   .";
    hypo = "Stop increasing the dose if this
         occurs.";
    others = "Patient should adjust only one
         insulin at a time. "
            "Please continue metformin if
                 indicated, consider tapering
                 sulphonylureas as glycaemic
                 control improves.";
}
else if(current_insulin_regimen == "Basal-bolus
     "){
    insulin_regimen="Basal-Bolus";
    double tdi = (0.5)*(weight.toDouble());
    double tdi_basal = tdi*(0.40);
    double tdi_bolus = tdi*(0.20);
    insulin_dosage = tdi;

    if(fbg == "Before Breakfast" || fbg == "
         Before Lunch" || fbg == "Before
         Dinner" || fbg == "Bedtime"){
        if(latest_bg_level_num < 4.4){
            insulin_dosage = QString::number(
                 current_dosage.toInt() - 2);
        }
        else if((4.4 <= latest_bg_level_num) &&
             (latest_bg_level_num <= 7.2)){
            insulin_dosage = QString::number(
                 current_dosage.toInt());
        }
        else if((7.3 <= latest_bg_level_num) &&
             (latest_bg_level_num <= 8.9)){
            insulin_dosage = QString::number(
                 current_dosage.toInt() + 2);
        }
        else if((9.0 <= latest_bg_level_num) &&
             (latest_bg_level_num <= 10.0)){
            insulin_dosage = QString::number(
                 current_dosage.toInt() + 4);
        }
        else if( 10.1 <= latest_bg_level_num){
            insulin_dosage = QString::number(
                 current_dosage.toInt() + 6);
        }
        injection_schedule = "Basal: " + (
             insulin_dosage) +"units, \n Bolus:(
             before meals) " + QString::number(
             tdi_bolus) + " units.";
    }
    else if(fbg == "After Breakfast" || fbg == "
         After Lunch" || fbg == "After Dinner")
         {
        if((latest_bg_level_num <= 7.8) && (
             latest_bg_level_num <= 10.0)){
            insulin_dosage = QString::number(
                 current_dosage.toInt());
        }
        else if((10.1 <= latest_bg_level_num)
             && (latest_bg_level_num <= 11.1))
             {
            insulin_dosage = QString::number(
                 current_dosage.toInt() + 2);
        }
        else if((11.2 <= latest_bg_level_num)
             && (latest_bg_level_num <= 12.2))
             {
            insulin_dosage = QString::number(
                 current_dosage.toInt() + 4);
        }
        else if( 12.3 <= latest_bg_level_num ){
            insulin_dosage = QString::number(
                 current_dosage.toInt() + 6);
        }
        injection_schedule = "Basal: " + QString
             ::number(tdi_basal) +" units, \n
             Bolus:(before meals) " + (
             insulin_dosage + "units");
    }

    testing_schedule = "Before Breakfast (Bolus),
         \n"
                    "Before Lunch (Bolus), \n
                         "
                    "Before Dinner (Bolus), \n
                         "
                    "and Bedtime (Basal)";
    titration = "The recommended target for
         titration of prandial component is 2-
         hour PPG value of <10.0 mmol/L. \n"
          "The recommended target for
               titration of basal component is
               FPG value of 4.4-7.2 mg/dL. \
               n"
          "It is recommended to titrate the
               dose once in a week based on
               PPG.";
    hypo = "A lower starting dose, slower
         titration and higher targets may be
         recommended for those patients at
         higher risk of hypoglycaemia. "
          "Determine and address cause.
               Decrease coressponding dose by
               2-4 units or 10-20%.";
    others = "Patient should adjust only one
         insulin at a time. "
          "Please continue metformin if
               indicated, consider tapering
               sulphonylureas as glycaemic
               control improves.";
  }
}

qry.prepare("INSERT into treatment_plan (
     treatment_plan_id, patient_visit_id,
     insulin_regimen, insulin_dosage,
     injection_schedule, testing_schedule, titration
     , hypo, others) "
          "values (:recordVal, :recordVal, :
               insulin_regimen, :insulin_dosage, :
               injection_schedule, :
               testing_schedule, :titration, :
               hypo, :others)");

qDebug() << "this is it2";
qDebug() << current_dosage;
qDebug() << current_dosage.toInt();
qDebug() << insulin_dosage;
qDebug() << insulin_dosage;
qry.bindValue(":recordVal",recordVal);
qry.bindValue(":insulin_regimen",insulin_regimen);
qry.bindValue(":insulin_dosage",insulin_dosage);
qry.bindValue(":injection_schedule",
     injection_schedule);
qry.bindValue(":testing_schedule",testing_schedule);
qry.bindValue(":titration",titration);
qry.bindValue(":hypo",hypo);
qry.bindValue(":others",others);

qDebug()<< "Last ID was:" << qry.lastInsertId().
     toString();

if(qry.exec()){
    qry.prepare("UPDATE get_patient_data SET
         status = '1' WHERE get_patient_data_id =
         '"+dataIDValue+"'");
    qDebug() << dataIDValue;
    qDebug() << "prepare";
    if(qry.exec()){
        qDebug() << "done";
        QMessageBox::information(0, qApp->tr("
             Create Patient Visit Record."),
                  qApp->tr("New
                       patient visit
                       record has
                       been created.\
                       n\n"
                    "Click Ok
                         to
                         exit
                         ."),
                         QMessageBox
                         ::Ok)
                         ;
        patientVisitRecordListDoc = new
             PatientVisitRecordListDoc(profileValue,
             med);
        patientVisitRecordListDoc->show();
        conn.connClose();
        close();
```

```
            }
            else{
                QMessageBox::critical(this,tr("Error::"), qry
                    .lastError().text());
            }

        }
        else{
            QMessageBox::critical(this,tr("Error::"), qry.
                lastError().text());
        }

    }
    else
    {
        QMessageBox::critical(this,tr("Error::"), qry.
            lastError().text());
    }
}

void AddPatientVisitRecordDoc::on_pushButton_4_clicked() //
    BACK
{
    close();
    patientHealthProfileDoc = new PatientHealthProfileDoc(
        profileValue, med);
    patientHealthProfileDoc->show();
}

void AddPatientVisitRecordDoc::on_record_clicked(QString
    pd_id)
{
    qDebug() << "ID: :" + pd_id;
    dataIDValue = pd_id;

    MainWindow conn;
    if(!conn.connOpen()){
        qDebug()<<"Failed to open.";
        return;
    }
    conn.connOpen();
    QSqlQuery qry;

    qry.prepare("select * from get_patient_data where
        get_patient_data_id ='"+pd_id+"'");
    //DATAID =GET_PATIENT_DATA_ID

    if(qry.exec()){
        while(qry.next()){
            ui->blood_glucose_level->setText(qry.value(2).
                toString());
            ui->blood_glucose_level->setReadOnly(true);
            ui->lineEdit_dateTime->setText(qry.value(3).
                toString());
            ui->lineEdit_dateTime->setReadOnly(true);
        }
    }
    conn.close();
}

#include "adminaddaccount.h"
#include "ui_adminaddaccount.h"
#include "mainmenu.h"


AdminAddAccount::AdminAddAccount(QWidget *parent) :
    QMainWindow(parent),
    ui(new Ui::AdminAddAccount)
{
    ui->setupUi(this);

    MainWindow conn;

    if(!conn.connOpen())
        QMessageBox::critical(this,tr("Error"), tr("Database
            is not connected."));

    ui->lineEditPassword->setEchoMode(QLineEdit::
        Password);


    QRegularExpression rx("[0-9]*");
    QValidator *validator = new
        QRegularExpressionValidator(rx, this);
    ui->lineEditContactNum->setValidator(validator);

    QRegularExpression mailREX("\\b[A-Z0-9._%+-]+@[A
        -Z0-9.-]+\\.[A-Z]{2,4}\\b",
                               QRegularExpression::
                                   CaseInsensitiveOption);
    QValidator *validator2 = new
        QRegularExpressionValidator(mailREX, this);
    ui->lineEditEmail->setValidator(validator2);

}

AdminAddAccount::~AdminAddAccount()
{
    delete ui;
}

void AdminAddAccount::on_pushButton_clicked() //Back
    Button
{
    close();
    mainMenuAdmin = new MainMenuAdmin();
    mainMenuAdmin->show();
}

void AdminAddAccount::on_pushButton_2_clicked() //Add
    User Button
{
    MainWindow conn;
    QString name, medType, username, password,
        specialization, healthunit, email, contactNum;
    QDate birthday;

    name=ui->lineEditName->text();
    medType=ui->comboBoxType->currentText();
    if (medType == "Nurse"){
        medType == "N";
    }
    else if (medType == "Doctor"){
        medType == "D";

    }
    username=ui->lineEditUsername->text();
    password=ui->lineEditPassword->text();
    birthday=ui->dateEditBirthday->date();
    specialization =ui->lineEditSpecialization->text();
    healthunit=ui->lineEditHealthUnit->text();
    email=ui->lineEditEmail->text();
    contactNum=ui->lineEditContactNum->text();

    if(!conn.connOpen()){
        qDebug() <<"Failed to open";
        return;
    }

    conn.connOpen();
    QSqlQuery qry;

    qry.prepare("insert into medical_user(account_type,
        userID, password, name, birthday, "
                "specialization, health_unit, email,
                    contact_number) values "
                "(:medType, :username, :password, :name, :
                    birthday, :specialization, :healthunit,
                    :email, :contactNum)");

    qry.bindValue(":medType",medType);
    qry.bindValue(":username",username);
    qry.bindValue(":password",password);
    qry.bindValue(":name",name);
    qry.bindValue(":birthday",birthday);
    qry.bindValue(":specialization", specialization);
    qry.bindValue(":healthunit",healthunit);
    qry.bindValue(":email",email);
    qry.bindValue(":contactNum",contactNum);

    if(ui->lineEditName->text().isEmpty() || ui->
        comboBoxType->currentText().isEmpty() || ui->
        lineEditUsername->text().isEmpty() || ui->
        lineEditPassword->text().isEmpty() || ui->
        lineEditName->text().isEmpty()){
        QMessageBox::critical(0, qApp->tr("Error."),
                              qApp->tr("Please fill in all
                                  fields.\n\n"
                                  "Click Ok to exit."),
                                  QMessageBox::
                                  Ok);
    }
    else if(qry.exec()){
        QMessageBox::information(this,tr("Create User
            Account."), tr("New user account saved."));
        conn.connClose();
        close();
        adminSearchUser = new AdminSearchUser();
        adminSearchUser->show();
    }
    else{
        QMessageBox::critical(this,tr("Error::"), qry.
            lastError().text());
    }
}

#include "adminedituser.h"
#include "ui_adminedituser.h"

AdminEditUser::AdminEditUser(QString value, QWidget *
    parent) :
    QMainWindow(parent),
    ui(new Ui::AdminEditUser)
{
    ui->setupUi(this);
    userProfileValue = value;

    MainWindow conn;
```

```
    conn.connOpen();
    QSqlQuery qry;
    qry.prepare("select * from medical_user where
          medical_user_pid ='"+userProfileValue+"'");

    if(qry.exec()){
        while(qry.next()){
            ui->lineEditName->setText(qry.value(4).
                toString());
            ui->lineEditMedType->setReadOnly(true);
            if(qry.value(1).toString() == "N"){
                ui->lineEditMedType->setText("Nurse");
            }
            else if(qry.value(1).toString() == "D") {
                ui->lineEditMedType->setText("Doctor");
            }
            ui->lineEditUsername->setText(qry.value(2).
                toString());
            ui->lineEditPassword->setEchoMode(
                QLineEdit::Password);
            ui->lineEditPassword->setText(qry.value(3).
                toString());
            ui->dateEditBirthday->setDate(qry.value(5).
                toDate());
            ui->lineEditSpecialization->setText(qry.value
                (6).toString());
            ui->lineEditHealthUnit->setText(qry.value(7).
                toString());
            ui->lineEditEmail->setText(qry.value(8).
                toString());
            ui->lineEditContactNum->setText(qry.value(9).
                toString());
        }
    }
}


AdminEditUser::~AdminEditUser()
{
    delete ui;
}

void AdminEditUser::on_backToUserProfile_clicked()
{
    close();
    adminViewUser = new AdminViewUser(userProfileValue);
    adminViewUser->show();
}

void AdminEditUser::on_saveUserProfile_clicked()
{
    MainWindow conn;
    QString name, username, password, specialization,
          healthunit, email, contactNum;
    QDate birthday;

    name=ui->lineEditName->text();
    username=ui->lineEditUsername->text();
    password=ui->lineEditPassword->text();
    birthday=ui->dateEditBirthday->date();
    specialization=ui->lineEditSpecialization->text();
    healthunit=ui->lineEditHealthUnit->text();
    email=ui->lineEditEmail->text();
    contactNum=ui->lineEditContactNum->text();

    if(!conn.connOpen()){
        qDebug() <<"Failed to open";
        return;
    }

    conn.connOpen();
    QSqlQuery qry;

    qry.prepare("update medical_user set userID = :username,
          password = :password, "
                "name = :name, birthday = :birthday,
                      specialization = :specialization,
                      health_unit = :healthunit, "
                "email = :email, contact_number = :
                      contactNum where medical_user_pid = :
                      userProfileValue");

    qry.bindValue(":username",username);
    qry.bindValue(":password",password);
    qry.bindValue(":name",name);
    qry.bindValue(":birthday",birthday);
    qry.bindValue(":specialization", specialization);
    qry.bindValue(":healthunit",healthunit);
    qry.bindValue(":email",email);
    qry.bindValue(":contactNum",contactNum);
    qry.bindValue(":userProfileValue", userProfileValue);

    if(ui->lineEditName->text().isEmpty() || ui->
          lineEditUsername->text().isEmpty() || ui->
          lineEditPassword->text().isEmpty() || ui->
          lineEditName->text().isEmpty()){
        QMessageBox::critical(0, qApp->tr("Error."),
                              qApp->tr("Please fill in all
                                    fields.\n\n"
                                    "Click Ok to exit."),
                                    QMessageBox::
                                    Ok);
    }
    else if(qry.exec()){
        QMessageBox::information(this,tr("Edit User Account
              "), tr("User account has been successfully
              updated."));
        conn.connClose();
        close();
        adminViewUser = new AdminViewUser(
              userProfileValue);
        adminViewUser->show();
    }
    else{
        QMessageBox::critical(this,tr("Error::"), qry.
              lastError().text());
    }

}

#include "adminedituser.h"
#include "ui_adminedituser.h"

AdminEditUser::AdminEditUser(QString value, QWidget *
      parent) :
    QMainWindow(parent),
    ui(new Ui::AdminEditUser)
{
    ui->setupUi(this);
    userProfileValue = value;

    MainWindow conn;
    conn.connOpen();
    QSqlQuery qry;
    qry.prepare("select * from medical_user where
          medical_user_pid ='"+userProfileValue+"'");

    if(qry.exec()){
        while(qry.next()){
            ui->lineEditName->setText(qry.value(4).
                toString());
            ui->lineEditMedType->setReadOnly(true);
            if(qry.value(1).toString() == "N"){
                ui->lineEditMedType->setText("Nurse");
            }
            else if(qry.value(1).toString() == "D") {
                ui->lineEditMedType->setText("Doctor");
            }
            ui->lineEditUsername->setText(qry.value(2).
                toString());
            ui->lineEditPassword->setEchoMode(
                QLineEdit::Password);
            ui->lineEditPassword->setText(qry.value(3).
                toString());
            ui->dateEditBirthday->setDate(qry.value(5).
                toDate());
            ui->lineEditSpecialization->setText(qry.value
                (6).toString());
            ui->lineEditHealthUnit->setText(qry.value(7).
                toString());
            ui->lineEditEmail->setText(qry.value(8).
                toString());
            ui->lineEditContactNum->setText(qry.value(9).
                toString());
        }
    }
}


AdminEditUser::~AdminEditUser()
{
    delete ui;
}

void AdminEditUser::on_backToUserProfile_clicked()
{
    close();
    adminViewUser = new AdminViewUser(userProfileValue);
    adminViewUser->show();
}

void AdminEditUser::on_saveUserProfile_clicked()
{
    MainWindow conn;
    QString name, username, password, specialization,
          healthunit, email, contactNum;
    QDate birthday;

    name=ui->lineEditName->text();
    username=ui->lineEditUsername->text();
    password=ui->lineEditPassword->text();
    birthday=ui->dateEditBirthday->date();
    specialization=ui->lineEditSpecialization->text();
    healthunit=ui->lineEditHealthUnit->text();
    email=ui->lineEditEmail->text();
    contactNum=ui->lineEditContactNum->text();

    if(!conn.connOpen()){
```

```
        qDebug() <<"Failed to open";
        return;
    }

    conn.connOpen();
    QSqlQuery qry;

    qry.prepare("update medical_user set userID = :username,
            password = :password, "
                "name = :name, birthday = :birthday,
                        specialization = :specialization,
                        health_unit = :healthunit, "
                "email = :email, contact_number = :
                        contactNum where medical_user_pid = :
                        userProfileValue");

    qry.bindValue(":username",username);
    qry.bindValue(":password",password);
    qry.bindValue(":name",name);
    qry.bindValue(":birthday",birthday);
    qry.bindValue(":specialization", specialization );
    qry.bindValue(":healthunit",healthunit);
    qry.bindValue(":email",email);
    qry.bindValue(":contactNum",contactNum);
    qry.bindValue(":userProfileValue", userProfileValue);

    if(ui->lineEditName->text().isEmpty() || ui->
            lineEditUsername->text().isEmpty() || ui->
            lineEditPassword->text().isEmpty() || ui->
            lineEditName->text().isEmpty()){
        QMessageBox::critical(0, qApp->tr("Error."),
                              qApp->tr("Please fill in all
                                      fields .\n\n"
                                  "Click Ok to exit."),
                                      QMessageBox::
                                      Ok);
    }
    else if(qry.exec()){
        QMessageBox::information(this,tr("Edit User Account
                ."), tr("User account has been successfully
                updated."));
        conn.connClose();
        close();
        adminViewUser = new AdminViewUser(
                userProfileValue);
        adminViewUser->show();
    }
    else{
        QMessageBox::critical(this,tr("Error::"), qry.
                lastError().text());
    }

}

#include "editpatientvisitrecord.h"
#include "ui_editpatientvisitrecord.h"
#include "patientvisitrecord.h"
#include <QMessageBox>

EditPatientVisitRecord::EditPatientVisitRecord(QString value
        , QString record, QString medical_user, QWidget *
        parent) :
    QMainWindow(parent),
    ui(new Ui::EditPatientVisitRecord)
{
    ui->setupUi(this);
    profileValue = value;
    recordValue = record;
    med = medical_user;

    QRegularExpression reDate
            ("[0-9]{0,4}-[0-9]{0,2}-[0-9]{0,2}
            [0-9]{0,2}:[0-9]{0,2}:[0-9]{0,2}");
    QValidator *dateValidator = new
            QRegularExpressionValidator(reDate, this);
    ui->lineEdit_dateTime->setValidator(dateValidator);

    QRegularExpression rx("[0-9]*");
    QValidator *intValidator = new
            QRegularExpressionValidator(rx, this);
    ui->lineEdit_weight->setValidator(intValidator);
    ui->lineEdit_height->setValidator(intValidator);
    ui->lineEdit_currDosage->setValidator(intValidator);

    QRegularExpression intPoint("[0-9]{0,2}.[0-9]{0,2}");
    QValidator *intPointValidator = new
            QRegularExpressionValidator(intPoint, this);
    ui->lineEdit_a1c->setValidator(intPointValidator);
    ui->blood_glucose_level->setValidator(intPointValidator
            );

    QRegularExpression height("[0-9]{0,3}.[0-9]{0,2}");
    QValidator *heightValidator = new
            QRegularExpressionValidator(height, this);
    ui->lineEdit_height->setValidator(heightValidator);

    QRegularExpression weight("[0-9]{0,2}.[0-9]{0,2}");
    QValidator *weightValidator = new
            QRegularExpressionValidator(weight, this);
    ui->lineEdit_weight->setValidator(weightValidator);

//    ui->pushButton_5->setStyleSheet("padding: 8px;");
    ui->pushButton_3->setStyleSheet("padding: 8px;");
    ui->pushButton_4->setStyleSheet("padding: 8px;");


    MainWindow conn;
    if(!conn.connOpen()){
        qDebug() <<"Failed to open.";
        return;
    }
    conn.connOpen();
    QSqlQuery qry;

    qry.prepare("select * from patient_visit where
            patient_visit_id ='"+recordValue+"'");


    if(qry.exec()){
        while(qry.next()){
            ui->lineEdit_dateTime->setText(qry.value(4).
                    toString());
            ui->lineEdit_weight->setText(qry.value(5).
                    toString());
            ui->lineEdit_height->setText(qry.value(6).
                    toString());
            ui->blood_glucose_level->setText(qry.value(7).
                    toString());
            ui->fbg->setCurrentText(qry.value(8).toString
                    ());
            ui->lineEdit_a1c->setText(qry.value(9).toString
                    ());
            ui->current_insulin_regimen->setCurrentText(
                    qry.value(10).toString());
            ui->lineEdit_currDosage->setText(qry.value(11)
                    .toString());
            if(qry.value(12).toString() == '1'){
                ui->b1->setChecked(true);
            }
            if(qry.value(13).toString() == '1'){
                ui->b2->setChecked(true);
            }
            if(qry.value(14).toString() == '1'){
                ui->b3->setChecked(true);
            }
            if(qry.value(15).toString() == '1'){
                ui->b4->setChecked(true);
            }
            if(qry.value(16).toString() == '1'){
                ui->b5->setChecked(true);
            }
            if(qry.value(17).toString() == '1'){
                ui->p1->setChecked(true);
            }
            if(qry.value(18).toString() == '1'){
                ui->p2->setChecked(true);
            }
            if(qry.value(19).toString() == '1'){
                ui->p3->setChecked(true);
            }
            if(qry.value(20).toString() == '1'){
                ui->p4->setChecked(true);
            }
            if(qry.value(21).toString() == '1'){
                ui->bb1->setChecked(true);
            }
            if(qry.value(22).toString() == '1'){
                ui->bb2->setChecked(true);
            }
            if(qry.value(23).toString() == '1'){
                ui->bb3->setChecked(true);
            }
        }
    }
}

EditPatientVisitRecord::~EditPatientVisitRecord()
{
    delete ui;
}

void EditPatientVisitRecord::on_pushButton_4_clicked() //
        back button
{
    close();
    patientVisitRecord = new PatientVisitRecord(profileValue
            , recordValue, med);
    patientVisitRecord->show();
}

void EditPatientVisitRecord::on_pushButton_3_clicked() //
        update button
{

    MainWindow conn;

    QString datetime_performed;
    QString latest_bg_level, weight, height, a1c;
```

```
QString current_dosage;
QString fbg, current_insulin_regimen;
QString b1, b2, b3, b4, b5, p1, p2, p3, p4, bb1, bb2, bb3
    ;

datetime_performed = ui->lineEdit_dateTime->text();
 latest_bg_level  = ui->blood_glucose_level->text();
weight=ui->lineEdit_weight->text();
height=ui->lineEdit_height->text();
a1c=ui->lineEdit_a1c->text();
current_dosage=ui->lineEdit_currDosage->text();
fbg=ui->fbg->currentText();
current_insulin_regimen=ui->current_insulin_regimen->
    currentText();
double latest_bg_level_num = latest_bg_level.toDouble();


if(ui->b1->isChecked()){
    b1 = "1"; }
else{ b1="0"; }
if(ui->b2->isChecked()){
    b2 = "1";
}
else{ b2="0"; }
if(ui->b3->isChecked()){
    b3 = "1";
}
else{ b3="0"; }
if(ui->b4->isChecked()){
    b4 = "1";
}
else{ b4="0"; }
if(ui->b5->isChecked()){
    b5 = "1";
}
else{ b5="0"; }
if(ui->p1->isChecked()){
    p1 = "1";
}
else{ p1="0"; }
if(ui->p2->isChecked()){
    p2 = "1";
}
else{ p2="0"; }
if(ui->p3->isChecked()){
    p3 = "1";
}
else{ p3="0"; }
if(ui->p4->isChecked()){
    p4 = "1";
}
else{ p4="0"; }
if(ui->bb1->isChecked()){
    bb1 = "1";
}
else{ bb1="0"; }
if(ui->bb2->isChecked()){
    bb2 = "1";
}
else{ bb2="0"; }
if(ui->bb3->isChecked()){
    bb3 = "1";
}
else{ bb3="0"; }

if(ui->lineEdit_a1c->text().isEmpty()){
    a1c = "NA";
}

if(!conn.connOpen()){
    qDebug() <<"Failed to open";
    return;
}

conn.connOpen();
QSqlQuery qry;

qry.prepare("UPDATE patient_visit SET
    datetime_performed = :datetime_performed, weight
    = :weight, height = :height, blood_glucose_level = :
    latest_bg_level, "
            "fbg = :fbg, a1c = :a1c,
                current_insulin_regimen = :
                current_insulin_regimen, current_dosage
                 = :current_dosage, "
            "b1 = :b1, b2 = :b2, b3 = :b3, b4 = :b4, b5
                = :b5, p1 = :p1, p2 = :p2, p3 = :p3, p4
                 = :p4, bb1= :bb1, bb2 = :bb2, bb3 = :
                bb3 "
            "WHERE patient_visit_id = :recordValue");

qry.bindValue(":datetime_performed", datetime_performed
    );
qry.bindValue(":weight", weight);
qry.bindValue(":height", height);
qry.bindValue(": latest_bg_level ",  latest_bg_level );
qry.bindValue(":fbg", fbg);
qry.bindValue(":a1c", a1c);
qry.bindValue(":current_insulin_regimen",
    current_insulin_regimen);
qry.bindValue(":current_dosage", current_dosage);
qry.bindValue(":b1", b1);
qry.bindValue(":b2", b2);
qry.bindValue(":b3", b3);
qry.bindValue(":b4", b4);
qry.bindValue(":b5", b5);
qry.bindValue(":p1", p1);
qry.bindValue(":p2", p2);
qry.bindValue(":p3", p3);
qry.bindValue(":p4", p4);
qry.bindValue(":bb1", bb1);
qry.bindValue(":bb2", bb2);
qry.bindValue(":bb3", bb3);
qry.bindValue(":recordValue", recordValue);

if(ui->blood_glucose_level->text().isEmpty() || ui->
    lineEdit_weight->text().isEmpty() || ui->
    lineEdit_height->text().isEmpty()){
    QMessageBox::critical(0, qApp->tr("Error."),
                qApp->tr("Please fill in all
                    fields.\n\n"
                    "Click Ok to exit."),
                        QMessageBox::
                        Ok);
}
else if(qry.exec())
{
    QString insulin_regimen, insulin_dosage,
        injection_schedule, testing_schedule, titration
        , hypo, others;

    // Recommendation of Insulin Algorithm
    if(a1c != "NA"){ // if there is a hbA1c available
        //check if hba1c is in target
        if(a1c.toDouble() > 7.0){ // hba1c not in target{
            //change insulin regimen & recommend the
                starting dose
            // 4 if else
            if(current_insulin_regimen == "Starting
                Insulin Therapy"){
                insulin_regimen = "Basal (Background)
                    Insulin";
                int bmiCalc = (weight.toDouble()/(
                    height.toDouble()*height.toDouble
                    ()))*10000;
                if(weight.toDouble()< 50){
                    insulin_dosage = "10";
                }
                else if(bmiCalc > 30){
                    insulin_dosage = weight.toDouble()
                        *0.2;
                }
                injection_schedule = "Bedtime.";
                testing_schedule = "Before Breakfast, \n
                    "
                                "Before Lunch, \n "
                                "Before Dinner, \n "
                                "and Bedtime.";
                titration = "Increase the dose by 1 unit
                    once or twice weekly until the
                    FBG is at target.";
                hypo = "Stop increasing the dose if this
                    occurs.";
                others = "Please continue metformin if
                    indicated, consider tapering
                    sulphonylureas as glycaemic control
                     improves.";

            }
            else if(current_insulin_regimen == "Basal (
                Background) Insulin"){
                insulin_regimen = "Pre-mixed Twice
                    Daily (Before breakfast and dinner)
                    ";
                double bmiCalc = (weight.toDouble()/(
                    height.toDouble()*height.toDouble
                    ()))*10000;
                if(weight.toDouble()< 50){
                    insulin_dosage = "12";
                }
                else if(bmiCalc > 30){
                    insulin_dosage = weight.toDouble()
                        *0.2;
                }
                injection_schedule = "6 units before
                    breakfast and \n"
                                "6 units before
                                    dinner.";
                testing_schedule = "Before Breakfast, \n
                    "
                                "Before Lunch, \n"
                                "Before Dinner, \n"
                                "Bedtime.";
                titration = "Increase the breakfast dose
                    by 1 unit once or twice weekly
                    until the pre-dinner BG is at
                    target. \n"
                        "Increase the dinner dose by
```

```
                        1 unit once or twice
                        weekly until the FBG
                        is at target.";
        hypo = "Recommended to reduce the
                dose by 10-20% for patients
                suffering from hypoglycaemia (3.9
                mmol/L).";
        others = "Patient should adjust only one
                insulin at a time. "
                    "Please continue metformin if
                        indicated, consider
                        tapering sulphonylureas as
                         glycaemic control
                        improves.";

    }
    else if(current_insulin_regimen == "Pre-
            mixed Twice Daily (Before breakfast
            and dinner)"){
        insulin_regimen = "Basal-bolus";
        double tdi = (0.5)*(weight.toDouble());
        double tdi_basal = tdi*(0.40);
        double tdi_bolus = tdi*(0.20);
        insulin_dosage = tdi;

        injection_schedule = "Basal: " + QString
                ::number(tdi_basal) +" units, Bolus
                :(before meals) " + QString::
                number(tdi_bolus) + " units";
        testing_schedule = "Before Breakfast, \n
                "
                            "Before Lunch, \n "
                            "Before Dinner, \n "
                            "and Bedtime.";

        titration = "It is recommended to
                titrate the dose once in a week
                based on PPG.";
        hypo = "A lower starting dose, slower
                titration and higher targets may
                be recommended for those patients
                at higher risk of hypoglycaemia.";
        others = "Patient should adjust only one
                insulin at a time. "
                    "Please continue metformin if
                        indicated, consider
                        tapering sulphonylureas as
                         glycaemic control
                        improves.";

    }
    else if(current_insulin_regimen == "Basal-
            bolus"){
        insulin_regimen="Basal-Bolus";
        double tdi = (0.5)*(weight.toDouble());
        double tdi_basal = tdi*(0.40);
        double tdi_bolus = tdi*(0.20);
        insulin_dosage = tdi;

        if(fbg == "Before Breakfast"){
            if(latest_bg_level_num < 4.4){
                insulin_dosage = QString::
                        number(current_dosage.
                        toInt() - 2);
            }
            else if((4.4 <= latest_bg_level_num)
                    && (latest_bg_level_num <=
                    7.2)){
                insulin_dosage = QString::
                        number(current_dosage.
                        toInt());
            }
            else if((7.3 <= latest_bg_level_num)
                    && (latest_bg_level_num <=
                    8.9)){
                insulin_dosage = QString::
                        number(current_dosage.
                        toInt() + 2);
            }
            else if((9.0 <= latest_bg_level_num)
                    && (latest_bg_level_num <=
                    10.0)){
                insulin_dosage = QString::
                        number(current_dosage.
                        toInt() + 4);
            }
            else if(10.1 <= latest_bg_level_num)
                    {
                insulin_dosage = QString::
                        number(current_dosage.
                        toInt() + 6);
            }
            injection_schedule = "Basal: " + (
                    insulin_dosage) +"units, \n
                    Bolus:(before meals) " +
                    QString::number(tdi_bolus) + "
                     units.";
        }
        else{
            if((7.8 <= latest_bg_level_num) && (
                    latest_bg_level_num <= 10.0)){
                insulin_dosage = QString::
                        number(current_dosage.
                        toInt());
            }
            else if((10.1 <= latest_bg_level_num
                    ) && (latest_bg_level_num <=
                    11.1)){
                insulin_dosage = QString::
                        number(current_dosage.
                        toInt() + 2);
            }
            else if((11.2 <= latest_bg_level_num
                    ) && (latest_bg_level_num <=
                    12.2)){
                insulin_dosage = QString::
                        number(current_dosage.
                        toInt() + 4);
            }
            else if( latest_bg_level_num <=
                    12.3){
                insulin_dosage = QString::
                        number(current_dosage.
                        toInt() + 6);
            }
            injection_schedule = "Basal: " +
                    QString::number(tdi_basal) +"
                    units, \n Bolus:(before meals) "
                     + (insulin_dosage + "units");
        }

        testing_schedule = "Before Breakfast (
                Bolus), \n"
                            "Before Lunch (Bolus),
                                \n"
                            "Before Dinner (Bolus)
                                , \n"
                            "and Bedtime (Basal)
                                ";
        titration = "Increase the dose by 1-2
                units or 10-15% once or twice
                weekly until SMBG target reached
                .";
        hypo = "Determine and address cause.
                Decrease coressponding dose by
                2-4 units or 10-20%.";
        others = "Patient should adjust only one
                insulin at a time. "
                    "Please continue metformin if
                        indicated, consider
                        tapering sulphonylureas as
                         glycaemic control
                        improves.";
    }
}
else if (a1c.toDouble() < 7.0){ //hba1c in target
    // continue regimen & continue current
            insulin dosage
    if(current_insulin_regimen == "Starting
            Insulin Therapy" ||
            current_insulin_regimen == "Basal (
            Background) Insulin"){
        insulin_regimen = "Basal (Background)
                Insulin";
        insulin_dosage = current_dosage;
        injection_schedule = "Bedtime.";
        testing_schedule = "Before Breakfast
                only.";
        titration = "Increase dose by 1 unit once
                 or twice weekly until the FBG is
                at target.";
        hypo = "Stop increasing the dose if this
                occurs.";
        others = "Patient should adjust only one
                insulin at a time. "
                    "Please continue metformin if
                        indicated, consider
                        tapering sulphonylureas as
                         glycaemic control
                        improves.";
    }
    else if(current_insulin_regimen == "Pre-
            mixed Twice Daily (Before breakfast
            and dinner)"){
        insulin_regimen = "Pre-mixed Twice
                Daily (Before breakfast and dinner)
                ";
        insulin_dosage = current_dosage;
        int pm_dosage = current_dosage.toInt()
                /2;
        QString pm_dosage_string = QString::
                number(pm_dosage);


        injection_schedule = pm_dosage_string +
                " units before breakfast and \n" +
                                pm_dosage_string +
                                    " units before
```

```
                                        dinner.";
                testing_schedule = "Before Breakfast, \n
                    "
                                        "Before Lunch \n";
                titration = "Increase the breakfast dose
                    by 1 unit once or twice weekly
                    until the pre-dinner BG is at
                    target. \n"
                            "Increase the dinner dose by
                                1 unit once or twice
                                weekly until the FBG
                                is at target.";
                hypo = "Recommended to reduce the
                    dose by 10-20% for patients
                    suffering from hypoglycaemia ( 3.9
                    mmol/L)";
                others = "Patient should adjust only one
                    insulin at a time. "
                        "Please continue metformin if
                            indicated, consider
                            tapering sulphonylureas as
                             glycaemic control
                            improves.";
            }
            else if(current_insulin_regimen == "Basal-
                bolus"){
                insulin_regimen="Basal-Bolus";
                double tdi = (0.5)*(weight.toDouble());
                double tdi_basal = tdi*(0.40);
                double tdi_bolus = tdi*(0.20);
                insulin_dosage = current_dosage;

                if(fbg == "Before Breakfast"){
                    injection_schedule = "Basal: " + (
                        insulin_dosage) +"units, \n
                        Bolus:(before meals) " +
                        QString::number(tdi_bolus) + "
                         units.";
                }
                else{
                    injection_schedule = "Basal: " +
                        QString::number(tdi_basal) +"
                        units, \n Bolus:(before meals) "
                         + (insulin_dosage + "units");
                }

                testing_schedule = "Before Breakfast (
                    Bolus), \n"
                                    "Before Lunch (Bolus),
                                        \n"
                                    "Before Dinner (Bolus)
                                        , \n"
                                    "and Bedtime (Basal)
                                        ";
                titration = "Increase the dose by 1-2
                    units or 10-15% once or twice
                    weekly until SMBG target reached
                    .";
                hypo = "Determine and address cause.
                    Decrease coressponding dose by
                    2-4 units or 10-20%.";
                others = "Patient should adjust only one
                    insulin at a time."
                        "Please continue metformin if
                            indicated, consider
                            tapering sulphonylureas as
                             glycaemic control
                            improves.";
            }
        }
    }
    else if (a1c == "NA"){ // if there is no hbA1c
        available
        //check current insulin regimen
        // check current blood glucose
        // if current blood glucose level is in target
        // continue insulin regimen
        // if current blood glucoe level is not in target
        // recommend adjusted insulin dosage
        if(current_insulin_regimen == "Starting Insulin
            Therapy"){
            insulin_regimen = "Basal (Background)
                Insulin";
            int bmiCalc = (weight.toDouble()/(height.
                toDouble()*height.toDouble()))*10000;
            if(weight.toDouble()< 50){
                insulin_dosage = "10";
            }
            else if(bmiCalc > 30){
                insulin_dosage = weight.toDouble()*0.2;
            }
            injection_schedule = "Bedtime.";
            testing_schedule = "Before Breakfast, "
                               "Before Lunch, "
                               "Before Dinner, "
                               "and Bedtime";
            titration = "Increase the dose by 1 unit
                every 1 unit every day until the FBG
                is at target.";
            hypo = "Stop increasing the dose if this
                occurs.";
            others = "Patient should adjust only one
                insulin at a time. "
                    "Please continue metformin if
                        indicated, consider tapering
                        sulphonylureas as glycaemic
                        control improves.";
        }
        else if(current_insulin_regimen == "Basal (
            Background) Insulin"){
            insulin_regimen = "Basal (Background)
                Insulin";
            if(fbg == "Before Breakfast"){
                if(latest_bg_level_num < 4.4){
                    insulin_dosage = QString::number(
                        current_dosage.toInt() - 2);
                }
                else if((4.4 <= latest_bg_level_num) &&
                    (latest_bg_level_num <= 7.2)){
                    insulin_dosage = QString::number(
                        current_dosage.toInt());
                }
                else if((7.3 <= latest_bg_level_num) &&
                    (latest_bg_level_num <= 8.9)){
                    insulin_dosage = QString::number(
                        current_dosage.toInt() + 2);
                }
                else if((9.0 <= latest_bg_level_num) &&
                    (latest_bg_level_num <= 10.0)){
                    insulin_dosage = QString::number(
                        current_dosage.toInt() + 4);
                }
                else if(10.1 <= latest_bg_level_num ){
                    insulin_dosage = QString::number(
                        current_dosage.toInt() + 6);
                }
            }
            else{
                if((7.8 <= latest_bg_level_num) && (
                    latest_bg_level_num <= 10.0)){
                    insulin_dosage = QString::number(
                        current_dosage.toInt());
                }
                else if((10.1 <= latest_bg_level_num)
                    && (latest_bg_level_num <= 11.1))
                    {
                    insulin_dosage = QString::number(
                        current_dosage.toInt() + 2);
                }
                else if((11.2 <= latest_bg_level_num)
                    && (latest_bg_level_num <= 12.2))
                    {
                    insulin_dosage = QString::number(
                        current_dosage.toInt() + 4);
                }
                else if(12.3 <= latest_bg_level_num ){
                    insulin_dosage = QString::number(
                        current_dosage.toInt() + 6);
                }
            }
            injection_schedule = "Bedtime.";
            testing_schedule = "Before Breakfast only.";
            titration = "Increase the breakfast dose by 1
                unit every day until every day until
                the pre-supper BG is at target. "
                    "Increase the supper dose by 1
                        unit every 1 unit every day
                        until the FBG is at target
                        .";
            hypo = "Stop increasing the dose if this
                occurs.";
            others = "Please continue metformin if
                indicated, consider tapering
                sulphonylureas as glycaemic control
                improves.";
        }
        else if(current_insulin_regimen == "Pre-mixed
            Twice Daily (Before breakfast and dinner)")
            {
            insulin_regimen = "Pre-mixed Twice Daily (
                Before breakfast and dinner)";


            if(fbg == "Before Breakfast" || fbg == "
                Before Lunch" || fbg == "Before
                Dinner" || fbg == "Bedtime"){
                if(latest_bg_level_num < 4.4){
                    insulin_dosage = QString::number(
                        current_dosage.toInt() - 2);

                }
                else if((4.4 <= latest_bg_level_num) &&
                    (latest_bg_level_num <= 7.2)){
                    insulin_dosage = QString::number(
                        current_dosage.toInt());
                }
                else if((7.3 <= latest_bg_level_num) &&
                    (latest_bg_level_num <= 8.9)){
```

```
                insulin_dosage = QString::number(
                        current_dosage.toInt() + 2);

            }
            else if((9.0 <= latest_bg_level_num) &&
                    (latest_bg_level_num <= 10.0)){
                insulin_dosage = QString::number(
                        current_dosage.toInt() + 4);

            }
            else if(10.1 <= latest_bg_level_num ){
                insulin_dosage = QString::number(
                        current_dosage.toInt() + 6);
                                }
        }
        else{
            if((7.8 <= latest_bg_level_num) && (
                    latest_bg_level_num <= 10.0)){
                insulin_dosage = QString::number(
                        current_dosage.toInt());
            }
            else if((10.1 <= latest_bg_level_num)
                    && (latest_bg_level_num <= 11.1))
                    {
                insulin_dosage = QString::number(
                        current_dosage.toInt() + 2);
            }
            else if((11.2 <= latest_bg_level_num)
                    && (latest_bg_level_num <= 12.2))
                    {
                insulin_dosage = QString::number(
                        current_dosage.toInt() + 4);
            }
            else if(12.3 <= latest_bg_level_num){
                insulin_dosage = QString::number(
                        current_dosage.toInt() + 6);
            }
        }

        injection_schedule = "Before Breakfast and
                Before Dinner";
        testing_schedule = "Before Breakfast, \n"
                           "Before Lunch, \n"
                           "Before Dinner, \n"
                           "Bedtime.";

        if (fbg=="Before Breakfast"){
            inject = "before dinner";
        }
        else if (fbg == "Before Lunch"){
            inject = "before breakfast";
        }
        if (fbg=="Before Dinner"){
            inject = "before Lunch";
        }
        else if (fbg == "Bedtime"){
            inject = "before dinner";
        }

        titration = "Inject the adjusted the adjusted
                insulin dosage (" + insulin_dosage + "
                units) " + inject + ". \n"
                     "It is recommended to modify
                             dose based on the lowest/
                             mean value of the three
                             most recent pre-breakfast/
                             pre-dinner values. \n"
                     "Increase the dinner dose by 1
                             unit once or twice weekly
                             until the FBG is at target
                             .";
        hypo = "Stop increasing the dose if this
                occurs.";
        others = "Patient should adjust only one
                insulin at a time. "
                   "Please continue metformin if
                           indicated, consider tapering
                           sulphonylureas as glycaemic
                           control improves.";
    }
    else if(current_insulin_regimen == "Basal-bolus
            "){
        insulin_regimen="Basal-Bolus";
        double tdi = (0.5)*(weight.toDouble());
        double tdi_basal = tdi*(0.40);
        double tdi_bolus = tdi*(0.20);
        insulin_dosage = tdi;

        if(fbg == "Before Breakfast" || fbg == "
                Before Lunch" || fbg == "Before
                Dinner" || fbg == "Bedtime"){
            if(latest_bg_level_num < 4.4){
                insulin_dosage = QString::number(
                        current_dosage.toInt() - 2);
            }
            else if((4.4 <= latest_bg_level_num) &&
                    (latest_bg_level_num <= 7.2)){
                insulin_dosage = QString::number(
                        current_dosage.toInt());
            }
            else if((7.3 <= latest_bg_level_num) &&
                    (latest_bg_level_num <= 8.9)){
                insulin_dosage = QString::number(
                        current_dosage.toInt() + 2);
            }
            else if((9.0 <= latest_bg_level_num) &&
                    (latest_bg_level_num <= 10.0)){
                insulin_dosage = QString::number(
                        current_dosage.toInt() + 4);
            }
            else if( 10.1 <= latest_bg_level_num){
                insulin_dosage = QString::number(
                        current_dosage.toInt() + 6);
            }
            injection_schedule = "Basal: " + (
                    insulin_dosage) +"units, \n Bolus:(
                    before meals) " + QString::number(
                    tdi_bolus) + " units.";
        }
        else if(fbg == "After Breakfast" || fbg == "
                After Lunch" || fbg == "After Dinner")
                {
            if((latest_bg_level_num <= 7.8) && (
                    latest_bg_level_num <= 10.0)){
                insulin_dosage = QString::number(
                        current_dosage.toInt());
            }
            else if((10.1 <= latest_bg_level_num)
                    && (latest_bg_level_num <= 11.1))
                    {
                insulin_dosage = QString::number(
                        current_dosage.toInt() + 2);
            }
            else if((11.2 <= latest_bg_level_num)
                    && (latest_bg_level_num <= 12.2))
                    {
                insulin_dosage = QString::number(
                        current_dosage.toInt() + 4);
            }
            else if( 12.3 <= latest_bg_level_num ){
                insulin_dosage = QString::number(
                        current_dosage.toInt() + 6);
            }
            injection_schedule = "Basal: " + QString
                    ::number(tdi_basal) +" units, \n
                    Bolus:(before meals) " + (
                    insulin_dosage + "units");
        }

        testing_schedule = "Before Breakfast (Bolus),
                \n"
                           "Before Lunch (Bolus), \n
                                   "
                           "Before Dinner (Bolus), \n
                                   "
                           "and Bedtime (Basal)";
        titration = "The recommended target for
                titration of prandial component is 2-
                hour PPG value of <10.0 mmol/L. \n"
                  "The recommended target for
                          titration of basal component is
                          FPG value of 4.4-7.2 mg/dL. \
                          n"
                  "It is recommended to titrate the
                          dose once in a week based on
                          PPG.";
        hypo = "A lower starting dose, slower
                titration and higher targets may be
                recommended for those patients at
                higher risk of hypoglycaemia. "
                  "Determine and address cause.
                          Decrease coressponding dose by
                          2-4 units or 10-20%.";
        others = "Patient should adjust only one
                insulin at a time. "
                   "Please continue metformin if
                           indicated, consider tapering
                           sulphonylureas as glycaemic
                           control improves.";
    }
}


qry.prepare("SELECT * from treatment_plan where
        patient_visit_id = '"+recordValue+"'");
if(qry.exec()){
    while(qry.next()){
        QString tp_id = qry.value(0).toString();


        qry.prepare("UPDATE treatment_plan SET
                insulin_regimen = :insulin_regimen,
                insulin_dosage = :insulin_dosage,
                injection_schedule = :injection_schedule,
                "
                     "testing_schedule = :
                             testing_schedule, titration
                              = :titration, hypo = :
```

```
                                hypo, others = :others "
                            "WHERE treatment_plan_id = :
                                tp_id");

                qry.bindValue(":insulin_regimen",
                        insulin_regimen);
                qry.bindValue(":insulin_dosage",
                        insulin_dosage);
                qry.bindValue(":injection_schedule",
                         injection_schedule);
                qry.bindValue(":testing_schedule",
                        testing_schedule);
                qry.bindValue(":titration", titration);
                qry.bindValue(":hypo",hypo);
                qry.bindValue(":others",others);
                qry.bindValue(":tp_id", tp_id);

                if(qry.exec()){
                    QMessageBox::information(0, qApp->tr
                            ("Edit Patient Visit Record."),
                                        qApp->tr("
                                                Patient
                                                visit
                                                record has
                                                 been
                                                successfully
                                                 updated.\
                                                n\n"
                                                    "Click
                                                        Ok
                                                to
                                                exit
                                                .")
                                                ,
                                                QMessageBox
                                                ::
                                                Ok
                                                );
                    patientVisitRecord = new
                            PatientVisitRecord(profileValue,
                            recordValue, med);
                    patientVisitRecord->show();
                    conn.connClose();
                    close();
                }
                else{
                    QMessageBox::critical(this,tr("Error::"),
                             qry.lastError().text());
                }
            }
        }
        else
        {
            QMessageBox::critical(this,tr("Error::"), qry.
                    lastError().text());
        }
    }
    else
    {
        QMessageBox::critical(this,tr("Error::"), qry.
                lastError().text());
    }
}

void EditPatientVisitRecord::on_pushButton_5_clicked() //
      delete
{
    MainWindow conn;

    if (!conn.connOpen()){
       qDebug() <<"Failed to open";
        return;
    }

    conn.connOpen();
    QSqlQuery qry;

    qry.prepare("Delete from patient_visit where
            patient_visit_id  ='"+recordValue+"'");

    if(qry.exec()){
        QMessageBox::information(this,tr("Delete Patient
                Visit Record"), tr("Patient Visit Record has
                been deleted successfully."));
        conn.connClose();
    }
    else{
        QMessageBox::critical(this,tr("Error::"), qry.
                lastError().text());
    }

    close();
    patientVisitRecordList = new PatientVisitRecordList(
            profileValue, med);
    patientVisitRecordList->show();
}
```

```
#include "editpatientvisitrecorddoc.h"
#include "ui_editpatientvisitrecorddoc.h"
#include "patientvisitrecorddoc.h"
#include <QMessageBox>

EditPatientVisitRecordDoc::EditPatientVisitRecordDoc(
        QString value, QString record, QString medical_user,
        QWidget *parent) :
    QMainWindow(parent),
    ui(new Ui::EditPatientVisitRecordDoc)
{
    ui->setupUi(this);
    profileValue = value;
    recordValue = record;
    med = medical_user;
    QRegularExpression reDate
            ("[0-9]{0,4}-[0-9]{0,2}-[0-9]{0,2}
            [0-9]{0,2}:[0-9]{0,2}:[0-9]{0,2}");
    QValidator *dateValidator = new
            QRegularExpressionValidator(reDate, this);
    ui->lineEdit_dateTime->setValidator(dateValidator);

    QRegularExpression rx("[0-9]*");
    QValidator *intValidator = new
            QRegularExpressionValidator(rx, this);
    ui->lineEdit_weight->setValidator(intValidator);
    ui->lineEdit_height->setValidator(intValidator);
    ui->lineEdit_currDosage->setValidator(intValidator);

    QRegularExpression intPoint("[0-9]{0,2}.[0-9]{0,2}");
    QValidator *intPointValidator = new
            QRegularExpressionValidator(intPoint, this);
    ui->lineEdit_a1c->setValidator(intPointValidator);
    ui->blood_glucose_level->setValidator(intPointValidator
            );

    QRegularExpression height("[0-9]{0,3}.[0-9]{0,2}");
    QValidator *heightValidator = new
            QRegularExpressionValidator(height, this);
    ui->lineEdit_height->setValidator(heightValidator);

    QRegularExpression weight("[0-9]{0,2}.[0-9]{0,2}");
    QValidator *weightValidator = new
            QRegularExpressionValidator(weight, this);
    ui->lineEdit_weight->setValidator(weightValidator);

//    ui->pushButton_5->setStyleSheet("padding: 8px;");
    ui->pushButton_3->setStyleSheet("padding: 8px;");
    ui->pushButton_4->setStyleSheet("padding: 8px;");


    MainWindow conn;
    if (!conn.connOpen()){
        qDebug()<<"Failed to open.";
        return;
    }
    conn.connOpen();
    QSqlQuery qry;

    qry.prepare("select * from patient_visit where
            patient_visit_id  ='"+recordValue+"'");


    if(qry.exec()){
        while(qry.next()){
            ui->lineEdit_dateTime->setText(qry.value(4).
                    toString());
            ui->lineEdit_weight->setText(qry.value(5).
                    toString());
            ui->lineEdit_height->setText(qry.value(6).
                    toString());
            ui->blood_glucose_level->setText(qry.value(7).
                    toString());
            ui->fbg->setCurrentText(qry.value(8).toString
                    ());
            ui->lineEdit_a1c->setText(qry.value(9).toString
                    ());
            ui->current_insulin_regimen->setCurrentText(
                    qry.value(10).toString());
            ui->lineEdit_currDosage->setText(qry.value(11)
                    .toString());
            if(qry.value(12).toString() == '1'){
                ui->b1->setChecked(true);
            }
            if(qry.value(13).toString() == '1'){
                ui->b2->setChecked(true);
            }
            if(qry.value(14).toString() == '1'){
                ui->b3->setChecked(true);
            }
            if(qry.value(15).toString() == '1'){
                ui->b4->setChecked(true);
            }
            if(qry.value(16).toString() == '1'){
                ui->b5->setChecked(true);
            }
            if(qry.value(17).toString() == '1'){
                ui->p1->setChecked(true);
            }
```

```
            if(qry.value(18).toString() == '1'){
                ui->p2->setChecked(true);
            }
            if(qry.value(19).toString() == '1'){
                ui->p3->setChecked(true);
            }
            if(qry.value(20).toString() == '1'){
                ui->p4->setChecked(true);
            }
            if(qry.value(21).toString() == '1'){
                ui->bb1->setChecked(true);
            }
            if(qry.value(22).toString() == '1'){
                ui->bb2->setChecked(true);
            }
            if(qry.value(23).toString() == '1'){
                ui->bb3->setChecked(true);
            }
        }
    }
}
EditPatientVisitRecordDoc::~EditPatientVisitRecordDoc()
{
    delete ui;
}

void EditPatientVisitRecordDoc::on_pushButton_4_clicked() //
      back button
{
    close();
    patientVisitRecordDoc = new PatientVisitRecordDoc(
          profileValue, recordValue, med);
    patientVisitRecordDoc->show();
}

void EditPatientVisitRecordDoc::on_pushButton_3_clicked() //
      update button
{
    MainWindow conn;

    QString datetime_performed;
    QString latest_bg_level, weight, height, a1c;
    QString current_dosage;
    QString fbg, current_insulin_regimen;
    QString b1, b2, b3, b4, b5, p1, p2, p3, p4, bb1, bb2, bb3
          ;

    datetime_performed = ui->lineEdit_dateTime->text();
     latest_bg_level  = ui->blood_glucose_level->text();
    weight=ui->lineEdit_weight->text();
    height=ui->lineEdit_height->text();
    a1c=ui->lineEdit_a1c->text();
    current_dosage=ui->lineEdit_currDosage->text();
    fbg=ui->fbg->currentText();
    current_insulin_regimen=ui->current_insulin_regimen->
          currentText();
    double latest_bg_level_num = latest_bg_level.toDouble();


    if(ui->b1->isChecked()){
        b1 = "1"; }
    else{ b1="0"; }
    if(ui->b2->isChecked()){
        b2 = "1";
    }
    else{ b2="0"; }
    if(ui->b3->isChecked()){
        b3 = "1";
    }
    else{ b3="0"; }
    if(ui->b4->isChecked()){
        b4 = "1";
    }
    else{ b4="0"; }
    if(ui->b5->isChecked()){
        b5 = "1";
    }
    else{ b5="0"; }
    if(ui->p1->isChecked()){
        p1 = "1";
    }
    else{ p1="0"; }
    if(ui->p2->isChecked()){
        p2 = "1";
    }
    else{ p2="0"; }
    if(ui->p3->isChecked()){
        p3 = "1";
    }
    else{ p3="0"; }
    if(ui->p4->isChecked()){
        p4 = "1";
    }
    else{ p4="0"; }
    if(ui->bb1->isChecked()){
        bb1 = "1";
    }
    else{ bb1="0"; }
    if(ui->bb2->isChecked()){
        bb2 = "1";
    }
    else{ bb2="0"; }
    if(ui->bb3->isChecked()){
        bb3 = "1";
    }
    else{ bb3="0"; }

    if(ui->lineEdit_a1c->text().isEmpty()){
        a1c = "NA";
    }

    if(!conn.connOpen()){
        qDebug()<<"Failed to open";
        return;
    }

    conn.connOpen();
    QSqlQuery qry;

    qry.prepare("UPDATE patient_visit SET
          datetime_performed = :datetime_performed, weight
          = :weight, height = :height, blood_glucose_level = :
          latest_bg_level, "
                "fbg = :fbg, a1c = :a1c,
                      current_insulin_regimen = :
                      current_insulin_regimen, current_dosage
                       = :current_dosage, "
                "b1 = :b1, b2 = :b2, b3 = :b3, b4 = :b4, b5
                      = :b5, p1 = :p1, p2 = :p2, p3 = :p3, p4
                       = :p4, bb1= :bb1, bb2 = :bb2, bb3 = :
                      bb3 "
                "WHERE patient_visit_id = :recordValue");

    qry.bindValue(":datetime_performed", datetime_performed
          );
    qry.bindValue(":weight", weight);
    qry.bindValue(":height", height);
    qry.bindValue(":latest_bg_level", latest_bg_level );
    qry.bindValue(":fbg", fbg);
    qry.bindValue(":a1c", a1c);
    qry.bindValue(":current_insulin_regimen",
          current_insulin_regimen);
    qry.bindValue(":current_dosage", current_dosage);
    qry.bindValue(":b1", b1);
    qry.bindValue(":b2", b2);
    qry.bindValue(":b3", b3);
    qry.bindValue(":b4", b4);
    qry.bindValue(":b5", b5);
    qry.bindValue(":p1", p1);
    qry.bindValue(":p2", p2);
    qry.bindValue(":p3", p3);
    qry.bindValue(":p4", p4);
    qry.bindValue(":bb1", bb1);
    qry.bindValue(":bb2", bb2);
    qry.bindValue(":bb3", bb3);
    qry.bindValue(":recordValue", recordValue);

    if(ui->blood_glucose_level->text().isEmpty() || ui->
          lineEdit_weight->text().isEmpty() || ui->
          lineEdit_height->text().isEmpty()){
        QMessageBox::critical(0, qApp->tr("Error."),
                              qApp->tr("Please fill in all
                                    fields.\n\n"
                                    "Click Ok to exit."),
                                          QMessageBox::
                                          Ok);
    }
    else if(qry.exec())
    {
        QString insulin_regimen, insulin_dosage,
              injection_schedule, testing_schedule, titration
              , hypo, others;

        // Recommendation of Insulin Algorithm
        if(a1c != "NA"){ // if there is a hbA1c available
            //check if hba1c is in target
            if(a1c.toDouble() > 7.0){ // hba1c not in target{
                //change insulin regimen & recommend the
                      starting dose
                // 4 if else
                if(current_insulin_regimen == "Starting
                      Insulin Therapy"){
                    insulin_regimen = "Basal (Background)
                          Insulin";
                    int bmiCalc = (weight.toDouble()/(
                          height.toDouble()*height.toDouble
                          ()))*10000;
                    if(weight.toDouble()< 50){
                        insulin_dosage = "10";
                    }
                    else if(bmiCalc > 30){
                        insulin_dosage = weight.toDouble()
                              *0.2;
                    }
                    injection_schedule = "Bedtime.";
                    testing_schedule = "Before Breakfast, \n
                          "
                                       "Before Lunch, \n "
```

```
                        "Before Dinner, \n "
                        "and Bedtime.";
    titration = "Increase the dose by 1 unit
        once or twice weekly until the
        FBG is at target.";
    hypo = "Stop increasing the dose if this
        occurs.";
    others = "Please continue metformin if
        indicated, consider tapering
        sulphonylureas as glycaemic control
         improves.";

}
else if(current_insulin_regimen == "Basal (
    Background) Insulin"){
    insulin_regimen = "Pre-mixed Twice
        Daily (Before breakfast and dinner)
        ";
    double bmiCalc = (weight.toDouble()/(
        height.toDouble()*height.toDouble
        ()))*10000;
    if(weight.toDouble()< 50){
        insulin_dosage = "12";
    }
    else if(bmiCalc > 30){
        insulin_dosage = weight.toDouble()
            *0.2;
    }
    injection_schedule = "6 units before
        breakfast and \n"
                    "6 units before
                        dinner.";
    testing_schedule = "Before Breakfast, \n
        "
                    "Before Lunch, \n"
                    "Before Dinner, \n"
                    "Bedtime.";
    titration = "Increase the breakfast dose
        by 1 unit once or twice weekly
        until the pre-dinner BG is at
        target. \n"
            "Increase the dinner dose by
                1 unit once or twice
                weekly until the FBG
                is at target.";
    hypo = "Recommended to reduce the
        dose by 10-20% for patients
        suffering from hypoglycaemia (3.9
        mmol/L).";
    others = "Patient should adjust only one
        insulin at a time. "
            "Please continue metformin if
                indicated, consider
                tapering sulphonylureas as
                 glycaemic control
                improves.";

}
else if(current_insulin_regimen == "Pre-
    mixed Twice Daily (Before breakfast
    and dinner)"){
    insulin_regimen = "Basal-bolus";
    double tdi = (0.5)*(weight.toDouble());
    double tdi_basal = tdi*(0.40);
    double tdi_bolus = tdi*(0.20);
    insulin_dosage = tdi;

    injection_schedule = "Basal: " + QString
        ::number(tdi_basal) +" units, Bolus
        :(before meals) " + QString::
        number(tdi_bolus) + " units";
    testing_schedule = "Before Breakfast, \n
        "
                    "Before Lunch, \n "
                    "Before Dinner, \n "
                    "and Bedtime.";

    titration = "It is recommended to
        titrate the dose once in a week
        based on PPG.";
    hypo = "A lower starting dose, slower
         titration and higher targets may
        be recommended for those patients
        at higher risk of hypoglycaemia.";
    others = "Patient should adjust only one
        insulin at a time. "
            "Please continue metformin if
                indicated, consider
                tapering sulphonylureas as
                 glycaemic control
                improves.";

}
else if(current_insulin_regimen == "Basal-
    bolus"){
    insulin_regimen="Basal-Bolus";
    double tdi = (0.5)*(weight.toDouble());
    double tdi_basal = tdi*(0.40);
    double tdi_bolus = tdi*(0.20);
    insulin_dosage = tdi;

    if(fbg == "Before Breakfast"){
        if(latest_bg_level_num < 4.4){
            insulin_dosage = QString::
                number(current_dosage.
                toInt() - 2);
        }
        else if((4.4 <= latest_bg_level_num)
            && (latest_bg_level_num <=
            7.2)){
            insulin_dosage = QString::
                number(current_dosage.
                toInt());
        }
        else if((7.3 <= latest_bg_level_num)
            && (latest_bg_level_num <=
            8.9)){
            insulin_dosage = QString::
                number(current_dosage.
                toInt() + 2);
        }
        else if((9.0 <= latest_bg_level_num)
            && (latest_bg_level_num <=
            10.0)){
            insulin_dosage = QString::
                number(current_dosage.
                toInt() + 4);
        }
        else if(10.1 <= latest_bg_level_num)
            {
            insulin_dosage = QString::
                number(current_dosage.
                toInt() + 6);
        }
        injection_schedule = "Basal: " + (
            insulin_dosage) +"units, \n
            Bolus:(before meals) " +
            QString::number(tdi_bolus) + "
             units.";
    }
    else{
        if((7.8 <= latest_bg_level_num) && (
            latest_bg_level_num <= 10.0)){
            insulin_dosage = QString::
                number(current_dosage.
                toInt());
        }
        else if((10.1 <= latest_bg_level_num
            ) && (latest_bg_level_num <=
            11.1)){
            insulin_dosage = QString::
                number(current_dosage.
                toInt() + 2);
        }
        else if((11.2 <= latest_bg_level_num
            ) && (latest_bg_level_num <=
            12.2)){
            insulin_dosage = QString::
                number(current_dosage.
                toInt() + 4);
        }
        else if( latest_bg_level_num <=
            12.3){
            insulin_dosage = QString::
                number(current_dosage.
                toInt() + 6);
        }
        injection_schedule = "Basal: " +
            QString::number(tdi_basal) +"
            units, \n Bolus:(before meals) "
             + (insulin_dosage + "units");
    }

    testing_schedule = "Before Breakfast (
        Bolus), \n"
                    "Before Lunch (Bolus),
                        \n"
                    "Before Dinner (Bolus)
                        , \n"
                    "and Bedtime (Basal)
                        ";
    titration = "Increase the dose by 1-2
        units or 10-15% once or twice
        weekly until SMBG target reached
        .";
    hypo = "Determine and address cause.
        Decrease coressponding dose by
        2-4 units or 10-20%.";
    others = "Patient should adjust only one
        insulin at a time. "
            "Please continue metformin if
                indicated, consider
                tapering sulphonylureas as
                 glycaemic control
                improves.";
    }
}
else if (a1c.toDouble() < 7.0){ //hba1c in target
```

```
// continue regimen & continue current
        insulin dosage
if(current_insulin_regimen == "Starting
        Insulin Therapy" ||
        current_insulin_regimen == "Basal (
        Background) Insulin"){
    insulin_regimen = "Basal (Background)
          Insulin";
    insulin_dosage = current_dosage;
    injection_schedule = "Bedtime.";
    testing_schedule = "Before Breakfast
          only.";
    titration = "Increase dose by 1 unit once
           or twice weekly until the FBG is
          at target.";
    hypo = "Stop increasing the dose if this
          occurs.";
    others = "Patient should adjust only one
          insulin at a time. "
              "Please continue metformin if
                    indicated, consider
                    tapering sulphonylureas as
                     glycaemic control
                    improves.";
}
else if(current_insulin_regimen == "Pre-
        mixed Twice Daily (Before breakfast
        and dinner)"){
    insulin_regimen = "Pre-mixed Twice
          Daily (Before breakfast and dinner)
          ";
    insulin_dosage = current_dosage;
    int pm_dosage = current_dosage.toInt()
          /2;
    QString pm_dosage_string = QString::
          number(pm_dosage);


    injection_schedule = pm_dosage_string +
          " units before breakfast and \n" +
                        pm_dosage_string +
                              " units before
                              dinner.";
    testing_schedule = "Before Breakfast, \n
          "
                        "Before Lunch \n";
    titration = "Increase the breakfast dose
          by 1 unit once or twice weekly
          until the pre-dinner BG is at
          target. \n"
              "Increase the dinner dose by
                    1 unit once or twice
                    weekly until the FBG
                    is at target.";
    hypo = "Recommended to reduce the
          dose by 10-20% for patients
          suffering from hypoglycaemia ( 3.9
          mmol/L)";
    others = "Patient should adjust only one
          insulin at a time. "
              "Please continue metformin if
                    indicated, consider
                    tapering sulphonylureas as
                     glycaemic control
                    improves.";
}
else if(current_insulin_regimen == "Basal-
        bolus"){
    insulin_regimen="Basal-Bolus";
    double tdi = (0.5)*(weight.toDouble());
    double tdi_basal = tdi*(0.40);
    double tdi_bolus = tdi*(0.20);
    insulin_dosage = current_dosage;

    if(fbg == "Before Breakfast"){
        injection_schedule = "Basal: " + (
              insulin_dosage) +"units, \n
              Bolus:(before meals) " +
              QString::number(tdi_bolus) + "
               units.";
    }
    else{
        injection_schedule = "Basal: " +
              QString::number(tdi_basal) +"
              units, \n Bolus:(before meals) "
               + (insulin_dosage + "units");
    }

    testing_schedule = "Before Breakfast (
          Bolus), \n"
                        "Before Lunch (Bolus),
                              \n"
                        "Before Dinner (Bolus)
                              , \n"
                        "and Bedtime (Basal)
                              ";
    titration = "Increase the dose by 1-2
          units or 10-15% once or twice
          weekly until SMBG target reached
                .";
    hypo = "Determine and address cause.
          Decrease coressponding dose by
          2-4 units or 10-20%.";
    others = "Patient should adjust only one
          insulin at a time."
              "Please continue metformin if
                    indicated, consider
                    tapering sulphonylureas as
                     glycaemic control
                    improves.";
  }
 }
}
else if (a1c == "NA"){ // if there is no hbA1c
     available
  //check current insulin regimen
  // check current blood glucose
  // if current blood glucose level is in target
  // continue insulin regimen
  // if current blood glucoe level is not in target
  // recommend adjusted insulin dosage
  if(current_insulin_regimen == "Starting Insulin
        Therapy"){
      insulin_regimen = "Basal (Background)
            Insulin";
      int bmiCalc = (weight.toDouble()/(height.
            toDouble()*height.toDouble()))*10000;
      if(weight.toDouble()< 50){
          insulin_dosage = "10";
      }
      else if(bmiCalc > 30){
          insulin_dosage = weight.toDouble()*0.2;
      }
      injection_schedule = "Bedtime.";
      testing_schedule = "Before Breakfast, "
                         "Before Lunch, "
                         "Before Dinner, "
                         "and Bedtime";
      titration = "Increase the dose by 1 unit
            every 1 unit every day until the FBG
            is at target.";
      hypo = "Stop increasing the dose if this
            occurs.";
      others = "Patient should adjust only one
            insulin at a time. "
                "Please continue metformin if
                      indicated, consider tapering
                      sulphonylureas as glycaemic
                      control improves.";
  }
  else if(current_insulin_regimen == "Basal (
        Background) Insulin"){
      insulin_regimen = "Basal (Background)
            Insulin";
      if(fbg == "Before Breakfast"){
          if(latest_bg_level_num < 4.4){
              insulin_dosage = QString::number(
                    current_dosage.toInt() - 2);
          }
          else if((4.4 <= latest_bg_level_num) &&
                 (latest_bg_level_num <= 7.2)){
              insulin_dosage = QString::number(
                    current_dosage.toInt());
          }
          else if((7.3 <= latest_bg_level_num) &&
                 (latest_bg_level_num <= 8.9)){
              insulin_dosage = QString::number(
                    current_dosage.toInt() + 2);
          }
          else if((9.0 <= latest_bg_level_num) &&
                 (latest_bg_level_num <= 10.0)){
              insulin_dosage = QString::number(
                    current_dosage.toInt() + 4);
          }
          else if(10.1 <= latest_bg_level_num ){
              insulin_dosage = QString::number(
                    current_dosage.toInt() + 6);
          }
      }
      else{
          if((7.8 <= latest_bg_level_num) && (
                latest_bg_level_num <= 10.0)){
              insulin_dosage = QString::number(
                    current_dosage.toInt());
          }
          else if((10.1 <= latest_bg_level_num)
                 && (latest_bg_level_num <= 11.1))
                 {
              insulin_dosage = QString::number(
                    current_dosage.toInt() + 2);
          }
          else if((11.2 <= latest_bg_level_num)
                 && (latest_bg_level_num <= 12.2))
                 {
              insulin_dosage = QString::number(
                    current_dosage.toInt() + 4);
          }
          else if(12.3 <= latest_bg_level_num ){
```

```
            insulin_dosage = QString::number(
                    current_dosage.toInt() + 6);
        }
    }
    injection_schedule = "Bedtime.";
    testing_schedule = "Before Breakfast only.";
    titration = "Increase the breakfast dose by 1
          unit every day until every day until
          the pre-supper BG is at target. "
              "Increase the supper dose by 1
                  unit every 1 unit every day
                   until the FBG is at target
                  .";
    hypo = "Stop increasing the dose if this
          occurs.";
    others = "Please continue metformin if
          indicated, consider tapering
          sulphonylureas as glycaemic control
          improves.";
}
else if(current_insulin_regimen == "Pre-mixed
     Twice Daily (Before breakfast and dinner)")
     {
    insulin_regimen = "Pre-mixed Twice Daily (
          Before breakfast and dinner)";


    if(fbg == "Before Breakfast" || fbg == "
          Before Lunch" || fbg == "Before
          Dinner" || fbg == "Bedtime"){
        if(latest_bg_level_num < 4.4){
            insulin_dosage = QString::number(
                    current_dosage.toInt() - 2);

        }
        else if((4.4 <= latest_bg_level_num) &&
                (latest_bg_level_num <= 7.2)){
            insulin_dosage = QString::number(
                    current_dosage.toInt());
        }
        else if((7.3 <= latest_bg_level_num) &&
                (latest_bg_level_num <= 8.9)){
            insulin_dosage = QString::number(
                    current_dosage.toInt() + 2);
        }
        else if((9.0 <= latest_bg_level_num) &&
                (latest_bg_level_num <= 10.0)){
            insulin_dosage = QString::number(
                    current_dosage.toInt() + 4);
        }
        else if(10.1 <= latest_bg_level_num ){
            insulin_dosage = QString::number(
                    current_dosage.toInt() + 6);
    }
    else{
        if((7.8 <= latest_bg_level_num) && (
              latest_bg_level_num <= 10.0)){
            insulin_dosage = QString::number(
                    current_dosage.toInt());
        }
        else if((10.1 <= latest_bg_level_num)
              && (latest_bg_level_num <= 11.1))
              {
            insulin_dosage = QString::number(
                    current_dosage.toInt() + 2);
        }
        else if((11.2 <= latest_bg_level_num)
              && (latest_bg_level_num <= 12.2))
              {
            insulin_dosage = QString::number(
                    current_dosage.toInt() + 4);
        }
        else if(12.3 <= latest_bg_level_num){
            insulin_dosage = QString::number(
                    current_dosage.toInt() + 6);
        }
    }

    injection_schedule = "Before Breakfast and
          Before Dinner";
    testing_schedule = "Before Breakfast, \n"
                       "Before Lunch, \n"
                       "Before Dinner, \n"
                       "Bedtime.";

    if (fbg=="Before Breakfast"){
        inject = "before dinner";
    }
    else if (fbg == "Before Lunch"){
        inject = "before breakfast";
    }
    if (fbg=="Before Dinner"){
        inject = "before Lunch";
    }
    else if (fbg == "Bedtime"){
        inject = "before dinner";
    }

    titration = "Inject the adjusted the adjusted
          insulin dosage (" + insulin_dosage + "
          units) " + inject + ". \n"
              "It is recommended to modify
                  dose based on the lowest/
                  mean value of the three
                  most recent pre-breakfast/
                  pre-dinner values. \n"
              "Increase the dinner dose by 1
                  unit once or twice weekly
                  until the FBG is at target
                  .";
    hypo = "Stop increasing the dose if this
          occurs.";
    others = "Patient should adjust only one
          insulin at a time. "
             "Please continue metformin if
                  indicated, consider tapering
                  sulphonylureas as glycaemic
                  control improves.";
}
else if(current_insulin_regimen == "Basal-bolus
     "){
    insulin_regimen="Basal-Bolus";
    double tdi = (0.5)*(weight.toDouble());
    double tdi_basal = tdi*(0.40);
    double tdi_bolus = tdi*(0.20);
    insulin_dosage = tdi;

    if(fbg == "Before Breakfast" || fbg == "
          Before Lunch" || fbg == "Before
          Dinner" || fbg == "Bedtime"){
        if(latest_bg_level_num < 4.4){
            insulin_dosage = QString::number(
                    current_dosage.toInt() - 2);
        }
        else if((4.4 <= latest_bg_level_num) &&
                (latest_bg_level_num <= 7.2)){
            insulin_dosage = QString::number(
                    current_dosage.toInt());
        }
        else if((7.3 <= latest_bg_level_num) &&
                (latest_bg_level_num <= 8.9)){
            insulin_dosage = QString::number(
                    current_dosage.toInt() + 2);
        }
        else if((9.0 <= latest_bg_level_num) &&
                (latest_bg_level_num <= 10.0)){
            insulin_dosage = QString::number(
                    current_dosage.toInt() + 4);
        }
        else if( 10.1 <= latest_bg_level_num){
            insulin_dosage = QString::number(
                    current_dosage.toInt() + 6);
        }
        injection_schedule = "Basal: " + (
              insulin_dosage) +"units, \n Bolus:(
              before meals) " + QString::number(
              tdi_bolus) + " units.";
    }
    else if(fbg == "After Breakfast" || fbg == "
          After Lunch" || fbg == "After Dinner")
          {
        if((latest_bg_level_num <= 7.8) && (
              latest_bg_level_num <= 10.0)){
            insulin_dosage = QString::number(
                    current_dosage.toInt());
        }
        else if((10.1 <= latest_bg_level_num)
              && (latest_bg_level_num <= 11.1))
              {
            insulin_dosage = QString::number(
                    current_dosage.toInt() + 2);
        }
        else if((11.2 <= latest_bg_level_num)
              && (latest_bg_level_num <= 12.2))
              {
            insulin_dosage = QString::number(
                    current_dosage.toInt() + 4);
        }
        else if( 12.3 <= latest_bg_level_num ){
            insulin_dosage = QString::number(
                    current_dosage.toInt() + 6);
        }
        injection_schedule = "Basal: " + QString
              ::number(tdi_basal) +" units, \n
              Bolus:(before meals) " + (
              insulin_dosage + "units");
    }

    testing_schedule = "Before Breakfast (Bolus),
          \n"
                       "Before Lunch (Bolus), \n
                            "
                       "Before Dinner (Bolus), \n
                            "
                       "and Bedtime (Basal)";
    titration = "The recommended target for
          titration of prandial component is 2-
          hour PPG value of <10.0 mmol/L. \n"
```

```
                    "The recommended target for
                        titration of basal component is
                        FPG value of 4.4-7.2 mg/dL. \
                        n"
                    "It  is  recommended to titrate the
                        dose once in a week based on
                        PPG.";
            hypo = "A lower starting dose, slower
                    titration  and higher targets  may be
                    recommended for those patients at
                    higher risk of hypoglycaemia. "
                      "Determine and address cause.
                          Decrease coressponding dose by
                           2-4 units or 10-20%.";
            others = "Patient should adjust only one
                    insulin  at  a time. "
                       "Please continue metformin if
                            indicated,  consider tapering
                            sulphonylureas as glycaemic
                            control  improves.";
        }
    }
    }
    qry.prepare("SELECT * from treatment_plan where
           patient_visit_id = '"+recordValue+"'");
    if(qry.exec()){
        while(qry.next()){
            QString tp_id = qry.value(0).toString();

            qry.prepare("UPDATE treatment_plan SET
                    insulin_regimen = :insulin_regimen,
                    insulin_dosage = :insulin_dosage,
                    injection_schedule = :injection_schedule,
                     "
                          "testing_schedule  = :
                                testing_schedule,  titration
                                 = :titration,  hypo = :
                                hypo, others = :others "
                          "WHERE treatment_plan_id = :
                                tp_id");

            qry.bindValue(":insulin_regimen",
                    insulin_regimen);
            qry.bindValue(":insulin_dosage",
                    insulin_dosage);
            qry.bindValue(":injection_schedule",
                     injection_schedule);
            qry.bindValue(":testing_schedule",
                    testing_schedule);
            qry.bindValue(":titration", titration);
            qry.bindValue(":hypo",hypo);
            qry.bindValue(":others",others);
            qry.bindValue(":tp_id", tp_id);

            if(qry.exec()){
                QMessageBox::information(0, qApp->tr
                      ("Edit Patient Visit Record."),
                                          qApp->tr("
                                                Patient
                                                visit
                                                record has
                                                 been
                                                successfully
                                                 updated.\
                                                n\n"
                                                    "Click
                                                          Ok

                                                          to

                                                          exit
                                                          .")
                                                          ,
                                                          QMessageBox
                                                          ::
                                                          Ok
                                                          );
                patientVisitRecordDoc = new
                        PatientVisitRecordDoc(profileValue,
                        recordValue, med);
                patientVisitRecordDoc->show();
                conn.connClose();
                close();
            }
            else{
                QMessageBox::critical(this,tr("Error::"),
                         qry.lastError().text());
            }
        }
    }
    else
    {
        QMessageBox::critical(this,tr("Error::"), qry.
              lastError().text());
    }
}
else
{
        QMessageBox::critical(this,tr("Error::"), qry.
              lastError().text());
    }
}

void EditPatientVisitRecordDoc::on_pushButton_5_clicked() //
      delete
{
    MainWindow conn;

    if(!conn.connOpen()){
        qDebug()<<"Failed to open";
        return;
    }

    conn.connOpen();
    QSqlQuery qry;

    qry.prepare("Delete from patient_visit  where
          patient_visit_id  ='"+recordValue+"'");

    if(qry.exec()){
        QMessageBox::information(this,tr("Delete Patient
              Visit Record"), tr("Patient Visit  Record has
              been deleted successfully."));
        conn.connClose();
    }
    else{
        QMessageBox::critical(this,tr("Error::"), qry.
              lastError().text());
    }

    close();
    patientVisitRecordListDoc = new
          PatientVisitRecordListDoc(profileValue, med);
    patientVisitRecordListDoc->show();
}

#include "getfingerprint.h"
#include "ui_getfingerprint.h"
#include <QApplication>
#include <QProcess>
#include <QDebug>


GetFingerprint::GetFingerprint(QString hash_ID, QString
      medical_user, QWidget *parent) :
    QDialog(parent),
    ui(new Ui::GetFingerprint)
{
    ui->setupUi(this);
    hashID = hash_ID;
    med = medical_user;

    process = new QProcess(parent);
    //C:/Users/abega/Desktop/Thesis 2nd Semester/New
          folder/RecommenderSystem
    process->setWorkingDirectory("C:/Users/abega/Desktop
          /Thesis 2nd Semester/New folder/
          RecommenderSystem");
    process->start("python GetFingerprint.py");
    qDebug() << "Starting the process...";
    connect(process, SIGNAL(finished(int , QProcess::
          ExitStatus)), this, SLOT(on_fingerPrintScanned(int
           , QProcess::ExitStatus)));
}

GetFingerprint::~GetFingerprint()
{
    delete ui;
}

void GetFingerprint::on_pushButton_clicked()
{
    emit sendFingerprint(hashID);
    close();

}

void GetFingerprint::on_fingerPrintScanned(int exitCode,
      QProcess::ExitStatus exitStatus){
//      if(QProcess::NormalExit){
          QByteArray newData = process->
                readAllStandardOutput();
          QString data = QString::fromStdString(newData.
                toStdString());
          dataRep1 = data.replace("\r\n","");
          dataRep2 = dataRep1.replace("'","");
          hashID = dataRep2;
           qDebug() << dataRep2;
          process->close();
          if(hashID != ""){
              ui->label_1->setText("Success!");
              ui->label_2->hide();
              ui->label->hide();
              ui->label_5->hide();
              ui->label_6->hide();
              ui->label_7->hide();
              ui->label_8->hide();
```

```
        }
        else
        {
            ui->label_1->setText("Error.");

        }
//    }
//    else{
//        return;
//    }
}

#include "getpatientiotdata.h"
#include "ui_getpatientiotdata.h"

GetPatientIoTData::GetPatientIoTData(QString value,
    QString medical_user, QWidget *parent) :
    QDialog(parent),
    ui(new Ui::GetPatientIoTData)

{
    ui->setupUi(this);
    profileValue = value;
    med = medical_user;

    MainWindow conn;
    conn.connOpen();
    QSqlQuery qry;
    QSqlQueryModel *modal=new QSqlQueryModel();

    qry.prepare("select get_patient_data_id, get_patient_data
        .blood_glucose, get_patient_data.datetime_created
        from get_patient_data inner join healthprofile on
        get_patient_data.hash_id = healthprofile.hash_id
        where status = '0' and healthprofile_pid ='"+
        profileValue+"'");
    qry.exec();
    modal->setQuery(qry);
    ui->patient_data->horizontalHeader()->
        setSectionResizeMode(QHeaderView::Stretch);
    ui->patient_data->setModel(modal);
}

GetPatientIoTData::~GetPatientIoTData()
{
    delete ui;
}

void GetPatientIoTData::on_patient_data_activated(const
    QModelIndex &index)
{
    patientDataVal = ui->patient_data->model()->data(
        index).toString();
    emit sendRecord(patientDataVal);
    close();
}

void GetPatientIoTData::on_close_clicked()
{
    close();
}

#include "mainwindow.h"
//#include <QtMqtt>

#include <QApplication>
//#include <QtCore/QCoreApplication>

int main(int argc, char *argv[])
{
    QApplication a(argc, argv);
    MainWindow w;
    w.show();
    return a.exec();
}

#include "mainmenu.h"
#include "ui_mainmenu.h"

MainMenu::MainMenu(QString medical_user, QWidget *
    parent) :
    QMainWindow(parent),
    ui(new Ui::MainMenu)
{
    ui->setupUi(this);
    med = medical_user;

    ui->menu_addPatient->setStyleSheet("padding: 10px;");
    ui->menu_searchPatient->setStyleSheet("padding: 10px
        ;");
    ui->menu_getData->setStyleSheet("padding: 10px;");

    MainWindow conn;
    conn.connOpen();

    QSqlQuery qry;
    qry.prepare("select * from medical_user where
        medical_user_pid ='"+med+"'");
    if(qry.exec()){
        while(qry.next()){
            ui->nameLabel->setText(qry.value(4).toString
                ());
        }
    }

}

MainMenu::~MainMenu()
{
    delete ui;
}

void MainMenu::on_menu_addPatient_clicked()
{
    close();
    addPatientProfile = new AddPatientProfile(med);
    addPatientProfile->show();
}

void MainMenu::on_menu_searchPatient_clicked()
{
    close();
    searchPatientProfile = new SearchPatientProfile(med);
    searchPatientProfile->show();
}

void MainMenu::on_menu_getData_clicked()
{
    close();
    retrieveData = new RetrieveData(med);
    retrieveData->show();
}

void MainMenu::on_logout_clicked()
{
    close();
    mainWindow = new MainWindow();
    mainWindow->show();
}


void MainMenu::on_consultations_clicked()
{
    close();
    searchConsultations = new SearchConsultations(med);
    searchConsultations->show();
}

#include "mainmenuadmin.h"
#include "ui_mainmenuadmin.h"

MainMenuAdmin::MainMenuAdmin(QWidget *parent) :
    QMainWindow(parent),
    ui(new Ui::MainMenuAdmin)
{
    ui->setupUi(this);
    ui->addUser->setStyleSheet("padding: 10px;");
    ui->viewUser->setStyleSheet("padding: 10px;");
}

MainMenuAdmin::~MainMenuAdmin()
{
    delete ui;
}

void MainMenuAdmin::on_addUser_clicked()
{
    close();
    adminAddAccount = new AdminAddAccount();
    adminAddAccount->show();
}

void MainMenuAdmin::on_viewUser_clicked()
{
    close();
    adminSearchUser = new AdminSearchUser();
    adminSearchUser->show();
}

void MainMenuAdmin::on_logout_clicked()
{
    close();
    mainWindow = new MainWindow();
    mainWindow->show();
}

#include "mainmenudoctor.h"
#include "ui_mainmenudoctor.h"

MainMenuDoctor::MainMenuDoctor(QString medical_user,
    QWidget *parent) :
    QMainWindow(parent),
    ui(new Ui::MainMenuDoctor)
{
    ui->setupUi(this);
    med = medical_user;
```

```
    ui->pushButton_2->setStyleSheet("padding: 10px;");
    ui->searchPatient->setStyleSheet("padding: 10px");
    ui->retrieveData->setStyleSheet("padding: 10px;");
    ui->consultations->setStyleSheet("padding: 10px;");

    MainWindow conn;
    conn.connOpen();

    QSqlQuery qry;
    qry.prepare("select * from medical_user where
          medical_user_pid ='"+med+"'");

    if(qry.exec()){
        while(qry.next()){
            ui->nameLabel->setText(qry.value(4).toString
                ());
        }
    }
}

MainMenuDoctor::~MainMenuDoctor()
{
    delete ui;
}

void MainMenuDoctor::on_pushButton_2_clicked() //add
     patient
{
    close();
    addPatientProfileDoc = new AddPatientProfileDoc(med);
    addPatientProfileDoc->show();
}
void MainMenuDoctor::on_consultations_clicked() //
     consultations
{
    close();
    searchConsultations = new SearchConsultations(med);
    searchConsultations->show();
}
void MainMenuDoctor::on_retrieveData_clicked() //
     retrieveData
{
    close();
    retrieveData = new RetrieveData(med);
    retrieveData->show();
}
void MainMenuDoctor::on_searchPatient_clicked()
{
    close();
    searchPatientProfileDoctor = new
          SearchPatientProfileDoctor(med);
    searchPatientProfileDoctor->show();
}
void MainMenuDoctor::on_logout_clicked()
{
    close();
    mainWindow = new MainWindow();
    mainWindow->show();
}

#include "mainwindow.h"
#include "ui_mainwindow.h"
#include <QMessageBox>
#include <QPixmap>

#include <QtCore/QDateTime>
//#include <QMqttClient>
#include <QtWidgets/QMessageBox>

MainWindow::MainWindow(QWidget *parent) :
    QMainWindow(parent),
    ui(new Ui::MainWindow)
{
    ui->setupUi(this);
    QPixmap pix1("C:/Users/abega/Desktop/Thesis 2nd
          Semester/New folder/RecommenderSystem/doh.png
          ");
       ui->label_logo->setPixmap(pix1.scaled(200,200,Qt::
            KeepAspectRatio));
    QPixmap pix2("C:/Users/abega/Desktop/Thesis 2nd
          Semester/New folder/RecommenderSystem/
          logo2_abe.png");
        ui->label_pic->setPixmap(pix2.scaled(200,200,Qt::
            KeepAspectRatio));

        if (!connOpen())
            ui->status_label->setText("Failed to open");
        else
            ui->status_label->setText("Connected");
}

MainWindow::~MainWindow()
{
    delete ui;
}

void MainWindow::on_pushButton_Login_clicked()
{
    if (!connOpen()){
        qDebug() <<"Failed to open";
        return;
    }
    connOpen();
    QString username = ui->lineEdit_username->text();
    username=username.trimmed();

    QString password = ui->lineEdit_password->text();

    QSqlQuery qry;
    if(qry.exec("select * from medical_user where userID
          ='"+username+"' and password = '"+password
          +"'")) {
        if(qry.next())
        {
            if(qry.exec("SELECT * from medical_user where
                 userID ='"+username+"'"))
            {
                int idName = qry.record().indexOf("
                     account_type");
                int medNum = qry.record().indexOf("
                     medical_user_pid");

                while (qry.next())
                {
                   QString type = qry.value(idName).toString
                        ();
                   QString medID =qry.value(medNum).
                        toString();

                   if(type == "N"){
                        close();
                        connClose();
                        mainMenu = new MainMenu(medID);
                        mainMenu->show();
                   }
                    else if (type == "D"){
                        close();
                        connClose();
                        mainMenuDoctor = new
                             MainMenuDoctor(medID);
                        mainMenuDoctor->show();
                   }
                   else if (type == "A"){
                        close();
                        connClose();
                        mainMenuAdmin = new
                             MainMenuAdmin();
                        mainMenuAdmin->show();
                   }
                }
            }
        }
        else {
            QMessageBox::critical(0, qApp->tr("Login Error
                 ."),
                   qApp->tr("Username and password is
                        not correct. Please try again.\n\n"
                             "Click Cancel to exit.")
                                 , QMessageBox::
                                 Cancel);
        }
    }
    connClose();
}

//#include "mainwindow.h"
#include "patienthealthprofile.h"
#include "editpatientprofile.h"
#include "addpatientvisitrecord.h"
#include "ui_patienthealthprofile.h"
#include "searchpatientprofile.h"

PatientHealthProfile::PatientHealthProfile(QString value,
     QString medical_user, QWidget *parent) :
    QMainWindow(parent),
    ui(new Ui::PatientHealthProfile)
{
    profileValue = value;
    med = medical_user;
    ui->setupUi(this);

    ui->pushButton->setStyleSheet("padding: 8px;");
    ui->pushButton_3->setStyleSheet("padding: 8px;");
    ui->back->setStyleSheet("padding: 8px;");

    ui->patient_fullname->setReadOnly(true);
    ui->patient_add->setReadOnly(true);
    ui->patient_bday->setReadOnly(true);
    ui->patient_bt->setReadOnly(true);
    ui->patient_conc->setReadOnly(true);
    ui->patient_emailadd->setReadOnly(true);
    ui->patient_sex->setReadOnly(true);
    ui->patient_sex->setBaseSize(10,10);
    ui->patient_allergy->setReadOnly(true);
    ui->patient_illness->setReadOnly(true);
    ui->em_name->setReadOnly(true);
    ui->em_num->setReadOnly(true);
    ui->em_relation->setReadOnly(true);
```

```
    ui->healthUnitPatient->setReadOnly(true);

    MainWindow conn;
    if (!conn.connOpen()){
        qDebug() <<"Failed to open.";
        return;
    }
    conn.connOpen();
    QSqlQuery qry;

    qry.prepare("select * from healthprofile where
          healthprofile_pid ='"+value+"'");

    if(qry.exec()){
        while(qry.next()){
            ui->patient_fullname->setText(qry.value(2).
                toString());
            ui->patient_bday->setText(qry.value(3).
                toString());
            ui->patient_sex->setText(qry.value(4).toString
                ());
            ui->patient_bt->setText(qry.value(5).toString()
                );
            ui->patient_add->setText(qry.value(6).toString
                ());
            ui->patient_conc->setText(qry.value(7).toString
                ());
            ui->patient_emailadd->setText(qry.value(8).
                toString());
            ui->patient_allergy->setText(qry.value(9).
                toString());
            ui->patient_illness->setText(qry.value(10).
                toString());
            ui->em_name->setText(qry.value(11).toString()
                );
            ui->em_num ->setText(qry.value(12).toString()
                );
            ui->em_relation->setText(qry.value(13).toString
                ());
            ui->healthUnitPatient->setText(qry.value(14).
                toString());
        }
    }
}

PatientHealthProfile::~PatientHealthProfile()
{
    delete ui;
}

void PatientHealthProfile::on_back_clicked() //back
{
    close();
    searchPatientProfile = new SearchPatientProfile(med);
    searchPatientProfile->show();
}

void PatientHealthProfile::on_pushButton_2_clicked() //edit
{
    close();
    editPatientProfile = new EditPatientProfile(profileValue,
        med);
    editPatientProfile->show();
}

void PatientHealthProfile::on_pushButton_3_clicked() //add
    patient visit record
{
    close();
    addPatientVisitRecord = new AddPatientVisitRecord(
        profileValue, med, dataID);
    addPatientVisitRecord->show();
}

void PatientHealthProfile::on_pushButton_clicked() //patient
    visit record list
{
    close();
    patientVisitRecordList = new PatientVisitRecordList(
        profileValue, med);
    patientVisitRecordList->show();
}


#include "patienthealthprofiledoc.h"
#include "ui_patienthealthprofiledoc.h"
#include "searchpatientprofiledoctor.h"
#include "patientvisitrecordlistdoc.h"
#include "editpatientprofiledoc.h"


PatientHealthProfileDoc::PatientHealthProfileDoc(QString
    value, QString medical_user, QWidget *parent) :
    QMainWindow(parent),
    ui(new Ui::PatientHealthProfileDoc)
{
    ui->setupUi(this);
    profileValue = value;
    med = medical_user;
    ui->pushButton->setStyleSheet("padding: 8px;");
    ui->pushButton_3->setStyleSheet("padding: 8px;");
    ui->back->setStyleSheet("padding: 8px;");

    ui->patient_fullname->setReadOnly(true);
    ui->patient_add->setReadOnly(true);
    ui->patient_bday->setReadOnly(true);
    ui->patient_bt->setReadOnly(true);
    ui->patient_conc->setReadOnly(true);
    ui->patient_emailadd->setReadOnly(true);
    ui->patient_sex->setReadOnly(true);
    ui->patient_sex->setBaseSize(10,10);
    ui->patient_allergy->setReadOnly(true);
    ui->patient_illness->setReadOnly(true);
    ui->em_name->setReadOnly(true);
    ui->em_num->setReadOnly(true);
    ui->em_relation->setReadOnly(true);
    ui->healthUnitPatient->setReadOnly(true);


    MainWindow conn;
    if (!conn.connOpen()){
        qDebug()<<"Failed to open.";
        return;
    }
    conn.connOpen();
    QSqlQuery qry;

    qry.prepare("select * from healthprofile where
          healthprofile_pid ='"+value+"'");

    if(qry.exec()){
        while(qry.next()){
            ui->patient_fullname->setText(qry.value(2).
                toString());
            ui->patient_bday->setText(qry.value(3).
                toString());
            ui->patient_sex->setText(qry.value(4).toString
                ());
            ui->patient_bt->setText(qry.value(5).toString
                ());
            ui->patient_add->setText(qry.value(6).
                toString());
            ui->patient_conc->setText(qry.value(7).
                toString());
            ui->patient_emailadd->setText(qry.value(8).
                toString());
            ui->patient_allergy->setText(qry.value(9).
                toString());
            ui->patient_illness->setText(qry.value(10).
                toString());
            ui->em_name->setText(qry.value(11).toString
                ());
            ui->em_num ->setText(qry.value(12).toString
                ());
            ui->em_relation->setText(qry.value(13).
                toString());
            ui->healthUnitPatient->setText(qry.value(14).
                toString());
        }
    }
}



PatientHealthProfileDoc::~PatientHealthProfileDoc()
{
    delete ui;
}

void PatientHealthProfileDoc::on_back_clicked() // back
{
    close();
    searchPatientProfileDoctor = new
        SearchPatientProfileDoctor(med);
    searchPatientProfileDoctor->show();
}

void PatientHealthProfileDoc::on_pushButton_2_clicked()
{
    close();
    editPatientProfileDoc = new EditPatientProfileDoc(
        profileValue, med);
    editPatientProfileDoc->show();
}

void PatientHealthProfileDoc::on_pushButton_3_clicked()
{
    close();
    addPatientVisitRecordDoc = new
        AddPatientVisitRecordDoc(profileValue, med,
        dataID);
    addPatientVisitRecordDoc->show();
}

void PatientHealthProfileDoc::on_pushButton_clicked()
{
    close();
    patientVisitRecordListDoc = new
```

```
            PatientVisitRecordListDoc(profileValue, med);
    patientVisitRecordListDoc->show();

}

#include "patientvisitrecord.h"
#include "ui_patientvisitrecord.h"
#include "treatmentplannurse.h"
//#include "editpatientvisitrecord.h"

PatientVisitRecord::PatientVisitRecord(QString value,
      QString record, QString medical_user, QString dataID,
      QWidget *parent) :
    QMainWindow(parent),
    ui(new Ui::PatientVisitRecord)
{
    ui->setupUi(this);
    profileValue = value;
    recordValue = record;
    med = medical_user;
    dataID = dataID;

    ui->pushButton->setStyleSheet("padding: 5px;");
    ui->pushButton_3->setStyleSheet("padding: 10px;");
    ui->viewPlan->setStyleSheet("padding: 10px;");

    ui->lineEdit_dateTime->setReadOnly(true);
    ui->lineEdit_weight->setReadOnly(true);
    ui->lineEdit_height->setReadOnly(true);
    ui->blood_glucose_level->setReadOnly(true);
    ui->lineEdit_a1c->setReadOnly(true);
    ui->lineEdit_insulin_regimen->setReadOnly(true);
    ui->lineEdit_currDosage->setReadOnly(true);
    ui->lineEdit_fbg->setReadOnly(true);

    ui->b1->setAttribute(Qt::
            WA_TransparentForMouseEvents);
    ui->b1->setFocusPolicy(Qt::NoFocus);
    ui->b2->setAttribute(Qt::
            WA_TransparentForMouseEvents);
    ui->b2->setFocusPolicy(Qt::NoFocus);
    ui->b3->setAttribute(Qt::
            WA_TransparentForMouseEvents);
    ui->b3->setFocusPolicy(Qt::NoFocus);
    ui->b4->setAttribute(Qt::
            WA_TransparentForMouseEvents);
    ui->b4->setFocusPolicy(Qt::NoFocus);
    ui->b5->setAttribute(Qt::
            WA_TransparentForMouseEvents);
    ui->b5->setFocusPolicy(Qt::NoFocus);
    ui->p1->setAttribute(Qt::
            WA_TransparentForMouseEvents);
    ui->p1->setFocusPolicy(Qt::NoFocus);
    ui->p2->setAttribute(Qt::
            WA_TransparentForMouseEvents);
    ui->p2->setFocusPolicy(Qt::NoFocus);
    ui->p3->setAttribute(Qt::
            WA_TransparentForMouseEvents);
    ui->p3->setFocusPolicy(Qt::NoFocus);
    ui->p4->setAttribute(Qt::
            WA_TransparentForMouseEvents);
    ui->p4->setFocusPolicy(Qt::NoFocus);
    ui->bb1->setAttribute(Qt::
            WA_TransparentForMouseEvents);
    ui->bb1->setFocusPolicy(Qt::NoFocus);
    ui->bb2->setAttribute(Qt::
            WA_TransparentForMouseEvents);
    ui->bb2->setFocusPolicy(Qt::NoFocus);
    ui->bb3->setAttribute(Qt::
            WA_TransparentForMouseEvents);
    ui->bb3->setFocusPolicy(Qt::NoFocus);

   MainWindow conn;
    if (!conn.connOpen()){
        qDebug() <<"Failed to open.";
        return;
    }
    conn.connOpen();
    QSqlQuery qry;

    qry.prepare("select * from patient_visit where
          patient_visit_id ='"+recordValue+"'");

    if(qry.exec()){
        while(qry.next()){
            ui->lineEdit_dateTime->setText(qry.value(4).
                  toString());
            ui->lineEdit_weight->setText(qry.value(5).
                  toString());
            ui->lineEdit_height->setText(qry.value(6).
                  toString());
            ui->blood_glucose_level->setText(qry.value(7).
                  toString());
            ui->lineEdit_fbg->setText(qry.value(8).toString
                  ());
            ui->lineEdit_a1c->setText(qry.value(9).toString
                  ());
            ui->lineEdit_insulin_regimen->setText(qry.value
                  (10).toString());
            ui->lineEdit_currDosage->setText(qry.value(11)
                  .toString());
            if(qry.value(12).toString() == '1'){
                ui->b1->setChecked(true);
            }
            if(qry.value(13).toString() == '1'){
                ui->b2->setChecked(true);
            }
            if(qry.value(14).toString() == '1'){
                ui->b3->setChecked(true);
            }
            if(qry.value(15).toString() == '1'){
                ui->b4->setChecked(true);
            }
            if(qry.value(16).toString() == '1'){
                ui->b5->setChecked(true);
            }
            if(qry.value(17).toString() == '1'){
                ui->p1->setChecked(true);
            }
            if(qry.value(18).toString() == '1'){
                ui->p2->setChecked(true);
            }
            if(qry.value(19).toString() == '1'){
                ui->p3->setChecked(true);
            }
            if(qry.value(20).toString() == '1'){
                ui->p4->setChecked(true);
            }
            if(qry.value(21).toString() == '1'){
                ui->bb1->setChecked(true);
            }
            if(qry.value(22).toString() == '1'){
                ui->bb2->setChecked(true);
            }
            if(qry.value(23).toString() == '1'){
                ui->bb3->setChecked(true);
            }
        }
    }

}

PatientVisitRecord::~PatientVisitRecord()
{
    delete ui;
}


void PatientVisitRecord::on_pushButton_clicked() //edit
      button
{
    close();
    editPatientVisitRecord = new EditPatientVisitRecord(
          profileValue, recordValue, med);
    editPatientVisitRecord->show();
}

void PatientVisitRecord::on_pushButton_3_clicked() //close
      button
{
    close();
    patientHealthProfile = new PatientHealthProfile(
          profileValue, med);
    patientHealthProfile->show();
}

void PatientVisitRecord::on_viewPlan_clicked() //treatment
      plan button
{
    close();
    treatmentPlanNurse = new TreatmentPlanNurse(
          profileValue, recordValue, med);
    treatmentPlanNurse->show();
}

#include "patientvisitrecordconsult.h"
#include "ui_patientvisitrecordconsult.h"

PatientVisitRecordConsult::PatientVisitRecordConsult(
      QString value, QString record, QString medical_user,
      QString dataID, QWidget *parent) :
    QMainWindow(parent),
    ui(new Ui::PatientVisitRecordConsult)
{
    ui->setupUi(this);

    profileValue = value;
    recordValue = record;
    med = medical_user;
    dataID = dataID;

    ui->back->setStyleSheet("padding: 10px;");
    ui->viewPlan->setStyleSheet("padding: 10px;");

    ui->lineEdit_dateTime->setReadOnly(true);
    ui->lineEdit_weight->setReadOnly(true);
    ui->lineEdit_height->setReadOnly(true);
    ui->blood_glucose_level->setReadOnly(true);
```

```
ui->lineEdit_a1c->setReadOnly(true);
ui->lineEdit_insulin_regimen->setReadOnly(true);
ui->lineEdit_currDosage->setReadOnly(true);
ui->lineEdit_fbg->setReadOnly(true);

ui->b1->setAttribute(Qt::
        WA_TransparentForMouseEvents);
ui->b1->setFocusPolicy(Qt::NoFocus);
ui->b2->setAttribute(Qt::
        WA_TransparentForMouseEvents);
ui->b2->setFocusPolicy(Qt::NoFocus);
ui->b3->setAttribute(Qt::
        WA_TransparentForMouseEvents);
ui->b3->setFocusPolicy(Qt::NoFocus);
ui->b4->setAttribute(Qt::
        WA_TransparentForMouseEvents);
ui->b4->setFocusPolicy(Qt::NoFocus);
ui->b5->setAttribute(Qt::
        WA_TransparentForMouseEvents);
ui->b5->setFocusPolicy(Qt::NoFocus);
ui->p1->setAttribute(Qt::
        WA_TransparentForMouseEvents);
ui->p1->setFocusPolicy(Qt::NoFocus);
ui->p2->setAttribute(Qt::
        WA_TransparentForMouseEvents);
ui->p2->setFocusPolicy(Qt::NoFocus);
ui->p3->setAttribute(Qt::
        WA_TransparentForMouseEvents);
ui->p3->setFocusPolicy(Qt::NoFocus);
ui->p4->setAttribute(Qt::
        WA_TransparentForMouseEvents);
ui->p4->setFocusPolicy(Qt::NoFocus);
ui->bb1->setAttribute(Qt::
        WA_TransparentForMouseEvents);
ui->bb1->setFocusPolicy(Qt::NoFocus);
ui->bb2->setAttribute(Qt::
        WA_TransparentForMouseEvents);
ui->bb2->setFocusPolicy(Qt::NoFocus);
ui->bb3->setAttribute(Qt::
        WA_TransparentForMouseEvents);
ui->bb3->setFocusPolicy(Qt::NoFocus);



MainWindow conn;
if (!conn.connOpen()){
    qDebug() <<"Failed to open.";
    return;
}
conn.connOpen();
QSqlQuery qry;

qry.prepare("select * from patient_visit where
       patient_visit_id ='"+recordValue+"'");

if(qry.exec()){
    while(qry.next()){
        ui->lineEdit_dateTime->setText(qry.value(4).
            toString());
        ui->lineEdit_weight->setText(qry.value(5).
            toString());
        ui->lineEdit_height->setText(qry.value(6).
            toString());
        ui->blood_glucose_level->setText(qry.value(7).
            toString());
        ui->lineEdit_fbg->setText(qry.value(8).toString
            ());
        ui->lineEdit_a1c->setText(qry.value(9).toString
            ());
        ui->lineEdit_insulin_regimen->setText(qry.value
            (10).toString());
        ui->lineEdit_currDosage->setText(qry.value(11).
            toString());
        if(qry.value(12).toString() == '1'){
            ui->b1->setChecked(true);
        }
        if(qry.value(13).toString() == '1'){
            ui->b2->setChecked(true);
        }
        if(qry.value(14).toString() == '1'){
            ui->b3->setChecked(true);
        }
        if(qry.value(15).toString() == '1'){
            ui->b4->setChecked(true);
        }
        if(qry.value(16).toString() == '1'){
            ui->b5->setChecked(true);
        }
        if(qry.value(17).toString() == '1'){
            ui->p1->setChecked(true);
        }
        if(qry.value(18).toString() == '1'){
            ui->p2->setChecked(true);
        }
        if(qry.value(19).toString() == '1'){
            ui->p3->setChecked(true);
        }
        if(qry.value(20).toString() == '1'){
            ui->p4->setChecked(true);
        }
        if(qry.value(21).toString() == '1'){
            ui->bb1->setChecked(true);
        }
        if(qry.value(22).toString() == '1'){
            ui->bb2->setChecked(true);
        }
        if(qry.value(23).toString() == '1'){
            ui->bb3->setChecked(true);
        }
    }
  }
}

PatientVisitRecordConsult::~PatientVisitRecordConsult()
{
    delete ui;
}

void PatientVisitRecordConsult::on_back_clicked()
{
    close();
    profileConsultation = new ProfileConsultation(
        profileValue, med);
    profileConsultation->show();

}

void PatientVisitRecordConsult::on_viewPlan_clicked()
{
    close();
    treatmentPlanConsult = new TreatmentPlanConsult(
        profileValue, recordValue, med);
    treatmentPlanConsult->show();

}

#include "patientvisitrecorddoc.h"
#include "ui_patientvisitrecorddoc.h"
#include "mainwindow.h"

PatientVisitRecordDoc::PatientVisitRecordDoc(QString value,
      QString record, QString medical_user, QString dataID,
      QWidget *parent) :
    QMainWindow(parent),
    ui(new Ui::PatientVisitRecordDoc)
{
    ui->setupUi(this);
    profileValue = value;
    recordValue = record;
    med = medical_user;
    dataID = dataID;

    ui->pushButton->setStyleSheet("padding: 5px;");
    ui->pushButton_3->setStyleSheet("padding: 10px;");
    ui->viewPlan->setStyleSheet("padding: 10px;");

    ui->lineEdit_dateTime->setReadOnly(true);
    ui->lineEdit_weight->setReadOnly(true);
    ui->lineEdit_height->setReadOnly(true);
    ui->blood_glucose_level->setReadOnly(true);
    ui->lineEdit_a1c->setReadOnly(true);
    ui->lineEdit_insulin_regimen->setReadOnly(true);
    ui->lineEdit_currDosage->setReadOnly(true);
    ui->lineEdit_fbg->setReadOnly(true);

    ui->b1->setAttribute(Qt::
        WA_TransparentForMouseEvents);
    ui->b1->setFocusPolicy(Qt::NoFocus);
    ui->b2->setAttribute(Qt::
        WA_TransparentForMouseEvents);
    ui->b2->setFocusPolicy(Qt::NoFocus);
    ui->b3->setAttribute(Qt::
        WA_TransparentForMouseEvents);
    ui->b3->setFocusPolicy(Qt::NoFocus);
    ui->b4->setAttribute(Qt::
        WA_TransparentForMouseEvents);
    ui->b4->setFocusPolicy(Qt::NoFocus);
    ui->b5->setAttribute(Qt::
        WA_TransparentForMouseEvents);
    ui->b5->setFocusPolicy(Qt::NoFocus);
    ui->p1->setAttribute(Qt::
        WA_TransparentForMouseEvents);
    ui->p1->setFocusPolicy(Qt::NoFocus);
    ui->p2->setAttribute(Qt::
        WA_TransparentForMouseEvents);
    ui->p2->setFocusPolicy(Qt::NoFocus);
    ui->p3->setAttribute(Qt::
        WA_TransparentForMouseEvents);
    ui->p3->setFocusPolicy(Qt::NoFocus);
    ui->p4->setAttribute(Qt::
        WA_TransparentForMouseEvents);
    ui->p4->setFocusPolicy(Qt::NoFocus);
    ui->bb1->setAttribute(Qt::
        WA_TransparentForMouseEvents);
    ui->bb1->setFocusPolicy(Qt::NoFocus);
    ui->bb2->setAttribute(Qt::
        WA_TransparentForMouseEvents);
    ui->bb2->setFocusPolicy(Qt::NoFocus);
```

```
    ui->bb3->setAttribute(Qt::
        WA_TransparentForMouseEvents);
    ui->bb3->setFocusPolicy(Qt::NoFocus);



    MainWindow conn;
    if (!conn.connOpen()){
        qDebug()<<"Failed to open.";
        return;
    }
    conn.connOpen();
    QSqlQuery qry;

    qry.prepare("select * from patient_visit where
        patient_visit_id ='"+recordValue+"'");

    if(qry.exec()){
        while(qry.next()){
            ui->lineEdit_dateTime->setText(qry.value(4).
                toString());
            ui->lineEdit_weight->setText(qry.value(5).
                toString());
            ui->lineEdit_height->setText(qry.value(6).
                toString());
            ui->blood_glucose_level->setText(qry.value(7).
                toString());
            ui->lineEdit_fbg->setText(qry.value(8).toString
                ());
            ui->lineEdit_a1c->setText(qry.value(9).toString
                ());
            ui->lineEdit_insulin_regimen->setText(qry.value
                (10).toString());
            ui->lineEdit_currDosage->setText(qry.value(11).
                toString());
            if(qry.value(12).toString() == '1'){
                ui->b1->setChecked(true);
            }
            if(qry.value(13).toString() == '1'){
                ui->b2->setChecked(true);
            }
            if(qry.value(14).toString() == '1'){
                ui->b3->setChecked(true);
            }
            if(qry.value(15).toString() == '1'){
                ui->b4->setChecked(true);
            }
            if(qry.value(16).toString() == '1'){
                ui->b5->setChecked(true);
            }
            if(qry.value(17).toString() == '1'){
                ui->p1->setChecked(true);
            }
            if(qry.value(18).toString() == '1'){
                ui->p2->setChecked(true);
            }
            if(qry.value(19).toString() == '1'){
                ui->p3->setChecked(true);
            }
            if(qry.value(20).toString() == '1'){
                ui->p4->setChecked(true);
            }
            if(qry.value(21).toString() == '1'){
                ui->bb1->setChecked(true);
            }
            if(qry.value(22).toString() == '1'){
                ui->bb2->setChecked(true);
            }
            if(qry.value(23).toString() == '1'){
                ui->bb3->setChecked(true);
            }
        }
    }

}

PatientVisitRecordDoc::~PatientVisitRecordDoc()
{
    delete ui;
}
void PatientVisitRecordDoc::on_pushButton_clicked() //edit
    button
{
    close();
    editPatientVisitRecordDoc = new
        EditPatientVisitRecordDoc(profileValue,
        recordValue, med);
    editPatientVisitRecordDoc->show();
}

void PatientVisitRecordDoc::on_pushButton_3_clicked() //
    close button
{
    close();
    patientHealthProfileDoc = new PatientHealthProfileDoc(
        profileValue, med);
    patientHealthProfileDoc->show();
}

void PatientVisitRecordDoc::on_viewPlan_clicked() //
    treatment plan button
{
    close();
    treatmentPlanDoc = new TreatmentPlanDoc(profileValue,
        recordValue, med);
    treatmentPlanDoc->show();
}


#include " patientvisitrecordlist.h"
#include " ui_patientvisitrecordlist.h"
#include "patienthealthprofile.h"
//#include "mainwindow.h"

PatientVisitRecordList::PatientVisitRecordList(QString value,
    QString medical_user, QWidget *parent) :
    QDialog(parent),
    ui(new Ui::PatientVisitRecordList)
{
    ui->setupUi(this);
    profileValue = value;
    //rec = record;
    med = medical_user;

    MainWindow conn;
    QSqlQueryModel * modal=new QSqlQueryModel();

    conn.connOpen();
    QSqlQuery* qry=new QSqlQuery(conn.
        recommenderSystem);

    qry->prepare("SELECT patient_visit_id,
        blood_glucose_level, current_insulin_regimen "
            "FROM patient_visit WHERE "
            " healthprofile_pid ='"+profileValue+"' order
                by patient_visit_id DESC");

    qry->exec();
    modal->setQuery(*qry);

    ui->visitRecordList->horizontalHeader()->
        setSectionResizeMode(QHeaderView::Stretch);
    ui->visitRecordList->setModel(modal);
    ui->visitRecordList->setSortingEnabled(false);

    conn.close();
    qDebug() <<(modal->rowCount());

}

PatientVisitRecordList::~PatientVisitRecordList()
{
    delete ui;
}


void PatientVisitRecordList::on_visitRecordList_activated(
    const QModelIndex &index)
{
    QString record = ui->visitRecordList->model()->data
        (index).toString();
    close();
    patientVisitRecord = new PatientVisitRecord(profileValue
        , record, med);
    patientVisitRecord->show();
}

void PatientVisitRecordList::on_pushButton_clicked()
{
    close();
    patientHealthProfile = new PatientHealthProfile(
        profileValue, med);
    patientHealthProfile->show();


}


#include " patientvisitrecordlistconsultations.h"
#include " ui_patientvisitrecordlistconsultations.h"

PatientVisitRecordListConsultations::
    PatientVisitRecordListConsultations(QString value,
    QString medical_user, QWidget *parent) :
    QMainWindow(parent),
    ui(new Ui::PatientVisitRecordListConsultations)
{
    ui->setupUi(this);

    profileValue = value;
    med = medical_user;

    MainWindow conn;
    QSqlQueryModel * modal=new QSqlQueryModel();

    conn.connOpen();
    QSqlQuery* qry=new QSqlQuery(conn.
        recommenderSystem);
```

```
    qry->prepare("SELECT patient_visit_id,
            blood_glucose_level, current_insulin_regimen "
                    "FROM patient_visit WHERE "
                    " healthprofile_pid ='"+profileValue+"' order
                            by patient_visit_id DESC");

    qry->exec();
    modal->setQuery(*qry);

    ui->visitRecordList->horizontalHeader()->
            setSectionResizeMode(QHeaderView::Stretch);
    ui->visitRecordList->setModel(modal);
    ui->visitRecordList->setSortingEnabled(false);

    conn.close();
    qDebug() <<(modal->rowCount());
}

PatientVisitRecordListConsultations::~
        PatientVisitRecordListConsultations()
{
    delete ui;
}

void PatientVisitRecordListConsultations::
        on_visitRecordList_activated(const QModelIndex &
        index)
{
    QString record = ui->visitRecordList->model()->data
            (index).toString();
    close();
    patientVisitRecordConsult = new
            PatientVisitRecordConsult(profileValue, record, med
            );
    patientVisitRecordConsult->show();
}

void PatientVisitRecordListConsultations::on_back_clicked()
{
    close();
    profileConsultation = new ProfileConsultation(
            profileValue, med);
    profileConsultation->show();

}



#include "patientvisitrecordlistdoc.h"
#include "ui_patientvisitrecordlistdoc.h"
#include "patienthealthprofiledoc.h"
#include "patientvisitrecorddoc.h"

PatientVisitRecordListDoc::PatientVisitRecordListDoc(
        QString value, QString medical_user, QWidget *parent)
        :
    QDialog(parent),
    ui(new Ui::PatientVisitRecordListDoc)
{
    ui->setupUi(this);

    profileValue = value;
    med = medical_user;

    MainWindow conn;
    QSqlQueryModel * modal=new QSqlQueryModel();

    conn.connOpen();
    QSqlQuery* qry=new QSqlQuery(conn.
            recommenderSystem);

    qry->prepare("SELECT patient_visit_id,
            blood_glucose_level, current_insulin_regimen "
                    "FROM patient_visit WHERE "
                    " healthprofile_pid ='"+profileValue+"' order
                            by patient_visit_id DESC");

    qry->exec();
    modal->setQuery(*qry);

    ui->visitRecordList->horizontalHeader()->
            setSectionResizeMode(QHeaderView::Stretch);
    ui->visitRecordList->setModel(modal);
    ui->visitRecordList->setSortingEnabled(false);

    conn.close();
}

PatientVisitRecordListDoc::~PatientVisitRecordListDoc()
{
    delete ui;
}

void PatientVisitRecordListDoc::on_visitRecordList_activated(
        const QModelIndex &index)
{
    QString record = ui->visitRecordList->model()->data
            (index).toString();
    close();
    patientVisitRecordDoc = new PatientVisitRecordDoc(
            profileValue, record, med);
    patientVisitRecordDoc->show();

}

void PatientVisitRecordListDoc::on_pushButton_clicked()
{
    close();
    patientHealthProfileDoc = new PatientHealthProfileDoc(
            profileValue, med);
    patientHealthProfileDoc->show();

}

#include "profileconsultation.h"
#include "ui_profileconsultation.h"

ProfileConsultation::ProfileConsultation(QString value,
        QString medical_user, QWidget *parent) :
    QMainWindow(parent),
    ui(new Ui::ProfileConsultation)
{
    ui->setupUi(this);
    profileValue = value;
    med = medical_user;

    ui->patientRecords->setStyleSheet("padding: 8px;");
    ui->back->setStyleSheet("padding: 8px;");

    ui->patient_fullname->setReadOnly(true);
    ui->patient_add->setReadOnly(true);
    ui->patient_bday->setReadOnly(true);
    ui->patient_bt->setReadOnly(true);
    ui->patient_conc->setReadOnly(true);
    ui->patient_emailadd->setReadOnly(true);
    ui->patient_sex->setReadOnly(true);
    ui->patient_sex->setBaseSize(10,10);
    ui->patient_allergy->setReadOnly(true);
    ui->patient_illness->setReadOnly(true);
    ui->em_name->setReadOnly(true);
    ui->em_num->setReadOnly(true);
    ui->em_relation->setReadOnly(true);



    MainWindow conn;
     if (!conn.connOpen()){
         qDebug() <<"Failed to open.";
         return;
     }
     conn.connOpen();
     QSqlQuery qry;

     qry.prepare("select * from healthprofile where
             healthprofile_pid ='"+value+"'");

     if(qry.exec()){
         while(qry.next()){
             ui->patient_fullname->setText(qry.value(2).
                     toString());
             ui->patient_bday->setText(qry.value(3).
                     toString());
             ui->patient_sex->setText(qry.value(4).toString
                     ());
             ui->patient_bt->setText(qry.value(5).toString
                     ());
             ui->patient_add->setText(qry.value(6).
                     toString());
             ui->patient_conc->setText(qry.value(7).
                     toString());
             ui->patient_emailadd->setText(qry.value(8).
                     toString());
             ui->patient_allergy->setText(qry.value(9).
                     toString());
             ui->patient_illness->setText(qry.value(10).
                     toString());
             ui->em_name->setText(qry.value(11).toString
                     ());
             ui->em_num ->setText(qry.value(12).toString
                     ());
             ui->em_relation->setText(qry.value(13).
                     toString());
             ui->healthUnitPatient->setText(qry.value(14).
                     toString());
         }
     }
}

ProfileConsultation::~ProfileConsultation()
{
    delete ui;
}

void ProfileConsultation::on_back_clicked()
{
    close();
    searchConsultations = new SearchConsultations(med);
    searchConsultations->show();
```

```
}

void ProfileConsultation::on_patientRecords_clicked()
{
    close();
    patientVisitRecordListConsultations = new
        PatientVisitRecordListConsultations(profileValue,
        med);
    patientVisitRecordListConsultations->show();

}


#include "retrievedata.h"
#include "ui_retrievedata.h"
#include "mainwindow.h"

RetrieveData::RetrieveData(QString medical_user, QWidget *
    parent) :
    QMainWindow(parent),
    ui(new Ui::RetrieveData)
{
    ui->setupUi(this);
    med = medical_user;

    MainWindow conn;
    conn.connOpen();
    QSqlQuery qry;
    QSqlQueryModel *modal=new QSqlQueryModel();
    qry.prepare("select blood_glucose,datetime_created from
        get_patient_data where existing = '0'");
    qry.exec();
    modal->setQuery(qry);
    ui->device_data->horizontalHeader()->
        setSectionResizeMode(QHeaderView::Stretch);
    ui->device_data->setModel(modal);

    process = new QProcess(parent);
    process->setWorkingDirectory("C:/Users/abega/Desktop
        /Thesis 2nd Semester/New folder/
        RecommenderSystem");
    process->start("python GetPatientData.py");
    qDebug() << "Starting the process...";
    connect(process, SIGNAL(finished(int , QProcess::
        ExitStatus)), this, SLOT(on_iotDataReceived(int ,
        QProcess::ExitStatus)));
    conn.connClose();
}

RetrieveData::~RetrieveData()
{
    delete ui;
}


void RetrieveData::on_iotDataReceived(int exitCode, QProcess
    ::ExitStatus exitStatus)
{
    qDebug() << exitStatus;
//    if(QProcess::NormalExit){
        MainWindow conn;
        conn.connOpen();
        QSqlQuery qry;
        QSqlQueryModel *modal=new QSqlQueryModel();

        QByteArray newData = process->
            readAllStandardOutput();
        qDebug() << newData;
        QString data = QString::fromStdString(newData.
            toStdString());
        QString dataRep1 = data.replace("\r\n","");
        QString dataRep2 = dataRep1.replace("","");

        int startB = 0;
        int endB = 0;

        startB = dataRep2.indexOf("[");
        endB = dataRep2.indexOf("]");
        QStringList recordList = dataRep2.mid(startB+1, (
            endB-startB-1)).split(",");
        QString hash = recordList[0];
        qDebug() << hash;
        hash = hash.trimmed();
        QString gluc = recordList[1];
        gluc = gluc.trimmed();
        qDebug() << gluc;
        QString dtstamp = recordList[2];
        dtstamp.trimmed();
        qDebug() << dtstamp;

        qry.prepare("insert into get_patient_data(hash_id,
            blood_glucose, datetime_created) "
                "values (:hash, :gluc, :dtstamp)");

        qry.bindValue(":hash", hash);
        qry.bindValue(":gluc", gluc);
        qry.bindValue(":dtstamp", dtstamp);
//        if(qry.exec())
//        {
//            checker == "1";
//        }
        qry.exec();


        while(dataRep2.indexOf("[", endB) != -1 || dataRep2
            .indexOf("]", endB+1) != -1){
            startB = dataRep2.indexOf("[", endB);
            endB = dataRep2.indexOf("]", endB+1);

            recordList = dataRep2.mid(startB+1, (endB-
                startB-1)).split(",");
            QString hash = recordList[0];
            hash = hash.trimmed();
            qDebug() << hash;
            QString gluc = recordList[1];
            gluc = gluc.trimmed();
            qDebug() << gluc;
            QString dtstamp = recordList[2];
            qDebug() << dtstamp;

            qry.prepare("insert into get_patient_data(hash_id
                , blood_glucose, datetime_created) "
                    "values (:hash, :gluc, :dtstamp)");

            qry.bindValue(":hash", hash);
            qry.bindValue(":gluc", gluc);
            qry.bindValue(":dtstamp", dtstamp);
            qry.exec();
            if(qry.exec())
            {
                checker == "1";
            }
            else{
                checker == "0";
            }
            qDebug() << checker;
        }

        process->close();

        qry.prepare("select blood_glucose,datetime_created
            from get_patient_data where existing = '0'");
        qry.exec();
        modal->setQuery(qry);
        ui->device_data->horizontalHeader()->
            setSectionResizeMode(QHeaderView::Stretch);
        ui->device_data->setModel(modal);
//    }
//    else{
//        QMessageBox::information(0, qApp->tr("Get IoT
    Glucometer Data."),
//                                 qApp->tr("Please repeat
    the process."), QMessageBox::Ok);
//        return;
//    }
}


void RetrieveData::on_pushButton_clicked()
{
    process->close();
    MainWindow conn;
    conn.connOpen();
    QSqlQuery qry;

        qry.prepare("UPDATE get_patient_data SET existing
            = '1'");
        if(qry.exec()){

            QMessageBox::information(0, qApp->tr("Get
                IoT Glucometer Data."),
                                     qApp->tr("All Patient
                                         Data in the IoT
                                         Glucometer has
                                         been successfully
                                         saved."),
                                         QMessageBox::Ok)
                                         ;
        }
        else{
            QMessageBox::critical(this,tr("Error::"), qry.
                lastError().text());
        }

    QString type;
    qDebug() << med;
    qry.prepare("select * from medical_user where
        medical_user_pid ='"+med+"'");
    if(qry.exec()){
        while(qry.next()){
            type = qry.value(1).toString();
            qDebug() << type;
        }

    }
    if(type == "N"){
        close();
        conn.connClose();
```

```
        mainMenu = new MainMenu(med);
        mainMenu->show();
    }
    else if (type == "D"){
        close();
        conn.connClose();
        mainMenuDoctor = new MainMenuDoctor(med);
        mainMenuDoctor->show();
    }
}

#include "searchconsultations.h"
#include "ui_searchconsultations.h"

SearchConsultations::SearchConsultations(QString
    medical_user, QWidget *parent) :
    QMainWindow(parent),
    ui(new Ui::SearchConsultations)
{
    ui->setupUi(this);
    med = medical_user;
    MainWindow conn;

    QSqlQueryModel * modal=new QSqlQueryModel();

    conn.connOpen();
    QSqlQuery* qry=new QSqlQuery(conn.
        recommenderSystem);

    qry->prepare("SELECT healthprofile.healthprofile_pid,
        healthprofile.name, healthprofile.birthday, "
            "treatment_plan.teleconsultation_status  "
            "FROM healthprofile "
            "INNER JOIN patient_visit "
            "on healthprofile.healthprofile_pid =
                patient_visit.healthprofile_pid "
            "INNER JOIN treatment_plan "
            "on treatment_plan.patient_visit_id =
                patient_visit.patient_visit_id "
            "WHERE treatment_plan.
                teleconsultation_status = '0' "
            "GROUP BY healthprofile.healthprofile_pid
                "
            "ORDER BY healthprofile.healthprofile_pid
                DESC");

    qry->exec();
    modal->setQuery(*qry);

    ui->healthprofile_list->horizontalHeader()->
        setSectionResizeMode(QHeaderView::Stretch);
    ui->healthprofile_list->setModel(modal);
    ui->healthprofile_list->setSortingEnabled(false);

    conn.close();
    qDebug() <<(modal->rowCount());
}

SearchConsultations::~SearchConsultations()
{
    delete ui;
}

void SearchConsultations::on_mainMenuDoctor_clicked()
{
    MainWindow conn;
    conn.connOpen();
    QSqlQuery qry;

    QString type;
     qDebug() << med;
    qry.prepare("select * from medical_user where
        medical_user_pid ='"+med+"'");
    if(qry.exec()){
        while(qry.next()){
            type = qry.value(1).toString();
             qDebug() << type;
        }

    }
    if(type == "N"){
        close();
        conn.connClose();
        mainMenu = new MainMenu(med);
        mainMenu->show();
    }
    else if (type == "D"){
        close();
        conn.connClose();
        mainMenuDoctor = new MainMenuDoctor(med);
        mainMenuDoctor->show();
    }
}

void SearchConsultations:: on_healthprofile_list_activated (
    const QModelIndex &index)
{
    QString val = ui->healthprofile_list->model()->data(
        index).toString();
    close();
    profileConsultation = new ProfileConsultation(val, med);
    profileConsultation->show();
}


#include "searchpatientprofile.h"
#include "ui_searchpatientprofile.h"


SearchPatientProfile::SearchPatientProfile(QString
    medical_user, QWidget *parent) :
    QMainWindow(parent),
    ui(new Ui::SearchPatientProfile)
{
    ui->setupUi(this);
    ui->pushButton_2->setStyleSheet("set");
    med = medical_user;

    MainWindow conn;

    QSqlQueryModel * modal=new QSqlQueryModel();

    conn.connOpen();
    QSqlQuery* qry=new QSqlQuery(conn.
        recommenderSystem);

    qry->prepare("SELECT healthprofile_pid, name,
        birthday FROM healthprofile ORDER BY
        healthprofile_pid DESC");

    qry->exec();
    modal->setQuery(*qry);

    ui->healthprofile_list->horizontalHeader()->
        setSectionResizeMode(QHeaderView::Stretch);
    ui->healthprofile_list->setModel(modal);
    ui->healthprofile_list->setSortingEnabled(false);
//    ui->healthprofile_list->horizontalHeader()->


    conn.close();
    qDebug() <<(modal->rowCount());
}

SearchPatientProfile::~SearchPatientProfile()
{
    delete ui;
}
void SearchPatientProfile:: on_healthprofile_list_activated (
    const QModelIndex &index)
{
   QString val = ui->healthprofile_list->model()->data(
       index).toString();
   close();
   patientHealthProfile = new PatientHealthProfile(val, med);
   patientHealthProfile->show();

}
void SearchPatientProfile::on_pushButton_2_clicked()
{
    close();
    mainMenu = new MainMenu(med);
    mainMenu->show();
}
void SearchPatientProfile::on_searchPatient_clicked()
{
    QString searchVar = ui->searchPatient_lineEdit->text()
        ;

    MainWindow conn;
    QSqlQueryModel * modal=new QSqlQueryModel();
    if(!conn.connOpen()){
        qDebug() <<"Failed to open.";
        return;
    }
    conn.connOpen();
    QSqlQuery* qry=new QSqlQuery(conn.
        recommenderSystem);

    qry->prepare("select healthprofile_pid, name, birthday
        from healthprofile where name ='"+searchVar+"'");

    qry->exec();
    modal->setQuery(*qry);

    ui->healthprofile_list->horizontalHeader()->
        setSectionResizeMode(QHeaderView::Stretch);
    ui->healthprofile_list->setModel(modal);

    conn.close();
}


#include "searchpatientprofiledoctor.h"
#include "ui_searchpatientprofiledoctor.h"
#include "mainwindow.h"

SearchPatientProfileDoctor::SearchPatientProfileDoctor(
    QString medical_user,QWidget *parent) :
```

```
    QMainWindow(parent),
    ui(new Ui::SearchPatientProfileDoctor)
{
    ui->setupUi(this);
    med = medical_user;

    MainWindow conn;

    QSqlQueryModel * modal=new QSqlQueryModel();

    conn.connOpen();
    QSqlQuery* qry=new QSqlQuery(conn.
        recommenderSystem);

    qry->prepare("SELECT healthprofile_pid, name,
        birthday FROM healthprofile ORDER BY
        healthprofile_pid DESC");

    qry->exec();
    modal->setQuery(*qry);

    ui->healthprofile_list->horizontalHeader()->
        setSectionResizeMode(QHeaderView::Stretch);
    ui->healthprofile_list->setModel(modal);
    ui->healthprofile_list->setSortingEnabled(false);

    conn.close();
}

SearchPatientProfileDoctor::~SearchPatientProfileDoctor()
{
    delete ui;
}

void SearchPatientProfileDoctor::on_mainMenuDoctor_clicked
    ()
{
    hide();
    mainMenuDoctor = new MainMenuDoctor(med);
    mainMenuDoctor->show();
}

void SearchPatientProfileDoctor::
    on_healthprofile_list_activated (const QModelIndex &
    index)
{
    QString val = ui->healthprofile_list->model()->data(
        index).toString();
    close();
    patientHealthProfileDoc = new PatientHealthProfileDoc(
        val, med);
    patientHealthProfileDoc->show();
}
void SearchPatientProfileDoctor::on_searchPatient_clicked()
{
    QString searchVar = ui->searchPatient_lineEdit->text()
        ;

    MainWindow conn;
    QSqlQueryModel * modal=new QSqlQueryModel();
    if(!conn.connOpen()){
        qDebug()<<"Failed to open.";
        return;
    }
    conn.connOpen();
    QSqlQuery* qry=new QSqlQuery(conn.
        recommenderSystem);

    qry->prepare("select healthprofile_pid, name, birthday
        from healthprofile where name ='"+searchVar+"'");

    qry->exec();
    modal->setQuery(*qry);

    ui->healthprofile_list->horizontalHeader()->
        setSectionResizeMode(QHeaderView::Stretch);
    ui->healthprofile_list->setModel(modal);

    conn.close();
}


#include "teleconsultationconsult.h"
#include "ui_teleconsultationconsult.h"

TeleconsultationConsult::TeleconsultationConsult(QString
    value, QString record, QString plan, QString
    medical_user, QWidget *parent) :
    QMainWindow(parent),
    ui(new Ui::TeleconsultationConsult)
{
    ui->setupUi(this);
    ui->verticalLayoutMessages->setAlignment(Qt::
        AlignTop);

    profileValue = value; //patient health profile id
    recordValue = record; //patient visit record id
    treatmentPlanPID = plan; // treatment plan id
    med = medical_user; // medical user pid

    ui->send->setStyleSheet("padding: 15px;");
    ui->closeCase->setStyleSheet("padding: 8px;");
    ui->Back->setStyleSheet("padding: 8px;");


    MainWindow conn;
    conn.connOpen();

    getName(med);
    QSqlQuery qry;

    qry.prepare("select * from treatment_plan inner join
        patient_visit on "
            "treatment_plan.patient_visit_id =
                patient_visit.patient_visit_id where "
            "treatment_plan.patient_visit_id = '"+
                recordValue+"'");
    if(qry.exec())
    {
        while(qry.next())
        {
            QString status = qry.value(2).toString();
            QString medCreatorNum = qry.value(12).toString
                ();

            if(status =="1"){
                ui->textMessage->hide();
                ui->closeCase->hide();
                ui->send->hide();
                ui->groupBox_2->hide();
                ui->refresh_consultation->hide();

            }

            if(medCreatorNum != med){
                ui->closeCase->hide();
            }

        }
    }
    else
    {
        QMessageBox::critical(this,tr("Error::"), qry.
            lastError().text());
    }

    renderMessagesView();
    conn.connClose();
}

TeleconsultationConsult::~TeleconsultationConsult()
{
    delete ui;
}

void TeleconsultationConsult::getName(QString medId) {

    QSqlQuery qry;
    qry.prepare ("select * from medical_user where
        medical_user_pid='"+medId+"'");
    if(qry.exec())
    {
        while(qry.next())
        {
            medName = qry.value(4).toString();
        }

    }
}

void TeleconsultationConsult::on_refresh_consultation_clicked
    ()
{
    if ( ui->verticalLayoutMessages->layout() != NULL )
    {
        QLayoutItem* item;
        while ( ( item = ui->verticalLayoutMessages->
            layout()->takeAt( 0 ) ) != NULL )
        {
            delete item->widget();
            delete item;
        }
        //delete ui->verticalLayoutMessages->layout();
    }


    MainWindow conn;
    conn.connOpen();

    getName(med);
    QSqlQuery qry;
    qry.prepare("select teleconsultation_status ,
        medical_user_pid from treatment_plan inner join
        patient_visit on "
            "treatment_plan.patient_visit_id =
                patient_visit.patient_visit_id where
                treatment_plan_id = '"+recordValue
                +"'");
    if(qry.exec())
```

```
    {
        while(qry.next())
        {
            QString status = qry.value(0).toString();
            QString medCreatorNum = qry.value(1).toString
                ();
            if(status =="1"){
                ui->textMessage->hide();
                ui->closeCase->hide();
                ui->send->hide();
            }

            if(medCreatorNum != med){
                ui->closeCase->hide();
            }

        }
    }
    else
    {
        QMessageBox::critical(this,tr("Error::"), qry.
            lastError().text());
    }

    renderMessagesView();
    conn.connClose();


}

void TeleconsultationConsult::renderMessagesView()
{
    QSqlQuery qry;

    qry.prepare("select sample_teleconsultation.
        medical_user_pid, message, datetime, name from
        sample_teleconsultation "
            "inner join medical_user on
                sample_teleconsultation.
                medical_user_pid = medical_user.
                medical_user_pid "
            "where treatment_plan_pid ='"+recordValue
                +"' order by sample_teleconsultation.id
                ASC");

    if(qry.exec())
    {
        while(qry.next())
        {
            medCreator = qry.value(3).toString();
            dateTime_message = qry.value(2).toString();
            message = qry.value(1).toString();
            renderMessage(medCreator, message,
                dateTime_message);
        }
    }
    else
    {
        QMessageBox::critical(this,tr("Error::"), qry.
            lastError().text());
    }
}

void TeleconsultationConsult::renderMessage(QString
    medCreator, QString message, QString
    dateTime_message)
{
    consultation = medCreator + ": \n" + dateTime_message
        +"\n" + message;
    m_button = new QPushButton(consultation, this);
    ui->verticalLayoutMessages->addWidget(m_button);
    m_button->setStyleSheet("font-size: 12px;"
                            "text-align: left;"
                            "height: 48px;"
                            "width: 120px;");

}

void TeleconsultationConsult::on_send_clicked()
{
    MainWindow conn;
    conn.connOpen();
    QSqlQuery qry;

    message = ui->textMessage->toPlainText();

    qry.prepare("insert into sample_teleconsultation(message,
        medical_user_pid, treatment_plan_pid) values (:
        message, :med, :treatmentPlanPID) ");
    qry.bindValue(":message", message);
    qry.bindValue(":med", med);
    qry.bindValue(":treatmentPlanPID", treatmentPlanPID);


    if(qry.exec()){
        QMessageBox::information(this,tr("Send
            teleconsultation message."), tr("Your message
            has been successfully sent."));
        dtVal= qry.lastInsertId().toString();
        qry.prepare("select datetime from
            sample_teleconsultation where id ='"+dtVal
            +"'");
        if(qry.exec()){
            while(qry.next()){
                dateTime_message = qry.value(0).toString();
            }
        }
        renderMessage(medName, message, dateTime_message
            );
        ui->textMessage->setText("");
        conn.connClose();
    }
    else{
        QMessageBox::critical(this,tr("Error::"), qry.
            lastError().text());
    }

}

void TeleconsultationConsult::on_closeCase_clicked()
{
    MainWindow conn;
    conn.connOpen();

    QSqlQuery qry;
    qry.prepare("UPDATE treatment_plan SET
        teleconsultation_status = '1' WHERE
        treatment_plan_id = '"+treatmentPlanPID+"'");
    if(qry.exec())
    {
        ui->textMessage->hide();
        ui->closeCase->hide();
        ui->send->hide();
        ui->groupBox_2->hide();
        ui->refresh_consultation->hide();

        message = "Case Closed.";

        QSqlQuery qry;

        qry.prepare("insert into sample_teleconsultation(
            message, medical_user_pid, treatment_plan_pid)
            values (:message, :med, :treatmentPlanPID) ");
        qry.bindValue(":message", message);
        qry.bindValue(":med", med);
        qry.bindValue(":treatmentPlanPID",
            treatmentPlanPID);


        if(qry.exec()){
            QSqlQuery qry;
            dtVal= qry.lastInsertId().toString();
            qry.prepare("select datetime from
                sample_teleconsultation where id ='"+dtVal
                +"'");
            if(qry.exec()){
                while(qry.next()){
                    dateTime_message = qry.value(0).toString
                        ();
                }
                renderMessage(medName, message,
                    dateTime_message);
                ui->textMessage->setText("");
                conn.connClose();
            }
            else{
                QMessageBox::critical(this,tr("Error::"), qry.
                    lastError().text());
            }
        }
        else
        {
            QMessageBox::critical(this,tr("Error::"), qry.
                lastError().text());
        }

}

void TeleconsultationConsult::on_Back_clicked()
{
    close();
    treatmentPlanConsult= new TreatmentPlanConsult(
        profileValue, recordValue, med);
    treatmentPlanConsult->show();
}

#include "teleconsultationdoc.h"
#include "ui_teleconsultationdoc.h"
#include <QMessageBox>
#include "mainmenu.h"

TeleconsultationDoc::TeleconsultationDoc(QString value,
    QString record, QString plan, QString medical_user,
    QWidget *parent) :
    QMainWindow(parent),
    ui(new Ui::TeleconsultationDoc)
{
```

```
    ui->setupUi(this);
    ui->verticalLayoutMessages->setAlignment(Qt::
        AlignTop);

    profileValue = value; //patient health profile id
    recordValue = record; //patient visit record id
    treatmentPlanPID = plan; // treatment plan id
    med = medical_user; // medical user pid

    ui->send->setStyleSheet("padding: 15px;");
    ui->closeCase->setStyleSheet("padding: 8px;");
    ui->Back->setStyleSheet("padding: 8px;");


    MainWindow conn;
    conn.connOpen();

    getName(med);
    QSqlQuery qry;

    qry.prepare("select * from treatment_plan inner join
        patient_visit on treatment_plan.patient_visit_id =
        patient_visit.patient_visit_id where treatment_plan
        .patient_visit_id = '"+recordValue+"'");
    if(qry.exec())
    {
        while(qry.next())
        {
            QString status = qry.value(2).toString();
            QString medCreatorNum = qry.value(12).toString
                ();

            if(status =="1"){
                ui->textMessage->hide();
                ui->closeCase->hide();
                ui->send->hide();
                ui->groupBox_2->hide();
                ui->refresh_consultation->hide();

            }

            if(medCreatorNum != med){
                ui->closeCase->hide();
            }

        }
    }
    else
    {
        QMessageBox::critical(this,tr("Error::"), qry.
            lastError().text());
    }

    renderMessagesView();
    conn.connClose();
}

TeleconsultationDoc::~TeleconsultationDoc()
{
    delete ui;
}

void TeleconsultationDoc::getName(QString medId) {

    QSqlQuery qry;
    qry.prepare ("select * from medical_user where
        medical_user_pid='"+medId+"'");
    if(qry.exec())
    {
        while(qry.next())
        {
            medName = qry.value(4).toString();
        }

    }
}

void TeleconsultationDoc:: on_refresh_consultation_clicked ()
{
    if ( ui->verticalLayoutMessages->layout() != NULL )
    {
        QLayoutItem* item;
        while ( ( item = ui->verticalLayoutMessages->
            layout()->takeAt( 0 ) ) != NULL )
        {
            delete item->widget();
            delete item;
        }
        //delete ui->verticalLayoutMessages->layout();
    }


    MainWindow conn;
    conn.connOpen();

    getName(med);
    QSqlQuery qry;
    qry.prepare("select teleconsultation_status ,
        medical_user_pid from treatment_plan inner join
        patient_visit on "
            "treatment_plan.patient_visit_id =
                patient_visit.patient_visit_id where
                treatment_plan_id = '"+recordValue
                +"'");
    if(qry.exec())
    {
        while(qry.next())
        {
            QString status = qry.value(0).toString();
            QString medCreatorNum = qry.value(1).toString
                ();
            if(status =="1"){
                ui->textMessage->hide();
                ui->closeCase->hide();
                ui->send->hide();
            }

            if(medCreatorNum != med){
                ui->closeCase->hide();
            }

        }
    }
    else
    {
        QMessageBox::critical(this,tr("Error::"), qry.
            lastError().text());
    }

    renderMessagesView();
    conn.connClose();


}

void TeleconsultationDoc::renderMessagesView()
{
    QSqlQuery qry;
    qry.prepare("select sample_teleconsultation.
        medical_user_pid, message, datetime, name "
            "from sample_teleconsultation inner join
                medical_user on "
            "sample_teleconsultation.medical_user_pid =
                medical_user.medical_user_pid "
            "where treatment_plan_pid ='"+recordValue
                +"' order by sample_teleconsultation.id
                ASC");

    if(qry.exec())
    {
        while(qry.next())
        {
            medCreator = qry.value(3).toString();
            dateTime_message = qry.value(2).toString();
            message = qry.value(1).toString();
            renderMessage(medCreator, message,
                dateTime_message);
        }
    }
    else
    {
        QMessageBox::critical(this,tr("Error::"), qry.
            lastError().text());
    }
}

void TeleconsultationDoc::renderMessage(QString medCreator,
    QString message, QString dateTime_message)
{
    consultation = medCreator + ": \n" + dateTime_message
        +"\n" + message;
    m_button = new QPushButton(consultation, this);
    ui->verticalLayoutMessages->addWidget(m_button);
    m_button->setStyleSheet("font-size: 12px;"
                            "text-align: left;"
                            "height: 48px;"
                            "width: 120px;");

}

void TeleconsultationDoc::on_send_clicked()
{
    MainWindow conn;
    conn.connOpen();
    QSqlQuery qry;

    message = ui->textMessage->toPlainText();

    qry.prepare("insert into sample_teleconsultation(message,
        medical_user_pid, treatment_plan_pid) values (:
        message, :med, :treatmentPlanPID) ");
    qry.bindValue(":message", message);
    qry.bindValue(":med", med);
    qry.bindValue(":treatmentPlanPID", treatmentPlanPID);


    if(qry.exec()){
        QMessageBox::information(this,tr("Send
```

```
            teleconsultation message."), tr("Your message
            has been successfully sent.")));
        dtVal= qry.lastInsertId().toString();
        qry.prepare("select datetime from
            sample_teleconsultation where id ='"+dtVal
            +"'");
        if(qry.exec()){
            while(qry.next()){
                dateTime_message = qry.value(0).toString();
            }
        }
        renderMessage(medName, message, dateTime_message
            );
        ui->textMessage->setText("");
        conn.connClose();
    }
    else{
        QMessageBox::critical(this,tr("Error::"), qry.
            lastError().text());
    }

}

void TeleconsultationDoc::on_closeCase_clicked()
{
    MainWindow conn;
    conn.connOpen();

    QSqlQuery qry;
    qry.prepare("UPDATE treatment_plan SET
        teleconsultation_status = '1' WHERE
        treatment_plan_id = '"+treatmentPlanPID+"'");
    if(qry.exec())
    {
        ui->textMessage->hide();
        ui->closeCase->hide();
        ui->send->hide();
        ui->groupBox_2->hide();
        ui->refresh_consultation->hide();

        message = "Case Closed.";

        QSqlQuery qry;

        qry.prepare("insert into sample_teleconsultation(
            message, medical_user_pid, treatment_plan_pid)
            values (:message, :med, :treatmentPlanPID) ");
        qry.bindValue(":message", message);
        qry.bindValue(":med", med);
        qry.bindValue(":treatmentPlanPID",
            treatmentPlanPID);


        if(qry.exec()){
            QSqlQuery qry;
            dtVal= qry.lastInsertId().toString();
            qry.prepare("select datetime from
                sample_teleconsultation where id ='"+dtVal
                +"'");
            if(qry.exec()){
                while(qry.next()){
                    dateTime_message = qry.value(0).toString
                        ();
                }
            }
            renderMessage(medName, message,
                dateTime_message);
            ui->textMessage->setText("");
            conn.connClose();
        }
        else{
            QMessageBox::critical(this,tr("Error::"), qry.
                lastError().text());
        }
    }
    else
    {
        QMessageBox::critical(this,tr("Error::"), qry.
            lastError().text());
    }

}

void TeleconsultationDoc::on_Back_clicked()
{
    close();
    treatmentPlanDoc= new TreatmentPlanDoc(profileValue,
        recordValue, med);
    treatmentPlanDoc->show();
}
//void TeleconsultationDoc::on_addCase_clicked()
//{
//    addCase = new AddCase();
//    addCase->show();
//}

#include "teleconsultationnurse.h"
#include "ui_teleconsultationnurse.h"
#include <QMessageBox>
#include "mainmenu.h"
#include <QScrollBar>


TeleconsultationNurse::TeleconsultationNurse(QString value,
    QString record, QString plan, QString medical_user,
    QWidget *parent) :
    QMainWindow(parent),
    ui(new Ui::TeleconsultationNurse)
{
    ui->setupUi(this);
    ui->verticalLayoutMessages->setAlignment(Qt::
        AlignTop);

    profileValue = value; //patient health profile id
    recordValue = record; //patient visit record id
    treatmentPlanPID = plan; // treatment plan id
    med = medical_user; // medical user pid

    ui->send->setStyleSheet("padding: 15px;");
    ui->closeCase->setStyleSheet("padding: 8px;");
    ui->Back->setStyleSheet("padding: 8px;");


    MainWindow conn;
    conn.connOpen();

    getName(med);
    QSqlQuery qry;

    qry.prepare("select * from treatment_plan inner join
        patient_visit on treatment_plan.patient_visit_id =
        patient_visit.patient_visit_id where treatment_plan
        .patient_visit_id = '"+recordValue+"'");
    if(qry.exec())
    {
        while(qry.next())
        {
            QString status = qry.value(2).toString();
            QString medCreatorNum = qry.value(12).toString
                ();

            if(status =="1"){
                ui->textMessage->hide();
                ui->closeCase->hide();
                ui->send->hide();
                ui->groupBox_2->hide();
                ui->refresh_consultation->hide();

            }

            if(medCreatorNum != med){
                ui->closeCase->hide();
            }

        }
    }
    else
    {
        QMessageBox::critical(this,tr("Error::"), qry.
            lastError().text());
    }

    renderMessagesView();
    conn.connClose();

}

TeleconsultationNurse::~TeleconsultationNurse()
{
    delete ui;
}


void TeleconsultationNurse::getName(QString medId)
{
    QSqlQuery qry;
    qry.prepare ("select * from medical_user where
        medical_user_pid='"+medId+"'");
    if(qry.exec())
    {
        while(qry.next())
        {
            medName = qry.value(4).toString();
        }

    }
}

void TeleconsultationNurse:: on_refresh_consultation_clicked ()
{

    if ( ui->verticalLayoutMessages->layout() != NULL )
    {
        QLayoutItem* item;
        while ( ( item = ui->verticalLayoutMessages->
            layout()->takeAt( 0 ) ) != NULL )
        {
            delete item->widget();
```

```
            delete item;
        }
        //delete ui->verticalLayoutMessages->layout();
    }


    MainWindow conn;
    conn.connOpen();

    getName(med);
    QSqlQuery qry;
    qry.prepare("select  teleconsultation_status ,
          medical_user_pid from treatment_plan inner join
          patient_visit  on "
                "treatment_plan. patient_visit_id  =
                      patient_visit . patient_visit_id  where
                      treatment_plan_id = '"+recordValue
                      +"'");
    if(qry.exec())
    {
        while(qry.next())
        {
            QString status = qry.value(0).toString();
            QString medCreatorNum = qry.value(1).toString
                  ();
            if(status =="1"){
                ui->textMessage->hide();
                ui->closeCase->hide();
                ui->send->hide();
            }

            if(medCreatorNum != med){
                ui->closeCase->hide();
            }

        }
    }
    else
    {
        QMessageBox::critical(this,tr("Error::") , qry.
              lastError().text());
    }

    renderMessagesView();
    conn.connClose();


}

void TeleconsultationNurse::renderMessagesView()
{
    QSqlQuery qry;
    qry.prepare("select sample_teleconsultation.
          medical_user_pid, message, datetime, name "
                "from sample_teleconsultation inner join
                      medical_user "
                "on sample_teleconsultation.medical_user_pid
                      = medical_user.medical_user_pid "
                "where treatment_plan_pid ='"+recordValue
                      +"' order by sample_teleconsultation.id
                      ASC");

    if(qry.exec())
    {
        while(qry.next())
        {
            medCreator = qry.value(3).toString();
            dateTime_message = qry.value(2).toString();
            message = qry.value(1).toString();
            renderMessage(medCreator, message,
                  dateTime_message);

        }
    }
    else
    {
        QMessageBox::critical(this,tr("Error::") , qry.
              lastError().text());
    }
}

void TeleconsultationNurse::renderMessage(QString
      medCreator, QString message, QString
      dateTime_message)
{
    consultation = medCreator + ": \n" + dateTime_message
          +"\n" + message;
    m_button = new QPushButton(consultation, this);

    ui->verticalLayoutMessages->addWidget(m_button);
    m_button->setStyleSheet("font-size: 12px;"
                            "text-align: left ;"
                            "height: 48px;"
                            "width: 120px;");

}

void TeleconsultationNurse::on_send_clicked()
{
    MainWindow conn;
    conn.connOpen();
    QSqlQuery qry;

    message = ui->textMessage->toPlainText();

    qry.prepare("insert into sample_teleconsultation(message,
          medical_user_pid, treatment_plan_pid) values (:
          message, :med, :treatmentPlanPID) ");
    qry.bindValue(":message", message);
    qry.bindValue(":med", med);
    qry.bindValue(":treatmentPlanPID", treatmentPlanPID);


    if(qry.exec()){
        QMessageBox::information(this,tr("Send
              teleconsultation message."), tr("Your message
              has been successfully sent."));
        dtVal= qry.lastInsertId().toString();
        qry.prepare("select datetime from
              sample_teleconsultation where id ='"+dtVal
              +"'");
        if(qry.exec()){
            while(qry.next()){
                dateTime_message = qry.value(0).toString();
            }
        }
        renderMessage(medName, message, dateTime_message
              );
        ui->textMessage->setText("");
        conn.connClose();
    }
    else{
        QMessageBox::critical(this,tr("Error::") , qry.
              lastError().text());
    }

}

void TeleconsultationNurse::on_closeCase_clicked()
{
    MainWindow conn;
    conn.connOpen();

    QSqlQuery qry;
    qry.prepare("UPDATE treatment_plan SET
          teleconsultation_status = '1' WHERE
          treatment_plan_id = '"+treatmentPlanPID+"'");
    if(qry.exec())
    {
        ui->textMessage->hide();
        ui->closeCase->hide();
        ui->send->hide();
        ui->groupBox_2->hide();
        ui->refresh_consultation->hide();

        message = "Case Closed.";

        QSqlQuery qry;

        qry.prepare("insert into sample_teleconsultation(
              message, medical_user_pid, treatment_plan_pid)
              values (:message, :med, :treatmentPlanPID) ");
        qry.bindValue(":message", message);
        qry.bindValue(":med", med);
        qry.bindValue(":treatmentPlanPID",
              treatmentPlanPID);


        if(qry.exec()){
            QSqlQuery qry;
            dtVal= qry.lastInsertId().toString();
            qry.prepare("select datetime from
                  sample_teleconsultation where id ='"+dtVal
                  +"'");
            if(qry.exec()){
                while(qry.next()){
                    dateTime_message = qry.value(0).toString
                          ();
                }
                renderMessage(medName, message,
                      dateTime_message);
                ui->textMessage->setText("");
                conn.connClose();
            }
            else{
                QMessageBox::critical(this,tr("Error::") , qry.
                      lastError().text());
            }
        }
        else
        {
            QMessageBox::critical(this,tr("Error::") , qry.
                  lastError().text());
        }

    }
```

```
void TeleconsultationNurse::on_Back_clicked()
{
    close();
    treatmentPlanNurse = new TreatmentPlanNurse(
            profileValue, recordValue, med);
    treatmentPlanNurse->show();
}


#include "treatmentplanconsult.h"
#include "ui_treatmentplanconsult.h"

TreatmentPlanConsult::TreatmentPlanConsult(QString value,
       QString record, QString medical_user, QWidget *parent
       ) :
    QMainWindow(parent),
    ui(new Ui::TreatmentPlanConsult)
{
    ui->setupUi(this);

    profileValue = value;
    recordValue = record;
    med = medical_user;

    ui->treatment_insulin_regimen->setReadOnly(true);
    ui->treatment_insulin_dosage->setReadOnly(true);
    ui->treatment_injectsched->setReadOnly(true);
    ui->treatment_testingsched->setReadOnly(true);
    ui->treatment_titration->setReadOnly(true);
    ui->treatment_hypoglycemia->setReadOnly(true);
    ui->treatment_others->setReadOnly(true);

    MainWindow conn;
    conn.connOpen();

    QSqlQuery qry;


    QString type;
     qDebug() << med;
    qry.prepare("select * from medical_user where
           medical_user_pid ='"+med+"'");
    if(qry.exec()){
        while(qry.next()){
            type = qry.value(1).toString();
             qDebug() << type;
        }

    }
    if(type == "N"){
        ui->editPlan->hide();
        ui->label_10->hide();
        ui->label_11->hide();
    }


    qry.prepare("select * from treatment_plan where
           patient_visit_id = '"+recordValue+"'");
     qDebug() << "Record ID: " << recordValue;
    if(qry.exec()){
        while(qry.next()){
            treatmentPlanID = qry.value(0).toString();
            ui->treatment_insulin_regimen->setText(qry.
                   value(3).toString());
            ui->treatment_insulin_dosage->setText(qry.
                   value(4).toString());
            ui->treatment_injectsched->setText(qry.value
                   (5).toString());
            ui->treatment_testingsched->setText(qry.value
                   (6).toString());
            ui->treatment_titration->setText(qry.value(7).
                   toString());
            ui->treatment_hypoglycemia->setText(qry.value
                   (8).toString());
            ui->treatment_others->setText(qry.value(9).
                   toString());
        }

    }
}

TreatmentPlanConsult::~TreatmentPlanConsult()
{
    delete ui;
}

void TreatmentPlanConsult::on_editPlan_clicked()
{
    close();
    treatmentPlanEditConsult = new
           TreatmentPlanEditConsult(profileValue,
           recordValue, med);
    treatmentPlanEditConsult->show();
}

void TreatmentPlanConsult::on_consult_clicked()
{
    close();
    teleconsultationConsult = new TeleconsultationConsult(
           profileValue, recordValue, treatmentPlanID, med);
    teleconsultationConsult->show();
}

void TreatmentPlanConsult::on_back_clicked()
{
    close();
    patientVisitRecordConsult = new
           PatientVisitRecordConsult(profileValue, recordValue
           , med);
    patientVisitRecordConsult->show();
}

#include "treatmentplandoc.h"
#include "ui_treatmentplandoc.h"
#include "teleconsultationdoc.h"

TreatmentPlanDoc::TreatmentPlanDoc(QString value, QString
       record, QString medical_user, QWidget *parent) :
    QMainWindow(parent),
    ui(new Ui::TreatmentPlanDoc)
{
    ui->setupUi(this);
    profileValue = value;
    recordValue = record;
    med = medical_user;

    ui->treatment_insulin_regimen->setReadOnly(true);
    ui->treatment_insulin_dosage->setReadOnly(true);
    ui->treatment_injectsched->setReadOnly(true);
    ui->treatment_testingsched->setReadOnly(true);
    ui->treatment_titration->setReadOnly(true);
    ui->treatment_hypoglycemia->setReadOnly(true);
    ui->treatment_others->setReadOnly(true);

    MainWindow conn;
    conn.connOpen();

    QSqlQuery qry;
    qry.prepare("select * from treatment_plan where
           patient_visit_id = '"+recordValue+"'");
    if(qry.exec()){
        while(qry.next()){
            treatmentPlanID = qry.value(0).toString();
            ui->treatment_insulin_regimen->setText(qry.
                   value(3).toString());
            ui->treatment_insulin_dosage->setText(qry.
                   value(4).toString());
            ui->treatment_injectsched->setText(qry.value
                   (5).toString());
            ui->treatment_testingsched->setText(qry.value
                   (6).toString());
            ui->treatment_titration->setText(qry.value(7).
                   toString());
            ui->treatment_hypoglycemia->setText(qry.value
                   (8).toString());
            ui->treatment_others->setText(qry.value(9).
                   toString());
        }

    }
}

TreatmentPlanDoc::~TreatmentPlanDoc()
{
    delete ui;
}

void TreatmentPlanDoc::on_consult_clicked()
{
    close();
    teleconsultationDoc = new TeleconsultationDoc(
           profileValue, recordValue, treatmentPlanID, med);
    teleconsultationDoc->show();
}


void TreatmentPlanDoc::on_back_clicked()
{
    close();
    patientVisitRecordDoc = new PatientVisitRecordDoc(
           profileValue, recordValue, med);
    patientVisitRecordDoc->show();
}

void TreatmentPlanDoc::on_editPlan_clicked()
{
    close();
    treatmentPlanEditDoc = new TreatmentPlanEditDoc(
           profileValue, recordValue, med);
    treatmentPlanEditDoc->show();
}

#include "treatmentplaneditconsult.h"
#include "ui_treatmentplaneditconsult.h"

TreatmentPlanEditConsult::TreatmentPlanEditConsult(
       QString value, QString record, QString medical_user,
       QWidget *parent) :
```

```
    QMainWindow(parent),
    ui(new Ui::TreatmentPlanEditConsult)
{
    ui->setupUi(this);
    profileValue = value;
    recordValue = record;
    med = medical_user;

    MainWindow conn;
    conn.connOpen();

    QSqlQuery qry;
    qry.prepare("select * from treatment_plan where
          patient_visit_id = '"+recordValue+"'");
    if(qry.exec()){
        while(qry.next()){
            treatmentPlanID = qry.value(0).toString();
            ui->treatment_insulin_regimen->setText(qry.
                value(3).toString());
            ui->treatment_insulin_dosage->setText(qry.
                value(4).toString());
            ui->treatment_injectsched->setText(qry.value
                (5).toString());
            ui->treatment_testingsched->setText(qry.value
                (6).toString());
            ui->treatment_titration->setText(qry.value(7).
                toString());
            ui->treatment_hypoglycemia->setText(qry.value
                (8).toString());
            ui->treatment_others->setText(qry.value(9).
                toString());
        }

    }
}

TreatmentPlanEditConsult::~TreatmentPlanEditConsult()
{
    delete ui;
}


void TreatmentPlanEditConsult::on_save_clicked()
{
    MainWindow conn;

    QString insulin_regimen, insulin_dosage, inject_schedule,
        testing_schedule, titration, hypoglycemia, others;

    insulin_regimen = ui->treatment_insulin_regimen->text
        ();
    insulin_dosage = ui->treatment_insulin_dosage->text();
    inject_schedule = ui->treatment_injectsched->
        toPlainText();
    testing_schedule = ui->treatment_testingsched->
        toPlainText();
    titration = ui->treatment_titration->toPlainText();
    hypoglycemia = ui->treatment_hypoglycemia->
        toPlainText();
    others = ui->treatment_others->toPlainText ();


    conn.connOpen();
    QSqlQuery qry;
    qry.prepare("UPDATE treatment_plan SET
        insulin_regimen = :insulin_regimen, insulin_dosage =
         :insulin_dosage, "
            "injection_schedule = :inject_schedule,
                testing_schedule = :testing_schedule,
                titration = :titration, hypo = :
                hypoglycemia, others = :others "
            "WHERE treatment_plan_id = :recordValue");

    qry.bindValue(":insulin_regimen", insulin_regimen);
    qry.bindValue(":insulin_dosage", insulin_dosage);
    qry.bindValue(":inject_schedule", inject_schedule);
    qry.bindValue(":testing_schedule", testing_schedule);
    qry.bindValue(":titration", titration);
    qry.bindValue(":hypoglycemia", hypoglycemia);
    qry.bindValue(":others", others);
    qry.bindValue(":recordValue", recordValue);

    if(ui->treatment_insulin_regimen->text().isEmpty() ||
        ui->treatment_insulin_dosage->text().isEmpty() ||
         ui->treatment_injectsched->toPlainText().
        isEmpty() || ui->treatment_testingsched->
        toPlainText().isEmpty() || ui->treatment_titration
        ->toPlainText().isEmpty() || ui->
        treatment_hypoglycemia->toPlainText().isEmpty()
         || ui->treatment_others->toPlainText().isEmpty
        ()){
        QMessageBox::critical(0, qApp->tr("Error."),
                              qApp->tr("Please fill in all
                                  fields.\n\n"
                                  "Click Ok to exit."),
                                      QMessageBox::
                                      Ok);
    }
    else if(qry.exec()){
        QString message = "I have updated the treatment
            plan for the patient.";
        qry.prepare("insert into sample_teleconsultation(
            message, medical_user_pid, treatment_plan_pid)
            values (:message, :med, :recordValue) ");
        qry.bindValue(":message", message);
        qry.bindValue(":med", med);
        qry.bindValue(":recordValue", recordValue);
        if(qry.exec()){
            QMessageBox::information(this,tr("Edit Patient
                Treatment Plan."), tr("Patient treatment
                plan has been succesfully updated."));
            conn.connClose();
            close();
            treatmentPlanConsult = new
                TreatmentPlanConsult(profileValue,
                recordValue, med);
            treatmentPlanConsult->show();
        }
        else{
            QMessageBox::critical(this,tr("Error::"), qry.
                lastError().text());

        }
    }
     else{
         QMessageBox::critical(this,tr("Error::"), qry.
             lastError().text());
     }


}

void TreatmentPlanEditConsult::on_back_clicked()
{
    close();
    treatmentPlanConsult = new TreatmentPlanConsult(
        profileValue, recordValue, med);
    treatmentPlanConsult->show();
}

#include "treatmentplaneditdoc.h"
#include "ui_treatmentplaneditdoc.h"

TreatmentPlanEditDoc::TreatmentPlanEditDoc(QString value,
    QString record, QString medical_user, QWidget *
    parent) :
    QMainWindow(parent),
    ui(new Ui::TreatmentPlanEditDoc)
{
    ui->setupUi(this);

    profileValue = value;
    recordValue = record;
    med = medical_user;

    MainWindow conn;
    conn.connOpen();

    QSqlQuery qry;
    qry.prepare("select * from treatment_plan where
          patient_visit_id = '"+recordValue+"'");
     qDebug() << "Record ID: " << recordValue;
    if(qry.exec()){
        while(qry.next()){
            treatmentPlanID = qry.value(0).toString();
            ui->treatment_insulin_regimen->setText(qry.
                value(3).toString());
            ui->treatment_insulin_dosage->setText(qry.
                value(4).toString());
            ui->treatment_injectsched->setText(qry.value
                (5).toString());
            ui->treatment_testingsched->setText(qry.value
                (6).toString());
            ui->treatment_titration->setText(qry.value(7).
                toString());
            ui->treatment_hypoglycemia->setText(qry.value
                (8).toString());
            ui->treatment_others->setText(qry.value(9).
                toString());
        }

    }

}

TreatmentPlanEditDoc::~TreatmentPlanEditDoc()
{
    delete ui;
}

void TreatmentPlanEditDoc::on_save_clicked()
{
    MainWindow conn;

    QString insulin_regimen, insulin_dosage,
        injection_schedule, testing_schedule, titration,
        hypoglycemia, others;
```

```
    insulin_regimen = ui->treatment_insulin_regimen->text
        ();
    insulin_dosage = ui->treatment_insulin_dosage->text();
    injection_schedule = ui->treatment_injectsched->
        toPlainText();
    testing_schedule = ui->treatment_testingsched->
        toPlainText();
    titration = ui->treatment_titration->toPlainText();
    hypoglycemia = ui->treatment_hypoglycemia->
        toPlainText();
    others = ui->treatment_others->toPlainText ();


    conn.connOpen();
    QSqlQuery qry;
    qry.prepare("UPDATE treatment_plan SET
        insulin_regimen = :insulin_regimen, insulin_dosage =
         :insulin_dosage, injection_schedule = :
        injection_schedule, testing_schedule = :
        testing_schedule, titration = :titration, hypo = :
        hypoglycemia, others = :others "
            "WHERE treatment_plan_id = :recordValue");

    qry.bindValue(":insulin_regimen", insulin_regimen);
    qry.bindValue(":insulin_dosage", insulin_dosage);
    qry.bindValue(":injection_schedule", injection_schedule);
    qry.bindValue(":testing_schedule", testing_schedule);
    qry.bindValue(":titration", titration);
    qry.bindValue(":hypoglycemia", hypoglycemia);
    qry.bindValue(":others", others);
    qry.bindValue(":recordValue", recordValue);

    if(ui->treatment_insulin_regimen->text().isEmpty() ||
        ui->treatment_insulin_dosage->text().isEmpty() ||
         ui->treatment_injectsched->toPlainText().
        isEmpty() || ui->treatment_testingsched->
        toPlainText().isEmpty() || ui->treatment_titration
        ->toPlainText().isEmpty() || ui->
        treatment_hypoglycemia->toPlainText().isEmpty()
         || ui->treatment_others->toPlainText().isEmpty
        ()){
        QMessageBox::critical(0, qApp->tr("Error."),
                              qApp->tr("Please fill in all
                                  fields.\n\n"
                                  "Click Ok to exit."),
                                      QMessageBox::
                                      Ok);
    }
    else if(qry.exec()){
        QString message = "I have updated the treatment
            plan for the patient.";
        qry.prepare("insert into sample_teleconsultation(
            message, medical_user_pid, treatment_plan_pid)
            values (:message, :med, :recordValue) ");
        qry.bindValue(":message", message);
        qry.bindValue(":med", med);
        qry.bindValue(":recordValue", recordValue);
        if(qry.exec()){
            QMessageBox::information(this,tr("Edit Patient
                Treatment Plan."), tr("Patient treatment
                plan has been succesfully updated."));
            conn.connClose();
            close();
            treatmentPlanDoc = new TreatmentPlanDoc(
                profileValue, recordValue, med);
            treatmentPlanDoc->show();
        }
        else{
            QMessageBox::critical(this,tr("Error::"), qry.
                lastError().text());

        }
    }
     else{
         QMessageBox::critical(this,tr("Error::"), qry.
             lastError().text());
     }


}

void TreatmentPlanEditDoc::on_back_clicked()
{
    close();
    treatmentPlanDoc = new TreatmentPlanDoc(profileValue,
        recordValue, med);
    treatmentPlanDoc->show();
}


#include "treatmentplannurse.h"
#include "ui_treatmentplannurse.h"
#include "teleconsultationnurse.h"

TreatmentPlanNurse::TreatmentPlanNurse(QString value,
    QString record, QString medical_user, QWidget *parent
    ):
    QMainWindow(parent),
    ui(new Ui::TreatmentPlanNurse)
{
    ui->setupUi(this);
    profileValue = value;
    recordValue = record;
    med = medical_user;

    ui->treatment_insulin_regimen->setReadOnly(true);
    ui->treatment_insulin_dosage->setReadOnly(true);
    ui->treatment_injectsched->setReadOnly(true);
    ui->treatment_testingsched->setReadOnly(true);
    ui->treatment_titration->setReadOnly(true);
    ui->treatment_hypoglycemia->setReadOnly(true);
    ui->treatment_others->setReadOnly(true);

    MainWindow conn;
    conn.connOpen();

    QSqlQuery qry;
    qry.prepare("select * from treatment_plan where
        patient_visit_id = '"+recordValue+"'");
    if(qry.exec()){
        while(qry.next()){
            treatmentPlanID = qry.value(0).toString();
            ui->treatment_insulin_regimen->setText(qry.
                value(3).toString());
            ui->treatment_insulin_dosage->setText(qry.
                value(4).toString());
            ui->treatment_injectsched->setText(qry.value
                (5).toString());
            ui->treatment_testingsched->setText(qry.value
                (6).toString());
            ui->treatment_titration->setText(qry.value(7).
                toString());
            ui->treatment_hypoglycemia->setText(qry.value
                (8).toString());
            ui->treatment_others->setText(qry.value(9).
                toString());
        }

    }
}

TreatmentPlanNurse::~TreatmentPlanNurse()
{
    delete ui;
}


void TreatmentPlanNurse::on_consult_clicked()
{
    close();
    teleconsultationNurse = new TeleconsultationNurse(
        profileValue, recordValue, treatmentPlanID, med);
    teleconsultationNurse->show();
}

void TreatmentPlanNurse::on_back_clicked() // Patient Visit
    Record -> No Save
{
    close();
    patientVisitRecord = new PatientVisitRecord(profileValue
        , recordValue, med);
    patientVisitRecord->show();
}
```

XI. Acknowledgement

First and foremost, praises and thanks to our *God*, the Almighty, for His showers of blessings throughout my college years and most especially in my Special Problem work to complete this undergraduate requirement successfully. I am very grateful to Him for the good health and well-being that I needed to complete my SP.

Honestly, in contrast to being known as a talkative and cheerful individual, I really do not know how to start this chapter of my document as I am now full of different ideas and thoughts to fill this with. I just wish that I may be able to include all of it and what I really want to say here.

For the past four years of my college life in this university, UP Manila, there were a ton of times I would feel that I am not really for this course. I always feel I am not enough and I will never be enough. However, I did not let all of that to stop me to continue my life as a student. I took this as an encouragement for me to strive harder than what I could normally give.

I may have a course that I liked more than CS, but I could not deny that I have enjoyed the ups and downs this course let me experienced with.

Also, I may not be the best student in the class, but I know that I have learned a lot from my four years of stay in this prestigious university.

Now, I have defended my Special Problem. This experience is more than enough to feel happy and believe in myself.

So, I would like to devote my SP and this part of my thesis to express my gratitude to all the people who contributed time and efforts not only to my SP but shaped me to what I am now.

Let me start with my college friend since first year, *Faye Alano*. With her unique kind of humor, she has been kind and supportive to me over the years. As our college journey ends, I believe that I am very lucky to have you as a friend. I may not be able to show how fortunate and happy I am to have you as a friend, but always keep in mind that I will always by your side when you will need me. Thank you for lending your ears whenever I feel to share my stories with you. I do not know how to thank you but I am truly blessed to have you.

To *Naiza Asaad*. I want to thank you for always motivating me. No words can express how I am amazed how caring you are for all of us. Thank you for always lifting my spirit during our hell weeks in college. I may say this for the first time, but I just want to express my gratitude for your wonderful presence in my life and your thoughtful efforts, especially when we are full of loads to do.

To *Edward Lacanlale*, I am happy to have you as my friend. Thank you for teaching me when I needed to catch up with my lessons. Thank you for always helping me, even carrying a lot of my stuff. Please accept my warmest gratitude for your thoughtfulness. I appreciate you. As we sometimes have misunderstandings, please do keep in mind that I will be always your friend. Thank you for your corny jokes that adds joy in our life.

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In my daily life of going to UP Manila from Quezon City and facing the battles of academics life would give, I have been blessed with this cheerful group of fellow students. For all of the supports, encouragements, motivations, and whatnot, I

am deeply humbled to thank all of you. I know that I am not a perfect friend, but believe me, I will be always present when you will need me.

To my friends outside UP Manila that I always share with my unending problems in academics and in life, thank you for lending your ears and sacrificing your time just to help and uplift my spirits. I know that we do not see each others often, but thank you for staying as a good and close friend of mine.

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My family is my ultimate inspiration in life. When my life starts to get harder then they are my reason to give my best.

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For the *future readers* of my beloved SP, I have something to share for you to have somehow an inspiration and strength when in need. I just want to share a quote by Christian D. Larson: Believe in yourself and all that you are. Know that there is something inside you that is greater than any obstacle. In achieving our ultimate goal, I believe that it is very important that you must believe in yourself, even when everyone else does not.

Every time I was ready to quit, all of you did not let me and I am forever grateful, fortunate, and happy with that. This Special Problem of mine shows as an evidence to your unconditional love and encouragement for me! Thank you.

May the Almighty God richly bless all of you.