

UNIVERSITY OF THE PHILIPPINES MANILA
COLLEGE OF ARTS AND SCIENCES
DEPARTMENT OF PHYSICAL SCIENCES AND MATHEMATICS

BRAINMAX: A WEB APPLICATION THAT SUPPORTS
SCREENING, MONITORING AND DIAGNOSING
DEPRESSION

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

Submitted by:

Jambihlds M. Bachini

June 2018

Permission is given for the following people to have access to this SP:

Available to the general public	Yes
Available only after consultation with author/SP adviser	No
Available only to those bound by confidentiality agreement	No

ACCEPTANCE SHEET

The Special Problem entitled “BrainMax: A Web Application that supports Screening, Monitoring and Diagnosing Depression” prepared and submitted by Jambihlds M. Bachini in partial fulfillment of the requirements for the degree of Bachelor of Science in Computer Science has been examined and is recommended for acceptance.

Ma. Sheila A. Magboo, M.Sc.
Adviser

EXAMINERS:

	Approved	Disapproved
1. Gregorio B. Baes, Ph.D. (<i>cand.</i>)	_____	_____
2. Avegail D. Carpio, M.Sc.	_____	_____
3. Richard Bryann L. Chua, Ph.D. (<i>cand.</i>)	_____	_____
4. Perlita E. Gasmen, M.Sc. (<i>cand.</i>)	_____	_____
5. Marvin John C. Ignacio, M.Sc. (<i>cand.</i>)	_____	_____
6. Vincent Peter C. Magboo, M.D., M.Sc.	_____	_____
7. Geoffrey A. Solano, Ph.D. (<i>cand.</i>)	_____	_____

Accepted and approved as partial fulfillment of the requirements for the degree of Bachelor of Science in Computer Science.

<hr/> Ma. Sheila A. Magboo, M.Sc. Unit Head Mathematical and Computing Sciences Unit Department of Physical Sciences and Mathematics	<hr/> Marcelina B. Lirazan, Ph.D. Chair Department of Physical Sciences and Mathematics
---	---

Leonardo R. Estacio Jr., Ph.D.
Dean
College of Arts and Sciences

Abstract

Mental is one aspect of an individual's health that is essential in carrying out his/her day-to-day activities. A person's mentality starts to be at risk when he or she is affected by the events that are happening in his or her life or maybe in the society that he or she lives in. A possible result of this is depression which we often treat as just an emotional instability of a person when in fact, it is a serious medical condition. The goal of my study is to bridge the gap between the patient and the medical attention that he or she needs by implementing BrainMax: a web application that supports screening, monitoring, and diagnosing depression. Through this application one will be: screened if he or she has depression, his or her health will be monitored to know if he or she is getting better or worse, and diagnosed to get rid of the mental condition.

Keywords: mental health, depression, beck depression inventory

Contents

Acceptance Sheet	i
Abstract	ii
List of Figures	v
I. Introduction	1
A. Background of the Study	1
B. Statement of the Problem	3
C. Objectives of the Study	3
D. Significance of the Project	6
E. Scope and Limitations	7
F. Assumptions	7
II. Review of Related Literature	8
III. Theoretical Framework	14
A. Depression	14
B. Signs and Symptoms of Depression	16
C. Treatment for Depression	17
1. Antidepressants	17
2. Psychotherapy	17
3. Other forms of treatment	18
D. Process of treating Depression	18
IV. Design and Implementation	20
V. Results	32
A. General View of the System	32
B. Patient View	33
C. Relative View	36

D. Counselor View	38
E. Doctor View	43
F. System Administrator View	46
VI. Discussions	48
VII. Conclusions	50
VIII. Recommendations	51
IX. Bibliography	52
X. Appendix	55
A. Forms	55
B. Source Code	58
XI. Acknowledgement	85

List of Figures

1	Context Diagram	20
2	Use Case Diagram of the Patient	21
3	Use Case Diagram of the Counselor	21
4	Use Case Diagram of the Doctor	22
5	Use Case Diagram of the Relative	22
6	Use Case Diagram of the System Administrator	23
7	Process Flow Diagram	24
8	Patient Table	25
9	Staff Table	25
10	Relative Table	26
11	Screening Test Form Table	26
12	Patient's record from the doctor Table	27
13	Patient's record from the counselor Table	27
14	Appointments Table	28
15	Checklist Table	28
16	Patient's Diary Table	29
17	Laboratory Tests Table	29
18	Referral Form Table	29
19	Relationships Table	30
20	Relative's Diary Table	30
21	BrainMax Home Page	32
22	BrainMax Login Modal	32
23	Patient Login	33
24	List of Appointments of Patient	33
25	List of Checklists of Patient	34
26	Patient viewed a Checklist	34
27	Patient updated the Checklist	34
28	Patient Diary View	34

29	Patient creates a Diary	35
30	Patient can view the entries he/she has made	35
31	Patient's list of Medications	35
32	Patient list of Medications	35
33	Relative Login	36
34	List of Appointments of Relative's Patient	36
35	Relative's Observations View	37
36	Relative enters an observation of the patient	37
37	The Relative can view his/her past entries	37
38	Relative can view all the lists of Medications of the Patient	38
39	Relative has selected a Medications record of the Patient	38
40	Counselor Login	39
41	Counselor's list of Appointments	39
42	Counselor schedules an appointment	40
43	The Beck Depression Inventory	40
44	Patient's Screening Result	40
45	Registration form for Patient	41
46	Registration form for Relative	41
47	List of records of a counselor's patient	41
48	Counselor has created a new record	42
49	View of a Consultation Record	42
50	Referral form	42
51	View of the counselor's retrieval of the patient and relative's diaries	43
52	Doctor Login	44
53	Doctor's List of Appointments	44
54	Doctors schedules an appointment	44
55	List of records of a Doctor's Patient	45
56	Doctor created new record	45
57	Doctor's Referral List	45

58	Referral form sent to the doctor by the counselor	45
59	Doctor's view of the patient and relative's diary and observations .	46
60	Admin Login	46
61	Admin can view the list of registered staffes of the system	47
62	Registration form for creating a staff	47
63	Admin edited a staff's account	47
64	Admin deleted a staff's account	47

I. Introduction

A. Background of the Study

Health, according to the World Health Organization (WHO) constitution, is defined as the state of complete physical, mental, and social well-being and not just the absence of any form of sickness [1]. One of these aspects is our mental health which is responsible for controlling our abilities, carrying out daily activities, and in coping up with life's challenges. Furthermore, mental health is also fundamental to our ability as humans to think, feel, and interact with everything that is around us, thus, the state of our minds is essential in our lives.

Our mental health is affected by multiple social, psychological, and biological factors. Social factors include the state of life of an individual and his or her interaction with the things in his or her environment. Here in our country, poverty is one of the leading problems that our country faces and thus, this may put a person's mental health at risk. Another example is when an individual is facing problems with his or her relationship to another person. If the person lets the situation affect him or her then his or her mental health will also be affected and at stake. Psychological factors, on the other hand, focuses on what goes on in a person's mind when he or she faces stressful or challenging situations. Lastly, biological factors is concerned with genetic factors that may cause imbalances of the chemicals in the brain that may lead to further complications.

If an individual's mental health is at risk, he or she may face several mental disorders. Some of these mental disorders are as follows: depression, bipolar disorder, schizophrenia, and other psychoses such as dementia [2]. However, only one of kind of mental disorder will be tackled in this study and that is depression. Depression is a common mental disorder and is the reason of suffering of over 300,000,000 people all over the world as of February 2017. This disorder can be a serious health condition if it isn't immediately treated, especially if it has a moderate to high severity. Furthermore, if depression is left untreated, at the

worst, can lead to suicide.

According to the American Foundation for Suicide Prevention, around 25,000,000 Americans suffer from depression and over 50% of those who committed suicide suffer from major depression [3]. As for the suicide cases in our country, according to the World Health Organization - Philippines (WHO-PH), 3.29 million Filipinos are suffering from depression as of April 2017 [4]. These data are only some of the proofs that truly, depression is needed to be taken seriously because, at any moment, it can put not only your life at risk but also the lives of the people you care about.

Treating depression, on the other hand, can be done by taking in medication, undergoing psychotherapy, or by changing one's lifestyle [5]. Depression medication is considered the most advertised treatment for depression but it doesn't mean that is always effective. Medication helps in relieving some of the symptoms that a person experience but it does not cure the underlying problem. Furthermore, side effects and withdrawal may be experienced by the patient. Psychotherapy or talk therapy, another way of treating depression, is an effective method if the person's depression has no medical cause. Three common methods used in depression treatment are as follows: cognitive behavioral therapy, interpersonal therapy, and psychodynamic therapy. Lastly, lifestyle changes, though simple, are powerful tools in treating depression. Even if a patient is currently undergoing therapy, making the right lifestyle change can hasten the treatment process.

As of the moment, no automated tool used in support of diagnosing and/or treating depression is implemented in the clinics/hospitals. Only studies, performed by several reseacrhers, are conducted in support of detecting depression in a person.

B. Statement of the Problem

Depression is a disease that, when talked about, is not taken seriously and thus there's a stigma to it. As a result, a lot of people avoid going to clinics/hospitals making their condition even more terrible and hard to treat. According to the Department of Health, the number of people with depression has increased by 18% between 2005 and 2015 [6].

Screening for the possibility of depression is the first step in treating the disease and a medical practitioner can't treat it if you don't want to come to them. The lack of automated support for screening, monitoring, and diagnosing depression in the Philippines is a big factor to the worsening condition of the state of mental health in the country.

With the rise of technology, creating a web application that supports the treatment of depression is much more feasible. Furthermore, with the statistics presented earlier as given by the Department of Health, this kind of application is very timely and needed.

C. Objectives of the Study

The main goal of this study is to bridge the gap between the patient and the medical practitioner/s so that the patient, if he or she has depression, will be treated as early as possible so as to avoid further complications. Since most psychiatric patients have smartphones, this study will maximize the use of those phones for the development of the health of their users [7]. Furthermore, the study also aims in:

1. Helping the patient in assessing the severity of depression that he/she experiences
2. Assisting the relative in tracking the development of the patient
3. Helping the doctor in monitoring his/her patients, if they are performing the tasks given to them

4. Assisting the counselor in viewing the patient's answers and score to the screening tool that was presented in order to assess if he/she needs a doctor or the condition can be treated by conducting therapies
5. Helping the system administrator in managing the accounts of the doctors and the counselors

The system has the following functionalities:

1. The counselor will be also using the web application in:
 - (a) Viewing the patient's answers and score to the screening tool that he or she has answered.
 - (b) Viewing the patient's journal and checklist.
 - (c) Referring the patient to a doctor when he/she, based on his/her assessment, thinks that the patient is suffering from clinical depression and therapy is not enough to treat the patient.
 - (d) Creating his/her patient's account.
 - (e) Creating the patient's checklist, insights, diagnosis, and treatment plan.
 - (f) Viewing the relative's notes regarding the patient.
 - (g) Scheduling and viewing his/her appointments.
 - (h) Creating the patient's consultation records and viewing past records.
2. The web app will allow the patient to:
 - (a) He or she can write down in the journal, his or her day-to-day activities that will be useful for his or her doctor.
 - (b) View and update the checklist that was prescribed to him or her by either the doctor, the counselor, or both.
 - (c) View scheduled appointment/s.
 - (d) View the his/her past and current medications.

3. Another user is the relative of the patient that will let him or her:
 - (a) Write down notes regarding his or her observation on the development of the patient's health.
 - (b) View the scheduled appointment/s of the patient.
 - (c) View the patient's past and current medications.

4. The doctor will use the web app in:
 - (a) Creating the patient's checklist, diagnosis, medication, treatment plan, and insights.
 - (b) Viewing the patient's journal and checklist.
 - (c) Viewing the procedures performed on the patient and his/her answers and score to the screening tool that he or she has answered.
 - (d) Viewing the relative's notes regarding the patient.
 - (e) Scheduling and viewing his/her appointments.
 - (f) Viewing the referral forms sent to him/her by the counselor.
 - (g) Creating the patient's consultation records and viewing past records.

5. Lastly, the system administrator is responsible in:
 - (a) Creating the doctor's and counselor's account.
 - (b) Viewing and managing the account of the doctors and counselors.

D. Significance of the Project

Implementing a web application that supports screening, monitoring, and diagnosing depression entails a lot of benefits to its users especially now, that everything is influenced by technology. This application lets the counselor and doctor review past records of their patient and thus, can deduce if the patient is getting better or the other way around. They can also hear the patient's and relative's side by the diary and observations that they make with regards to the patient's mental health.

As for the patient, he/she has a diary that can help him/her in treating his/her sickness for he/she can type in anything he/she wants. Same with the relative, he/she can type in all his/her observations on the patient's health and he/she can also help in the treatment by assisting the patient with his/her checklist. The patient's checklist is created by his/her doctor/counselor and the medical practitioners can view it and see if the patient is doing what's on the checklist. Furthermore, both the patient and the relative can view the past and current medications of the patient hence, they would not have a hard time in remembering what his/her medications are.

With all these said, the system can really help the patient in supporting his/her treatment on depression and at the same time, aid the doctor/counselor in keeping track of the health status of their patients.

E. Scope and Limitations

1. The study only focuses on aiding depression and not any other mental health problem.
2. Internet connection is important so that the answers of the patient will be recorded in the database.
3. The patient will be answering a screening questionnaire named Beck Depression Inventory.
4. The application does not handle psychiatric emergencies.
5. Costs and other subscription fees are not included in the system.

F. Assumptions

1. The doctors included in the study are certified psychiatrists.
2. The counselors that are part of the study are certified psychologists.
3. Creation of the patient's account is done during the initial consultation with the counselor.
4. A relative should accompany the patient in his/her first visit to the clinic/hospital since the relative will create an account in order to assist the patient with his/her treatment.

II. Review of Related Literature

Depression is a pressing issue nowadays because some of us gets affected with the things that are happening in our lives. Along with this sickness is the problem that most people doesn't even know if they have depression, and if they do, they do not immediately approach a counselor or a doctor because they do not understand that it is a disease that, when not treated, can span into several years or maybe for the entire life span. Depression has no physical signs such as lumps, and cough. A person that is currently happy may commit suicide due to depression at any moment. We can never tell that this person is experiencing depression unless he tells us so or have an appointment with a doctor or psychiatrist. In addressing this issue, some studies were already conducted in different methodologies with the help of technology.

A study conducted by BinDhim together with other researchers used a smart-phone application in depression screening [7]. Besides screening the users for depression, he also identified some characteristics that these individuals suffering from depression have. Some of which are the educational level attained and if the user was previously diagnosed with depression. The study used the patient health questionnaire - 9 (PHQ-9) as the main tool for screening depression together with some demographics and data about the user. Data that was gathered were analyzed by using thresholds 11 and 15 for the PHQ-9 questionnaire, the Charlson comorbidity index for assessing physical comorbidities, and a likert-scale question for measuring anxiety. At the end of the study, 82.5% and 66.8% of the participants, most of which came from Australia, USA, UK, Canada, Singapore, and New Zealand, were at high risk of depression for thresholds 11 and 15, respectively and many of them had one or more physical comorbid conditions and had the idea of committing suicide.

Depression is also a symptom of Bipolar disorder, which is characterized by mood swings usually of manic and depressive episodes [8]. This disorder was researched upon by Faurholt-Jepsen together with her team that aims on in-

investigating possible correlations between the symptoms of Bipolar disorder and subjective and objective smartphone data [9]. As part of the study a software called "MONARCA" (MONitoring, treAtment, and pRediCtion of bipolar disorder episodes) for Android smartphones was developed to monitor the daily activities of the users with Bipolar disorder according to the ICD-10 using Schedules for Clinical Assessment of Neuropsychiatry (SCAN). Aside from this, users were also rated using the Hamilton Depression rating scale 17 items (HDRS-17) and the Young Mania rating Scale (YMRS). The software asks every user to score the following items every evening for 3 consecutive months: subjective mood score (scored from depressive to manic on a scale from -3 to +3), sleep duration (hours), medicine intake, irritability (yes/no), activity level (scored on a scale from -3 to +3), mixed mood (yes/no), cognitive problems (yes/no), alcohol consumption (number of units), stress (yes/no), and individual warning signs. As for the objective data, the following were automatically collected every day: speech duration (minutes of speech/24 hrs), social activity (numbers of outgoing and incoming calls and text messages/24 hrs), physical activity (measured by an accelerometer every 5 min), and cell tower ID (ID of the cell tower the smartphone was connected to, sampled every 5 min). Results show a significant correlation between self-rated mood and HDRS-17 for both the unadjusted and adjusted models. Also, for the unadjusted model, there was a significant correlation between the lowered number of cell tower ID changes per day and higher HDRS-17 score. In conclusion, daily physical and social activity data collected via smartphones in patients with Bipolar disorder correlates with depressive affective symptoms. These data prove that the use of smartphones may be an easy way to monitor a patient with Bipolar disorder.

Depression is also manifested in individuals that suffer from chronic diseases such as heart failure and chronic obstructive pulmonary disease (COPD) but is often undetected or partially treated [10]. Gellis, together with Kenaley and Have, conducted a research to solve this problem with the help of an integrated telehealth

intervention named "I-TEAM" (Integrated Telehealth Education and Activation of Mood) that aims on improving chronic illnesses and comorbid depression in the home healthcare setting. The study was a randomized controlled trial of a 3-month integrated telehealth depression intervention compared with UC+P (Usual in-home Care plus Psychoeducation) for older adults receiving home care. The I-TEAM intervention included several integrated components: telemonitoring, chronic illness and depression care management, and the PST for comorbid depression. Results show that those who are in the I-TEAM group improved their problem-solving skills and have lowered their depression scores by 50%. The study proved that a real-world integrated telehealth service may improve clinical and healthcare use outcomes for medically ill depressed older adults receiving home care.

Depression in college students was the center of the study of Williams together with other researchers [11]. Major depressive disorder (MDD) among college students is associated with poor academic performance, increased alcohol consumption, compromised physical health, and increased suicidal ideation. Students from the universities in Massachusetts and one local university in Boston were recruited to participate in the web-based screening survey for depression that contains the Patient Health Questionnaire (PHQ-9). Those who screened positive or have any suicidal ideation were offered a web-based psychiatric consultation using Skype. After the consultation, students answered a 7-item satisfaction questionnaire that will evaluate how the students think of this methodology. Most of the students found the interview useful in helping them understand the depression that they are experiencing and thought that psychologists and psychiatrists could successfully give counsel to their patients via videoconferencing.

Online screening and referral for Postpartum depression was the study conducted by Drake, together with Gustavson and Kinsey [12]. Postpartum depression (PPD) is the diagnosis of depressive disorder during the postpartum period among women who had just given birth. The goal of the study is to develop

methods of screening women for possible symptoms of PPD so that they can be referred and treated. Participants have undergone 3 phases wherein the first phase focuses on a small group of postpartum women, the second phase is for the individual interviews of the participants, and the third phase is for answering an online screening intervention. Participants described the online PPD screening process as easy and straightforward and even provided suggestions for improvement.

A tool for screening depression, namely the "CAD-MDD" (Computerized Adaptive Diagnostic - Major Depressive Disorder), that is based on a decision-theoretic approach was developed by Gibbons together with other researchers with the purpose of decreasing the burden of the patient and the clinician while increasing the sensitivity and specificity for clinician-based DSM-IV diagnosis of major depressive disorder (MDD). At the end of the study, high sensitivity and reasonable specificity for a clinician-based DSM-IV (Diagnostic and Statistical Manual of Mental Disorders Fourth Edition) diagnosis of depression can be obtained by using an average of 4 adaptively administered self-report items that can be answered in less than a minute thereby decreasing the task of the patient and the clinician but increasing the quality of diagnosis of MDD.

Daily mood ratings via text messages were the focus of this study of Adrian Aguilera, together with Stephen Schueller and Yan Leykin [13]. The purpose of their study was to determine how automated daily mood ratings are related to the Patient Health Questionnaire (PHQ-9) that is frequently used when screening a patient for possible depression. Daily automated text messages, via www.healthysms.org, were sent to the participants to measure their mood (on a scale from 1-9) and to know their thoughts and activities as they are a part of the group cognitive behavioral therapy for depression. Aside from this, they also received a PHQ-9 every week that they attended the group therapy. Results showed a significant relationship between daily mood scores and PHQ-9 scores, and between one-week average mood scores and PHQ-9 scores thereby proving that automated text message based mood ratings can be a substitute to the PHQ-9.

An exploratory study was conducted in Taiwan by Hung and other researchers that centers on the use of a smartphone-based ecological momentary assessment (EMA) for patients with depression [14]. Ecological momentary assessment (EMA) is a method of gathering real-time data in a real-world setting to avoid any biases that will affect the outcome of one's study [15]. A smartphone application named "iHOPE" was used to perform daily EMA on depression, anxiety, sleep, and cognitive performance. Participants used iHOPE in a span of 8 weeks and results showed an association between the severity of depression of a user and the self-reported EMA on depression, anxiety, and sleep. This study provided proof of the feasibility of smartphone-based EMA in Chinese patients with depression.

A variety of screening tools for all kinds of depression are being used these days and a medical practitioner should be able to know the appropriate tool to use when diagnosing a patient. This dilemma is the focus of the study conducted by Najla Lakkis and Dina Mahmassani [16]. Some famous tools used by clinicians when screening for depression are: the 2 (PHQ-2) and 9-item Patient Health Questionnaire (PHQ-9), Geriatric Depression Scale-15, Arroll's help question, and the Edinburgh Postnatal Depression Scale. The study concludes by stating that the PHQ-2 is an appropriate first choice for screening depression, yet it needs to be followed by another screening tool such as the PHQ-9 for adults, the PHQ-9 or the GDS-15 for older adults, Arroll's help question, or the EPDS in ante- or postpartum women experiencing postpartum depression.

Computer-assisted cognitive behavior therapy for depression is the title of the research conducted by Tracy Eells, Marna Barrett, Jesse Wright, and Michael Thase [17]. Their study aims to provide an overview of the use of computer technology in treating depression as a substitute for standard psychotherapy. Advantages and disadvantages of using computer technology for psychotherapy were presented along with three internet-based programs used in psychotherapy and some varieties of computer-assisted forms of therapy. An application that was developed for this study is entitled "Good Days Ahead" which is considered the

first multimedia program developed for computer-assisted psychotherapy for depression. The program has multiple audio-video segments designed to teach the principles of CBT (Cognitive Behavior Therapy), engage the user in the learning process, and to model procedures for reducing symptoms. At the end of the study, the authors suggest that clinicians use technology in assisting them in the treatment of depression. However, though it has a lot of advantages, clinicians are still advised to be mindful for it also brings multiple challenges that may lead to certain consequences if not considered.

III. Theoretical Framework

A. Depression

I think most of us doesn't understand what depression is and where it may lead to when left untreated. Depression isn't just an emotion that one feels, but it is a serious medical condition which affects not only the one suffering from it but also his or her loved ones that cares for him or her [18]. It causes symptoms that affect how you feel, think, and handle daily activities such as eating and sleeping. One just can't get rid of this condition in just a short span of time. He or she must approach a doctor as soon as he or she can so as to avoid the disease from getting worst. Furthermore, depression isn't always the same for all who are experiencing it. Depression takes on different forms depending on the situation of the patient and the symptoms that he or she is currently experiencing:

1. Major depression

It is characterized as having severe symptoms that interfere with the individual's daily activities such as eating, sleeping, studying, and working. An episode can occur only once in a person's lifetime but usually a person experiences several episodes.

2. Persistent depressive disorder

Also called as dysthymia, this kind of depression usually lasts for at least two years. A person with this kind of depression usually experiences episodes of major depression together with less severe symptoms that must last for two years in order for it to be considered as a Persistent depressive disorder.

3. Psychotic depression

This kind of depression occurs when a person experiences severe depression together with some form of psychosis such as delusions or hallucinations. Delusions are defined as having disturbing false beliefs whereas hearing or seeing something that others cannot is called hallucination.

4. Perinatal depression

Perinatal depression is a kind of depression in pregnant women where one experiences severe major depression during or after pregnancy. This kind of depression is accompanied by feelings of extreme sadness, anxiety, and exhaustion which makes it difficult for new mothers to take care of their health or their baby's health.

5. Postpartum depression

A part of the perinatal depression wherein many women experience after giving birth. Hormonal and physical changes takes place in this kind of depression together with the responsibility of taking care of a baby which is overwhelming to a new mother. About 10 to 15 percent of women experiences postpartum depression after giving birth.

6. Seasonal affective disorder (SAD)

Seasonal affective disorder or SAD is characterized as the occurrence of depression during the winter months where there is less sunlight. SAD may be effectively treated with light therapy but nearly half of those people with this illness do not get better with this therapy alone. Taking in medication such as antidepressants and psychotherapy can reduce SAD symptoms either with or without the light therapy.

7. Bipolar disorder

Bipolar disorder is different from depression, however, those who have this disorder experiences episodes of extreme low moods that can be classified as major depression. Aside from experiencing depressive episodes, a person with bipolar disorder also experiences extreme high, euphoric or irritable moods called mania.

B. Signs and Symptoms of Depression

We often misjudge depression as being sad. Yes, sadness is a characteristic of depression but it is more than that. According to the National Institute of Mental Health, if you are experiencing the following signs and symptoms for at least two weeks, then maybe you are suffering from depression [18]:

1. Persistent sad, anxious, or empty mood
2. Feelings of hopelessness, or pessimism
3. Irritability
4. Feelings of guilt, worthlessness, or helplessness
5. Loss of interest or pleasure in hobbies and activities
6. Decreased energy or fatigue
7. Moving or talking more slowly
8. Feeling restless or having trouble sitting still
9. Difficulty concentrating, remembering, or making decisions
10. Difficulty sleeping, early-morning awakening, or oversleeping
11. Appetite and/or weight changes
12. Thoughts of death or suicide, or suicide attempts
13. Aches or pains, headaches, cramps, or digestive problems without a clear physical cause and/or that do not ease even with treatment

C. Treatment for Depression

Depression, how severe it may be, can be treated as long as you immediately approach a doctor or psychiatrist so that the treatment is more effective. Depression is usually treated by taking in medicine, psychotherapy, or a combination of both.

1. Antidepressants

Antidepressants are the medicines that are prescribed to treat depression [19]. Most antidepressants work by slowing the removal of certain chemicals in the brain which are called "neurotransmitters" that are responsible for controlling one's mood and other functions such as eating and sleeping. They help in relieving the symptoms of depression by making these neurotransmitters more available to the brain, restoring the brain's chemical balance. They are usually taken from 4 to 6 months depending on the doctor's prescription.

2. Psychotherapy

Besides taking in medicine, another usual form of treatment for depression is by psychotherapy. Psychotherapy, also known as "talk therapy" or simply counselling, can be further classified into several types such as: cognitive-behavioral therapy, interpersonal therapy, and problem-solving therapy. Cognitive-Behavioral Therapy (CBT) focuses on changing the mindset of a depressed individual that is full of negative thoughts. It can help a patient in changing his or her view of the environment and the interactions with others in a positive way. It will help the patient in determining the contributing factors to his or her depression thereby avoiding or changing it. Interpersonal therapy (IPT), on the other hand, helps an individual fix relationships that were maybe the cause of the depression and making it even more worse. In IPT, patients will explore his or her issues that were maybe a factor to his or her depression such as grief, or times of upheaval or transition. The last type of psychotherapy is the Problem-Solving Therapy (PST) which focuses on the development of one's ability to cope up with stressful life

experiences. It follows a step-by-step procedure where the patient will identify his or her problems and come up with realistic solutions. Furthermore, it is considered an effective treatment for adults with depression and may be conducted individually or in a group.

3. Other forms of treatment

Aside from the kinds of treatments that were stated above, little things such as exercising, spending more time with your loved ones, and clearing your mind of important decisions such as marriage, or resigning from your job is a big help in decreasing one's depression.

D. Process of treating Depression

I have conducted an interview with Dr. Leo Capeding, the University Guidance Counselor of the University of the Philippines Manila with regards to the process when a person (student or non-student) comes to them and asks for help. These steps are as follows:

1. Answering a screening test

When a patient comes to their office and asks for help when it comes to depression, the first thing that they will do is to assess the patient's depression, if he or she is experiencing it, through administering a screening instrument. A particular screening tool named "Beck depression inventory" is the tool that they use in screening a patient for the possibility of depression.

2. Interview with the counselor

After the patient has answered the screening test, he or she will be having an interview with the counselor with regards to his or her answers in the test. Together, they will assess the possibility that the patient has depression and if so, the severity of his or her depression.

3. Referral to a PGH Doctor

If the counselor thinks that the situation of the patient can be treated with "talk therapy" then the patient will be having continuous appointments with the counselor. However, if the counselor thinks that the patient's depression can't be treated with talk therapies alone then he or she will refer the patient to the Philippine General Hospital's Department of Psychiatry and Behavioral Medicine to seek for medications and appointments with a doctor.

IV. Design and Implementation

1. Context Diagram

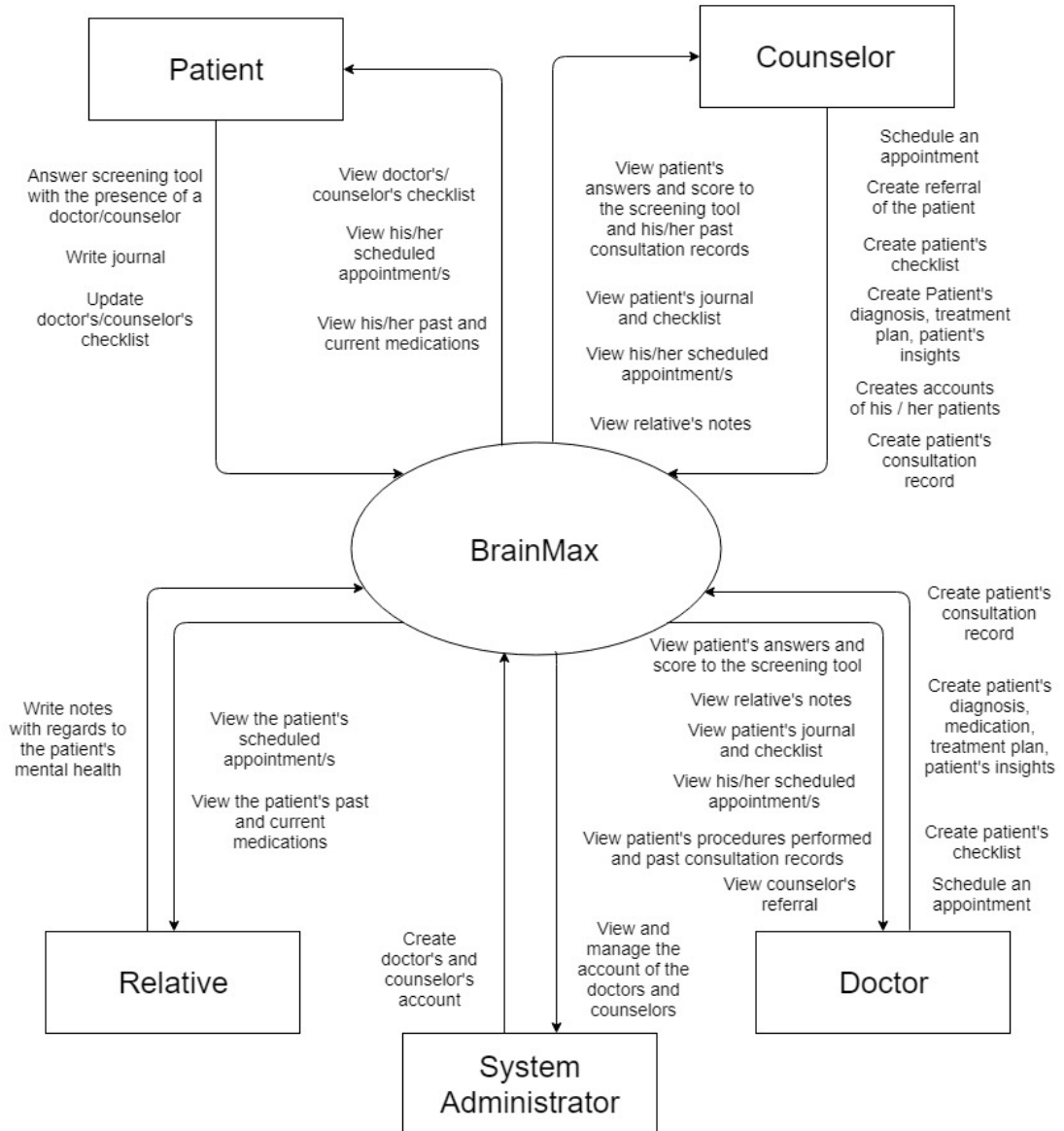


Figure 1: Context Diagram

The web application that supports screening, monitoring, and diagnosing depression involves 5 users namely: the patient, the relative, the counselor, the doctor, and the system administrator. Each of them has a set of functionalities when interacting with the system. Each user can input data to the system and they can also view the data that they want through the system. The interaction of a user to the system is shown in Figure 1.

2. Use Case Diagrams

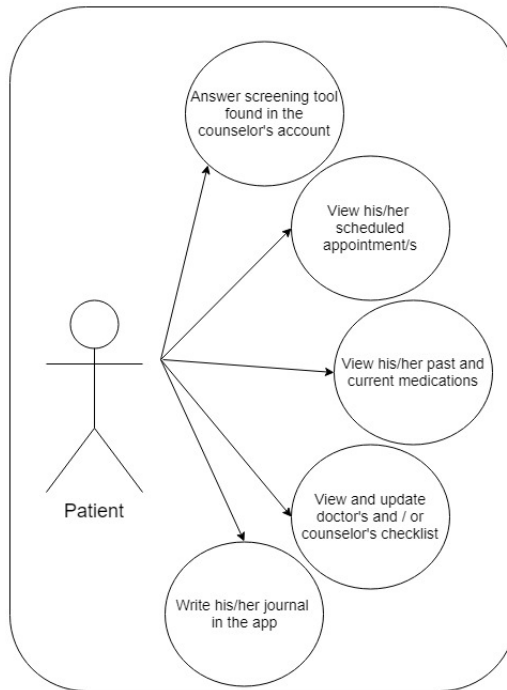


Figure 2: Use Case Diagram of the Patient

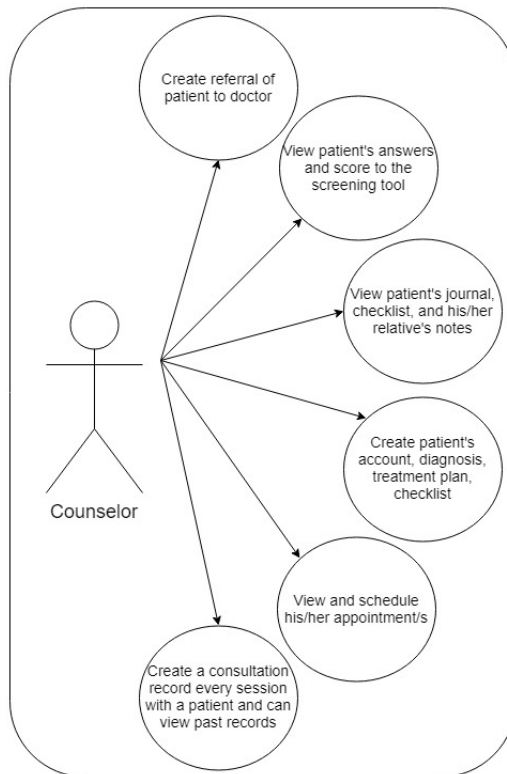


Figure 3: Use Case Diagram of the Counselor

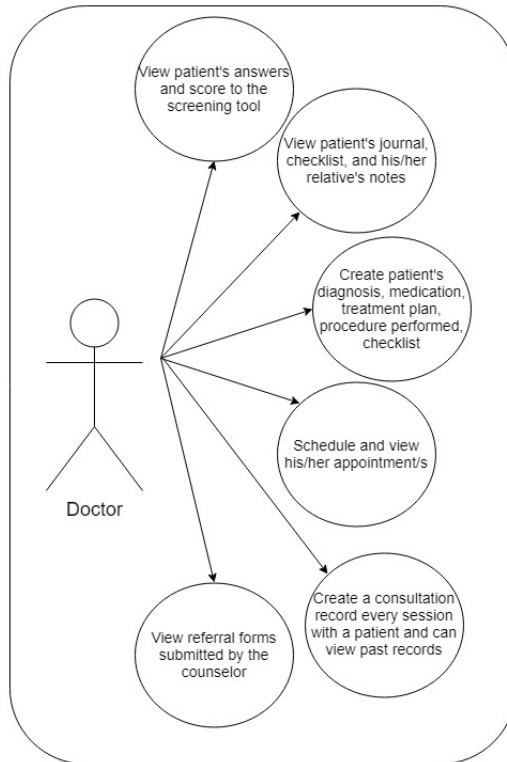


Figure 4: Use Case Diagram of the Doctor

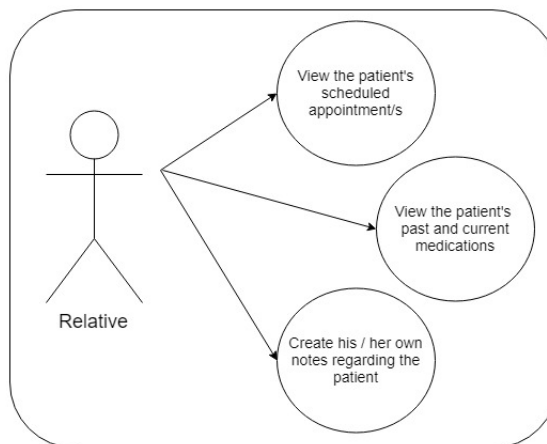


Figure 5: Use Case Diagram of the Relative

The functionalities that a user can perform can be seen in detail from Figures 2 to 6. A patient can input data in the system whenever he or she is answering the screening tool, writing his or her journal, updating the checklist, and scheduling an appointment. On the other hand, he or she can view data regarding the checklist, the checklist coming from the doctor and/or the counselor, and his or her scheduled appointments. The patient's relative

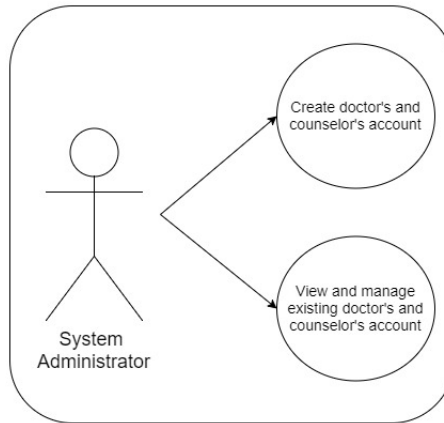


Figure 6: Use Case Diagram of the System Administrator

can input in the system his or her observations on the development of the health of the patient. Another functionality of the relative is that he or she can view the scheduled appointment/s of the patient. The doctor can enter information in the system whenever he or she is creating a patient's account, checklist, diagnosis, medication, treatment plan, and procedure performed. He is entitled to view information about his or her scheduled appointments, the patient's scores and answer to the screening tool, and the patient's journal. The volunteer counselor has the same functionalities as that of the doctor when viewing information. Same as with their functionalities when entering data in the system, the only functionality unique to the counselor is he or she can create a patient's referral to a doctor. The last user is the system administrator which is responsible for the management of the account of the doctors and counselors.

3. Process Flow Diagram

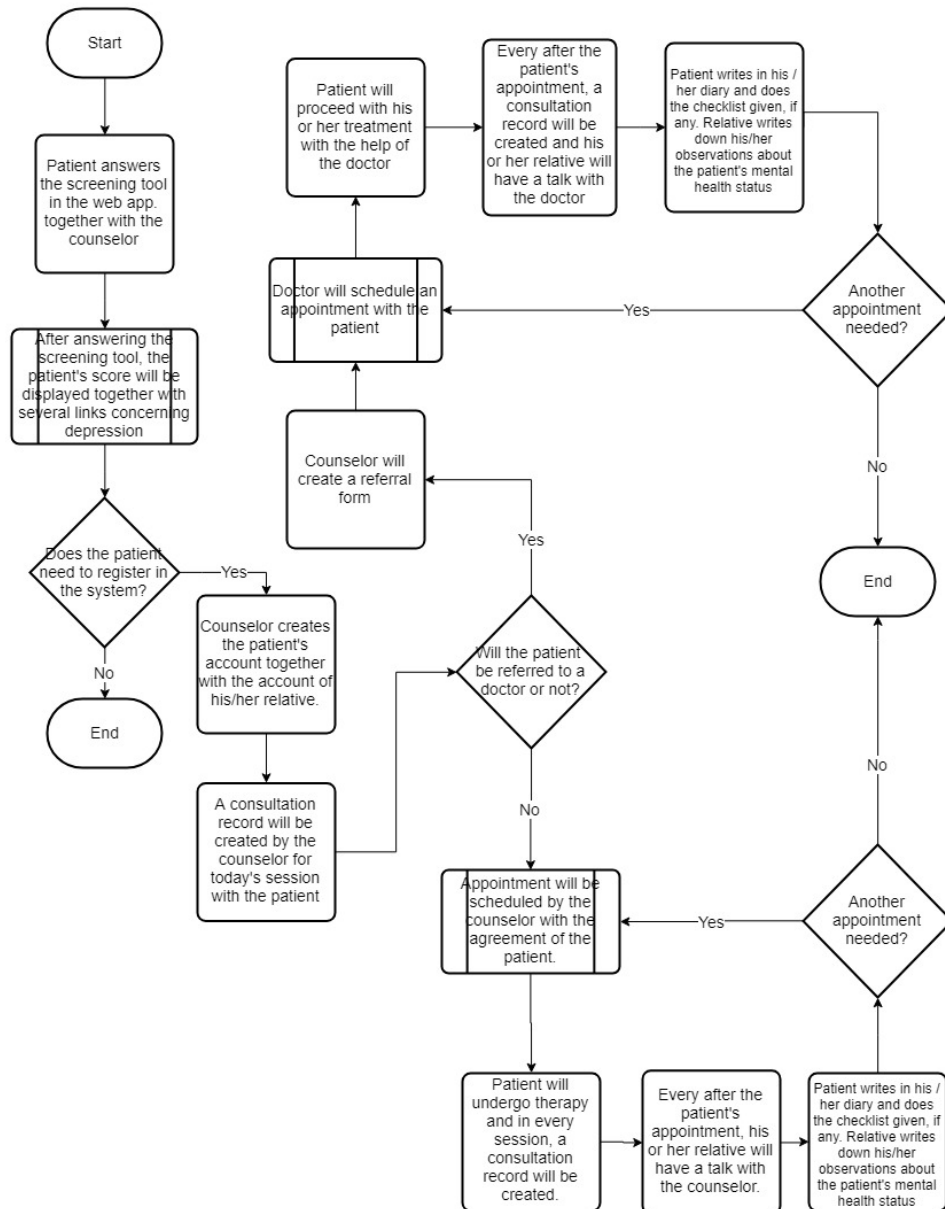


Figure 7: Process Flow Diagram

The series of processes that a patient will follow when he or she wants to be screened, monitored, and diagnosed of depression is shown in Figure 7. If the result after answering the screening tool is negative, the patient can still have an appointment with a counselor if he or she wants to. If the result, however, is positive, the counselor will further assess the severity of the depression of a patient in order to know if the patient needs to see a doctor or not.

4. Data Dictionary

	Name	Data type	Primary Key	Foreign Key	Unique	Check	Not NULL	Collate	
1	patient_id	INT (11)	🔑	🔗					NULL
2	email	VARCHAR (100)							NULL
3	password	VARCHAR (255)							NULL
4	first_name	VARCHAR (75)							NULL
5	middle_name	VARCHAR (75)							NULL
6	last_name	VARCHAR (75)							NULL
7	month_birth	VARCHAR (20)							NULL
8	day_birth	INT (2)							NULL
9	year_birth	INT (4)							NULL
10	sex	VARCHAR (20)							NULL
11	contact_num	VARCHAR (11)							NULL

Figure 8: Patient Table

	Name	Data type	Primary Key	Foreign Key	Unique	Check	Not NULL	Collate	
1	staff_id	INT (11)	🔑						NULL
2	email	VARCHAR (100)							NULL
3	password	VARCHAR (255)							NULL
4	first_name	VARCHAR (75)							NULL
5	middle_name	VARCHAR (75)							NULL
6	last_name	VARCHAR (75)							NULL
7	profession	INT (2)							NULL
8	month_birth	VARCHAR (20)							NULL
9	day_birth	INT (2)							NULL
10	year_birth	INT (4)							NULL
11	sex	VARCHAR (20)							NULL
12	contact_num	VARCHAR (11)							NULL

Figure 9: Staff Table

Structure									
Data									
Constraints									
Indexes									
Triggers									
DDL									
<input type="checkbox"/> WITHOUT ROWID									
Name	Data type	Primary Key	Foreign Key	Unique	Check	Not NULL	Collate		
1 relative_id	INT (11)								NULL
2 email	VARCHAR (100)								NULL
3 password	VARCHAR (255)								NULL
4 first_name	VARCHAR (75)								NULL
5 middle_name	VARCHAR (75)								NULL
6 last_name	VARCHAR (75)								NULL
7 month_birth	VARCHAR (20)								NULL
8 day_birth	INT (2)								NULL
9 year_birth	INT (4)								NULL
10 sex	VARCHAR (20)								NULL
11 contact_num	VARCHAR (11)								NULL

Figure 10: Relative Table

Structure									
Data									
Constraints									
Indexes									
Triggers									
DDL									
<input type="checkbox"/> WITHOUT ROWID									
Name	Data type	Primary Key	Foreign Key	Unique	Check	Not NULL	Collate		
1 patient_id	INT (11)								NULL
2 sadness	INT (1)								NULL
3 pessimism	INT (1)								NULL
4 past_failure	INT (1)								NULL
5 loss_pleasure	INT (1)								NULL
6 guilty_feelings	INT (1)								NULL
7 punishment_feelings	INT (1)								NULL
8 self_dislike	INT (1)								NULL
9 self_criticalness	INT (1)								NULL
10 suicidal_thoughts	INT (1)								NULL
11 crying	INT (1)								NULL
12 agitation	INT (1)								NULL
13 loss_interest	INT (1)								NULL
14 indecisiveness	INT (1)								NULL
15 worthlessness	INT (1)								NULL
16 loss_energy	INT (1)								NULL
17 sleeping_pattern	INT (1)								NULL
18 irritability	INT (1)								NULL
19 changes_appetite	INT (1)								NULL
20 weight_loss	INT (1)								NULL
21 worried	INT (1)								NULL
22 loss_interest_sex	INT (1)								NULL
23 screening_score	INT (3)								NULL

Figure 11: Screening Test Form Table

Structure									
Data									
Constraints									
Indexes									
Triggers									
DDL									
<input checked="" type="checkbox"/> <input type="checkbox"/> WITHOUT ROWID									
Name	Data type	Primary Key	Foreign Key	Unique	Check	Not NULL	Collate		
1 patient_id	INT (11)								NULL
2 staff_id	INT (11)								NULL
3 month_record	VARCHAR (20)								NULL
4 day_record	INT (2)								NULL
5 year_record	INT (4)								NULL
6 diagnosis	VARCHAR (1000)								NULL
7 treatment_plan	VARCHAR (1000)								NULL
8 medications	VARCHAR (1000)								NULL
9 patient_insights	VARCHAR (1000)								NULL

Figure 12: Patient's record from the doctor Table

Structure									
Data									
Constraints									
Indexes									
Triggers									
DDL									
<input checked="" type="checkbox"/> <input type="checkbox"/> WITHOUT ROWID									
Name	Data type	Primary Key	Foreign Key	Unique	Check	Not NULL	Collate		
1 patient_id	INT (11)								NULL
2 staff_id	INT (11)								NULL
3 month_record	VARCHAR (20)								NULL
4 day_record	INT (2)								NULL
5 year_record	INT (4)								NULL
6 diagnosis	VARCHAR (1000)								NULL
7 treatment_plan	VARCHAR (1000)								NULL
8 patient_insights	VARCHAR (1000)								NULL

Figure 13: Patient's record from the counselor Table

Structure									
Data									
Constraints									
Indexes									
Triggers									
DDL									
<input type="checkbox"/> WITHOUT ROWID									
	Name	Data type	Primary Key	Foreign Key	Unique	Check	Not NULL	Collate	
1	appointment_id	INT (11)							NULL
2	patient_id	INT (11)							NULL
3	staff_id	INT (11)							NULL
4	relative_id	INT (11)							NULL
5	patient_name	VARCHAR (200)							NULL
6	staff_name	VARCHAR (200)							NULL
7	relative_name	VARCHAR (200)							NULL
8	date	DATE							NULL
9	time	TIME							NULL
10	purpose	VARCHAR (500)							NULL

Figure 14: Appointments Table

Structure									
Data									
Constraints									
Indexes									
Triggers									
DDL									
<input type="checkbox"/> WITHOUT ROWID									
	Name	Data type	Primary Key	Foreign Key	Unique	Check	Not NULL	Collate	
1	checklist_id	INT (11)							NULL
2	patient_id	INT (11)							NULL
3	staff_id	INT (11)							NULL
4	checklist_month	VARCHAR (20)							NULL
5	checklist_day	INT (2)							NULL
6	checklist_year	INT (4)							NULL
7	checklist	TEXT							NULL

Figure 15: Checklist Table

Structure									
Data									
Constraints									
Indexes									
Triggers									
DDL									
Table name: patient_diary <input type="checkbox"/> WITHOUT ROWID									
	Name	Data type	Primary Key	Foreign Key	Unique	Check	Not NULL	Collate	
1	patient_id	INT (11)							NULL
2	diary_date	DATE							NULL
3	diary_time	TIME							NULL
4	diary	VARCHAR (1000)							NULL

Figure 16: Patient's Diary Table

Structure									
Data									
Constraints									
Indexes									
Triggers									
DDL									
Table name: patient_laboratory_tests <input type="checkbox"/> WITHOUT ROWID									
	Name	Data type	Primary Key	Foreign Key	Unique	Check	Not NULL	Collate	
1	patient_id	INT (11)							NULL
2	staff_id	INT (11)							NULL
3	date_performed	DATE							NULL
4	test_performed	VARCHAR (200)							NULL
5	test_result	VARCHAR (200)							NULL
6	date_received	DATE							NULL

Figure 17: Laboratory Tests Table

Structure									
Data									
Constraints									
Indexes									
Triggers									
DDL									
Table name: referral_form <input type="checkbox"/> WITHOUT ROWID									
	Name	Data type	Primary Key	Foreign Key	Unique	Check	Not NULL	Collate	
1	referral_id	INT (11)							NULL
2	referral_month	VARCHAR (20)							NULL
3	referral_day	INT (2)							NULL
4	referral_year	INT (4)							NULL
5	referral_from	VARCHAR (200)							NULL
6	patient_name	VARCHAR (200)							NULL
7	referred_to	VARCHAR (200)							NULL
8	referral_reason	VARCHAR (1000)							NULL

Figure 18: Referral Form Table

Structure									
Data									
Constraints									
Indexes									
Triggers									
DDL									
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>									
Table name: <input type="text" value="relationships"/> <input type="checkbox"/> WITHOUT ROWID									
	Name	Data type	Primary Key	Foreign Key	Unique	Check	Not NULL	Collate	
1	patient_id	INT (11)							NULL
2	staff_id	INT (11)							NULL
3	relative_id	INT (11)							NULL
4	patient_name	VARCHAR (200)							NULL
5	staff_name	VARCHAR (200)							NULL
6	relative_name	VARCHAR (200)							NULL

Figure 19: Relationships Table

Structure									
Data									
Constraints									
Indexes									
Triggers									
DDL									
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>									
Table name: <input type="text" value="relative_diary"/> <input type="checkbox"/> WITHOUT ROWID									
	Name	Data type	Primary Key	Foreign Key	Unique	Check	Not NULL	Collate	
1	relative_id	INT (11)							NULL
2	diary_date	DATE							NULL
3	diary_time	TIME							NULL
4	diary	VARCHAR (1000)							NULL

Figure 20: Relative's Diary Table

5. Technical Architecture

(a) Web Application Specifications

- i. CodeIgniter 3
- ii. At least 100 MB disk space
- iii. 512 MB RAM or higher
- iv. Google Chrome, Mozilla Firefox, Microsoft Edge, or any other browser

(b) Server Specifications

- i. Apache 2
- ii. SQLiteStudio 3 or above
- iii. PHP 5
- iv. 2.5 GHz processor
- v. 8 GB RAM
- vi. At least 32 GB free disk space

V. Results

A. General View of the System

BrainMax is a Progressive Web Application that focuses on the screening, monitoring, and diagnosing of Depression. The main goal of the system is to bridge the gap between the patient and the medical practitioner by implementing an automated system that is accessible to all users. Figure 21 shows the home page of the BrainMax website while Figure 22 shows a modal that will appear if you want to login. Shown in this image are 3 options: Login as Patient, as Relative, and as Staff since we have 5 users in the system.



Figure 21: BrainMax Home Page

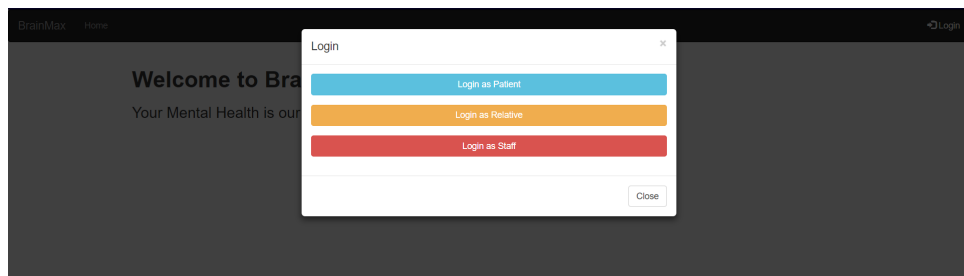


Figure 22: BrainMax Login Modal

B. Patient View

Once the "Login as Patient" is clicked, another modal will appear, as shown in Figure 23, and there you will enter your email and password. When logged in as a patient, the first thing that you will see is a list of your scheduled appointments that was agreed upon in your previous session with the doctor/counselor (see Figure 24).

Shown in Figure 25 is a list of your checklists that were created by your doctor/counselor. When a checklist date is clicked, you will view the tasks that you need to do. Figure 26 shows a checklist that is yet to be finished since there aren't any checked boxes. Figure 27 shows that if a task is done, you have to check the corresponding box of the task that you have performed and once you are all done, you need to click "Update Checklist" and the result of the update is shown.

You can also write down your day-to-day activities in the system that will serve as a diary and the staff can access it to further understand what you've been going through (see Figures 28 to 30). Lastly, you can also view your past and current medications as shown in Figures 31 and 32.

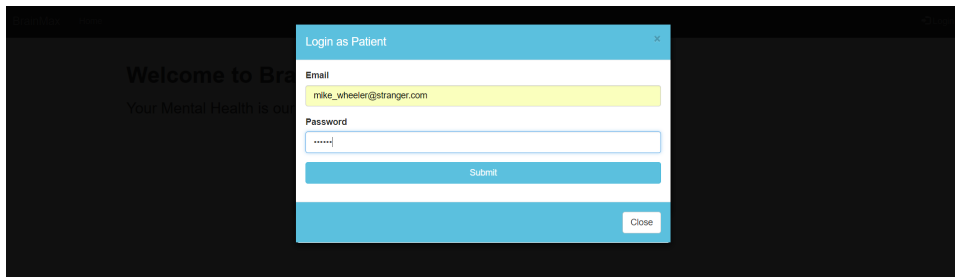


Figure 23: Patient Login

A screenshot of a web application showing a patient's appointment list. The page has a dark header with "BrainMax Home" on the left and "Mike Wheeler | Patient" on the right. Below the header, it says "Hello Mike Wheeler" and "Below is a list of your appointments". A table lists two appointments with columns for Date, Time, Subject, and Staff.

Date	Time	Subject	Staff
May 31 2018	10:00 AM	Follow-up	Glenn Rhee
May 31 2018	9:00 AM	Follow-up	Rickon Stark

Figure 24: List of Appointments of Patient



Figure 25: List of Checklists of Patient

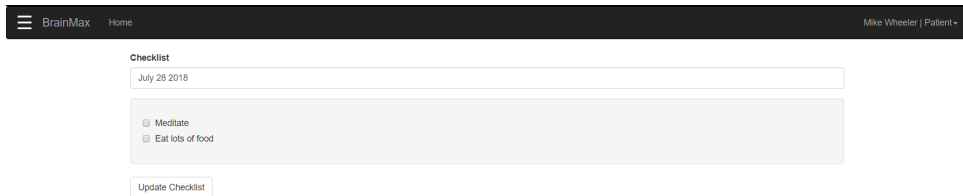


Figure 26: Patient viewed a Checklist



Figure 27: Patient updated the Checklist

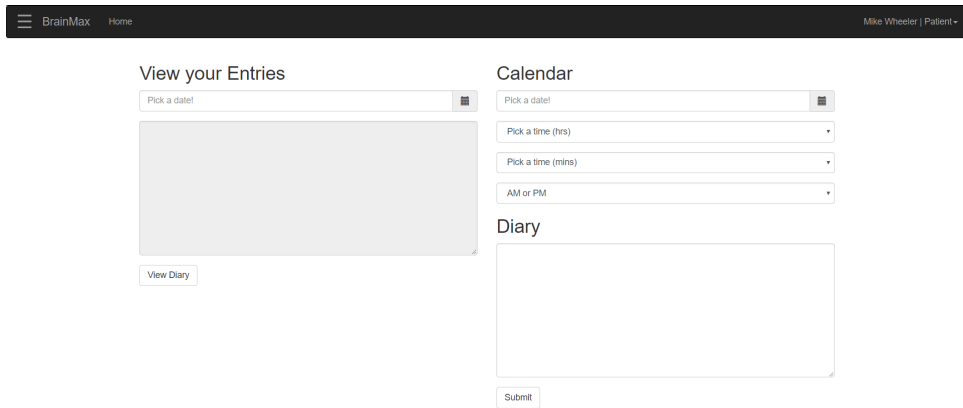


Figure 28: Patient Diary View

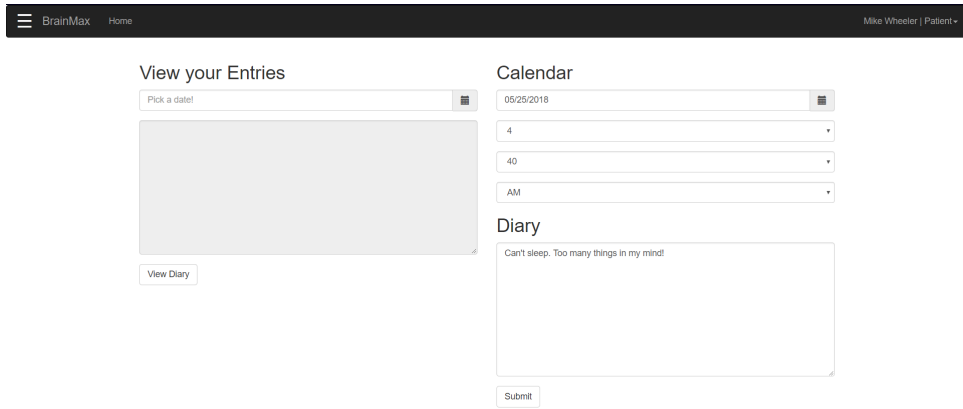


Figure 29: Patient creates a Diary

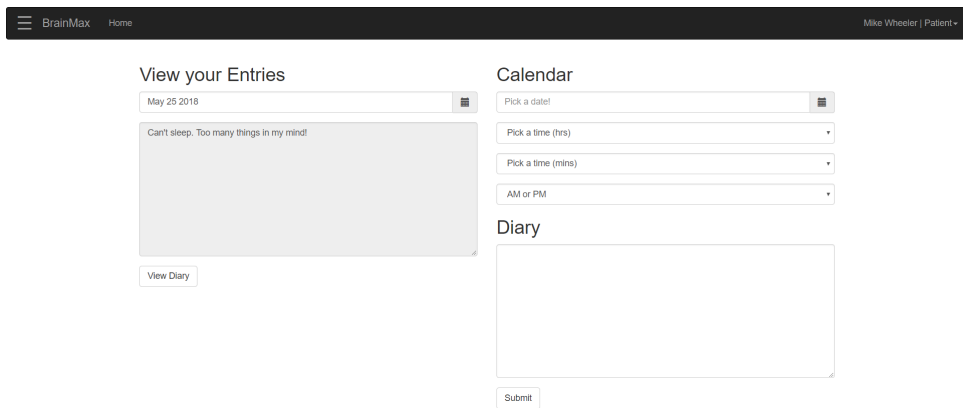


Figure 30: Patient can view the entries he/she has made



Figure 31: Patient's list of Medications

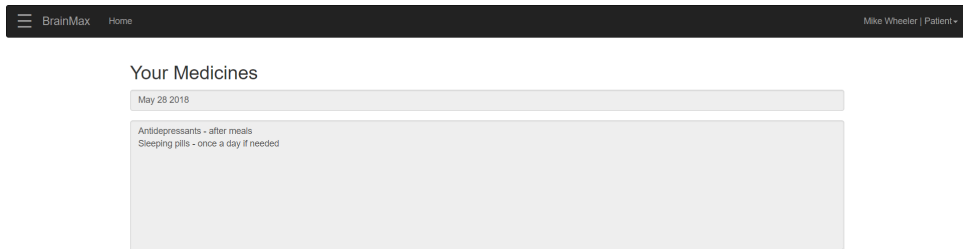


Figure 32: Patient list of Medications

C. Relative View

The login modal for the relative is shown in Figure 33. Once you have entered your email and password and clicked "Submit", a list of your patient's scheduled appointments will be shown (see Figure 34). One of the functionalities that you can do as a relative is to write your observations on the mental health status of the patient.

In the right half shown in Figure 35, you need to select a date, time and the observations that you have seen in the patient and submit it as your entry for that particular date and time. On the left half of Figure 35, you can see the entries that you have already submitted. Just pick a date and when you click "View Diary", your entry for that day will be shown in the textarea below (see Figures 36 and 37).

Aside from these, you can also view the past and current medications of the patient as shown in Figure 38 and when a date is clicked, the medications prescribed to him/her in that day will be shown (Figure 39).

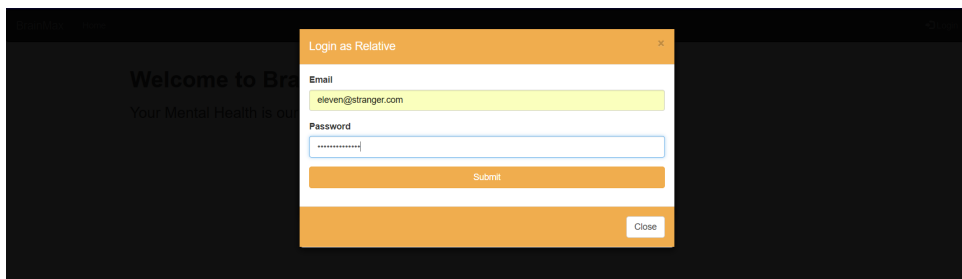


Figure 33: Relative Login

A screenshot of a web application showing a list of appointments for a patient named Mike Wheeler. The page has a dark header with "BrainMax Home" on the left and "Eleven Wheeler | Relative" on the right. The main content area has a white background and contains the text "Hello Eleven Wheeler" and "Below is a list of Mike Wheeler's appointments". Below this is a table with four columns: Date, Time, Subject, and Staff.

Date	Time	Subject	Staff
May 31 2018	10:00 AM	Follow-up	Glenn Rhee
May 31 2018	9:00 AM	Follow-up	Rickon Stark

Figure 34: List of Appointments of Relative's Patient

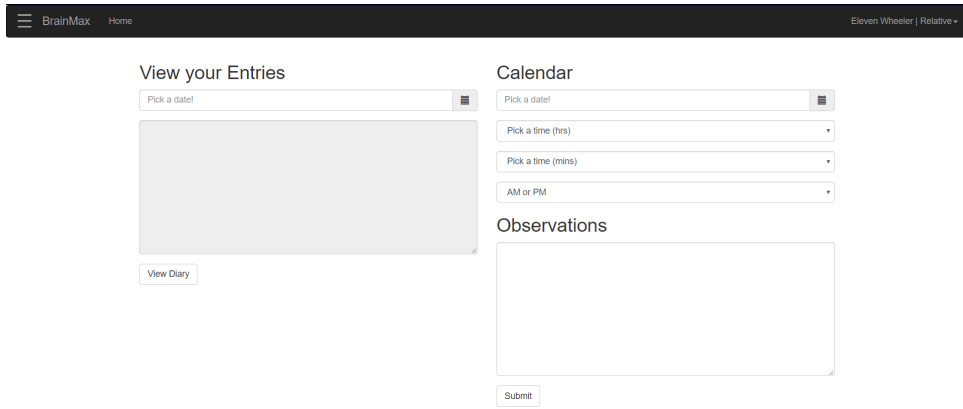


Figure 35: Relative's Observations View

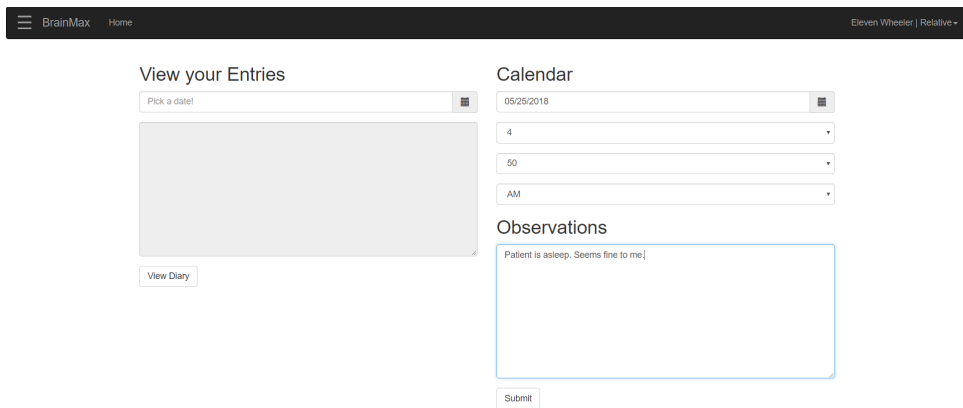


Figure 36: Relative enters an observation of the patient

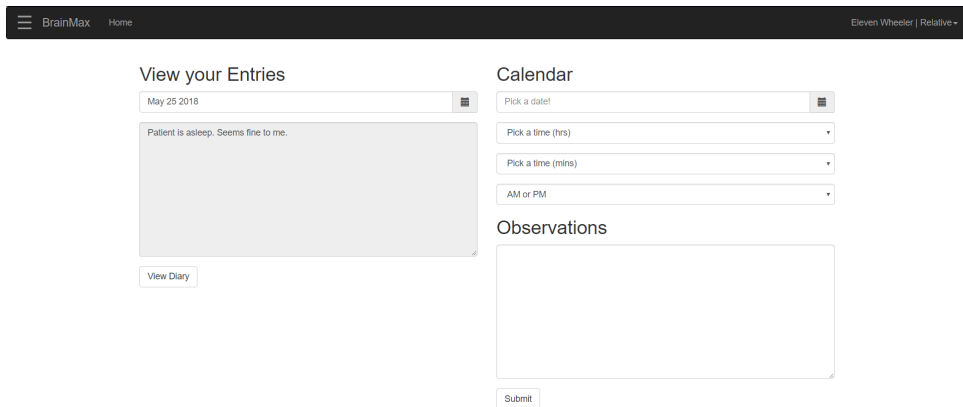


Figure 37: The Relative can view his/her past entries

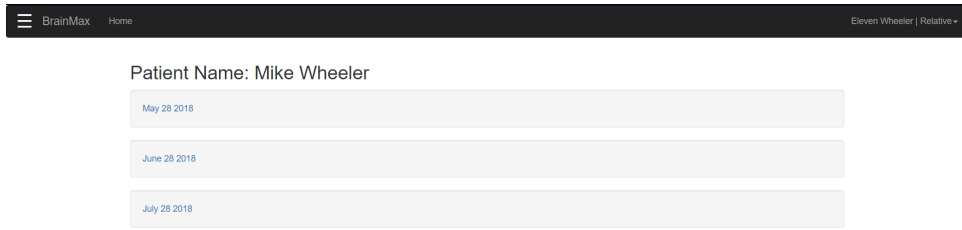


Figure 38: Relative can view all the lists of Medications of the Patient

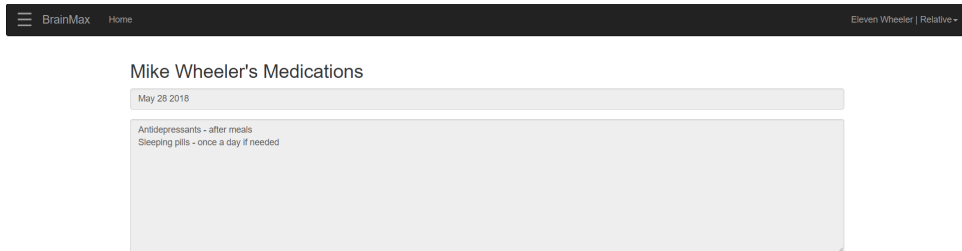


Figure 39: Relative has selected a Medications record of the Patient

D. Counselor View

Figure 40 shows the login modal for the counselor when the "Login as Staff" option is clicked. Same with the patient and the relative, once you clicked "Submit" in the modal, the counselor, same as with the patient and relative, can also view his/her scheduled appointments and at the end of every session with a patient, he/she can schedule their next sessions (Figures 41 and 42).

He/she is also in-charge of administering the screening test which is the Beck Depression Inventory (Figure 43). Once the test is done, a score will appear together with an interpretation of the score based on the questionnaire (see Figure 44). The score together with the counselor's thoughts will determine if the patient will be created an account or not. If the counselor said that the patient needs to register and be treated, an account will be created for the patient and a separate account for his/her relative (see Figures 45 and 46).

Shown in Figure 47 is the list of consultation records of a specific patient that was searched upon by the counselor. When a new record is to be created for today's session, the counselor will click "Create New Record" and a blank form will be shown containing the fields: diagnosis, treatment plan, insights and

checklist, as seen in Figure 48. When a previous record is to be selected, click a specific date from the list of previous records and the patient’s record for that day will be shown as seen in Figure 49.

He/she can also view the results of the screening test and the diary and observations that the patient and the relative have created (see Figure 49 and 51). Just pick a date for both the patient’s diary and relative’s observations and click ”View Diary”. If there’s an empty textarea, it means that that user doesn’t have an entry for that day.

Figure 50 shows a referral form that is used by the counselor in referring patients to a doctor. This is done if the counselor, base on his/her assessment, thinks that the patient needs medical attention and that talk therapy isn’t enough to treat the patient. Seen in the referral form are: the name of the counselor, name of the patient being referred, name of the doctor being referred to, and the reason why the patient is referred.

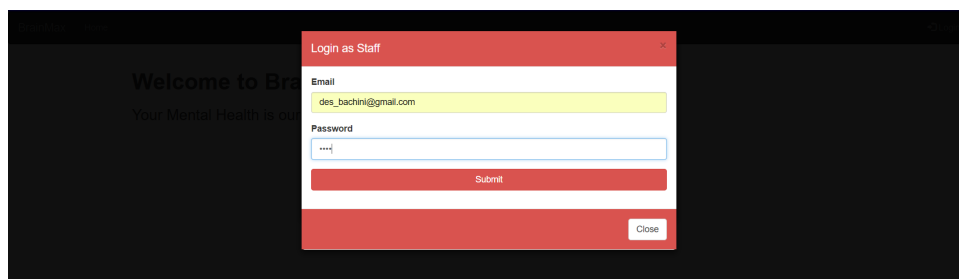


Figure 40: Counselor Login

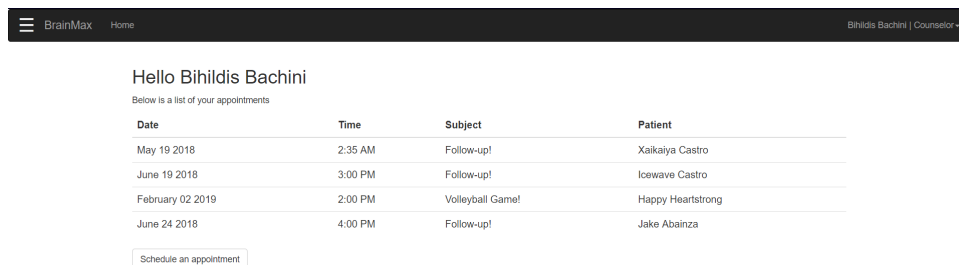


Figure 41: Counselor’s list of Appointments

BrainMax Home Bhikis Bashiri | Counselor

Schedule an Appointment

5 | Jake Abalanza

5 | Alma Abalanza

05/25/2018

7

00

AM

Reason/s

Follow-up!

Submit

Figure 42: Counselor schedules an appointment

BrainMax Home Bhikis Bashiri | Counselor

Beck's Depression Inventory

- I do not feel sad.
 I feel sad.
 I am sad all the time and I can't snap out of it.
 I am so sad and unhappy that I can't stand it.
- I am not particularly discouraged about the future.
 I feel discouraged about the future.
 I feel I have nothing to look forward to.
 I feel the future is hopeless and that things cannot improve.
- I do not feel like a failure.
 I feel I have failed more than the average person.
 As I look back on my life, all I can see is a lot of failures.
 I feel I am a complete failure as a person.
- I get as much satisfaction out of things as I used to.
 I don't enjoy things the way I used to.
 I don't get real satisfaction out of anything anymore.
 I am dissatisfied or bored with everything.
- I don't feel particularly guilty.
 I feel guilty a good part of the time.

Figure 43: The Beck Depression Inventory

Your score is:
29
Interpretation: Moderate depression

Here are some useful links that may help you in understanding Depression

[National Institute of Mental Health: Depression](#)
[World Health Organization: Depression](#)
[American Psychiatric Association: What is Depression?](#)

Register for an Account?

Figure 44: Patient's Screening Result

BrainMax Home Bihidis Bachini | Counselor -

Register

Please fill in the desired information in the form below for you to be registered as a patient.

First Name
Joana

Middle Name
Marie

Last Name
Abainza

Password
.....

Month of Birth
May

Day of Birth
27

Year of Birth
2000

Sex
Female

Figure 45: Registration form for Patient

BrainMax Home Bihidis Bachini | Counselor -

Register Relative

Please fill in the desired information in the form below for you to be registered as a relative.

First Name
Demet

Middle Name
Abainza

Last Name
Abainza

Password
.....

Month of Birth
January

Day of Birth
1

Year of Birth
1995

Sex
Male

Figure 46: Registration form for Relative

BrainMax Home Bihidis Bachini | Counselor -

Patient Name: Jake Abainza

Create New Record

May 26 2018

Figure 47: List of records of a counselor's patient

BrainMax Home Bihidis Bachini | Counselor

Patient Name: Joana Abainza

05/25/2018

Diagnosis
Schizophrenia

Treatment Plan
Undergo talk therapy

Figure 48: Counselor has created a new record

BrainMax Home Bihidis Bachini | Counselor

Patient Name: Jake Abainza

May 26 2018

Topic of the Question	Score
Sadness	1
Pessimism	1
Past Failure	1
Loss of Pleasure	1
Guilty Feelings	1
Punishment Feelings	1
Self-Dislike	1
Self-Criticalness	1
Suicidal Thoughts or Wishes	1
Crying	1
Agitation	1
Loss of Interest	1

Figure 49: View of a Consultation Record

BrainMax Home Bihidis Bachini | Counselor

Referral Form

Date: 05/25/2018

Referral from: Bihidis Bachini

Patient being referred: Joana Abainza

Referred to: Dyonas Jeff Bachini | 6 patient's

Reason for Referral: Patient has been diagnose with clinical depression. Please see patient for further evaluation

Send

Figure 50: Referral form

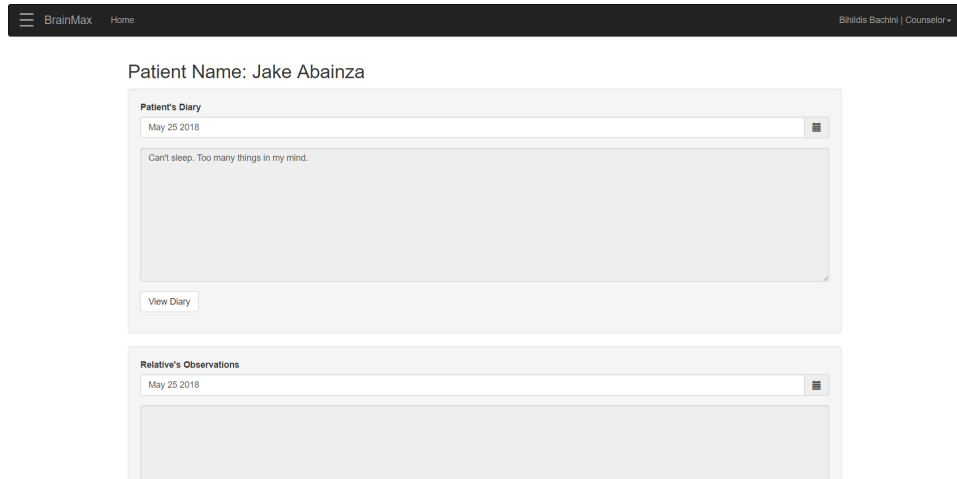


Figure 51: View of the counselor’s retrieval of the patient and relative’s diaries

E. Doctor View

Figure 52 shows the login modal for the doctor when the "Login as Staff" option is clicked. Just like every other user, once you clicked "Submit" in the modal, the doctor can view his/her scheduled appointments and at the end of every session with a patient, he/she can schedule their next sessions (Figures 53 and 54).

Shown in Figure 55 is the list of consultation records of a specific patient that was searched upon by the doctor. When a new record is to be created for today’s session, the doctor will click "Create New Record" and a blank form will be shown containing the fields: diagnosis, treatment plan, medications, insights and checklist as seen in Figure 56. When a previous record is to be selected, click a specific date from the list of previous records and the patient’s record for that day will be shown.

Since the counselor will refer patients to the doctor, the doctor has a functionality seen in Figure 57 that he/she can view the list of referrals sent to him/her with the date sent and the name of the counselor that made the referral. Once a date from the list is selected, the referral form for that patient will be shown together with the date and reason why the patient is referred (see Figure 58).

He/she can also view the results of the screening test and the diary and observations that the patient and the relative have created (see Figure 59). Same

with the counselor, just pick a date for both the patient’s diary and relative’s observations and click ”View Diary”. If there’s an empty textarea, it means that that user doesn’t have an entry for that day.

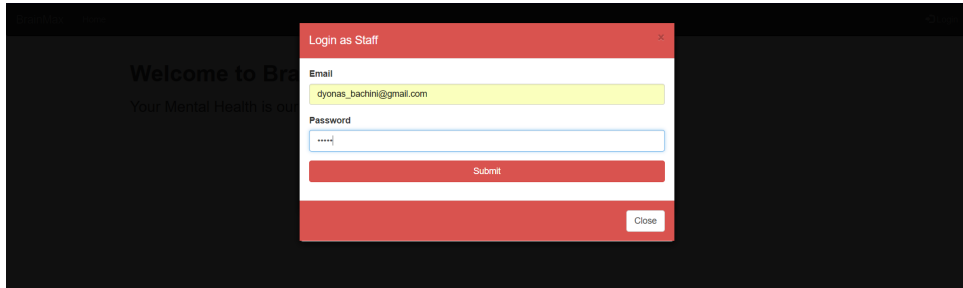


Figure 52: Doctor Login

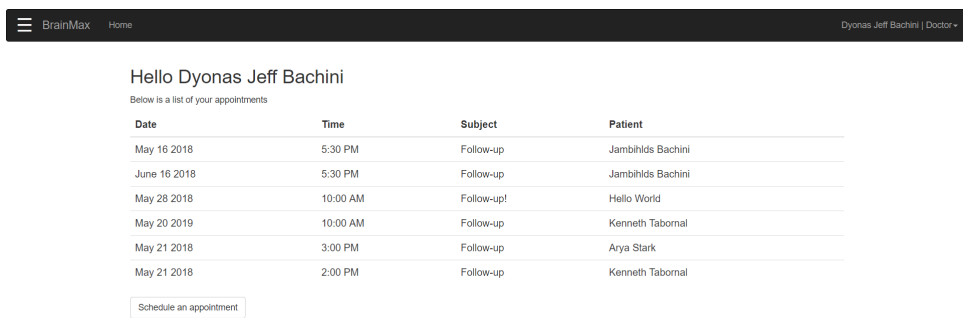


Figure 53: Doctor’s List of Appointments

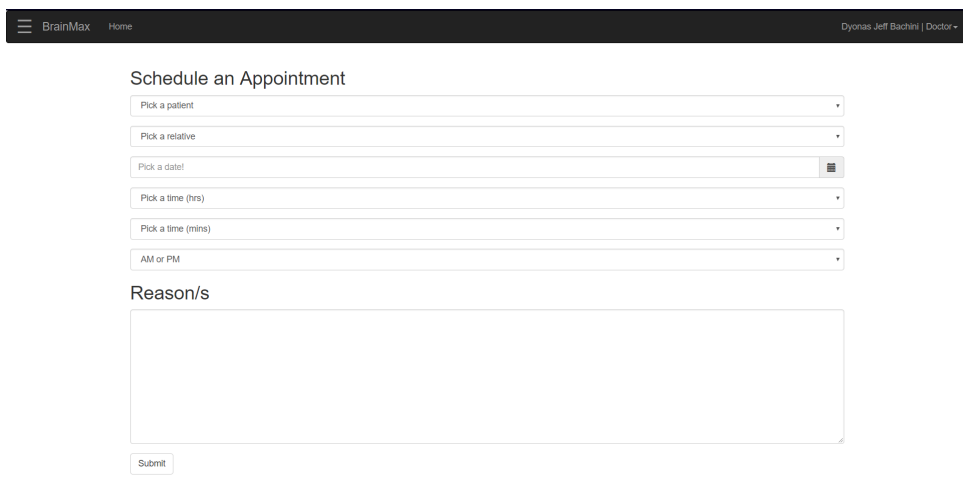


Figure 54: Doctors schedules an appointment

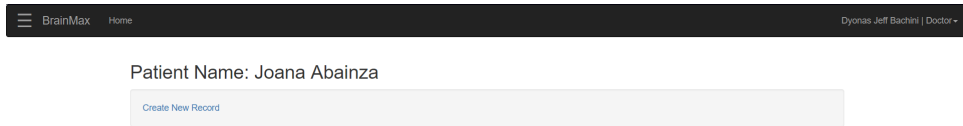


Figure 55: List of records of a Doctor's Patient

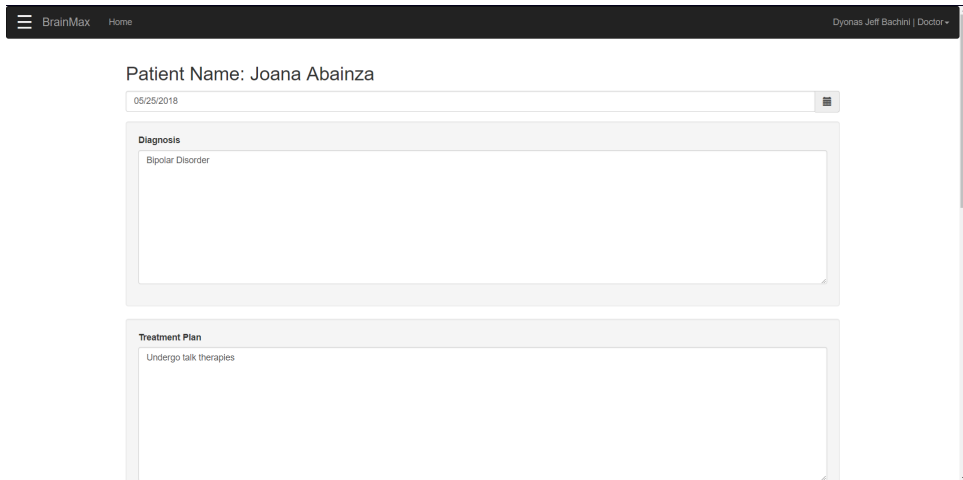


Figure 56: Doctor created new record

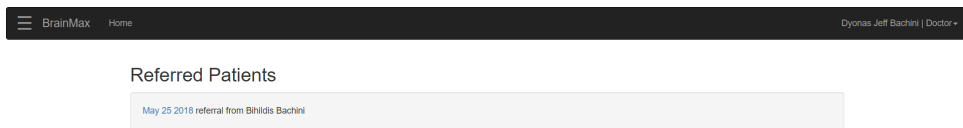


Figure 57: Doctor's Referral List

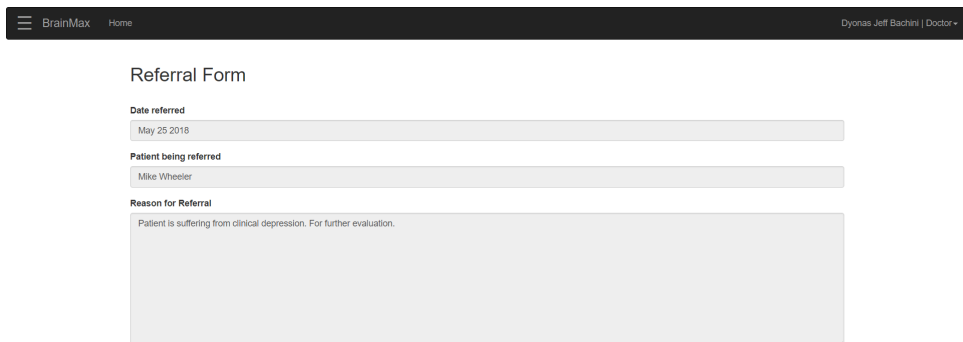


Figure 58: Referral form sent to the doctor by the counselor

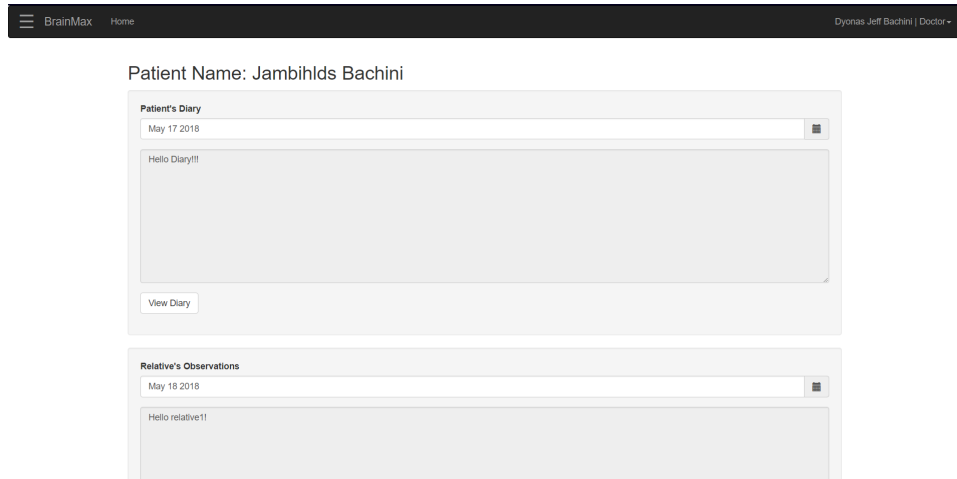


Figure 59: Doctor's view of the patient and relative's diary and observations

F. System Administrator View

Lastly, the web administrator is in-charge of the account management of the staffs. Figure 60 shows the login modal for the staff, same with the counselor and the doctor. Once logged in, a list of staff names is to be shown and at the side of the table are the options "Edit User" and "Delete User" (see Figure 61). When the Edit User option is clicked, a form appears, as shown in Figure 63, that contains the fields email and password. Once the submit button is clicked, the staff's email and password is updated in the database. As for the Delete User option, a staff account can be deleted if he/she has no patients to handle, else, the staff account would not be deleted just like in Figure 64.

Other than the account management, the admin is also responsible in creating the accounts of the doctor and counselor. Figure 62 shows the form that is used in registering a staff.

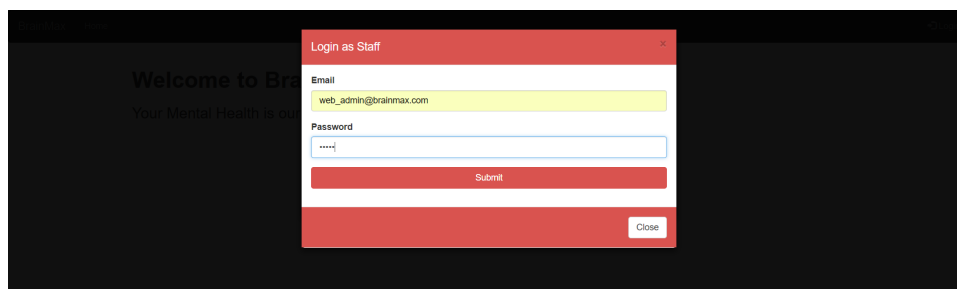


Figure 60: Admin Login

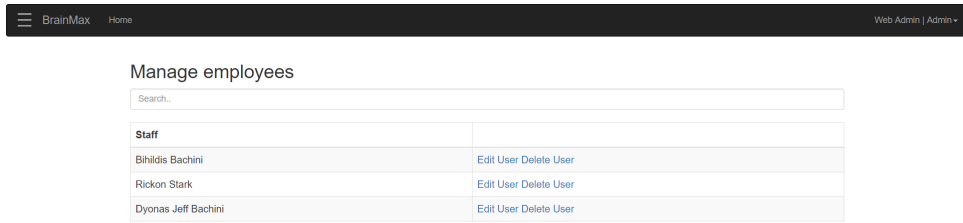


Figure 61: Admin can view the list of registered staffers of the system

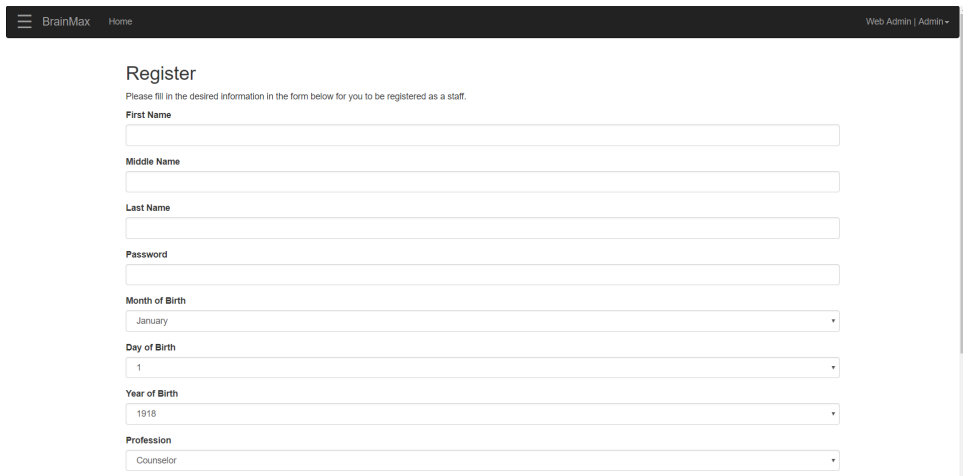


Figure 62: Registration form for creating a staff

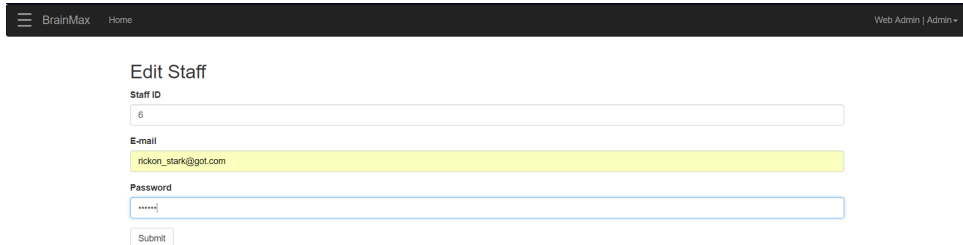


Figure 63: Admin edited a staff's account

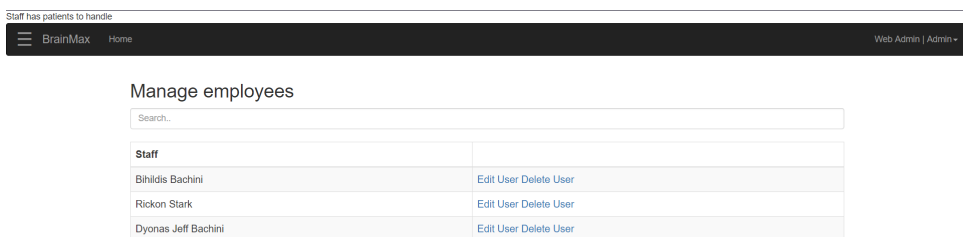


Figure 64: Admin deleted a staff's account

VI. Discussions

BrainMax: a web application that supports screening, monitoring, and diagnosing depression aims to help those who are suffering from depression and those who wants to screen for the disease to reach out to a medical practitioner so that their disease, if present, would be given immediate medical attention. This study also aims in:

1. Helping the patient in assessing the severity of depression that he/she experiences
2. Assisting the relative in tracking the development of the patient
3. Helping the doctor in monitoring his/her patients, if they are performing the tasks given to them
4. Assisting the counselor in viewing the patient's answers and score to the screening tool that was presented in order to assess if he/she needs a doctor or the condition can be treated by conducting therapies
5. Helping the system administrator in managing the accounts of the doctors and the counselors

With the goals of the study stated above, I can say that the BrainMax system was able to fulfill all of these objectives and was able to fully implement the functionalities per user in the system. The system was built to provide patients with support in their treatment for depression by serving as their diary where they can vent out whatever they want to say. The system also helps the patient in listing all of his/her appointments with the doctor/counselor so that her treatment would be continuous and that he/she will be cured in a short amount of time. As for the side of the medical practitioners, the system assists in holding the records of every patient and it also helps them in listing their respective appointments.

All of these lead to the significance that I have said earlier that the health professionals can really track the progress of the patient and that everything that

the patient does in his/her day-to-day life can be read by the doctor/counselor through the diary. Furthermore, if the patient doesn't have any consultation, the observations of the relative would be of great help to the health professional in monitoring the patient's mental health.

I have encountered a lot of issues with the development of BrainMax mainly due to my inexperience in developing the back-end part of the web application. This issue was addressed by watching tutorial videos that really are a big help to me in developing the system. Another issue would be the kind of database that I would use. MySQL was originally the database that I would use but since I have a mobile component, I have resorted to the SQLite database. This is still the current database of my system however, after my defense, my panel recommended that I should only use the web application component of my SP, thus, this is the current version of the BrainMax system.

VII. Conclusions

BrainMax is a web application that aims to help individuals suffering from depression that doesn't get enough medical assistance. There are 5 users in the system: the patient, relative, counselor, doctor, and the web administrator. The patient has his/her own account upon the opinion of the counselor after his/her screening test. The system is able to list all of his/her scheduled appointments and it is also a diary where the patient can write down all of the activities that he/she has done for the day. The patient's relative is another user where he/she helps the patient throughout the whole treatment process. He/she can write down his/her observations about the patient's mental health status and also has a list of appointments of the patient.

The counselor and the doctor have relatively the same functionalities. Both of them can view the answers and score of the patient in the Beck Depression Inventory screening test. They can create consultation records in every session with their patients and can view past records for them to see the progress of the patient's health. They can also view the diary created by the patient and the observations made by the relative. Only the counselor can create referral forms that is addressed to the doctor and on the other hand, the doctor can view all of the referrals directed to him/her.

Lastly, the system administrator is capable of creating the accounts of the health professionals. He/she is also responsible in managing these accounts whether the account can be deleted or the staff requests for an update with their account's email and password.

With all of these said, the system is of big help to its users most especially to the patients that need immediate medical attention. The relative is also part of the treatment process of the patient and that he/she can really see how the patient is progressing. Lastly, the health professionals would have an aid in treating their patients and that, with the help of BrainMax, they can track the development of their patient's mental health.

VIII. Recommendations

BrainMax is designed to support the medical professional's work in treating their patients and at the same time, be there for the patients whenever they want to express what they feel through typing in words or provide the medications that were given by the doctor.

All of these, together with other functionalities stated earlier were accomplished. The objectives of the study were met however, there are still improvements that are needed to be done. A mobile application would be of great help to users who can't access the system via web so that their treatment would still be continuous. Improvements in selecting the date and time for the appointment, diary, and observations of the users are needed in order for them to easily perform their functionalities in the system. Alerts are also needed when performing functionalities in the system so that the user would really be informed that the action that he/she has done was executed. Lastly, the presence of a relative in the entire treatment process of the patient would be of great help but there may be times that the patient may not have a relative that will help him/her thus, the creation of a relative's account is optional.

IX. Bibliography

- [1] W. H. Organization, *Mental health: strengthening our response*, 2016 (accessed November 17, 2017). <http://www.who.int/mediacentre/factsheets/fs220/en/>.
- [2] W. H. Organization, *Mental disorders*, 2017 (accessed November 17, 2017). <http://www.who.int/mediacentre/factsheets/fs396/en/>.
- [3] A. F. for Suicide Prevention, *Suicide claims more lives than war, murder, and natural disasters combined*, 2017 (accessed November 18, 2017). <https://www.theovernight.org/index.cfm?fuseaction=cms.page&id=1034>.
- [4] I. C. Mateo, *Millions suffering from depression in PH DoH, WHO*, 2017 (accessed November 19, 2017). <http://beyonddeadlines.com/2017/04/06/million-of-people-in-ph-suffering-from-depression-doh-who/>.
- [5] M. S. Joanna Saisan and J. Segal, *Depression Treatment Therapy, Medication, and Lifestyle Changes That Can Treat Depression*, 2017 (accessed December 13, 2017). <https://www.helpguide.org/articles/depression/depression-treatment.htm>.
- [6] D. of Health, *DOH seeks end to stigma against depression as it joins the rest of the world in observing World Health Day 2017*, 2017 (accessed December 13, 2017). <http://www.doh.gov.ph/node/9624>.
- [7] N. BinDhim, A. Shaman, L. Trevena, M. Basyouni, L. Pont, and T. Alhawassi, "Depression screening via a smartphone app: cross-country user characteristics and feasibility," *Journal of the American Medical Informatics Association*, vol. 22, pp. 29–34, 2015.
- [8] T. N. I. of Mental Health, *Bipolar Disorder*, 2016 (accessed November 3, 2017). <https://www.nimh.nih.gov/health/topics/bipolar-disorder/index.shtml>.

- [9] M. Faurholt-Jepsen, M. Frost, M. Vinberg, E. Christensen, J. Bardram, and L. Kessing, “Smartphone data as objective measures of bipolar disorder symptoms,” *Psychiatry Research*, vol. 217, pp. 124–127, 2014.
- [10] Z. Gellis, B. Kenaley, and T. Have, “Integrated telehealth care for chronic illness and depression in geriatric home care patients: The integrated telehealth education and activation of mood (i-team) study,” *Journal of the American Geriatrics Society*, vol. 62, pp. 889–895, 2014.
- [11] A. Williams, R. LaRocca, T. Chang, N.-H. Trinh, M. Fava, J. Kvedar, and A. Yeung, “Web-based depression screening and psychiatric consultation for college students: A feasibility and acceptability study,” *International Journal of Telemedicine and Applications*, 2014.
- [12] E. Drake, E. Gustavson, and E. Kinsey, “Online screening and referral for postpartum depression: An exploratory study,” *Community Mental Health Journal*, vol. 50, pp. 305–311, 2014.
- [13] A. Aguilera, S. Schueller, and Y. Leykin, “Daily mood ratings via text message as a proxy for clinic based depression assessment,” *Journal of Affective Disorders*, vol. 175, pp. 471–474, 2015.
- [14] S. Hung, M.-S. Li, Y.-L. Chen, J.-H. Chiang, Y.-Y. Chen, and G. Hung, “Smartphone-based ecological momentary assessment for chinese patients with depression: An exploratory study in taiwan,” *Asian Journal of Psychiatry*, vol. 23, pp. 131–136, 2016.
- [15] S. Shiffman, *Ecological Momentary Assessment*, 2014 (accessed November 4, 2017). <http://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199381708.001.0001/oxfordhb-9780199381708-e-1>.
- [16] N. Lakkis and D. Mahmassani, “Screening instruments for depression in primary care: a concise review for clinicians,” *Postgraduate Medicine*, vol. 127, pp. 99–106, 2015.

- [17] T. Eells, M. Barrett, J. Wright, and M. Thase, “Computer-assisted cognitive-behavior therapy for depression,” *Psychotherapy*, vol. 51, pp. 191–197, 2014.
- [18] N. I. of Mental Health, *Depression: What You Need To Know*, 2015 (accessed November 14, 2017). <https://www.nimh.nih.gov/health/publications/depression-what-you-need-to-know/index.shtml>.
- [19] J. Hauser, *Depression Medications: Antidepressants*, 2016 (accessed November 14, 2017). <https://psychcentral.com/lib/depression-medications-antidepressants/>.

X. Appendix

A. Forms

1. Beck Depression Inventory

Below is the screening tool that I will be using in this study. The Beck Depression Inventory is the tool that I chose because it is the tool being used by the Office of the Student Affairs (OSA) of our university in screening for possible depression.

Beck's Depression Inventory		
This depression inventory can be self-scored. The scoring scale is at the end of the questionnaire.		
1.	0	I do not feel sad.
	1	I feel sad
	2	I am sad all the time and I can't snap out of it.
	3	I am so sad and unhappy that I can't stand it.
2.	0	I am not particularly discouraged about the future.
	1	I feel discouraged about the future.
	2	I feel I have nothing to look forward to.
	3	I feel the future is hopeless and that things cannot improve.
3.	0	I do not feel like a failure.
	1	I feel I have failed more than the average person.
	2	As I look back on my life, all I can see is a lot of failures.
	3	I feel I am a complete failure as a person.
4.	0	I get as much satisfaction out of things as I used to.
	1	I don't enjoy things the way I used to.
	2	I don't get real satisfaction out of anything anymore.
	3	I am dissatisfied or bored with everything.
5.	0	I don't feel particularly guilty
	1	I feel guilty a good part of the time.
	2	I feel quite guilty most of the time.
	3	I feel guilty all of the time.
6.	0	I don't feel I am being punished.
	1	I feel I may be punished.
	2	I expect to be punished.
	3	I feel I am being punished.
7.	0	I don't feel disappointed in myself.
	1	I am disappointed in myself.
	2	I am disgusted with myself.
	3	I hate myself.
8.	0	I don't feel I am any worse than anybody else.
	1	I am critical of myself for my weaknesses or mistakes.
	2	I blame myself all the time for my faults.
	3	I blame myself for everything bad that happens.
9.	0	I don't have any thoughts of killing myself.
	1	I have thoughts of killing myself, but I would not carry them out.
	2	I would like to kill myself.
	3	I would kill myself if I had the chance.
10.	0	I don't cry any more than usual.
	1	I cry more now than I used to.
	2	I cry all the time now.
	3	I used to be able to cry, but now I can't cry even though I want to.

11.
 0 I am no more irritated by things than I ever was.
 1 I am slightly more irritated now than usual.
 2 I am quite annoyed or irritated a good deal of the time.
 3 I feel irritated all the time.
12.
 0 I have not lost interest in other people.
 1 I am less interested in other people than I used to be.
 2 I have lost most of my interest in other people.
 3 I have lost all of my interest in other people.
13.
 0 I make decisions about as well as I ever could.
 1 I put off making decisions more than I used to.
 2 I have greater difficulty in making decisions more than I used to.
 3 I can't make decisions at all anymore.
14.
 0 I don't feel that I look any worse than I used to.
 1 I am worried that I am looking old or unattractive.
 2 I feel there are permanent changes in my appearance that make me look unattractive
 3 I believe that I look ugly.
15.
 0 I can work about as well as before.
 1 It takes an extra effort to get started at doing something.
 2 I have to push myself very hard to do anything.
 3 I can't do any work at all.
16.
 0 I can sleep as well as usual.
 1 I don't sleep as well as I used to.
 2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
 3 I wake up several hours earlier than I used to and cannot get back to sleep.
17.
 0 I don't get more tired than usual.
 1 I get tired more easily than I used to.
 2 I get tired from doing almost anything.
 3 I am too tired to do anything.
18.
 0 My appetite is no worse than usual.
 1 My appetite is not as good as it used to be.
 2 My appetite is much worse now.
 3 I have no appetite at all anymore.
19.
 0 I haven't lost much weight, if any, lately.
 1 I have lost more than five pounds.
 2 I have lost more than ten pounds.
 3 I have lost more than fifteen pounds.

- 20.
- 0 I am no more worried about my health than usual.
 - 1 I am worried about physical problems like aches, pains, upset stomach, or constipation.
 - 2 I am very worried about physical problems and it's hard to think of much else.
 - 3 I am so worried about my physical problems that I cannot think of anything else.
- 21.
- 0 I have not noticed any recent change in my interest in sex.
 - 1 I am less interested in sex than I used to be.
 - 2 I have almost no interest in sex.
 - 3 I have lost interest in sex completely.

INTERPRETING THE BECK DEPRESSION INVENTORY

Now that you have completed the questionnaire, add up the score for each of the twenty-one questions by counting the number to the right of each question you marked. The highest possible total for the whole test would be sixty-three. This would mean you circled number three on all twenty-one questions. Since the lowest possible score for each question is zero, the lowest possible score for the test would be zero. This would mean you circles zero on each question. You can evaluate your depression according to the Table below.

Total Score _____	Levels of Depression
1-10 _____	These ups and downs are considered normal
11-16 _____	Mild mood disturbance
17-20 _____	Borderline clinical depression
21-30 _____	Moderate depression
31-40 _____	Severe depression
over 40 _____	Extreme depression

B. Source Code

```
<!--db_query.php-->
<?php
class db_query extends CLModel{
    public function __construct(){
        parent::__construct();
        $this->load->database();
    }

    public function updateRowWhere($table, $where = array(),
        $data = array()) {
        $this->db->where($where);
        $this->db->update($table, $data);
    }

    public function insertRow($table, $data = array()){
        $this->db->insert($table,$data);
    }
}
?>

<!--Register_Model-->
<?php
class Register_Model extends CLModel{
    public function __construct(){
        parent::__construct();
        $this->load->database();
    }

    public function register(){
        $table = 'patient';
        $this->db->select_max('patient_id');
        $this->db->from($table);
        $query = $this->db->get();
        $r = $query->result();
        $array = json_decode(json_encode($r), True);

        $data = array(
            'patient_id' => $array[0]['patient_id'] + 1,
            'first_name' => $this->input->post('first_name'),
            'middle_name' => $this->input->post('middle_name'),
            'last_name' => $this->input->post('last_name'),
            'password' => $this->input->post('password'),
            'month_birth' => $this->input->post('month_birth'),
            'day_birth' => $this->input->post('day_birth'),
            'year_birth' => $this->input->post('year_birth'),
            'sex' => $this->input->post('sex'),
            'contact_num' => $this->input->post('contact_num'),
            'email' => $this->input->post('email')
        );
        $register_patient = $this->db->insert($table, $data);
    }
}
?>

<!--appointments.php-->
<html>
<head>
<title>BrainMax</title>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width,
    initial-scale=1">
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/
    bootstrap/3.3.7/css/bootstrap.min.css">
<script src="https://ajax.googleapis.com/ajax/libs/jquery
    /3.3.1/jquery.min.js"></script>
<script src="https://maxcdn.bootstrapcdn.com/bootstrap
    /3.3.7/js/bootstrap.min.js"></script>
</head>
<body>

<div class="container">
<?php
    $attributes = array('id' => 'sched_appointment');
    echo form_open('site_nav/sched_appointment', $attributes);
    ?>
    <h2>Hello <?php echo $_SESSION['user_name']?></h2>
    <p>Below is a list of <?php if($_SESSION['user_profession']
        ) == 4){
        $query = $this->db->get('appointments');
        foreach($query->result() as $row) {
            if($_SESSION['user_id'] == $row->relative_id) { ?>
                <strong><?php echo $row->patient_name . "'s"; ?></
                strong> appointments</p>
                <?php break;
            }
        }
    } else { ?>
    your appointments</p>
    <?php } ?>

<table class="table table-striped">
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Subject</th>
<?php if($_SESSION['user_profession'] == 0 || $_SESSION['
    user_profession'] == 1){ ?>
    <th>Patient</th>
<?php } else { ?>
<th>Staff</th>
<?php } ?>
</tr>

<?php $query = $this->db->get('appointments');
foreach($query->result() as $row) {
    if($_SESSION['user_profession'] == 0 || $_SESSION['
        user_profession'] == 1) {
        if($_SESSION['user_id'] == $row->staff_id) {
            echo "<tr>";
            echo "<td>";
            echo $row->date;
            echo "</td>";
            echo "<td>";
            echo $row->time;
            echo "</td>";
            echo "<td>";
            echo $row->purpose;
            echo "</td>";
            echo "<td>";
            echo $row->patient_name;
            echo "</td>";
            echo "</tr>";
        }
    } else if($_SESSION['user_profession'] == 3) {
        if($_SESSION['user_id'] == $row->patient_id) {
            echo "<tr>";
            echo "<td>";
            echo $row->date;
            echo "</td>";
            echo "<td>";
            echo $row->time;
            echo "</td>";
            echo "<td>";
            echo $row->purpose;
            echo "</td>";
            echo "<td>";
            echo $row->staff_name;
            echo "</td>";
            echo "</tr>";
        }
    } else if($_SESSION['user_profession'] == 4) {
        if($_SESSION['user_id'] == $row->relative_id) {
            echo "<tr>";
            echo "<td>";
            echo $row->date;
            echo "</td>";
            echo "<td>";
            echo $row->time;
            echo "</td>";
            echo "<td>";
            echo $row->purpose;
            echo "</td>";
            echo "<td>";
            echo $row->staff_name;
            echo "</td>";
            echo "</tr>";
        }
    }
} ?>
</thead>
<tbody>
</tbody>
</table>
<?php if(isset($_SESSION['user_profession']) == TRUE) {
    ?>
    <?php if($_SESSION['user_profession'] == 0 || $_SESSION['
        user_profession'] == 1) {?>
    <button type="submit" class="btn btn-default">Schedule
        an appointment</button>
    <?php } ?>
    <?php } ?>
    <?php echo form_close(); ?>
</div>

</body>
</html>

<!--create_consultation_record.php-->
<html>
<head>
<title>BrainMax</title>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width,
    initial-scale=1">

```



```

<div class="form-group">
  <label>E-mail</label>
  <input type="text" class="form-control" name="email" id="email" required>
</div>
<div class="form-group">
  <label>Password</label>
  <input type="password" class="form-control" name="password" id="password" required>
</div>
<button type="submit" class="btn btn-default">Submit
</button>
</form>
</div>

</body>
</html>

<!-- main_window.php -->

<html>
<head>
  <title>BrainMax</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
  <script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
</head>
<body>
  <div class="container">
    <h1><strong>Welcome to BrainMax</strong></h1>
    <h3>Your Mental Health is our priority</h3>
  </div>
</body>
</html>

<!-- manage_staff_acnts.php -->

<html>
<head>
  <title>BrainMax</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
  <link href="https://maxcdn.bootstrapcdn.com/bootstrap/2.2.2/css/bootstrap-toggle.min.css" rel="stylesheet">
  <script src="https://maxcdn.bootstrapcdn.com/bootstrap/2.2.2/js/bootstrap-toggle.min.js"></script>

  <script>
$(document).ready(function(){
  $("#myInput").on("keyup", function() {
    var value = $(this).val().toLowerCase();
    $("#myTable tr").filter(function() {
      $(this).toggle($(this).text().toLowerCase().indexOf(value) > -1)
    });
  });
});
</script>

  <script>
$(function() {
  $('td.clickable').click(function() {
    window.location.href = $(this).attr('data-href');
  });
});
</script>
</head>
<body>

<div class="container">
  <h2>Manage employees</h2>
  <input class="form-control" id="myInput" type="text" placeholder="Search..">
  <br>
  <table class="table table-bordered table-striped">
    <thead>
      <tr>
        <th>Staff</th>
      </tr>
    </thead>
    <tbody id="myTable">
  <?php $query = $this->db->get('staff');
  foreach($query->result() as $row){
    if($SESSION['user_name'] != $row->first_name . " " . $row->last_name) { ?>
      <td><?php echo $row->first_name . " " . $row->last_name; ?></td>
      <td><?php echo "<a href=" . base_url() . "index.php/site_nav/view_edit_page/edit_staff.php?staff_id=" . $row->staff_id . ">" . "Edit User" . "</a>" . " ?></td>
      <td><?php echo "<a href=" . base_url() . "index.php/site_nav/delete_staff?staff_id=" . $row->staff_id . ">" . "Delete User" . "</a>"?></td>
    </tr>
  <?php }?>
  <?php }?>
</tbody>
</table>

<?php
$attributes = array('id' => 'delete_staff');
echo form_open('site_nav/delete_staff?', $attributes);
?>
<form>
<div class="modal fade" id="myModal" role="dialog">
  <div class="modal-dialog">
    <div class="modal-content">
      <div class="modal-header">
        <button type="button" class="close" data-dismiss="modal">&times;</button>
      </div>
      <div class="modal-body">
        <p>Are you sure you want to delete this user?</p>
      </div>
      <div class="modal-footer">
        <button type="submit" class="btn btn-default">Yes
        <button type="button" class="btn btn-default" data-dismiss="modal">No</button>
      </div>
    </div>
  </div>
</div>
<?php echo form_close(); ?>
</form>

</div>
</body>
</html>

<!-- menu_bar.php -->

<html>
<head>
  <title>BrainMax</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
  <script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>

  <script type="text/javascript">
if (navigator.serviceWorker.controller) {
  console.log('[ PWA Builder] active service worker found, no need to register')
} else {
  navigator.serviceWorker.register('pwabuilder-sw.js', {
    scope: './'
  }).then(function(reg) {
    console.log('Service worker has been registered for scope '+ reg.scope);
  });
}
</script>

  <link rel="apple-touch-icon" sizes="57x57" href="img/icons/apple-icon-57x57.png">
  <link rel="apple-touch-icon" sizes="60x60" href="img/icons/apple-icon-60x60.png">
  <link rel="apple-touch-icon" sizes="72x72" href="img/icons/apple-icon-72x72.png">
  <link rel="apple-touch-icon" sizes="76x76" href="img/icons/apple-icon-76x76.png">
  <link rel="apple-touch-icon" sizes="114x114" href="img/icons/apple-icon-114x114.png">
  <link rel="apple-touch-icon" sizes="120x120" href="img/icons/apple-icon-120x120.png">
  <link rel="apple-touch-icon" sizes="144x144" href="img/icons/apple-icon-144x144.png">
  <link rel="apple-touch-icon" sizes="152x152" href="img/icons/apple-icon-152x152.png">
  <link rel="apple-touch-icon" sizes="180x180" href="img/icons/apple-icon-180x180.png">
  <link rel="icon" type="image/png" sizes="192x192" href="img/icons/android-icon-192x192.png">

```



```

</div>
<div class="modal fade" id="myModal_main" role="dialog"
">
<div class="modal-dialog">
<div class="modal-content">
<div class="modal-header">
<button type="button" class="close" data-dismiss
="modal">&times;</button>
<h4 class="modal-title">Login</h4>
</div>
<div class="modal-body">
<div class="form-group"><button type="button" class
="btn btn-info" data-toggle="modal" data-target
="#login_patient" style="width:100%">Login as
Patient</button></div>
<div class="form-group"><button type="button" class
="btn btn-warning" data-toggle="modal" data-
target="#login_relative" style="width:100%">Login
as Relative</button></div>
<div class="form-group"><button type="button" class
="btn btn-danger" data-toggle="modal" data-
target="#login_staff" style="width:100%">Login as
Staff</button></div>
</div>
<div class="modal-footer">
<button type="button" class="btn btn-default"
data-dismiss="modal">Close</button>
</div>
</div>
</div>
</div>
<div id="login_patient" class="modal fade" role="dialog">
<div class="modal-dialog">
<div class="modal-content">
<div class="modal-header" style="background-color
:#5bc0de">
<button type="button" class="close" data-dismiss
="modal">&times;</button>
<h4 class="modal-title" style="color:white">Login
as Patient</h4>
</div>
<div class="modal-body">
<form action="<?php echo base_url(); ?>index.php/
site_nav/validate_patient_login" method="POST">
<div class="form-group">
<label for="email">Email</label>
<input type="email" class="form-control" id="email"
placeholder="Enter email" name="email" required
>
</div>
<div class="form-group">
<label for="pwd">Password</label>
<input type="password" class="form-control" id="
password" placeholder="Enter password" name="
password" required>
</div>
<button type="submit" class="btn btn-info" style="width
:100%">Submit</button>
</form>
</div>
<div class="modal-footer" style="background-color
:#5bc0de">
<button type="button" class="btn btn-default"
data-dismiss="modal">Close</button>
</div>
</div>
</div>
<div id="login_relative" class="modal fade" role="dialog">
<div class="modal-dialog">
<div class="modal-content">
<div class="modal-header" style="background-color
:#f0ad4e">
<button type="button" class="close" data-dismiss
="modal">&times;</button>
<h4 class="modal-title" style="color:white">Login
as Relative</h4>
</div>
<div class="modal-body">
<form action="<?php echo base_url(); ?>index.php/
site_nav/validate_relative_login" method="POST">
<div class="form-group">
<label for="email">Email</label>
<input type="email" class="form-control" id="email"
placeholder="Enter email" name="email" required
>
</div>
<div class="form-group">
<label for="pwd">Password</label>
<input type="password" class="form-control" id="
password" placeholder="Enter password" name="
password" required>
</div>
<button type="submit" class="btn btn-info" style="width
:100%">Submit</button>
</form>
</div>
<div class="modal-footer" style="background-color
:#f0ad4e">
<button type="button" class="btn btn-default"
data-dismiss="modal">Close</button>
</div>
</div>
</div>
<div id="login_staff" class="modal fade" role="dialog">
<div class="modal-dialog">
<div class="modal-content">
<div class="modal-header" style="background-color
:#d9534f">
<button type="button" class="close" data-dismiss
="modal">&times;</button>
<h4 class="modal-title" style="color:white">Login
as Staff</h4>
</div>
<div class="modal-body">
<form action="<?php echo base_url(); ?>index.php/
site_nav/validate_staff_login" method="POST">
<div class="form-group">
<label for="email">Email</label>
<input type="email" class="form-control" id="email"
placeholder="Enter email" name="email" required
>
</div>
<div class="form-group">
<label for="pwd">Password</label>
<input type="password" class="form-control" id="
password" placeholder="Enter password" name="
password" required>
</div>
<button type="submit" class="btn btn-danger" style="width
:100%">Submit</button>
</form>
</div>
<div class="modal-footer" style="background-color
:#d9534f">
<button type="button" class="btn btn-default"
data-dismiss="modal">Close</button>
</div>
</div>
</div>
</body>
</html>
<!--patient_diary.php-->
<html>
<head>
<title>BrainMax</title>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width,
initial-scale=1">
<script src="https://ajax.googleapis.com/ajax/libs/jquery
/2.1.1/jquery.min.js"></script>
<script src="https://maxcdn.bootstrapcdn.com/bootstrap
/3.3.6/js/bootstrap.min.js"></script>
<script src="https://cdnjs.cloudflare.com/ajax/libs/
bootstrap-datepicker/1.6.1/js/bootstrap-datepicker.
min.js"></script>
<link rel="stylesheet" href="https://cdnjs.cloudflare.com/
ajax/libs/bootstrap-datepicker/1.6.1/css/bootstrap-
datepicker.min.css" />
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.
com/font-awesome/4.6.3/css/font-awesome.min.css"
/>
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.
com/bootstrap/3.3.6/css/bootstrap.min.css" />
<script>
$(document).ready(function () {
$('#datetimepicker').datepicker({
todayBtn: "linked",
autoclose: true
});
$('#datetimepicker2').datepicker({
todayBtn: "linked",
autoclose: true
});
});

```

```

</script>
</head>
<body>
<div class="container">
<div class="col-lg-6">
<?php
$attributes = array('id' => 'get-patient-diary');
echo form_open('site_nav/get-patient-diary', $attributes);
?>
<form>
<?php if($_SESSION['user_profession'] == 3) { ?>
<div class="form-group">
<h2>View your Entries</h2>
<div class="input-group date" id="datetimepicker2">
<input type="text" class="form-control" name="
date_picked_patient" id="date_picked_patient"
<?php
if (isset($_SESSION['patient_diary_date'])) { ?>
value = "<?php echo $_SESSION['patient_diary_date'];
?>"</input>
<?php } else { ?>
placeholder = "Pick a date!"</input>
<?php } ?>
<span class="input-group-addon">
<span class="glyphicon glyphicon-calendar"></span>
</span>
</div>
</div>
</div>
<div class="form-group">
<textarea type="text" class="form-control" rows="10"
name="textarea_patient_diary" id="
textarea_patient_diary" disabled><?php
if (isset($_SESSION['patient_diary_date'])) {
$query = $this->db->get('patient_diary');
foreach($query->result() as $row) {
if ($row->patient_id == $_SESSION['user_id']) {
if ($row->diary_date == $_SESSION['
patient_diary_date']) {
echo $row->diary;
}
}
} ?></textarea>
</div>
<?php } else if($_SESSION['user_profession'] == 4) { ?>
<div class="form-group">
<h2>View your Entries</h2>
<div class="input-group date" id="datetimepicker2">
<input type="text" class="form-control" name="
date_picked_patient" id="date_picked_patient"
<?php
if (isset($_SESSION['patient_diary_date'])) { ?>
value = "<?php echo $_SESSION['patient_diary_date'];
?>"</input>
<?php } else { ?>
placeholder = "Pick a date!"</input>
<?php } ?>
<span class="input-group-addon">
<span class="glyphicon glyphicon-calendar"></span>
</span>
</div>
</div>
</div>
<div class="form-group">
<textarea type="text" class="form-control" rows="10"
name="textarea_patient_diary" id="
textarea_patient_diary" disabled><?php
if (isset($_SESSION['patient_diary_date'])) {
$query = $this->db->get('relative_diary');
foreach($query->result() as $row) {
if ($row->relative_id == $_SESSION['user_id']) {
if ($row->diary_date == $_SESSION['
patient_diary_date']) {
echo $row->diary;
}
}
} ?></textarea>
</div>
<?php } ?>
<button type="submit" class="btn btn-default">View
Diary</button>
<?php echo form_close(); ?>
</form>
</div>
<div class="col-lg-6">
<?php
$attributes = array('id' => 'insert-diary');
echo form_open('site_nav/insert-diary', $attributes);
?>
<h2>Calendar</h2>
<form>
<div class="form-group">
<div class="input-group date" id="datetimepicker">
<input type="text" class="form-control" name="
date_picked" id="date_picked" placeholder="Pick
a date!" />
<span class="input-group-addon">
<span class="glyphicon glyphicon-calendar"></span>
</span>
</div>
</div>
<div class="form-group">
<select class="form-control" name="appt_hrs" id="
appt_hrs" required>
<option selected disabled >Pick a time (hrs)</option>
<?php for ($x = 1; $x <= 12; $x++) { ?>
<option ><?php echo $x; ?> </option>
<?php } ?>
</select>
</div>
<div class="form-group">
<select class="form-control" name="appt_mins" id="
appt_mins" required>
<option selected disabled >Pick a time (mins)</
option>
<?php for ($x = 0; $x <= 59; $x++) {
if ($x < 10 && $x % 5 == 0) { ?>
<option ><?php echo '0.'.$x; ?> </option>
<?php } else if ($x >= 10 && $x % 5 == 0) { ?>
<option ><?php echo $x; ?> </option>
<?php } ?>
</select>
</div>
<div class="form-group">
<select class="form-control" name="appt_ampm"
id="appt_ampm" required>
<option selected disabled >AM or PM</option>
<option >AM</option>
<option >PM</option>
</select>
</div>
<?php if($_SESSION['user_profession'] == 3) { ?>
<h2>Diary</h2>
<?php } else if ($_SESSION['user_profession'] == 4) { ?>
<h2>Observations</h2>
<?php } ?>
<div class="form-group">
<textarea type="text" class="form-control" name="
diary" rows="10" id="diary" required></textarea>
</div>
<button type="submit" class="btn btn-default">Submit
</button>
</form>
</div>
</body>
</html>
<!-- patient_history_medications.php -->
<html>
<head>
<title>BrainMax</title>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width,
initial-scale=1">
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
<script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
</head>
<body>
<div class="container">
<?php if($_SESSION['user_profession'] == 4) { ?>
<h2>Patient Name:
<?php
$this->db->select('patient_name');
$query_patient_first_name = $this->db->get_where('
relationships', array('relative_id' => $_SESSION['
user_id']));
$first_name = $query_patient_first_name->row_array();
echo $first_name['patient_name'];
?></h2>
<?php
$this->db->select('patient_id');
$query_patient_first_name = $this->db->get_where('
relationships', array('relative_id' => $_SESSION['
user_id']));
$first_name = $query_patient_first_name->row_array();
$this->db->select('month_record, day_record, year_record
');
$query_record_date = $this->db->get_where('
patient_record_doctor', array('patient_id' =>
$first_name['patient_id']));

```

```

foreach($query_record_date->result() as $row) {
    echo "<div class='well'><a href=' . base_url() . "index
.php/site_nav/view_patient_medications?
month_record=" . $row->month_record . "&
day_record=" . $row->day_record . "&year_record="
. $row->year_record . ">" . $row->month_record .
" . $row->day_record . " . $row->year_record .
"</a></div>";
}
?>

<?php } else if($_SESSION['user_profession'] == 3) { ?>
<h2>Your Medications</h2>
<?php
$this->db->select('month_record, day_record, year_record
');
$query_record_date = $this->db->get_where('
patient_record_doctor', array('patient_id' =>
$_SESSION['user_id']));

foreach($query_record_date->result() as $row) {
    echo "<div class='well'><a href=' . base_url() . "
index.php/site_nav/view_patient_medications?
month_record=" . $row->month_record . "&
day_record=" . $row->day_record . "&year_record
=" . $row->year_record . ">" . $row->
month_record . " . $row->day_record . " . $row
->year_record . "</a></div>";
}
} ?>
</div>

</body>
</html>

<!--patient_history_records-->

<html>
<head>
<title>BrainMax</title>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width,
initial-scale=1">
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/
bootstrap/3.3.7/css/bootstrap.min.css">
<script src="https://ajax.googleapis.com/ajax/libs/jquery
/3.3.1/jquery.min.js"></script>
<script src="https://maxcdn.bootstrapcdn.com/bootstrap
/3.3.7/js/bootstrap.min.js"></script>
</head>
<body>

<div class="container">
<?php if($_SESSION['user_profession'] == 0) { ?>
<h2>Patient Name:
<?php
$this->db->select('first_name');
$query_patient_first_name = $this->db->get_where('
patient', array('patient_id' => $_SESSION['
patient_id']));
$first_name = $query_patient_first_name->row_array();

$this->db->select('last_name');
$query_patient_last_name = $this->db->get_where('
patient', array('patient_id' => $_SESSION['
patient_id']));
$last_name = $query_patient_last_name->row_array();

echo $first_name['first_name'] . " . " . $last_name['
last_name'];
?></h2>

<?php
$this->db->select('month_record, day_record, year_record
');
$query_record_date = $this->db->get_where('
patient_record_counselor', array('patient_id' =>
$_SESSION['patient_id']));
echo "<div class='well'><a href=' . base_url() . "index.
php/site_nav/new_consultation_record" . ">" . "
Create New Record" . "</a></div>";
foreach($query_record_date->result() as $row) {
    echo "<div class='well'><a href=' . base_url() . "index
.php/site_nav/view_patient_record?month_record=" .
$row->month_record . "&day_record=" . $row->
day_record . "&year_record=" . $row->year_record .
">" . $row->month_record . " . $row->
day_record . " . $row->year_record . "</a></div
>";
}
} ?>
<?php } else if($_SESSION['user_profession'] == 1) { ?>
<h2>Patient Name:
<?php
$this->db->select('first_name');
$query_patient_first_name = $this->db->get_where('
patient', array('patient_id' => $_SESSION['patient_id
']));
$first_name = $query_patient_first_name->row_array();
$this->db->select('last_name');
$query_patient_last_name = $this->db->get_where('
patient', array('patient_id' => $_SESSION['patient_id
']));
$last_name = $query_patient_last_name->row_array();
echo $first_name['first_name'] . " . " . $last_name['
last_name'];
?></h2>

<?php
$this->db->select('month_record, day_record, year_record
');
$query_record_date = $this->db->get_where('
patient_record_doctor', array('patient_id' =>
$_SESSION['patient_id']));
foreach($query_record_date->result() as $row) {
    echo "<div class='well'><a href=' . base_url() . "index.
php/site_nav/new_consultation_record" . ">" . "
Create New Record" . "</a></div>";
foreach($query_record_date->result() as $row) {
    echo "<div class='well'><a href=' . base_url() . "index
.php/site_nav/view_patient_record?month_record=" .
$row->month_record . "&day_record=" . $row->
day_record . "&year_record=" . $row->year_record .
">" . $row->month_record . " . $row->
day_record . " . $row->year_record . "</a></div
>";
}
} ?>
<?php } else if($_SESSION['user_profession'] == 3) { ?>
<h2>Your Checklists</h2>
<?php
$this->db->select('checklist_month, checklist_day,
checklist_year');
$query_record_date = $this->db->get_where('
patient_checklist', array('patient_id' => $_SESSION['
user_id']));

foreach($query_record_date->result() as $row) {
    echo "<div class='well'><a href=' . base_url() . "
index.php/site_nav/view_checklist?month_record=" .
$row->checklist_month . "&day_record=" . $row
->checklist_day . "&year_record=" . $row->
checklist_year . ">" . $row->checklist_month . " . " .
$row->checklist_day . " . " . $row->checklist_year .
"</a></div>";
}
} ?>
</div>

</body>
</html>

<!--patient_login.php-->

<?php
include "db_connect_sqlite.php";
$email = $_POST['email'];
$password = md5($_POST['password']);
$query = "SELECT * FROM patient where email = '$email'
and password = '$password'";
$result = $db->query($query);

while($row = $result->fetchArray()) {
    if($row['email'] == $email && $row['password'] ==
$password) {
        $_SESSION['user_id'] = $row['patient_id'];
        $_SESSION['user_email'] = $row['email'];
        $_SESSION['user_name'] = $row['first_name'] . " . " . $row['
last_name'];
        $_SESSION['user_profession'] = 3;
        $_SESSION['user_gender'] = $row['sex'];
        $_SESSION['user_bday'] = $row['month_birth'] . " . " . $row
['day_birth'] . " . " . $row['year_birth'];
        $this->load->view('menu_bar');
        $this->load->view('appointments');
    } else {
        echo "Failed to login!";
    }
}
?>

<!--patient_medications.php-->

<html>
<head>
<title>BrainMax</title>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width,
initial-scale=1">
<script src="https://ajax.googleapis.com/ajax/libs/jquery
/2.1.1/jquery.min.js"></script>
<script src="https://maxcdn.bootstrapcdn.com/bootstrap
/3.3.6/js/bootstrap.min.js"></script>
<script src="https://cdnjs.cloudflare.com/ajax/libs/
bootstrap-datepicker/1.6.1/js/bootstrap-datepicker.
min.js"></script>

```



```

<link rel="stylesheet" href="https://cdnjs.cloudflare.com/
ajax/libs/bootstrap-datepicker/1.6.1/css/bootstrap-
datepicker.min.css" />
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/
font-awesome/4.6.3/css/font-awesome.min.css" />
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/
bootstrap/3.3.6/css/bootstrap.min.css" />

<script>
$(document).ready(function(){
$("#myInput").on("keyup", function() {
var value = $(this).val().toLowerCase();
$("#myTable tr").filter(function() {
$(this).toggle($(this).text().toLowerCase().indexOf(
value) > -1)
});
});
});
</script>
</head>
<body>

<div class="container">
<h2><?php
if ($_SESSION['user_profession'] == 3) {
echo "Your Medicines";
} else if ($_SESSION['user_profession'] == 4) {
$query = $this->db->get('relationships');
foreach($query->result() as $row) {
if ($_SESSION['user_id'] == $row->relative_id) {
echo $row->patient_name . "'s Medications";
}
}
}?></h2>

<div class="form-group">
<input type="text" class="form-control" name="
date_patient_checklist" id="date_patient_checklist"
value="<?php echo $_GET['month_record'] . " " .
$_GET['day_record'] . " " . $_GET['year_record']; ?>"
disabled>

</div>

<textarea type="text" class="form-control" rows="10"
name="textarea_medication" id="textarea_medication"
disabled><?php
$this->db->select('medications');
$query_patient_medication = $this->db->get_where('
patient_record_doctor', array('patient_id' =>
$_SESSION['user_id'], 'month_record' => $_GET['
month_record'], 'day_record' => $_GET['day_record'],
'year_record' => $_GET['year_record']));
$medications = $query_patient_medication->row_array();
echo $medications['medications'];
?></textarea>
</div>

</body>
</html>

<!--questionnaire.php-->

<html>
<head>
<title>BrainMax</title>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width,
initial-scale=1">
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/
bootstrap/3.3.7/css/bootstrap.min.css">
<script src="https://ajax.googleapis.com/ajax/libs/jquery
/3.3.1/jquery.min.js"></script>
<script src="https://maxcdn.bootstrapcdn.com/bootstrap
/3.3.7/js/bootstrap.min.js"></script>
</head>
<body>

<div class="container">
<?php
$attributes = array('id' => 'questionnaire_patient');
echo form_open('site_nav/insert_record', $attributes);
?>
<h2>Beck's Depression Inventory</h2>
<form>
<p>1.</p>
<div class="radio">
<label><input type="radio" name="sadness" id="
sadness_0" value="0" required>I do not feel sad.</
label>
</div>
<div class="radio">
<label><input type="radio" name="sadness" id="
sadness_1" value="1">I feel sad.</label>
</div>
<div class="radio">
<label><input type="radio" name="sadness" id="
sadness_2" value="2">I am sad all the time and I
can't snap out of it.</label>
</div>
<div class="radio">
<label><input type="radio" name="sadness" id="
sadness_3" value="3">I am so sad and unhappy
that I can't stand it.</label>
</div>
<p>2.</p>
<div class="radio">
<label><input type="radio" name="pessimism" id="
pessimism_0" value="0" required>I am not
particularly discouraged about the future.</label>
</div>
<div class="radio">
<label><input type="radio" name="pessimism" id="
pessimism_1" value="1">I feel discouraged about
the future.</label>
</div>
<div class="radio">
<label><input type="radio" name="pessimism" id="
pessimism_2" value="2">I feel I have nothing to
look forward to.</label>
</div>
<div class="radio">
<label><input type="radio" name="pessimism" id="
pessimism_3" value="3">I feel the future is
hopeless and that things cannot improve.</label>
</div>
<p>3.</p>
<div class="radio">
<label><input type="radio" name="past_failure" id="
past_failure_0" value="0" required>I do not feel like
a failure.</label>
</div>
<div class="radio">
<label><input type="radio" name="past_failure" id="
past_failure_1" value="1">I feel I have failed more
than the average person.</label>
</div>
<div class="radio">
<label><input type="radio" name="past_failure" id="
past_failure_2" value="2">As I look back on my life
, all I can see is a lot of failures.</label>
</div>
<div class="radio">
<label><input type="radio" name="past_failure" id="
past_failure_3" value="3">I feel I am a complete
failure as a person.</label>
</div>
<p>4.</p>
<div class="radio">
<label><input type="radio" name="loss_pleasure" id="
loss_pleasure_0" value="0" required>I get as much
satisfaction out of things as I used to.</label>
</div>
<div class="radio">
<label><input type="radio" name="loss_pleasure" id="
loss_pleasure_1" value="1">I don't enjoy things the
way I used to.</label>
</div>
<div class="radio">
<label><input type="radio" name="loss_pleasure" id="
loss_pleasure_2" value="2">I don't get real
satisfaction out of anything anymore.</label>
</div>
<div class="radio">
<label><input type="radio" name="loss_pleasure" id="
loss_pleasure_3" value="3">I am dissatisfied or
bored with everything.</label>
</div>
<p>5.</p>
<div class="radio">
<label><input type="radio" name="guilty_feelings" id
="guilty_feelings_0" value="0" required>I don't feel
particularly guilty.</label>
</div>
<div class="radio">
<label><input type="radio" name="guilty_feelings" id
="guilty_feelings_1" value="1">I feel guilty a good
part of the time.</label>
</div>
<div class="radio">
<label><input type="radio" name="guilty_feelings" id
="guilty_feelings_2" value="2">I feel quite guilty
most of the time.</label>
</div>
<div class="radio">
<label><input type="radio" name="guilty_feelings" id
="guilty_feelings_3" value="3">I feel guilty all of
the time.</label>
</div>
<p>6.</p>

```

```

<div class="radio">
  <label><input type="radio" name="punishment_feelings
    " id="punishment_feelings_0" value="0" required>I
    don't feel I am being punished.</label>
</div>
<div class="radio">
  <label><input type="radio" name="punishment_feelings
    " id="punishment_feelings_1" value="1">I feel I
    may be punished.</label>
</div>
<div class="radio">
  <label><input type="radio" name="punishment_feelings
    " id="punishment_feelings_2" value="2">I expect
    to be punished.</label>
</div>
<div class="radio">
  <label><input type="radio" name="punishment_feelings
    " id="punishment_feelings_3" value="3">I feel I am
    being punished.</label>
</div>
<p>7.</p>
<div class="radio">
  <label><input type="radio" name="self_dislike" id="
    self_dislike_0" value="0" required>I don't feel
    disappointed in myself.</label>
</div>
<div class="radio">
  <label><input type="radio" name="self_dislike" id="
    self_dislike_1" value="1">I am disappointed in
    myself</label>
</div>
<div class="radio">
  <label><input type="radio" name="self_dislike" id="
    self_dislike_2" value="2">I am disgusted with
    myself.</label>
</div>
<div class="radio">
  <label><input type="radio" name="self_dislike" id="
    self_dislike_3" value="3">I hate myself.</label>
</div>
<p>8.</p>
<div class="radio">
  <label><input type="radio" name="self_criticalness" id
    ="self_criticalness_0" value="0" required>I don't
    feel I am any worse than anybody else.</label>
</div>
<div class="radio">
  <label><input type="radio" name="self_criticalness" id
    ="self_criticalness_1" value="1">I am critical of
    myself for my weaknesses or mistakes.</label>
</div>
<div class="radio">
  <label><input type="radio" name="self_criticalness" id
    ="self_criticalness_2" value="2">I blame myself all
    the time for my faults.</label>
</div>
<div class="radio">
  <label><input type="radio" name="self_criticalness" id
    ="self_criticalness_3" value="3">I blame myself for
    everything bad that happens.</label>
</div>
<p>9.</p>
<div class="radio">
  <label><input type="radio" name="suicidal_thoughts"
    id="suicidal_thoughts_0" value="0" required>I don't
    have any thoughts of killing myself.</label>
</div>
<div class="radio">
  <label><input type="radio" name="suicidal_thoughts"
    id="suicidal_thoughts_1" value="1">I have
    thoughts of killing myself, but I would not carry
    them out.</label>
</div>
<div class="radio">
  <label><input type="radio" name="suicidal_thoughts"
    id="suicidal_thoughts_2" value="2">I would like to
    kill myself.</label>
</div>
<div class="radio">
  <label><input type="radio" name="suicidal_thoughts"
    id="suicidal_thoughts_3" value="3">I would kill
    myself if I had the chance.</label>
</div>
<p>10.</p>
<div class="radio">
  <label><input type="radio" name="crying" id="
    crying_0" value="0" required>I don't cry any more
    than usual.</label>
</div>
<div class="radio">
  <label><input type="radio" name="crying" id="
    crying_1" value="1">I cry more now than I used to
    .</label>
</div>
<div class="radio">
  <label><input type="radio" name="crying" id="
    crying_2" value="2">I cry all the time now.</label>
</div>
<div class="radio">
  <label><input type="radio" name="crying" id="
    crying_3" value="3">I used to be able to cry, but
    now I can't cry even though I want to.</label>
</div>
<p>11.</p>
<div class="radio">
  <label><input type="radio" name="agitation" id="
    agitation_0" value="0" required>I am no more
    irritated by things than I ever was.</label>
</div>
<div class="radio">
  <label><input type="radio" name="agitation" id="
    agitation_1" value="1">I am slightly more irritated
    now than usual.</label>
</div>
<div class="radio">
  <label><input type="radio" name="agitation" id="
    agitation_2" value="2">I am quite annoyed or
    irritated a good deal of the time.</label>
</div>
<div class="radio">
  <label><input type="radio" name="agitation" id="
    agitation_3" value="3">I feel irritated all the time
    .</label>
</div>
<p>12.</p>
<div class="radio">
  <label><input type="radio" name="loss_interest" id="
    loss_interest_0" value="0" required>I have not lost
    interest in other people.</label>
</div>
<div class="radio">
  <label><input type="radio" name="loss_interest" id="
    loss_interest_1" value="1">I am less interested in
    other people than I used to be.</label>
</div>
<div class="radio">
  <label><input type="radio" name="loss_interest" id="
    loss_interest_2" value="2">I have lost most of my
    interest in other people.</label>
</div>
<div class="radio">
  <label><input type="radio" name="loss_interest" id="
    loss_interest_3" value="3">I have lost all of my
    interest in other people.</label>
</div>
<p>13.</p>
<div class="radio">
  <label><input type="radio" name="indecisiveness" id
    ="indecisiveness_0" value="0" required>I make
    decisions about as well as I ever could.</label>
</div>
<div class="radio">
  <label><input type="radio" name="indecisiveness" id
    ="indecisiveness_1" value="1">I put off making
    decisions more than I used to.</label>
</div>
<div class="radio">
  <label><input type="radio" name="indecisiveness" id
    ="indecisiveness_2" value="2">I have greater
    difficulty in making decisions more than I used to
    .</label>
</div>
<div class="radio">
  <label><input type="radio" name="indecisiveness" id
    ="indecisiveness_3" value="3">I can't make
    decisions at all anymore.</label>
</div>
<p>14.</p>
<div class="radio">
  <label><input type="radio" name="worthlessness" id="
    worthlessness_0" value="0" required>I don't feel
    that I look any worse than I used to.</label>
</div>
<div class="radio">
  <label><input type="radio" name="worthlessness" id="
    worthlessness_1" value="1">I am worried that I am
    looking old or unattractive.</label>
</div>
<div class="radio">
  <label><input type="radio" name="worthlessness" id="
    worthlessness_2" value="2">I feel there are
    permanent changes in my appearance that make me
    look unattractive.</label>
</div>
<div class="radio">
  <label><input type="radio" name="worthlessness" id="
    worthlessness_3" value="3">I believe that I look
    ugly.</label>
</div>

```

```

weight_loss_1" value="1">I have lost more than five
pounds.</label>
</div>
<div class="radio">
<label><input type="radio" name="weight_loss" id="
weight_loss_2" value="2">I have lost more than ten
pounds.</label>
</div>
<div class="radio">
<label><input type="radio" name="weight_loss" id="
weight_loss_3" value="3">I have lost more than
fifteen pounds.</label>
</div>
<p>20.</p>
<div class="radio">
<label><input type="radio" name="worried" id="
worried_0" value="0" required>I am no more
worried about my health than usual.</label>
</div>
<div class="radio">
<label><input type="radio" name="worried" id="
worried_1" value="1">I am worried about physical
problems like aches, pains, upset stomach, or
constipation.</label>
</div>
<div class="radio">
<label><input type="radio" name="worried" id="
worried_2" value="2">I am very worried about
physical problems and it's hard to think of much
else.</label>
</div>
<div class="radio">
<label><input type="radio" name="worried" id="
worried_3" value="3">I am so worried about my
physical problems that I cannot think of anything
else.</label>
</div>
<p>21.</p>
<div class="radio">
<label><input type="radio" name="loss_interest_sex" id
="loss_interest_sex_0" value="0" required>I have
not noticed any recent change in my interest in sex
.</label>
</div>
<div class="radio">
<label><input type="radio" name="loss_interest_sex" id
="loss_interest_sex_1" value="1">I am less
interested in sex than I used to be.</label>
</div>
<div class="radio">
<label><input type="radio" name="loss_interest_sex" id
="loss_interest_sex_2" value="2">I have almost no
interest in sex.</label>
</div>
<div class="radio">
<label><input type="radio" name="loss_interest_sex" id
="loss_interest_sex_3" value="3">I have lost
interest in sex completely.</label>
</div>
<button type="submit" class="btn btn-default">Submit
</button>
</form>
</div>
</body>
</html>
<!-- referral_form.php -->
<html>
<head>
<title>BrainMax</title>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width,
initial-scale=1">
<script src="https://ajax.googleapis.com/ajax/libs/jquery
/2.1.1/jquery.min.js"></script>
<script src="https://maxcdn.bootstrapcdn.com/bootstrap
/3.3.6/js/bootstrap.min.js"></script>
<script src="https://cdnjs.cloudflare.com/ajax/libs/
bootstrap-datepicker/1.6.1/js/bootstrap-datepicker.
min.js"></script>
<link rel="stylesheet" href="https://cdnjs.cloudflare.com/
ajax/libs/bootstrap-datepicker/1.6.1/css/bootstrap-
datepicker.min.css" />
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.
com/font-awesome/4.6.3/css/font-awesome.min.css"
/>
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.
com/bootstrap/3.3.6/css/bootstrap.min.css" />
<script>
$(document).ready(function () {
$('#datepicker').datepicker({
todayBtn: "linked",
autoclose: true

```

```

    });
  });
</script>
</head>
<body>
<div class="container">
<?php
  $attributes = array('id' => 'site_nav/insert_referral_form
  ');
  echo form_open('site_nav/insert_referral_form', $attributes
  );
?>
<h2>Referral Form</h2><br>
<form>
  <div class="form-group">
    <label>Date</label>
    <div class="input-group date" id="datetimepicker">
      <input type="text" class="form-control" name="
      date_picked" id="date_picked" placeholder="Pick a
      date!" required/>
      <span class="input-group-addon">
        <span class="glyphicon glyphicon-calendar"></span>
      </span>
    </div>
  </div>
  <div class="form-group">
    <label>Referral from</label>
    <input class="form-control" name="counselor_name"
    id="counselor_name" value="<?php echo
    $_SESSION['user_name']; ?>" disabled/>
  </div>
  <div class="form-group">
    <label>Patient being referred</label>
    <select class="form-control" name="patient_name" id
    ="patient_name" required>
      <option selected disabled >Name of Patient</option>
      <?php $query = $this->db->get('relationships');
      foreach($query->result() as $row) {
        if ($SESSION['user_id'] == $row->staff_id) { ?>
          <option><?php echo $row->patient_name; ?></option>
        <?php }
      } ?>
    </select>
  </div>
  <div class="form-group">
    <label>Referred to</label>
    <select class="form-control" name="doctor_name" id
    ="doctor_name" required>
      <option selected disabled >Name of Doctor</option>
      <?php $query = $this->db->get('staff');
      foreach($query->result() as $row) {
        $staff_name = $row->first_name . " " . $row->last_name
        ;
        $query_staff_id = $this->db->get-where('relationships',
        array('staff_name' => $staff_name));
        if ($staff_name != $_SESSION['user_name'] && $row->
        profession == 1) { ?>
          <option><?php echo $staff_name . " | " . $query_staff_id
          ->num_rows() . " patient/s"; ?></option>
        <?php }
      } ?>
    </select>
  </div>
  <div class="form-group">
    <label>Reason for Referral</label>
    <textarea class="form-control" rows="10" name="
    reason_referral" id="reason_referral" required/>
  </div>
  <button type="submit" class="btn btn-default">Send</
  button>
  <?php echo form_close(); ?>
</form>
</div>
</body>
</html>
<!--register_patient.php-->
<html>
<head>
<title>BrainMax</title>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width,
initial-scale=1">
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/
bootstrap/3.3.7/css/bootstrap.min.css">
<script src="https://ajax.googleapis.com/ajax/libs/jquery
/1.12.4/jquery.min.js"></script>
<script src="https://maxcdn.bootstrapcdn.com/bootstrap
/3.3.7/js/bootstrap.min.js"></script>
</script>
$(document).ready(function() {
  $(".dropdown-toggle").dropdown();
});
</script>
</head>
<body>
<div class="container">
<?php
  $attributes = array('id' => 'register_patient' );
  echo form_open('register/create_patient', $attributes);
?>
<h2>Register</h2>
<p>Please fill in the desired information in the form
below for you to be registered as a patient.</p>
<form>
  <div class="form-group">
    <label>First Name</label>
    <input type="text" class="form-control" name =
    "first_name" id="first_name" required>
  </div>
  <div class="form-group">
    <label>Middle Name</label>
    <input type="text" class="form-control" name =
    "middle_name" id="middle_name" required>
  </div>
  <div class="form-group">
    <label>Last Name</label>
    <input type="text" class="form-control" name =
    "last_name" id="last_name" required>
  </div>
  <div class="form-group">
    <label>Password</label>
    <input type="password" class="form-control" name =
    "password" id="password" required>
  </div>
  <div class="form-group">
    <label>Month of Birth</label>
    <select class="form-control" name = "month_birth" id="
    month_birth" required>
      <option value = "January">January</option>
      <option value = "February">February</option>
      <option value = "March">March</option>
      <option value = "April">April</option>
      <option value = "May">May</option>
      <option value = "June">June</option>
      <option value = "July">July</option>
      <option value = "August">August</option>
      <option value = "September">September</option>
      <option value = "October">October</option>
      <option value = "November">November</option>
      <option value = "December">December</option>
    </select>
  </div>
  <div class="form-group">
    <label>Day of Birth</label>
    <select class="form-control" name = "day_birth" id="
    day_birth" required>
      <?php for ($x = 1; $x <= 31; $x++) { ?>
        <option> <?php echo $x; ?> </option>
      <?php } ?>
    </select>
  </div>
  <div class="form-group">
    <label>Year of Birth</label>
    <select class="form-control" name = "year_birth" id
    ="year_birth" required>
      <?php for ($x = 1918; $x <= 2008; $x++) { ?>
        <option> <?php echo $x; ?> </option>
      <?php } ?>
    </select>
  </div>
  <div class="form-group">
    <label>Sex</label>
    <select class="form-control" name = "sex" id="sex"
    required>
      <option>Male</option>
      <option>Female</option>
    </select>
  </div>
  <div class="form-group">
    <label>Contact Number</label>
    <input type="text" class="form-control" name =
    "contact_num" id="contact_num" maxlength="11"
    required>
  </div>
  <div class="form-group">
    <label>E-mail</label>
    <input type="text" class="form-control" name =
    "email" id="email" required>
  </div>
  <button type="submit" class="btn btn-default">Submit
  </button>
</form>
</div>
</body>
</html>
<!--register_relative.php-->

```

```

<html>
<head>
<meta charset="UTF-8">
<title>BrainMax</title>
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
<script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.4/jquery.min.js"></script>
<script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
</head>
<body>
<div class="container">
<?php
$attributes = array('id' => 'register_relative ');
echo form_open('register/create_relative ', $attributes);
?>
<h2>Register Relative</h2>
<p>Please fill in the desired information in the form below for you to be registered as a relative.</p>
<form>
<div class="form-group">
<label>First Name</label>
<input type="text" class="form-control" name="first_name" id="first_name" required>
</div>
<div class="form-group">
<label>Middle Name</label>
<input type="text" class="form-control" name="middle_name" id="middle_name" required>
</div>
<div class="form-group">
<label>Last Name</label>
<input type="text" class="form-control" name="last_name" id="last_name" required>
</div>
<div class="form-group">
<label>Password</label>
<input type="password" class="form-control" name="password" id="password" required>
</div>
<div class="form-group">
<label>Month of Birth</label>
<select class="form-control" name="month_birth" id="month_birth" required>
<option value="January">January</option>
<option value="February">February</option>
<option value="March">March</option>
<option value="April">April</option>
<option value="May">May</option>
<option value="June">June</option>
<option value="July">July</option>
<option value="August">August</option>
<option value="September">September</option>
<option value="October">October</option>
<option value="November">November</option>
<option value="December">December</option>
</select>
</div>
<div class="form-group">
<label>Day of Birth</label>
<select class="form-control" name="day_birth" id="day_birth" required>
<?php for ($x = 1; $x <= 31; $x++) { ?>
<option> <?php echo $x; ?> </option>
<?php } ?>
</select>
</div>
<div class="form-group">
<label>Year of Birth</label>
<select class="form-control" name="year_birth" id="year_birth" required>
<?php for ($x = 1918; $x <= 2008; $x++) { ?>
<option> <?php echo $x; ?> </option>
<?php } ?>
</select>
</div>
<div class="form-group">
<label>Sex</label>
<select class="form-control" name="sex" id="sex" required>
<option>Male</option>
<option>Female</option>
</select>
</div>
<div class="form-group">
<label>Contact Number</label>
<input type="text" class="form-control" name="contact_num" id="contact_num" maxlength="11" required>
</div>
<div class="form-group">
<label>E-mail</label>
<input type="text" class="form-control" name="email" id="email" required>
</div>
<button type="submit" class="btn btn-default">Submit
</button>
</form>

```

```

</div>
</body>
</html>
<!--register_staff.php-->
<html>
<head>
<title>BrainMax</title>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
<script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.4/jquery.min.js"></script>
<script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
</head>
<body>
<div class="container">
<?php
$attributes = array('id' => 'register_staff ');
echo form_open('register/create_staff ', $attributes);
?>
<h2>Register</h2>
<p>Please fill in the desired information in the form below for you to be registered as a staff.</p>
<form>
<div class="form-group">
<label>First Name</label>
<input type="text" class="form-control" name="first_name" id="first_name" required>
</div>
<div class="form-group">
<label>Middle Name</label>
<input type="text" class="form-control" name="middle_name" id="middle_name" required>
</div>
<div class="form-group">
<label>Last Name</label>
<input type="text" class="form-control" name="last_name" id="last_name" required>
</div>
<div class="form-group">
<label>Password</label>
<input type="password" class="form-control" name="password" id="password" required>
</div>
<div class="form-group">
<label>Month of Birth</label>
<select class="form-control" name="month_birth" id="month_birth" required>
<option value="January">January</option>
<option value="February">February</option>
<option value="March">March</option>
<option value="April">April</option>
<option value="May">May</option>
<option value="June">June</option>
<option value="July">July</option>
<option value="August">August</option>
<option value="September">September</option>
<option value="October">October</option>
<option value="November">November</option>
<option value="December">December</option>
</select>
</div>
<div class="form-group">
<label>Day of Birth</label>
<select class="form-control" name="day_birth" id="day_birth" required>
<?php for ($x = 1; $x <= 31; $x++) { ?>
<option> <?php echo $x; ?> </option>
<?php } ?>
</select>
</div>
<div class="form-group">
<label>Year of Birth</label>
<select class="form-control" name="year_birth" id="year_birth" required>
<?php for ($x = 1918; $x <= 2008; $x++) { ?>
<option> <?php echo $x; ?> </option>
<?php } ?>
</select>
</div>
<div class="form-group">
<label>Profession</label>
<select class="form-control" name="profession" id="profession" required>
<option value="0">Counselor</option>
<option value="1">Doctor</option>
<option value="2">Administrator</option>
</select>
</div>
<div class="form-group">
<label>Sex</label>

```

```

<select class="form-control" name="sex" id="sex"
    required>
    <option>Male</option>
    <option>Female</option>
</select>
</div>
<div class="form-group">
    <label>Contact Number</label>
    <input type="text" class="form-control" name="
        contact_num" id="contact_num" maxlength="11"
        required>
</div>
<div class="form-group">
    <label>E-mail</label>
    <input type="text" class="form-control" name="
        email" id="email" required>
</div>
<button type="submit" class="btn btn-default">Submit
</button>
</form>
</div>
</body>
</html>

<!--relative_login.php-->
<?php
include "db_connect_sqlite.php";
$email = $_POST['email'];
$password = md5($_POST['password']);
$query = "SELECT * FROM relative where email = '$email'
    and password = '$password'";
$result = $db->query($query);

while($row = $result->fetchArray()) {
    if ($row['email'] == $email && $row['password'] ==
        $password) {
        $_SESSION['user_id'] = $row['relative_id'];
        $_SESSION['user_email'] = $row['email'];
        $_SESSION['user_name'] = $row['first_name'] . " " . $row['
            last_name'];
        $_SESSION['user_profession'] = 4;
        $_SESSION['user_gender'] = $row['sex'];
        $_SESSION['user_bday'] = $row['month_birth'] . " " . $row
            ['day_birth'] . " " . $row['year_birth'];
        $this->load->view('menu_bar');
        $this->load->view('appointments');
    } else {
        echo "Failed to login!";
    }
}
?>

<!--sched_appointment_doc.php-->
<html>
<head>
    <title>BrainMax</title>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width,
        initial-scale=1">

    <script src="https://ajax.googleapis.com/ajax/libs/jquery
        /2.1.1/jquery.min.js"></script>
    <script src="https://maxcdn.bootstrapcdn.com/bootstrap
        /3.3.6/js/bootstrap.min.js"></script>
    <script src="https://cdnjs.cloudflare.com/ajax/libs/
        bootstrap-datepicker/1.6.1/js/bootstrap-datepicker.
        min.js"></script>

    <link rel="stylesheet" href="https://cdnjs.cloudflare.com/
        ajax/libs/bootstrap-datepicker/1.6.1/css/bootstrap-
        datepicker.min.css" />
    <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/
        font-awesome/4.6.3/css/font-awesome.min.css"
        />
    <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/
        bootstrap/3.3.6/css/bootstrap.min.css" />

    <script>
$(document).ready(function () {
    $('#datepicker').datepicker({
        todayBtn: "linked",
        autoclose: true
    });
});
</script>

<style>
.table-fixed thead {
    width: 97%;
}
.table-fixed tbody {
    height: 230px;
    overflow-y: auto;
    width: 100%;
}

```

```

</html>

<!--search_diary_observations.php-->

<html>
<head>
<title>BrainMax</title>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width,
initial-scale=1">
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">

<script>
$(document).ready(function(){
$("#myInput").on("keyup", function() {
var value = $(this).val().toLowerCase();
$("#myTable tr").filter(function() {
$(this).toggle($(this).text().toLowerCase().indexOf(
value) > -1)
});
});
});
</script>

<script>
$(function(){
$('td.clickable').click(function(){
window.location.href = $(this).attr('data-href');
});
});
</script>
</head>
<body>

<div class="container">
<?php
$attributes = array('id' => 'diary_observations');
echo form_open('site_nav/diary_observations', $attributes);
?>

<form>
<div class="form-group">
<label>Choose a Patient to view his / her diary and
relative's observations</label>
<select class="form-control" name="pick_patient" id="
pick_patient" required>
<option selected disabled >Name of Patient</option>
<?php $query = $this->db->get('relationships');
foreach($query->result() as $row) {
if ($SESSION['user_id'] == $row->staff_id) { ?>
<option><?php echo $row->patient_name; ?></option>
} ?>
} ?>
</select>
</div>
<button type="submit" class="btn btn-default">Search
</button>
</form>
</div>

</body>
</html>

<!--search_patients.php-->

<html>
<head>
<title>BrainMax</title>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width,
initial-scale=1">
<script src="https://ajax.googleapis.com/ajax/libs/jquery
/2.1.1/jquery.min.js"></script>
<script src="https://maxcdn.bootstrapcdn.com/bootstrap
/3.3.6/js/bootstrap.min.js"></script>
<script src="https://cdnjs.cloudflare.com/ajax/libs/
bootstrap-datepicker/1.6.1/js/bootstrap-datepicker.
min.js"></script>

<link rel="stylesheet" href="https://cdnjs.cloudflare.com/
ajax/libs/bootstrap-datepicker/1.6.1/css/bootstrap-
datepicker.min.css" />
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/
font-awesome/4.6.3/css/font-awesome.min.css" />
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/
bootstrap/3.3.6/css/bootstrap.min.css" />

<script>
$(document).ready(function(){
$("#myInput").on("keyup", function() {
var value = $(this).val().toLowerCase();
$("#myTable tr").filter(function() {
$(this).toggle($(this).text().toLowerCase().indexOf(
value) > -1)
});
});
});

$("#datepicker").datepicker({
todayBtn: "linked",
autoclose: true
});

$("#datepicker2").datepicker({
todayBtn: "linked",
autoclose: true
});

$("#datepicker3").datepicker({
todayBtn: "linked",
autoclose: true
});

$("#datepicker4").datepicker({
todayBtn: "linked",
autoclose: true
});

if ($("#checkboxlist_item").val().indexOf('*') > -1){
document.getElementById("checkboxlist_item").checked = true
;
$("#updateBtn").attr('disabled', true);
$("#date_patient_checkboxlist").attr('disabled', true);
}
});
</script>

<script>
$(function(){
$('td.clickable').click(function(){
window.location.href = $(this).attr('data-href');
});
});
</script>
</head>

<body>
<div class="container">
<?php
$attributes = array('id' => 'patient_record');
echo form_open('site_nav/patient_record', $attributes);
?>

<form>
<div class="form-group">
<label>Choose a Patient to view his / her record and
activities</label>
<select class="form-control" name="pick_patient" id="
pick_patient" required>
<option selected disabled >Name of Patient</option>
<?php $query = $this->db->get('relationships');
foreach($query->result() as $row) {
if ($SESSION['user_id'] == $row->staff_id) { ?>
<option><?php echo $row->patient_name; ?></option>
} ?>
} ?>
</select>
</div>
<button type="submit" class="btn btn-default">Search
</button>
</form>
</div>

</body>
</html>

<!--search_patients_result.php-->

<html>
<head>
<title>BrainMax</title>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width,
initial-scale=1">
<script src="https://ajax.googleapis.com/ajax/libs/jquery
/2.1.1/jquery.min.js"></script>
<script src="https://maxcdn.bootstrapcdn.com/bootstrap
/3.3.6/js/bootstrap.min.js"></script>
<script src="https://cdnjs.cloudflare.com/ajax/libs/
bootstrap-datepicker/1.6.1/js/bootstrap-datepicker.
min.js"></script>

<link rel="stylesheet" href="https://cdnjs.cloudflare.com/
ajax/libs/bootstrap-datepicker/1.6.1/css/bootstrap-
datepicker.min.css" />
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/
font-awesome/4.6.3/css/font-awesome.min.css" />
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/
bootstrap/3.3.6/css/bootstrap.min.css" />

<script>
$(document).ready(function(){
$("#myInput").on("keyup", function() {
var value = $(this).val().toLowerCase();
$("#myTable tr").filter(function() {
$(this).toggle($(this).text().toLowerCase().indexOf(
value) > -1)
});
});
});

$("#datepicker").datepicker({
todayBtn: "linked",
autoclose: true
});

$("#datepicker2").datepicker({
todayBtn: "linked",
autoclose: true
});

$("#datepicker3").datepicker({
todayBtn: "linked",
autoclose: true
});

$("#datepicker4").datepicker({
todayBtn: "linked",
autoclose: true
});

if ($("#checkboxlist_item").val().indexOf('*') > -1){
document.getElementById("checkboxlist_item").checked = true
;
$("#updateBtn").attr('disabled', true);
$("#date_patient_checkboxlist").attr('disabled', true);
}
});
</script>

<script>
$(function(){

```

```

$( 'td.clickable' ).click(function(){
    window.location.href = $(this).attr('data-href');
});
});
</script>
<script>
function enable_disable_treatment(){
    if (document.getElementById("textarea_treatment").
        disabled = true) {
        document.getElementById("textarea_treatment").disabled
            = false;
    }
}

function enable_disable_diagnosis(){
    if (document.getElementById("textarea_diagnosis").
        disabled = true) {
        document.getElementById("textarea_diagnosis").disabled
            = false;
    }
}

function enable_disable_medication(){
    if (document.getElementById("textarea_medication").
        disabled = true) {
        document.getElementById("textarea_medication").
            disabled = false;
    }
}

function enable_disable_checklist(){
    if (document.getElementById("textarea_patient_checklist").
        disabled = true) {
        document.getElementById("textarea_patient_checklist").
            disabled = false;
    }
}

function ifchecked(){
    if ($('#checkboxlist_item').prop('checked')){
        $('#checkboxlist_item').val($('#checkboxlist_item').val() +
            '*');
    }
}

function do_this(){
    var child = document.getElementsByName('item');
    var i;
    var chk = false;

    for (i = 0; i < child.length; i++){
        if (child[i].value.indexOf('*') > -1){
            child[i].checked = true;
        } else {
            child[i].checked = false;
        }
        child[i].disabled = true;
    }
}
</script>
</head>
<body>

<div class="container">
<h2>Patient Name:
<?php
$this->db->select('first_name');
$query_patient_first_name = $this->db->get_where('
    patient', array('patient_id' => $_SESSION['patient_id']
));
$first_name = $query_patient_first_name->row_array();

$this->db->select('last_name');
$query_patient_last_name = $this->db->get_where('
    patient', array('patient_id' => $_SESSION['patient_id']
));
$last_name = $query_patient_last_name->row_array();

echo $first_name['first_name'] . " " . $last_name['
    last_name'];

$this->db->select('relative_id');
$query_relative_id = $this->db->get_where('relationships
    ', array('patient_id' => $_SESSION['patient_id']));
$relative_id = $query_relative_id->row_array();
$_SESSION['relative_id'] = $relative_id['relative_id'];
?>
</h2>

<div class="form-group">
<input type="text" class="form-control" id="
    date_patient_record" value="<?php echo $_GET['
    month_record'] . " " . $_GET['day_record'] . " " .
    $_GET['year_record']; ?>" disabled>
</div>

<div class="well">
<p><strong>Screening Results</strong></p>

```

```

<table class="table table-striped">
<thead>
<tr>
<th>Topic of the Question</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<?php
$column_headers = array('sadness', 'pessimism', '
    past_failure', 'loss_pleasure', 'guilty_feelings',
    'punishment_feelings', 'self_dislike', '
    self_criticalness', 'suicidal_thoughts', 'crying',
    'agitation', 'loss_interest', 'indecisiveness', '
    worthlessness', 'loss_energy', 'sleeping_pattern',
    'irritability', 'changes_appetite', 'weight_loss',
    'worried', 'loss_interest_sex');

$print_headers = array('sadness' => "Sadness", '
    pessimism' => "Pessimism", 'past_failure' => "
    Past Failure", 'loss_pleasure' => "Loss of Pleasure",
    'guilty_feelings' => "Guilty Feelings", '
    punishment_feelings' => "Punishment Feelings", '
    self_dislike' => "Self-Dislike", 'self_criticalness'
    => "Self-Criticalness", 'suicidal_thoughts' => "
    Suicidal Thoughts or Wishes", 'crying' => "Crying",
    'agitation' => "Agitation", 'loss_interest' => "
    Loss of Interest", 'indecisiveness' => "
    Indecisiveness", 'worthlessness' => "Worthlessness",
    'loss_energy' => "Loss of Energy", '
    sleeping_pattern' => "Changes in Sleeping Pattern",
    'irritability' => "Irritability", '
    changes_appetite' => "Changes in Appetite", '
    weight_loss' => "Weight Loss", 'worried' => "
    Worried", 'loss_interest_sex' => "Loss Interest in
    Sex");

$query_patient_score = $this->db->get_where('
    patient_screening_form', array('patient_id' =>
    $_SESSION['patient_id']));
$screening_results = $query_patient_score->row_array()
;
foreach($column_headers as $value) {
    echo "<tr>";
    echo "<td>";
    echo $print_headers[$value];
    echo "</td>";
    echo "<td>";
    echo $screening_results[$value];
    echo "</td>";
    echo "</tr>";
}
echo "<tr>";
echo "<td>";
echo "<strong>" . "Patient Score: " . "</strong>";
echo "</td>";
echo "<td>";
echo "<strong>" . $screening_results['screening_score']
    . "</strong>";
echo "</td>";
echo "</tr>";
?>
</tbody>
</table>
</div>

<?php if($_SESSION['user_profession'] == 0) { ?>
<div class="well">
<form>
<div class="form-group">
<label>Diagnosis</label>
<textarea type="text" class="form-control" rows="10"
    name="textarea_diagnosis" id="textarea_diagnosis"
    disabled><?php
$this->db->select('diagnosis');
$query_patient_diagnosis = $this->db->get_where('
    patient_record_counselor', array('patient_id' =>
    $_SESSION['patient_id'], 'month_record' => $_GET[
    'month_record'], 'day_record' => $_GET[
    'day_record'], 'year_record' => $_GET['year_record']
));
$diagnosis = $query_patient_diagnosis->row_array();
echo $diagnosis['diagnosis'];
?></textarea>
</div>
</form>
</div>

<div class="well">
<form>
<div class="form-group">
<label>Treatment Plan</label>
<textarea type="text" class="form-control" rows="10"
    name="textarea_treatment" id="textarea_treatment"
    disabled><?php
$this->db->select('treatment_plan');
$query_patient_treatment = $this->db->get_where('
    patient_record_counselor', array('patient_id' =>
    $_SESSION['patient_id'], 'month_record' => $_GET

```



```

        ['month_record'], 'day_record' => $_GET['
        day_record'], 'year_record' => $_GET['year_record'])
    );
    $treatment_plan = $query_patient_treatment->row_array
    ();
    echo $treatment_plan['treatment_plan'];
    ?></textarea>
</div>
</form>
</div>

<div class="well">
<form>
<div class="form-group">
<label>Patient's Insights</label>
<textarea type="text" class="form-control" rows="10"
name="textarea_patient_checklist" id="
textarea_patient_checklist" disabled><?php
$this->db->select('patient_insights');
$query_patient_insights = $this->db->get_where('
patient_record_counselor', array('patient_id' =>
$_SESSION['patient_id'], 'month_record' =>
$_GET['month_record'], 'day_record' => $_GET['
day_record'], 'year_record' => $_GET['year_record
']));
$insights = $query_patient_insights->row_array();
echo $insights [' patient_insights '];
?></textarea>
</div>
</form>
</div>

<div class="well">
<form>
<label>Patient's Checklist</label>
<?php $this->db->select('checklist');
$query_patient_checklist = $this->db->get_where('
patient_checklist', array('patient_id' =>
$_SESSION['patient_id'], 'checklist_month' =>
$_GET['month_record'], 'checklist_day' => $_GET
['day_record'], 'checklist_year' => $_GET['
year_record']));
$checklist = $query_patient_checklist->row_array();
?>
<div class="checkbox">
<?php
$checklist_arr = explode(' | ', $checklist [' checklist '])
;
foreach($checklist_arr as $value){ ?>
<label><input type="checkbox" name="item" id="<?
php echo $value; ?>" value="<?php echo $value;
?>" onload="search()" onchange="ifchecked()"
disabled><?php
if (strpos($value, '*') != 0) {
echo substr($value, 0, strlen($value) - 1); ?></label
>
<?php } else {
echo $value; ?></label>
<?php } ?>
<br>
<?php } ?></label><br>
<script>do_this();</script>
</div>
</form>
</div>
<?php } else if($_SESSION['user_profession'] == 1) { ?>
<div class="well">
<form>
<div class="form-group">
<label>Diagnosis</label>
<textarea type="text" class="form-control" rows="10"
name="textarea_diagnosis" id="textarea_diagnosis"
disabled><?php
$this->db->select('diagnosis');
$query_patient_diagnosis = $this->db->get_where('
patient_record_doctor', array('patient_id' =>
$_SESSION['patient_id'], 'month_record' => $_GET
['month_record'], 'day_record' => $_GET['
day_record'], 'year_record' => $_GET['year_record'])
);
$diagnosis = $query_patient_diagnosis->row_array();
echo $diagnosis [' diagnosis '];
?></textarea>
</div>
</form>
</div>

<div class="well">
<form>
<div class="form-group">
<label>Treatment Plan</label>
<textarea type="text" class="form-control" rows="10"
name="textarea_treatment" id="textarea_treatment"
disabled><?php
$this->db->select('treatment_plan');
$query_patient_treatment = $this->db->get_where('
patient_record_doctor', array('patient_id' =>
$_SESSION['patient_id'], 'month_record' => $_GET
['month_record'], 'day_record' => $_GET['

```

```

        day_record'], 'year_record' => $_GET['year_record'])
    );
    $treatment_plan = $query_patient_treatment->row_array
    ();
    echo $treatment_plan['treatment_plan'];
    ?></textarea>
</div>
</form>
</div>

<div class="well">
<p><strong>Procedure/s Performed</strong></p>
<table class="table table-striped">
<thead>
<tr>
<th>Date</th>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<?php
$query = $this->db->get('patient_laboratory_tests');
foreach($query->result() as $row) {
if ($_SESSION['patient_id'] == $row->patient_id) {
if ($row->date_received == $_GET['month_record'] . "
" . $_GET['day_record'] . " " . $_GET['year_record
']) {
echo "<tr>";
echo "<td>";
echo $row->date_performed;
echo "</td>";
echo "<td>";
echo $row->test_performed;
echo "</td>";
echo "<td>";
echo $row->test_result;
echo "</td>";
echo "</tr>";
}
} ?>
</tbody>
</table>
</div>

<div class="well">
<form>
<div class="form-group">
<label>Patient's Insights</label>
<textarea type="text" class="form-control" rows="10"
name="textarea_patient_checklist" id="
textarea_patient_checklist" disabled><?php
$this->db->select('patient_insights');
$query_patient_insights = $this->db->get_where('
patient_record_doctor', array('patient_id' =>
$_SESSION['patient_id'], 'month_record' =>
$_GET['month_record'], 'day_record' => $_GET['
day_record'], 'year_record' => $_GET['year_record
']));
$insights = $query_patient_insights->row_array();
echo $insights [' patient_insights '];
?></textarea>
</div>
</form>
</div>

<div class="well">
<form>
<div class="form-group">
<label>Patient's Checklist</label>
<?php $this->db->select('checklist');
$query_patient_checklist = $this->db->get_where('
patient_checklist', array('patient_id' =>
$_SESSION['patient_id'], 'checklist_month' =>
$_GET['month_record'], 'checklist_day' => $_GET['
day_record'], 'checklist_year' => $_GET['year_record
']));
$checklist = $query_patient_checklist->row_array();

```

```

?>
<div class="checkbox">
  <?php
  $checkboxlist_arr = explode(' | ', $checkboxlist ['checkboxlist '])
  ;
  foreach($checkboxlist_arr as $value){ ?>
  <label><input type="checkbox" name="item" id=?>
  php echo $value; ?>" value=?>?php echo $value;
  ?>" onclick="search()" onchange="ifchecked()"
  disabled><?php
  if (strpos($value, '*') != 0) {
  echo substr($value, 0, strlen($value) - 1); ?></label
  >
  <?php } else {
  echo $value; ?></label>
  <?php } ?>
  <br>
  <?php } ?>
  <script>do.this();</script>
  </div>
  </form>
  </div>
  <?php } ?>
  </div>
?>
</body>
</html>

<!--show_patient_score.php-->

<html>
<head>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width,
initial-scale=1">
<link rel="manifest" href="/manifest.json">
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.
com/bootstrap/3.3.7/css/bootstrap.min.css">
<script src="https://ajax.googleapis.com/ajax/libs/jquery
/3.3.1/jquery.min.js"></script>
<script src="https://maxcdn.bootstrapcdn.com/bootstrap
/3.3.7/js/bootstrap.min.js"></script>
</head>
<body>

<div class="container">
<div class="well">
  <?php
  $attributes = array('id' => 'show_screening_score');
  echo form_open('site.nav/register_patient ', $attributes);
  ?>
  <p>Your score is:</p>
  <?php
  $score = $sadness + $pessimism + $past_failure +
  $loss_pleasure + $guilty_feelings +
  $punishment_feelings + $self_dislike + $self_criticalness
  + $suicidal_thoughts +
  $screaming + $agitation + $loss_interest + $indecisiveness +
  $worthlessness + $loss_energy +
  $sleeping_pattern + $irritability + $changes_appetite +
  $weight_loss + $worried + $loss_interest_sex;

  echo $score;

  if($score >= 1 && $score <= 10) {
  echo "<br>";
  echo "Interpretation: ";
  echo "These ups and downs are considered normal";
  } else if ($score >= 11 && $score <= 16) {
  echo "<br>";
  echo "Interpretation: ";
  echo "Mild mood disturbance";
  } else if ($score >= 17 && $score <= 20) {
  echo "<br>";
  echo "Interpretation: ";
  echo "Borderline clinical depression";
  } else if ($score >= 21 && $score <= 30) {
  echo "<br>";
  echo "Interpretation: ";
  echo "Moderate depression";
  } else if ($score >= 31 && $score <= 40) {
  echo "<br>";
  echo "Interpretation: ";
  echo "Severe depression";
  } else if ($score >= 41) {
  echo "<br>";
  echo "Interpretation: ";
  echo "Extreme depression";
  }
  ?>
  <p><br>Here are some useful links that may help you in
  understanding Depression</p>
  <a href="https://www.nimh.nih.gov/health/topics/
  depression/index.shtml">National Institute of Mental
  Health: Depression</a>
  <br><a href="http://www.who.int/mediacentre/factsheets
  /fs369/en/">World Health Organization: Depression
  </a>
  <br><a href="https://www.psychiatry.org/patients-
  families/depression/what-is-depression">American
  Psychiatric Association: What is Depression?</a>
  </div>

  <button type="submit" class="btn btn-default">Register
  for an Account?</button>
  </div>
  </body>
  </html>

  <!--staff_login.php-->

  <?php
  include "db.connect_sqlite.php";
  $email = $_POST['email'];
  $password = md5($_POST['password']);
  $query = "SELECT * FROM staff where email = '$email'
  and password = '$password'";
  $result = $db->query($query);
  while($row = $result->fetchArray()) {
  if ($row['email'] == $email && $row['password'] ==
  $password) {
  $_SESSION['user_id'] = $row['staff_id'];
  $_SESSION['user_email'] = $row['email'];
  $_SESSION['user_name'] = $row['first_name'] . " " . $row['
  last_name'];
  $_SESSION['user_profession'] = $row['profession'];
  $_SESSION['user_gender'] = $row['sex'];
  $_SESSION['user_bday'] = $row['month_birth'] . " " . $row
  ['day_birth'] . " " . $row['year_birth'];
  if ($_SESSION['user_profession'] == 2) {
  $this->load->view('menu_bar');
  $this->load->view('manage_staff_accnts');
  } else {
  $this->load->view('menu_bar');
  $this->load->view('appointments');
  }
  } else {
  echo "Failed to login!";
  }
  }
  ?>

  <!--user_profile.php-->

  <html>
  <link href="https://netdna.bootstrapcdn.com/bootstrap/3.1.0/css/
  bootstrap.min.css" rel="stylesheet" id="bootstrap-css
  ">
  <script src="https://netdna.bootstrapcdn.com/bootstrap/3.1.0/js/
  bootstrap.min.js"></script>
  <script src="https://code.jquery.com/jquery-1.11.1.min.js"></
  script>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width,
  initial-scale=1">
  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.
  com/bootstrap/3.3.7/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery
  /3.3.1/jquery.min.js"></script>
  <script src="https://maxcdn.bootstrapcdn.com/bootstrap
  /3.3.7/js/bootstrap.min.js"></script>

  <script>
  $(document).ready(function() {
  var panels = $('<user-infos>');
  var panelsButton = $('<dropdown-user>');
  panels.hide();

  panelsButton.click(function() {
  var dataFor = $(this).attr('data-for');
  var idFor = $(dataFor);

  var currentButton = $(this);
  idFor.slideToggle(400, function() {
  if (idFor.is(': visible '))
  {
  currentButton.html('<i class="glyphicon
  glyphicon-chevron-up text-muted
  "></i>');
  }
  else
  {
  currentButton.html('<i class="glyphicon
  glyphicon-chevron-down text-muted
  "></i>');
  }
  }
  });
  $('<[data-toggle="tooltip"]>').tooltip();

  $('<button>').click(function(e) {
  e.preventDefault();
  alert("This is a demo.\n :-)");
  });
  </script>
  </html>

```



```

echo form_open('site_nav/update_checklist', $attributes);
?>
<form id = "form_update">
<div class="form-group">
<label>Checklist</label>
<div class="form-group">
<input type="text" class="form-control" name="
date_patient_checklist" id="date_patient_checklist"
value="<?php echo $_GET['month_record'] . " " .
$_GET['day_record'] . " " . $_GET['year_record'];
?>">
</div>
</div>
<div class="form-group">
<div class="well">
<input type="hidden" name="checkbox_list_item" id="
checkbox_list_item">
<?php
$this->db->select('checkbox_list');
$query_patient_checkbox = $this->db->get_where('
patient_checkbox', array('patient_id' =>
$_SESSION['user_id'], 'checkbox_list_month' =>
$_GET['month_record'], 'checkbox_list_day' => $_GET
['day_record'], 'checkbox_list_year' => $_GET['
year_record']));
$checkbox_list = $query_patient_checkbox->row_array();
$checkbox_list_arr = explode(' | ', $checkbox_list ['checkbox_list
']);
for($i = 0; $i < sizeof($checkbox_list_arr); $i++){ ?>
<div class="checkbox" id="myCheckbox">
<label><input type="checkbox" name="item" id
="<?php echo $checkbox_list_arr[$i]; ?>" value
="<?php echo $checkbox_list_arr[$i]; ?>" onload="
search()" onchange="ifchecked(<?php echo
$checkbox_list_arr[$i]; ?>')"><?php
if(strpos($checkbox_list_arr[$i], '*') != 0) {
echo substr($checkbox_list_arr[$i], 0, strlen(
$checkbox_list_arr[$i]) - 1); ?></label>
<?php } else {
echo $checkbox_list_arr[$i]; ?></label>
<?php } ?>
</div>
<?php }
?>
</div>
</div>
<button type="button" class="btn btn-default" name="
updateBtn" id="updateBtn" onclick="submitform()
">Update Checklist</button>
<button id="submit_form" type="submit"></button>
<?php echo form_close(); ?>
<script>do_this();</script>
</form>
</div>
</body>
</html>
<!-- view_diary_observations.php -->
<html>
<head>
<title>BrainMax</title>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width,
initial-scale=1">
<script src="https://ajax.googleapis.com/ajax/libs/jquery
/2.1.1/jquery.min.js"></script>
<script src="https://maxcdn.bootstrapcdn.com/bootstrap
/3.3.6/js/bootstrap.min.js"></script>
<script src="https://cdnjs.cloudflare.com/ajax/libs/
bootstrap-datepicker/1.6.1/js/bootstrap-datepicker.
min.js"></script>
<link rel="stylesheet" href="https://cdnjs.cloudflare.com/
ajax/libs/bootstrap-datepicker/1.6.1/css/bootstrap-
datepicker.min.css" />
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.
com/font-awesome/4.6.3/css/font-awesome.min.css"
/>
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.
com/bootstrap/3.3.6/css/bootstrap.min.css" />
<script>
$(document).ready(function(){
$("#myInput").on("keyup", function() {
var value = $(this).val().toLowerCase();
$("#myTable tr").filter(function() {
$(this).toggle($(this).text().toLowerCase().indexOf(
value) > -1)
});
});
$("#datepicker2").datepicker({
todayBtn: "linked",
autoclose: true
});
$("#datepicker3").datepicker({
todayBtn: "linked",
autoclose: true
});
});
$(function(){
$('td.clickable').click(function(){
window.location.href = $(this).attr('data-href');
});
});
</script>
</head>
<body>
<div class="container">
<h2>Patient Name:
<?php
$this->db->select('first_name');
$query_patient_first_name = $this->db->get_where('
patient', array('patient_id' => $_SESSION['patient_id
']));
$first_name = $query_patient_first_name->row_array();
$this->db->select('last_name');
$query_patient_last_name = $this->db->get_where('
patient', array('patient_id' => $_SESSION['patient_id
']));
$last_name = $query_patient_last_name->row_array();
echo $first_name ['first_name'] . " " . $last_name['
last_name'];
$this->db->select('relative_id');
$query_relative_id = $this->db->get_where('relationships
', array('patient_id' => $_SESSION['patient_id']));
$relative_id = $query_relative_id->row_array();
$_SESSION['relative_id'] = $relative_id ['relative_id'];
?>
</h2>
<div class="well">
<?php
$attributes = array('id' => 'get_patient_diary');
echo form_open('site_nav/get_patient_diary', $attributes);
?>
<form>
<div class="form-group">
<label>Patient's Diary</label>
<div class="input-group date" id="datepicker2">
<input type="text" class="form-control" name="
date_picked_patient" id="date_picked_patient"
<?php
if(isset($_SESSION['patient_diary_date'])) { ?>
value = "<?php echo $_SESSION['patient_diary_date'];
?>"></input>
<?php } else { ?>
placeholder = "Pick a date!"></input>
<?php } ?>
<span class="input-group-addon">
<span class="glyphicon glyphicon-calendar"></span>
</span>
</div>
</div>
<div class="form-group">
<textarea type="text" class="form-control" rows="10"
name="textarea_patient_diary" id="
textarea_patient_diary" disabled><?php
if(isset($_SESSION['patient_diary_date'])) {
$query = $this->db->get('patient_diary');
foreach($query->result() as $row) {
if($row->patient_id == $_SESSION['patient_id']) {
if($row->diary_date == $_SESSION['
patient_diary_date']) {
echo $row->diary;
}
}
}
} ?></textarea>
</div>
<button type="submit" class="btn btn-default">View
Diary</button>
<?php echo form_close(); ?>
</form>
</div>
<div class="well">
<?php
$attributes = array('id' => 'get_relative_diary');
echo form_open('site_nav/get_relative_diary', $attributes);
?>

```

```

?>
<form>
  <div class="form-group">
    <label>Relative's Observations</label>
    <div class="input-group date" id="datetimepicker3">
      <input type="text" class="form-control" name="
date-picked-relative" id="date-picked-relative"
      <?php
if (isset($_SESSION['relative_diary_date'])) { ?>
  value = "<?php echo $_SESSION['relative_diary_date'];
  ?>"></input>
      <?php } else { ?>
        placeholder = "Pick a date!"></input>
      <?php } ?>
      <span class="input-group-addon">
        <span class="glyphicon glyphicon-calendar"></span>
      </span>
    </div>
  </div>

  <div class="form-group">
    <textarea type="text" class="form-control" rows="10"
name="textarea_relative_diary" id="
textarea_relative_diary" disabled><?php
if (isset($_SESSION['relative_diary_date'])) {
$query = $this->db->get('relative_diary');
foreach($query->result() as $row) {
if ($row->relative_id == $_SESSION['relative_id']) {
if ($row->diary_date == $_SESSION['
relative_diary_date']) {
echo $row->diary;
}
}
}
} ?></textarea>
</div>

  <button type="submit" class="btn btn-default">View
Observations</button>
<?php echo form_close(); ?>
</form>
</div>

</body>
</html>

<!--view_referral_form.php-->

<html>
<head>
  <title>BrainMax</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width,
initial-scale=1">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery
/2.1.1/jquery.min.js"></script>
  <script src="https://maxcdn.bootstrapcdn.com/bootstrap
/3.3.6/js/bootstrap.min.js"></script>
  <script src="https://cdnjs.cloudflare.com/ajax/libs/
bootstrap-datepicker/1.6.1/js/bootstrap-datepicker.
min.js"></script>

  <link rel="stylesheet" href="https://cdnjs.cloudflare.com/
ajax/libs/bootstrap-datepicker/1.6.1/css/bootstrap-
datepicker.min.css" />
  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.
com/font-awesome/4.6.3/css/font-awesome.min.css"
/>
  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.
com/bootstrap/3.3.6/css/bootstrap.min.css" />

  <script>
$(document).ready(function () {
$('#datetimepicker').datepicker({
todayBtn: "linked",
autoclose: true
});
});
</script>

</head>
<body>

<div class="container">
  <h2>Referral Form</h2><br>
  <form>
    <div class="form-group">
      <label>Date referred</label>
      <input type="text" class="form-control" id="
date_referral" value="<?php echo $_GET['
month_referral'] . " " . $_GET['day_referral'] . " " .
$_GET['year_referral']; ?>" disabled>
    </div>
    <div class="form-group">
      <label>Patient being referred</label>
      <input type="text" class="form-control" id="
patient_name" value="<?php
$this->db->select('patient_name');
$query_patient_name = $this->db->get_where('
referral_form', array('referral_month' => $_GET['
month_referral'], 'referral_day' => $_GET['
day_referral'], 'referral_year' => $_GET['
year_referral']));
$patient_name = $query_patient_name->row_array();
echo $patient_name['patient_name'];
?>" disabled>
    </div>
    <?php $query = $this->db->get('staff');
foreach($query->result() as $row) {
$staff_name = $row->first_name . " " . $row->last_name
;
if ($staff_name != $_SESSION['user_name'] && $row->
profession == 1) { ?>
  <option><?php echo $row->first_name . " " . $row->
last_name; ?></option>
  <?php }
} ?>
</select>
</div-->
    <div class="form-group">
      <label>Reason for Referral</label>
      <textarea class="form-control" rows="10" name="
reason_referral" id="reason_referral" disabled><?
php
$this->db->select('referral_reason');
$query_referral_reason = $this->db->get_where('
referral_form', array('referral_month' => $_GET['
month_referral'], 'referral_day' => $_GET['
day_referral'], 'referral_year' => $_GET['
year_referral']));
$referral_reason = $query_referral_reason->row_array();
echo $referral_reason [' referral_reason '];
?></textarea>
</div>
</form>
</body>
</html>

<!--view_referred_patients.php-->

<html>
<head>
  <title>BrainMax</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width,
initial-scale=1">
  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.
com/bootstrap/3.3.7/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery
/3.3.1/jquery.min.js"></script>
  <script src="https://maxcdn.bootstrapcdn.com/bootstrap
/3.3.7/js/bootstrap.min.js"></script>
</head>
<body>

<div class="container">
  <h2>Referred Patients</h2>
  <?php
$this->db->select('referral_month, referral_day,
referral_year, referral_from ');
$query_referral_date = $this->db->get_where('
referral_form', array('referred.to' => $_SESSION['
user_name']));
foreach ($query_referral_date->result() as $row) {
echo "<div class='well'"><a href=" . base_url() . "index
.php/site_nav/view_referral_form?month_referral=" .
$row->referral_month . "&day_referral=" . $row->
referral_day . "&year_referral=" . $row->
referral_year . ">" . $row->referral_month . " " .
$row->referral_day . " " . $row->referral_year .
"</a>" . " referral from " . $row->referral_from .
"</div>";
}
?>
</div>

</body>
</html>

<!--site_nav.php-->

<?php
defined('BASEPATH') OR exit('No direct script access
allowed');

class site_nav extends CI_Controller {

/**
 * Index Page for this controller .
 *
 * Maps to the following URL
 * http://example.com/index.php/welcome
 * - or -

```

```

* http://example.com/index.php/welcome/index
* - or -
* Since this controller is set as the default controller in
* config/routes.php, it's displayed at http://example.com/
*
* So any other public methods not prefixed with an
* underscore will
* map to /index.php/welcome/<method_name>
* @see https://codeigniter.com/user_guide/general/urls.
html
*/
public function __construct() {
    parent::__construct();
    $this->load->model('db_query');
}

public function index()
{
    $this->load->view('menu_bar');
    $this->load->view('main_window');
}

public function load_questionnaire() {
    $this->load->view('menu_bar');
    $this->load->view('questionnaire');
}

public function insert_record() {
    $this->form_validation->set_rules('sadness', 'Sadness', '
    trim|required');
    $this->form_validation->set_rules('pessimism', 'Pessimism
    ', 'trim|required');
    $this->form_validation->set_rules('past_failure', 'Past
    Failure', 'trim|required');
    $this->form_validation->set_rules('loss_pleasure', 'Loss of
    Pleasure', 'trim|required');
    $this->form_validation->set_rules('guilty_feelings', '
    Guilty Feelings', 'trim|required');
    $this->form_validation->set_rules('punishment_feelings', '
    Punishment Feelings', 'trim|required');
    $this->form_validation->set_rules('self_dislike', 'Self -
    Dislike', 'trim|required');
    $this->form_validation->set_rules('self_criticalness', '
    Self-Criticalness', 'trim|required');
    $this->form_validation->set_rules('suicidal_thoughts', '
    Suicidal Thoughts', 'trim|required');
    $this->form_validation->set_rules('crying', 'Crying', 'trim
    |required');
    $this->form_validation->set_rules('agitation', 'Agitation',
    'trim|required');
    $this->form_validation->set_rules('loss_interest', 'Loss of
    Interest', 'trim|required');
    $this->form_validation->set_rules('indecisiveness', '
    Indecisiveness', 'trim|required');
    $this->form_validation->set_rules('worthlessness', '
    Worthlessness', 'trim|required');
    $this->form_validation->set_rules('loss_energy', 'Loss of
    Energy', 'trim|required');
    $this->form_validation->set_rules('sleeping_pattern', '
    Changes in Sleeping Pattern', 'trim|required');
    $this->form_validation->set_rules('irritability', '
    Irritability', 'trim|required');
    $this->form_validation->set_rules('changes_appetite', '
    Changes in Appetite', 'trim|required');
    $this->form_validation->set_rules('weight_loss', 'Weight
    Loss', 'trim|required');
    $this->form_validation->set_rules('worried', 'Worried', '
    trim|required');
    $this->form_validation->set_rules('loss_interest_sex', '
    Loss of Interest in Sex', 'trim|required');

    if ($this->input->post('sadness') == '0') $sadness = 0;
    else if ($this->input->post('sadness') == '1') $sadness =
    1;
    else if ($this->input->post('sadness') == '2') $sadness =
    2;
    else if ($this->input->post('sadness') == '3') $sadness =
    3;

    if ($this->input->post('pessimism') == '0') $pessimism =
    0;
    else if ($this->input->post('pessimism') == '1')
    $pessimism = 1;
    else if ($this->input->post('pessimism') == '2')
    $pessimism = 2;
    else if ($this->input->post('pessimism') == '3')
    $pessimism = 3;

    if ($this->input->post('past_failure') == '0') $past_failure
    = 0;
    else if ($this->input->post('past_failure') == '1')
    $past_failure = 1;
    else if ($this->input->post('past_failure') == '2')
    $past_failure = 2;
    else if ($this->input->post('past_failure') == '3')
    $past_failure = 3;

    if ($this->input->post('loss_pleasure') == '0')
    $loss_pleasure = 0;
    else if ($this->input->post('loss_pleasure') == '1')
    $loss_pleasure = 1;
    else if ($this->input->post('loss_pleasure') == '2')
    $loss_pleasure = 2;
    else if ($this->input->post('loss_pleasure') == '3')
    $loss_pleasure = 3;

    if ($this->input->post('guilty_feelings') == '0')
    $guilty_feelings = 0;
    else if ($this->input->post('guilty_feelings') == '1')
    $guilty_feelings = 1;
    else if ($this->input->post('guilty_feelings') == '2')
    $guilty_feelings = 2;
    else if ($this->input->post('guilty_feelings') == '3')
    $guilty_feelings = 3;

    if ($this->input->post('punishment_feelings') == '0')
    $punishment_feelings = 0;
    else if ($this->input->post('punishment_feelings') ==
    '1') $punishment_feelings = 1;
    else if ($this->input->post('punishment_feelings') ==
    '2') $punishment_feelings = 2;
    else if ($this->input->post('punishment_feelings') ==
    '3') $punishment_feelings = 3;

    if ($this->input->post('self_dislike') == '0') $self_dislike
    = 0;
    else if ($this->input->post('self_dislike') == '1')
    $self_dislike = 1;
    else if ($this->input->post('self_dislike') == '2')
    $self_dislike = 2;
    else if ($this->input->post('self_dislike') == '3')
    $self_dislike = 3;

    if ($this->input->post('self_criticalness') == '0')
    $self_criticalness = 0;
    else if ($this->input->post('self_criticalness') == '1')
    $self_criticalness = 1;
    else if ($this->input->post('self_criticalness') == '2')
    $self_criticalness = 2;
    else if ($this->input->post('self_criticalness') == '3')
    $self_criticalness = 3;

    if ($this->input->post('suicidal_thoughts') == '0')
    $suicidal_thoughts = 0;
    else if ($this->input->post('suicidal_thoughts') == '1')
    $suicidal_thoughts = 1;
    else if ($this->input->post('suicidal_thoughts') == '2')
    $suicidal_thoughts = 2;
    else if ($this->input->post('suicidal_thoughts') == '3')
    $suicidal_thoughts = 3;

    if ($this->input->post('crying') == '0') $crying = 0;
    else if ($this->input->post('crying') == '1') $crying = 1;
    else if ($this->input->post('crying') == '2') $crying = 2;
    else if ($this->input->post('crying') == '3') $crying = 3;

    if ($this->input->post('agitation') == '0') $agitation =
    0;
    else if ($this->input->post('agitation') == '1')
    $agitation = 1;
    else if ($this->input->post('agitation') == '2')
    $agitation = 2;
    else if ($this->input->post('agitation') == '3')
    $agitation = 3;

    if ($this->input->post('loss_interest') == '0')
    $loss_interest = 0;
    else if ($this->input->post('loss_interest') == '1')
    $loss_interest = 1;
    else if ($this->input->post('loss_interest') == '2')
    $loss_interest = 2;
    else if ($this->input->post('loss_interest') == '3')
    $loss_interest = 3;

    if ($this->input->post('indecisiveness') == '0')
    $indecisiveness = 0;
    else if ($this->input->post('indecisiveness') == '1')
    $indecisiveness = 1;
    else if ($this->input->post('indecisiveness') == '2')
    $indecisiveness = 2;
    else if ($this->input->post('indecisiveness') == '3')
    $indecisiveness = 3;

    if ($this->input->post('worthlessness') == '0')
    $worthlessness = 0;
    else if ($this->input->post('worthlessness') == '1')
    $worthlessness = 1;
    else if ($this->input->post('worthlessness') == '2')
    $worthlessness = 2;
    else if ($this->input->post('worthlessness') == '3')
    $worthlessness = 3;

    if ($this->input->post('loss_energy') == '0') $loss_energy
    = 0;
    else if ($this->input->post('loss_energy') == '1')
    $loss_energy = 1;
    else if ($this->input->post('loss_energy') == '2')
    $loss_energy = 2;
}

```

```

else if ($this->input->post('loss_energy') == '3')
    $loss_energy = 3;

if ($this->input->post('sleeping_pattern') == '0')
    $sleeping_pattern = 0;
else if ($this->input->post('sleeping_pattern') == '1')
    $sleeping_pattern = 1;
else if ($this->input->post('sleeping_pattern') == '2')
    $sleeping_pattern = 2;
else if ($this->input->post('sleeping_pattern') == '3')
    $sleeping_pattern = 3;

if ($this->input->post('irritability') == '0') $irritability
    = 0;
else if ($this->input->post('irritability') == '1')
    $irritability = 1;
else if ($this->input->post('irritability') == '2')
    $irritability = 2;
else if ($this->input->post('irritability') == '3')
    $irritability = 3;

if ($this->input->post('changes_appetite') == '0')
    $changes_appetite = 0;
else if ($this->input->post('changes_appetite') == '1')
    $changes_appetite = 1;
else if ($this->input->post('changes_appetite') == '2')
    $changes_appetite = 2;
else if ($this->input->post('changes_appetite') == '3')
    $changes_appetite = 3;

if ($this->input->post('weight_loss') == '0') $weight_loss
    = 0;
else if ($this->input->post('weight_loss') == '1')
    $weight_loss = 1;
else if ($this->input->post('weight_loss') == '2')
    $weight_loss = 2;
else if ($this->input->post('weight_loss') == '3')
    $weight_loss = 3;

if ($this->input->post('worried') == '0') $worried = 0;
else if ($this->input->post('worried') == '1') $worried =
    1;
else if ($this->input->post('worried') == '2') $worried =
    2;
else if ($this->input->post('worried') == '3') $worried =
    3;

if ($this->input->post('loss_interest_sex') == '0')
    $loss_interest_sex = 0;
else if ($this->input->post('loss_interest_sex') == '1')
    $loss_interest_sex = 1;
else if ($this->input->post('loss_interest_sex') == '2')
    $loss_interest_sex = 2;
else if ($this->input->post('loss_interest_sex') == '3')
    $loss_interest_sex = 3;

$score = $sadness + $pessimism + $past_failure +
    $loss_pleasure + $guilty_feelings +
    $punishment_feelings + $self_dislike + $self_criticalness
    + $suicidal_thoughts +
    $crying + $agitation + $loss_interest + $indecisiveness +
    $worthlessness + $loss_energy +
    $sleeping_pattern + $irritability + $changes_appetite +
    $weight_loss + $worried + $loss_interest_sex;

$table = 'patient_screening_form';
$this->db->select_max('patient_id');
$this->db->from($table);
$query = $this->db->get();
$r = $query->result();
$array = json_decode(json_encode($r), True);

$data = array(
    'patient_id' => $array[0]['patient_id'] + 1,
    'sadness' => $sadness,
    'pessimism' => $pessimism,
    'past_failure' => $past_failure,
    'loss_pleasure' => $loss_pleasure,
    'guilty_feelings' => $guilty_feelings,
    'punishment_feelings' => $punishment_feelings,
    'self_dislike' => $self_dislike,
    'self_criticalness' => $self_criticalness,
    'suicidal_thoughts' => $suicidal_thoughts,
    'crying' => $crying,
    'agitation' => $agitation,
    'loss_interest' => $loss_interest,
    'indecisiveness' => $indecisiveness,
    'worthlessness' => $worthlessness,
    'loss_energy' => $loss_energy,
    'sleeping_pattern' => $sleeping_pattern,
    'irritability' => $irritability,
    'changes_appetite' => $changes_appetite,
    'weight_loss' => $weight_loss,
    'worried' => $worried,
    'loss_interest_sex' => $loss_interest_sex,
    'screening_score' => $score
);

$this->db_query->insertRow($table,$data);
$this->load->view("show_patient_score", $data);
}

public function register_patient () {
    $this->load->view('menu_bar');
    $this->load->view('register_patient');
}

public function load_register () {
    $this->load->view('menu_bar');
    $this->load->view('register_patient');
}

public function register_staff () {
    $this->load->view('menu_bar');
    $this->load->view('register_staff');
}

public function view_profile () {
    $this->load->view('menu_bar');
    $this->load->view('user_profile');
}

public function view_appointments() {
    $this->load->view('menu_bar');
    $this->load->view('appointments');
}

public function view_patients() {
    $this->load->view('menu_bar');
    $this->load->view('search_patients');
}

public function view_diary_observations() {
    $this->load->view('menu_bar');
    $this->load->view('search_diary_observations');
}

public function sched_appointment() {
    $this->load->view('menu_bar');
    if ($SESSION['user_profession'] == 0 || $SESSION['
        user_profession'] == 1) {
        $this->load->view('sched_appointment_doc');
    } else if ($SESSION['user_profession'] == 3) {
        $this->load->view('sched_appointment_patient');
    }
}

public function add_doc_notes() {
    $this->load->view('menu_bar');
    $this->load->view('doc_notes');
}

public function view_diary() {
    $this->load->view('menu_bar');
    $this->load->view('patient_diary');
}

public function view_checklist () {
    $this->load->view('menu_bar');
    $this->load->view('view_checklist');
}

public function view_test_results () {
    $this->load->view('menu_bar');
    $this->load->view('questionnaire_results');
}

public function view_medications() {
    $this->load->view('menu_bar');
    $this->load->view('patient_history_medications');
}

public function view_patient_medications() {
    $this->load->view('menu_bar');
    $this->load->view('patient_medications');
}

public function manage_staff() {
    $this->load->view('menu_bar');
    $this->load->view('manage_staff_accnts');
}

public function refer_patient () {
    $this->load->view('menu_bar');
    $this->load->view('referral_form');
}

public function validate_patient_login () {
    $this->load->view('patient_login');
}

public function validate_relative_login () {
    $this->load->view('relative_login');
}

```

```

public function validate_staff_login () {
    $this->load->view('staff_login');
}

public function checklist_action () {
    $this->load->view('checklist_action');
}

public function view_patient_record() {
    $this->load->view('menu_bar');
    $this->load->view('search_patients_result');
}

public function view_edit_page(){
    $this->load->view('menu_bar');
    $this->load->view('edit_staff');
}

public function view_checklist_history () {
    $this->load->view('menu_bar');
    $this->load->view('patient_history_records');
}

public function view_referred_patients () {
    $this->load->view('menu_bar');
    $this->load->view('view_referred_patients');
}

public function view_referral_form () {
    $this->load->view('menu_bar');
    $this->load->view('view_referral_form');
}

public function new_consultation_record(){
    $this->load->view('menu_bar');
    $this->load->view('create_consultation_record');
}

public function user_logout () {
    session_destroy ();
    $_SESSION = array();
    $this->index();
}

public function insert_diary () {
    $this->form_validation->set_rules('date_picked', 'Date of
    Appointment', 'required|trim|alpha_numeric');
    $this->form_validation->set_rules('appnt_hrs', '
    Appointment in hours', 'required|trim');
    $this->form_validation->set_rules('appnt_mins', '
    Appointment in minutes', 'required|trim');
    $this->form_validation->set_rules('appnt_ampm', 'AM or
    PM', 'required|trim');
    $this->form_validation->set_rules('diary', 'Diary', '
    required|trim|alpha_numeric');

    $array = array("January", "February", "March", "April", "
    May", "June", "July",
    "August", "September", "October", "November", "
    December");

    list ($month, $day, $year) = explode('/', $this->input->
    post('date_picked'));
    $new_month = $array[ltrim($month-1, '0')];

    if ($_SESSION['user_profession'] == 3) {
        $table = 'patient_diary';
        $data = array(
            'patient_id' => $_SESSION['user_id'],
            'diary_date' => $new_month . " " . $day . " " . $year,
            'diary_time' => $this->input->post('appnt_hrs')." : " .
            $this->input->post('appnt_mins')." " . $this->
            input->post('appnt_ampm'),
            'diary' => $this->input->post('diary')
        );

        $this->db_query->insertRow($table, $data);
        $this->view_diary();
    } else if ($_SESSION['user_profession'] == 4) {
        $table = 'relative_diary';
        $data = array(
            'relative_id' => $_SESSION['user_id'],
            'diary_date' => $new_month . " " . $day . " " . $year,
            'diary_time' => $this->input->post('appnt_hrs')." : " .
            $this->input->post('appnt_mins')." " . $this->
            input->post('appnt_ampm'),
            'diary' => $this->input->post('diary')
        );

        $this->db_query->insertRow($table, $data);
        $this->view_diary();
    }
}

public function insert_appnt () {
    if ($_SESSION['user_profession'] == 0 || $_SESSION['
    user_profession'] == 1) {
        $this->form_validation->set_rules('pick_patient', 'Patient
        ', 'required|trim|alpha_numeric');

        $this->form_validation->set_rules('pick_relative', '
        Relative', 'required|trim|alpha_numeric');
        $this->form_validation->set_rules('date_picked', 'Date of
        Appointment', 'required|trim|alpha_numeric');
        $this->form_validation->set_rules('appnt_hrs', '
        Appointment in hours', 'required|trim');
        $this->form_validation->set_rules('appnt_mins', '
        Appointment in minutes', 'required|trim');
        $this->form_validation->set_rules('appnt_ampm', 'AM or
        PM', 'required|trim');
        $this->form_validation->set_rules('purpose', 'Purpose', '
        required|trim|alpha_numeric');

        $table = 'appointments';
        $this->db->select_max('appointment_id');
        $this->db->from($table);
        $query = $this->db->get();
        $r = $query->result();
        $appnt_id = json_decode(json_encode($r), True);

        $array = array("January", "February", "March", "April",
            "May", "June", "July",
            "August", "September", "October", "November", "
            December");

        list ($month, $day, $year) = explode('/', $this->input->
            post('date_picked'));
        $new_month = $array[ltrim($month-1, '0')];

        list ($patient_id, $patient_name) = explode(' | ', $this->
            input->post('pick_patient'));

        list ($relative_id, $relative_name) = explode(' | ', $this
            ->input->post('pick_relative'));

        $this->db->select('date, time');
        $query_patient_id = $this->db->get_where('
        appointments', array('staff_name' => $_SESSION['
        user_name'], 'date' => $new_month . " " . $day . " "
        . $year, 'time' => $this->input->post('appnt_hrs
        ').".".$this->input->post('appnt_mins')." " . $this
        ->input->post('appnt_ampm')));

        $row_patient_id = $query_patient_id->row_array();

        if (isset($row_patient_id)) {
            echo "The time and date you picked is already taken";
        } else {
            $data = array(
                'appointment_id' => $appnt_id[0]['appointment_id'] + 1,
                'patient_id' => $patient_id,
                'staff_id' => $_SESSION['user_id'],
                'relative_id' => $relative_id,
                'patient_name' => $patient_name,
                'staff_name' => $_SESSION['user_name'],
                'relative_name' => $relative_name,
                'date' => $new_month . " " . $day . " " . $year,
                'time' => $this->input->post('appnt_hrs')." : " . $this
                ->input->post('appnt_mins')." " . $this->input
                ->post('appnt_ampm'),
                'purpose' => $this->input->post('purpose')
            );

            $this->db_query->insertRow($table, $data);
        }

        $this->view_appointments();
    } else if ($_SESSION['user_profession'] == 3) {
        $this->form_validation->set_rules('pick_staff', 'Staff', '
        required|trim|alpha_numeric');
        $this->form_validation->set_rules('pick_relative', '
        Relative', 'required|trim|alpha_numeric');
        $this->form_validation->set_rules('date_picked', 'Date of
        Appointment', 'required|trim|alpha_numeric');
        $this->form_validation->set_rules('appnt_hrs', '
        Appointment in hours', 'required|trim');
        $this->form_validation->set_rules('appnt_mins', '
        Appointment in minutes', 'required|trim');
        $this->form_validation->set_rules('appnt_ampm', 'AM or
        PM', 'required|trim');
        $this->form_validation->set_rules('purpose', 'Purpose', '
        required|trim|alpha_numeric');

        $table = 'appointments';
        $this->db->select_max('appointment_id');
        $this->db->from($table);
        $query = $this->db->get();
        $r = $query->result();
        $appnt_id = json_decode(json_encode($r), True);

        $array = array("January", "February", "March", "April",
            "May", "June", "July",
            "August", "September", "October", "November", "
            December");

        list ($month, $day, $year) = explode('/', $this->input->
            post('date_picked'));
        $new_month = $array[ltrim($month-1, '0')];
    }
}

```



```

list ($staff_id , $staff_name) = explode(' | ', $this->
input->post('pick_staff'));

list ($relative_id , $relative_name) = explode(' | ', $this
->input->post('pick_relative'));

$data = array(
'appointment_id' => $appnt_id[0]['appointment_id'] + 1,
'patient_id' => $_SESSION['user_id'],
'staff_id' => $staff_id,
'relative_id' => $relative_id,
'patient_name' => $_SESSION['user_name'],
'staff_name' => $staff_name,
'relative_name' => $relative_name,
'date' => $new_month . " " . $day . " " . $year,
'time' => $this->input->post('appnt_hrs')." : " . $this->
input->post('appnt_mins')." " . $this->input->
post('appnt_ampm'),
'purpose' => $this->input->post('purpose')
);

$this->db_query->insertRow($table,$data);
$this->view_appointments();
}
}

public function patient_record () {
$this->form_validation->set_rules('pick_patient', 'Patient
', 'required|trim|alpha');

$this->db->select('patient_id');
$query_patient_id = $this->db->get_where('relationships',
array('patient_name' => $this->input->post('
pick_patient')));

$row_patient_id = $query_patient_id->row_array();
$patient_id = $row_patient_id['patient_id'];

$_SESSION['patient_id'] = $patient_id;

$this->load->view('menu_bar');
$this->load->view('patient_history_records');
}

public function insert_diagnosis () {
$this->form_validation->set_rules('textarea_diagnosis', '
Diagnosis', 'required|trim|alpha_numeric');

$table = 'patient_record_doctor';
$where = array('patient_id' => $_SESSION['patient_id']);
$data = array('diagnosis' => $this->input->post('
textarea_diagnosis'));

$this->db_query->updateRowWhere($table, $where,
$data);
$this->load->view('menu_bar');
$this->load->view('search_patients_result');
}

public function insert_treatment_plan () {
$this->form_validation->set_rules('textarea_treatment', '
Treatment Plan', 'required|trim|alpha_numeric');

$table = 'patient_record_doctor';
$where = array('patient_id' => $_SESSION['patient_id']);
$data = array('treatment_plan' => $this->input->post('
textarea_treatment'));

$this->db_query->updateRowWhere($table, $where,
$data);
$this->load->view('menu_bar');
$this->load->view('search_patients_result');
}

public function insert_medication () {
$this->form_validation->set_rules('textarea_medication', '
Medications', 'required|trim|alpha_numeric');

$table = 'patient_record_doctor';
$where = array('patient_id' => $_SESSION['patient_id']);
$data = array('medication' => $this->input->post('
textarea_medication'));

$this->db_query->updateRowWhere($table, $where,
$data);
$this->load->view('menu_bar');
$this->load->view('search_patients_result');
}

public function insert_checklist () {
$this->form_validation->set_rules('date_picked_checklist',
'Patient Checklist', 'required|trim');
$this->form_validation->set_rules('
textarea_patient_checklist', 'Patient Checklist', '
required|trim|alpha_numeric');

$array = array("January", "February", "March", "April", "
May", "June", "July",
"August", "September", "October", "November", "
December");

list ($month, $day, $year) = explode('/', $this->input->
post('date_picked_checklist'));
$new_month = $array[ltrim($month-1, '0')];
$date = $new_month . " " . $day . " " . $year;

$table = 'patient_checklist';
$this->db->select_max('checklist_id');
$this->db->from($table);
$query = $this->db->get();
$r = $query->result();
$checklist_id = json_decode(json_encode($r), True);

$table = 'patient_checklist';
$data = array(
'checklist_id' => $checklist_id [0]['checklist_id'] + 1,
'patient_id' => $_SESSION['patient_id'],
'staff_id' => $_SESSION['user_id'],
'checklist_date' => $date,
'checklist' => $this->input->post('
textarea_patient_checklist')
);

$this->db_query->insertRow($table, $data);
$this->load->view('menu_bar');
$this->load->view('search_patients_result');
}

public function get_patient_checklist () {
$this->form_validation->set_rules('date_picked_checklist',
'Patient Checklist', 'required|trim');

$array = array("January", "February", "March", "April", "
May", "June", "July",
"August", "September", "October", "November", "
December");

list ($month, $day, $year) = explode('/', $this->input->
post('date_picked_checklist'));
$new_month = $array[ltrim($month-1, '0')];
$date = $new_month . " " . $day . " " . $year;
$_SESSION['patient_checklist_date'] = $date;

$this->load->view('menu_bar');
if ($_SESSION['user_profession'] == 0 || $_SESSION['
user_profession'] == 1) {
$this->load->view('search_patients_result');
} else if ($_SESSION['user_profession'] == 3) {
$this->load->view('view_checklist');
}
}

public function get_patient_diary () {
$this->form_validation->set_rules('date_picked_patient', '
Patient Diary', 'required|trim|alpha_numeric');

$array = array("January", "February", "March", "April", "
May", "June", "July",
"August", "September", "October", "November", "
December");

list ($month, $day, $year) = explode('/', $this->input->
post('date_picked_patient'));
$new_month = $array[ltrim($month-1, '0')];
$date = $new_month . " " . $day . " " . $year;
$_SESSION['patient_diary_date'] = $date;

$this->load->view('menu_bar');
if ($_SESSION['user_profession'] == 0 || $_SESSION['
user_profession'] == 1) {
$this->load->view('view_diary_observations');
} else if ($_SESSION['user_profession'] == 3 || $_SESSION
['user_profession'] == 4) {
$this->load->view('patient_diary');
}
}

public function get_relative_diary () {
$this->form_validation->set_rules('date_picked_relative', '
Date of Observation', 'required|trim|alpha_numeric');

$array = array("January", "February", "March", "April", "
May", "June", "July",
"August", "September", "October", "November", "
December");

list ($month, $day, $year) = explode('/', $this->input->
post('date_picked_relative'));
$new_month = $array[ltrim($month-1, '0')];
$date = $new_month . " " . $day . " " . $year;
$_SESSION['relative_diary_date'] = $date;

$this->load->view('menu_bar');
$this->load->view('view_diary_observations');
}

```

```

public function edit_staff () {
    $this->form_validation->set_rules('staffID', 'Staff ID', '
        required|trim');
    $this->form_validation->set_rules('email', 'Email', '
        required|trim|valid_email|callback_check_email');
    $this->form_validation->set_rules('password', 'Password', '
        required|trim|alpha_numeric');

    $data = array(
        'email' => $this->input->post('email'),
        'password' => md5($this->input->post('password'))
    );

    $this->db->where('staff_id', $this->input->post('
        staffID'));
    $this->db->update('staff', $data);

    echo "Staff successfully edited";

    $this->load->view('menu_bar');
    $this->load->view('manage_staff_acnts');
}

public function delete_staff () {
    $query_staff_id = $this->db->get_where('relationships',
        array('staff_id' => $_GET['staff_id']));

    if (isset ($query_staff_id)) {
        echo "Staff has patients to handle";

        $this->load->view('menu_bar');
        $this->load->view('manage_staff_acnts');

    } else {
        $this->db->delete('staff', array('staff_id' => $_GET['
            staff_id']));

        $this->load->view('menu_bar');
        $this->load->view('manage_staff_acnts');
    }
}

public function diary_observations () {
    $this->form_validation->set_rules('pick_patient', 'Patient
        ', 'required|trim|alpha');

    $this->db->select('patient_id');
    $query_patient_id = $this->db->get_where('relationships',
        array('patient_name' => $this->input->post('
            pick_patient')));

    $row_patient_id = $query_patient_id->row_array();
    $patient_id = $row_patient_id['patient_id'];

    $_SESSION['patient_id'] = $patient_id;

    $this->load->view('menu_bar');
    $this->load->view('view_diary_observations');
}

public function insert_consultation_record () {
    if ($_SESSION['user_profession'] == 0) {
        $this->form_validation->set_rules('
            date_picked_consultation', 'Consultation Record Date
            ', 'required|trim');
        $this->form_validation->set_rules('textarea_diagnosis', '
            Patient Diagnosis', 'required|trim|alpha_numeric');
        $this->form_validation->set_rules('textarea_treatment', '
            Patient Treatment Plan', 'required|trim|
            alpha_numeric');
        $this->form_validation->set_rules('
            textarea_patient_insights', 'Patient Insights', '
            required|trim|alpha_numeric');
        $this->form_validation->set_rules('textarea_medication', '
            Patient Medications', 'required|trim|alpha_numeric')
            ;
        $this->form_validation->set_rules('
            textarea_patient_checklist', 'Patient Checklist', '
            required|trim|alpha_numeric');

        $array = array("January", "February", "March", "April",
            "May", "June", "July",
            "August", "September", "October", "November", "
            December");

        list ($month, $day, $year) = explode('/', $this->input->
            post('date_picked_consultation'));
        $new_month = $array[trim($month-1, '0')];
        $date = $new_month . " " . $day . " " . $year;

        $query_check_record = $this->db->get_where('
            patient_record_doctor', array('staff_id' =>
                $_SESSION['user_id'], 'month_record' =>
                $new_month, 'day_record' => $day, 'year_record' =>
                $year));

        $row_check_record = $query_check_record->row_array();

        if (isset ($row_check_record)){
            echo "Consultation record for today is already created";
        } else {
            $table = 'patient_record_counselor';
            $data = array(
                'patient_id' => $_SESSION['patient_id'],
                'staff_id' => $_SESSION['user_id'],
                'month_record' => $new_month,
                'day_record' => $day,
                'year_record' => $year,
                'diagnosis' => $this->input->post('textarea_diagnosis
                    '),
                'treatment_plan' => $this->input->post('
                    textarea_treatment'),
                'patient_insights' => $this->input->post('
                    textarea_patient_insights')
            );

            $this->db_query->insertRow($table, $data);

            $table_checklist = 'patient_checklist';
            $this->db->select_max('checklist_id');
            $this->db->from($table_checklist);
            $query = $this->db->get();
            $r = $query->result();
            $checklist_id = json_decode(json_encode($r), True);

            $table = 'patient_checklist';
            $data = array(
                'checklist_id' => $checklist_id[0]['checklist_id'] + 1,
                'patient_id' => $_SESSION['patient_id'],
                'staff_id' => $_SESSION['user_id'],
                'checklist_month' => $new_month,
                'checklist_day' => $day,
                'checklist_year' => $year,
                'checklist' => $this->input->post('
                    textarea_patient_checklist')
            );

            $this->db_query->insertRow($table_checklist, $data);
        }

        $this->load->view('menu_bar');
        $this->load->view('patient_history_records');
    } else if ($_SESSION['user_profession'] == 1) {
        $this->form_validation->set_rules('
            date_picked_consultation', 'Consultation Record Date
            ', 'required|trim');
        $this->form_validation->set_rules('textarea_diagnosis', '
            Patient Diagnosis', 'required|trim|alpha_numeric');
        $this->form_validation->set_rules('textarea_treatment', '
            Patient Treatment Plan', 'required|trim|
            alpha_numeric');
        $this->form_validation->set_rules('
            textarea_patient_insights', 'Patient Insights', '
            required|trim|alpha_numeric');
        $this->form_validation->set_rules('textarea_medication', '
            Patient Medications', 'required|trim|alpha_numeric')
            ;
        $this->form_validation->set_rules('
            textarea_patient_checklist', 'Patient Checklist', '
            required|trim|alpha_numeric');

        $array = array("January", "February", "March", "April",
            "May", "June", "July",
            "August", "September", "October", "November", "
            December");

        list ($month, $day, $year) = explode('/', $this->input->
            post('date_picked_consultation'));
        $new_month = $array[trim($month-1, '0')];
        $date = $new_month . " " . $day . " " . $year;

        $query_check_record = $this->db->get_where('
            patient_record_doctor', array('staff_id' =>
                $_SESSION['user_id'], 'month_record' =>
                $new_month, 'day_record' => $day, 'year_record' =>
                $year));

        $row_check_record = $query_check_record->row_array();

        if (isset ($row_check_record)){
            echo "Consultation record for today is already created";
        } else {
            $table = 'patient_record_doctor';
            $data = array(
                'patient_id' => $_SESSION['patient_id'],
                'staff_id' => $_SESSION['user_id'],
                'month_record' => $new_month,
                'day_record' => $day,
                'year_record' => $year,
                'diagnosis' => $this->input->post('textarea_diagnosis
                    '),
                'treatment_plan' => $this->input->post('
                    textarea_treatment'),
                'medications' => $this->input->post('
                    textarea_medication'),
                'patient_insights' => $this->input->post('
                    textarea_patient_insights')
            );

            $this->db_query->insertRow($table, $data);
        }
    }
}

```

```

$this->db->query->insertRow($stable, $data);

$stable_checklist = 'patient_checklist';
$this->db->select_max('checklist_id');
$this->db->from($stable_checklist);
$query = $this->db->get();
$r = $query->result();
$checklist_id = json_decode(json_encode($r), True);

$stable = 'patient_checklist';
$data = array(
    'checklist_id' => $checklist_id [0]['checklist_id'] + 1,
    'patient_id' => $_SESSION['patient_id'],
    'staff_id' => $_SESSION['user_id'],
    'checklist_month' => $new_month,
    'checklist_day' => $day,
    'checklist_year' => $year,
    'checklist' => $this->input->post('
        textarea_patient_checklist')
);

$this->db->query->insertRow($stable_checklist, $data);
}

$this->load->view('menu_bar');
$this->load->view('patient_history_records');
}

}

public function insert_referral_form () {
    $this->form_validation->set_rules('date_picked', 'Referral
        Request Date', 'required|trim');
    $this->form_validation->set_rules('patient_name', 'Name
        of Patient', 'required|trim|alpha');
    $this->form_validation->set_rules('doctor_name', 'Name
        of Doctor', 'required|trim|alpha');
    $this->form_validation->set_rules('reason_referral', '
        Reason for Referral', 'required|trim|alpha.numeric');

    list ($doctor_name, $patient_count) = explode(' | ', $this
        ->input->post('doctor_name'));

    $array = array("January", "February", "March", "April", "
        May", "June", "July",
        "August", "September", "October", "November", "
        December");

    list ($month, $day, $year) = explode('/', $this->input->
        post('date_picked'));
    $new_month = $array[trim($month-1, '0')];

    $stable = 'referral_form';
    $this->db->select_max('referral_id');
    $this->db->from($stable);
    $query = $this->db->get();
    $r = $query->result();
    $referral_id = json_decode(json_encode($r), True);

    $data = array(
        'referral_id' => $referral_id [0]['referral_id'] + 1,
        'referral_month' => $new_month,
        'referral_day' => $day,
        'referral_year' => $year,
        'referral_from' => $_SESSION['user_name'],
        'patient_name' => $this->input->post('patient_name'),
        'referred_to' => $doctor_name,
        'referral_reason' => $this->input->post('
            reason_referral')
    );
    $this->db->query->insertRow($stable, $data);

    list ($first_name, $last_name) = explode(' ', $this->input
        ->post('doctor_name'));

    $this->db->select('staff_id');
    $query_staff_id = $this->db->get_where('staff', array('
        first_name' => $first_name, 'last_name' =>
        $last_name));

    $row_staff_id = $query_staff_id->row_array();
    $staff_id = $row_staff_id['staff_id'];

    $data = array(
        'staff_id' => $staff_id,
        'staff_name' => $doctor_name
    );

    $this->db->where('patient_name', $this->input->post('
        patient_name'));
    $this->db->update('relationships', $data);

    $this->load->view('menu_bar');
    $this->load->view('referral_form');
}

public function update_checklist () {
    $this->form_validation->set_rules('date_patient_checklist',
        'Checklist Date', 'required|trim');

    $this->form_validation->set_rules('checklist_item', '
        Patient Checklist', 'required|trim');

    list ($month, $day, $year) = explode(' ', $this->input->
        post('date_patient_checklist'));

    $data = array(
        'checklist' => $this->input->post('checklist_item')
    );

    $this->db->where('patient_id', $_SESSION['user_id']);
    $this->db->where('checklist_month', $month);
    $this->db->where('checklist_day', $day);
    $this->db->where('checklist_year', $year);
    $this->db->update('patient_checklist', $data);

    $this->load->view('menu_bar');
    $this->load->view('patient_history_records');
}
}
?>

<!-- Register.php -->

<?php
class Register extends CI_Controller {
    public function __construct () {
        parent::__construct ();
        $this->load->model('Register_Model');
    }

    public function create_patient () {
        $this->form_validation->set_rules('first_name', 'First
            Name', 'required|trim|alpha');
        $this->form_validation->set_rules('middle_name', 'Middle
            Name', 'required|trim|alpha');
        $this->form_validation->set_rules('last_name', 'Last Name
            ', 'required|trim|alpha');
        $this->form_validation->set_rules('password', 'Password',
            'required|trim|alpha.numeric');
        $this->form_validation->set_rules('month_birth', 'Month
            of Birth', 'required|trim');
        $this->form_validation->set_rules('day_birth', 'Day of
            Birth', 'required|trim');
        $this->form_validation->set_rules('year_birth', 'Year of
            Birth', 'required|trim');
        $this->form_validation->set_rules('sex', 'Sex', 'required|
            trim|alpha');
        $this->form_validation->set_rules('contact_num', 'Contact
            Number', 'required|trim|numeric');
        $this->form_validation->set_rules('email', 'Email', '
            required|trim|valid_email|callback_check_email');

        if ($this->input->post('first_name') != null) $first_name
            = $this->input->post('first_name');

        $stable = 'patient';

        $this->db->select_max('patient_id');
        $this->db->from($stable);
        $query = $this->db->get();
        $r = $query->result();
        $array = json_decode(json_encode($r), True);

        $data = array(
            'patient_id' => $array[0]['patient_id'] + 1,
            'first_name' => $first_name,
            'middle_name' => $this->input->post('middle_name'),
            'last_name' => $this->input->post('last_name'),
            'password' => md5($this->input->post('password')),
            'month_birth' => $this->input->post('month_birth'),
            'day_birth' => $this->input->post('day_birth'),
            'year_birth' => $this->input->post('year_birth'),
            'sex' => $this->input->post('sex'),
            'contact_num' => $this->input->post('contact_num'),
            'email' => $this->input->post('email')
        );

        $this->db->insert($stable, $data);
        $this->load->view('menu_bar');
        $this->load->view('register_relative');
    }

    public function create_relative () {
        $this->form_validation->set_rules('first_name', 'First
            Name', 'required|trim|alpha');
        $this->form_validation->set_rules('middle_name', 'Middle
            Name', 'required|trim|alpha');
        $this->form_validation->set_rules('last_name', 'Last Name
            ', 'required|trim|alpha');
        $this->form_validation->set_rules('password', 'Password',
            'required|trim|alpha.numeric');
        $this->form_validation->set_rules('month_birth', 'Month
            of Birth', 'required|trim');
        $this->form_validation->set_rules('day_birth', 'Day of
            Birth', 'required|trim');
        $this->form_validation->set_rules('year_birth', 'Year of
            Birth', 'required|trim');
    }
}

```

```

$this->form_validation->set_rules('sex', 'Sex', 'required|
trim|alpha');
$this->form_validation->set_rules('contact_num', 'Contact
Number', 'required|trim|numeric');
$this->form_validation->set_rules('email', 'Email', '
required|trim|valid_email|callback_check_email');

if ($this->input->post('first_name') != null) $first_name
= $this->input->post('first_name');

$stable = 'relative';

$this->db->select_max('relative_id');
$this->db->from($stable);
$query = $this->db->get();
$r = $query->result();
$array = json_decode(json_encode($r), True);

$data = array(
' relative_id ' => $array[0][' relative_id ' ] + 1,
' first_name ' => $first_name,
' middle_name ' => $this->input->post(' middle_name '),
' last_name ' => $this->input->post(' last_name '),
' password ' => md5($this->input->post(' password ')),
' month_birth ' => $this->input->post(' month_birth '),
' day_birth ' => $this->input->post(' day_birth '),
' year_birth ' => $this->input->post(' year_birth '),
' sex ' => $this->input->post(' sex '),
' contact_num ' => $this->input->post(' contact_num '),
' email ' => $this->input->post(' email '));

$this->db->insert($stable, $data);

$patient_table = 'patient';

$this->db->select_max('patient_id');
$this->db->from($patient_table);
$query = $this->db->get();
$r = $query->result();
$array_patient = json_decode(json_encode($r), True);

$this->db->select('first_name');
$this->db->from($patient_table);
$this->db->where('patient_id', $array_patient[0]['
patient_id']);
$patient_first_name_query = $this->db->get();

$this->db->select('last_name');
$this->db->from($patient_table);
$this->db->where('patient_id', $array_patient[0]['
patient_id']);
$patient_last_name_query = $this->db->get();

foreach ($patient_first_name_query->result() as $row_first)
{
foreach ($patient_last_name_query->result() as $row_last) {
$relationships = array(
' patient_id ' => $array_patient[0][' patient_id '],
' staff_id ' => $_SESSION['user_id'],
' relative_id ' => $array[0][' relative_id ' ] + 1,
' patient_name ' => $row_first->first_name . " " .
$row_last->last_name,
' staff_name ' => $_SESSION['user_name'],
' relative_name ' => $first_name . " " . $this->input->
post('last_name')
);
$this->db->insert('relationships', $relationships);
$this->load->view('menu_bar');
$this->load->view('main_window');
break;
}
}
}

public function create_staff () {
$this->form_validation->set_rules('first_name', 'First
Name', 'required|trim|alpha');
$this->form_validation->set_rules('middle_name', 'Middle
Name', 'required|trim|alpha');
$this->form_validation->set_rules('last_name', 'Last Name',
'required|trim|alpha');
$this->form_validation->set_rules('password', 'Password',
'required|trim|alpha|numeric');
$this->form_validation->set_rules('month_birth', 'Month
of Birth', 'required|trim');
$this->form_validation->set_rules('day_birth', 'Day of
Birth', 'required|trim');
$this->form_validation->set_rules('year_birth', 'Year of
Birth', 'required|trim');
$this->form_validation->set_rules('profession', 'Profession',
'required|trim|alpha');
$this->form_validation->set_rules('sex', 'Sex', 'required|
trim|alpha');
$this->form_validation->set_rules('contact_num', 'Contact
Number', 'required|trim|numeric');
$this->form_validation->set_rules('email', 'Email', '
required|trim|valid_email|callback_check_email');

if ($this->input->post('first_name') != null) $first_name
= $this->input->post('first_name');

$stable = 'staff';

$this->db->select_max('staff_id');
$this->db->from($stable);
$query = $this->db->get();
$r = $query->result();
$array = json_decode(json_encode($r), True);

$data = array(
' staff_id ' => $array[0][' staff_id ' ] + 1,
' first_name ' => $first_name,
' middle_name ' => $this->input->post(' middle_name '),
' last_name ' => $this->input->post(' last_name '),
' password ' => md5($this->input->post(' password ')),
' month_birth ' => $this->input->post(' month_birth '),
' day_birth ' => $this->input->post(' day_birth '),
' year_birth ' => $this->input->post(' year_birth '),
' profession ' => $this->input->post(' profession '),
' sex ' => $this->input->post(' sex '),
' contact_num ' => $this->input->post(' contact_num '),
' email ' => $this->input->post(' email '));

$this->db->insert($stable, $data);
$this->load->view('menu_bar');
$this->load->view('manage_staff_acnts');
}
}
?>

```

XI. Acknowledgement

1. First of all, I would like to thank the Man above for always guiding me in whatever I do in my entire college life.
2. To my parents, you were always by my side whenever I feel down and you really gave me strength especially when I thought I can't finish my SP.
3. To my brother and sister who always asks for favors and I really get stressed because I am doing a lot of things for my academics but they still kept on asking for favors and, as a good brother, I never refused to do what they asked me.
4. To ma'am Sheila Magboo who, even though it was May and it was my first time to set-up a meeting with her about my SP, still continued in pushing me to finish my SP so I can graduate on time.
5. To all the professors that I had in my entire stay in UP, you have transformed me into a person that I never thought I would be and I am really happy for who I am today and for that, I thank you.
6. To my blockmates, I am really thankful for each and every one of you because you cheered me up when I feel down. Even though you are not directly talking to me, just hearing all your laughs about jokes and stories really lifts my spirit up and for that, I thank you.
7. And to my friends, you know who you are, all of you have seen me cry. You were always by my side when you know I am down and I am really thankful for each and every one of you. As I write this acknowledgement, I can't think of anything that I have done to have all of you. I am such a lucky person and for that, I will really treasure every memory that we have spent. Don't worry, I am not yet done, these words are surely not enough to thank each and every one of you so just, standby!