University of the Philippines Manila
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Anterograde Amnesia Information System

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

Submitted by:

Krizia Faith V. Ilaga

May 2016

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ACCEPTANCE SHEET

The Special Problem entitled “Anterograde Amnesia Information System” prepared and submitted by Krizia Faith V. Ilaga in partial fulfillment of the requirements for the degree of Bachelor of Science in Computer Science has been examined and is recommended for acceptance.

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Abstract

The fast-growing modern technology is evident in various health institutions. Through Health Informatics, information technology-based innovations for delivering healthcare continues to develop. Anterograde Amnesia Information System, or simply AAIS, is no different. AAIS is a web-based application system which is designed to provide technological assistance to patients with such condition by hosting compensatory techniques that will help them in their everyday lives. This system also aims to provide a remote monitoring capacity through the report generation feature.

Keywords: anterograde amnesia, up-pgh department of rehabilitation medicine, memory test, rehabilitation system

Contents

List of Figures

List of Tables

I. Introduction

A. Background of the Study

Memory loss is a common condition around the world and amnesia is the most well-known syndrome associated with it. [1] Amnesia is defined as the loss of explicit memories, or the memories associated with the conscious recollection of experiences, events, and facts [2], that can be caused by damage to areas of the brain that are vital for memory processing. Though it is a common plot device in movies and television that amnesia makes you lose the sense of who you are, real-life occurrences generally don't cause loss of self-identity. [3] Amnesia victims perform extremely poor on most explicit memory tasks while their implicit memory, or the procedural memories and preserved abilities [2], is typically not impaired.

There are two kinds of amnesia: retrograde and anterograde. Retrograde amnesia works backward; it is the inability to retrieve specific set of memories that occurred before a given time. Anterograde amnesia, on the other hand, is the inability to form and retain new memories because of the failure to transfer information from short-term into long-term memory. [4]

Amnesia has an annual incidence rate, the rate of newly-diagnosed patients with amnesia in a given year, of 6.8/100,000. [5] Since anterograde amnesia, unlike a temporary episode of memory loss, can be permanent [3], this rate will just continuously add up to the total rate of patients with amnesia.

It is considered normal for individuals with amnesia to misplace things and lose their train of thought. [6] According to a 2007 study by J. Lazar where patients with amnesia were observed and interviewed, amnesiac people have issues on organization and oftentimes have much trouble remembering what information was written on which piece of paper. This leads to the missing appointments and messages which further results to their need of greater dependence on others. Observed individuals were said to have a common scenario in their places: pieces of paper were kept all over the place, either in books, pockets, or desks. [7]

There are no specific treatments and pharmaceutical drugs for curing amnesia, but the readily available techniques for enhancing memory and psychological support can help people with amnesia, including their families and friends, cope. [3] According to psychological researches, a number of helpful memory techniques are useful in exercising the explicit memory and improving the condition of patients with anterograde amnesia. Examples of tests for exercising the explicit memory are (1) recall memory test, a measure of explicit memory that involves recalling information that has previously been remembered, and (2) multiple-choice test, an example of a recognition memory test. [4] Such tests and games are available online like the tests being hosted on http://www.psychologistworld.com/ and http://www.humanbenchmark.com/.

It has also been proven that memory tests that are less technical and more personal are important because patients need tests on personal information and past events in his personal life. [3] Furthermore, tests with the self-reference effect, or the phenomenon that things are remembered easier if they are linked to thoughts about the self, are proven effective. [4] Memory evaluation through both technical and personal tests is very important since it can help determine the extent of memory loss and provide insights about what kind of help the person may need. Patients who suffer from anterograde amnesia need continuous good monitoring and rehabilitation through proper implementation of memory techniques to help them cope with the memories they are creating and losing every day.

The UP-PGH Department of Rehabilitation Medicine (DRM) offers services to patients with cognitive problems related to memory. Patients who seek rehabilitation services are usually diagnosed already with certain conditions and are usually just referred or forwarded to the department. DRM, however, also has its own rehab diagnosis to further understand the case and specific needs of the patient. DRM follows the centralized rules of UP-PGH on admitting patients. However, in the case of patients with cognitive problems related to memory such as amnesia, it is rare that they get confined. They only usually do when they suffer another health problem that makes them medically unstable such as stroke. Therapy sessions for these patients fall under the Section of Occupational Therapy. They usually offer memory trainings and habitual/routine trainings. For memory trainings, they perform different kinds of memory tests for patients. Furthermore, they keep records of the patient's statements as well as his guardian's to be used for the succeeding consultations. The frequency of consultations that a patient needs can be determined depending on the severity of his case and it is still up to the doctors and the therapists to know how much he needs. However, Jose Luis Blanco OTRP of DRM mentioned that it is rare for them to have amnesiac patients who regularly seek therapy. They often just go to the hospital for a session or two, so they expect the patient, together with his family, to continue memory exercises at home.[8]

B. Statement of the Problem

Patients need separate diaries, journals, photographs, calendars, notes and memory tests to help him remember things. Given that anterograde amnesia is lifetime, organizing the traditional way of using paper-based compensatory techniques is difficult to deal with since aside from being normally disorganized, patients with amnesia show strong symptoms of confusion and disorientation. [3]

Since it is rare for patients to seek regular therapy for whatever reason, they usually resort to do memory exercises at home. The currently available online memory tests that they can take lack monitoring capacity since after you take the test, it's up to you to keep track of your own score. Furthermore, these tests don't include questions on the personal level of the patients which is a vital part of memory rehabilitation as mentioned in the previous section. Because of this, the current strategy to test the patients on a personal level is through printing tests over and over again, which adds weight to the load of papers that have to be organized, or have someone to repetitively ask him verbally. Because of the absence of a central repository in the traditional way of gathering information for the tests, someone should manually record, compile, and update the inputs of all the family and friends of the patient who wish to contribute information repeatedly.

Another problem with the traditional way of coping is the possibility of losing track of the patient's progress due to misplacement of files and disorganization since the scores that the patient has been getting from his tests are being manually recorded by the patient himself or somebody else and is being done repetitively. Furthermore, rehabilitaiton centers like that of UP-PGH DRM don't get any form of updates with their patients unless they are contacted.

C. Objectives of the Study

- **General**

  The objective of the study is to be able to create a web-based monitoring and rehabilitation system for patients with anterograde amnesia that will host the compensatory techniques that can help him improve his condition. The system is intended to keep the records of the patients such as journal entries, memory tests, reminders, and photographs to organize them for him. Since the system is intended to be deployed online, it will (1) have a remote monitoring capacity that will allow the patient's legal guardian and therapist to generate his technical progress report in one click and (2) lessen the need for manual intervention in terms of contributing information. Lastly, unlike the memory tests available online, tests in the system will be on the personal level of the patient since the information will come from his family, friends, or anyone he encountered given that these information are validated by the legal guardian.

- **Specific**

  1. Allow patients to

     (a) Edit user profile and account information

     (b) Receive an e-mail upon request for password recovery

     (c) Add, edit, delete, and view journal entries according to categories (consisting of date, title, event details)

     (d) Add, edit, delete, and view activity reminders according to categories (consisting of date and time, title, and reminder details)

     (e) Add, edit, delete, and view photos according to categories (accepted file formats are jpg, gif, and png)

     (f) Take multiple choice memory tests on

        i. General facts/knowledge

        ii. Personal life events

        iii. Photo recognition

     (g) Search for journal entries, activity reminders, and photos

     (h) Generate personal progress report through graphs

  2. Allow the legal guardians to

     (a) Edit user profile and account information

     (b) Receive an e-mail upon request for password recovery

     (c) Add, edit, delete, and view personal journal entries for the patient according to categories

     (d) Accept or reject journal entries submitted by the occupational therapist and the public

     (e) Add, edit, delete, and view activity reminders for the patient according to categories

     (f) Accept or reject activity reminders submitted by the occupational therapist and the public

(g) Add, edit, delete, and view photos for the patient according to categories

(h) Accept or reject photos submitted by the occupational therapist and the public

(i) Contribute questions to memory tests

(j) Accept or reject questions for memory tests submitted by the occupational therapist and the public

(k) Create photo questions from previously uploaded photos

(l) Search for journal entries, activity reminders, and photos

(m) Generate graphical progress report of the patient

(n) Approve or reject requests for public accounts

3. Allow the occupational therapists to

(a) Edit user profile and account information

(b) Receive an e-mail upon request for password recovery

(c) Generate graphical progress report of the patients

(d) Submit journal entries

(e) Submit, edit, and view activity reminders

(f) Submit photos

(g) Submit questions for memory tests

(h) View patient list

4. Allow the public to

(a) Request for an account and receive an e-mail once account is approved

(b) Edit user profile and account information

(c) Receive an e-mail upon request for password recovery

(d) View submitted entries

(e) Submit journal entries

(f) Submit activity reminders

(g) Submit photos

(h) Submit questions for memory tests

5. Allow the system administrators to

   (a) Receive an e-mail upon request for password recovery

   (b) View all user accounts

   (c) Add new user accounts

   (d) Delete user accounts

   (e) Re-asiign therapists for patients

D. Significance of the Project

The goal of this study is to integrate various compensatory techniques in a single system. Since it is web-based, it will lessen the organization problems when using the traditional paper way by keeping track of the objects (journal entries, reminders, photos, memory tests) through compiling them in a single system, providing a user-friendly navigation and integrating a search function. Through the repository of submissions, memory tests in the system will be on the personal level of the patient and will also lessen the need for manually recording, compiling, and updating memory tests repeatedly just to compensate for the lack of personal tests in the currently available websites. The online system will make it easier for the patient's legal guardian and therapist to remotely monitor and track his progress through the report-generating function. This answers the problem of losing track of the patient's progress by misplacing files when scores are being manually recorded.

E. Scope and Limitations

The system has the following limitations:

1. The accounts of the patient and his guardian are made during the initial consultation at the hospital.

2. The questions from the memory tests will come only from the inputs by or approved by the legal guardian.

3. The progress report will solely base on the patient's scores on memory tests.

4. The public users will have to request for an account and be approved by the legal guardian; only by then can they submit information for the patient.

5. Upon checking the patients progress report, the therapist may opt for a therapy session via an activity reminder.

F. Assumptions

The system has the following assumptions:

1. The patients are legitimate people with diagnosed case of anterograde amnesia.

2. The legal guardian is legitimately connected to the patient and is appointed by the patient's family and friends.

II. Review of Related Literature

C. Morr et. al. [9] stated in his monitoring system that the three biggest factors impacting the delivery of healthcare are (1) aging population, (2) rising labor costs, and (3) complexity of diseases. In Canada, healthcare institutions are challenged to deliver quality care with limited resources. That is why monitoring systems, powered by information technology, for different health conditions are abundant nowadays.

In 2012, J. Pak and K. Park [10] shared the idea of the importance of remote monitoring for patients. They mentioned that medication adherence is one of the most important factors in treating diseases so they proposed a medication monitoring system based on remote device management methods to monitor the medicinal intake of patients especially those with chronic diseases. Their idea is to have a central server connected to the personal medication dispensers of patients at their own homes in order to keep track of their adherence better. This system was inspired by the idea of monitoring a patient's progress remotely so it will be easier for people around him to get a hold of how the patient is doing.

Monitoring systems can also be used to monitor daily activities. T. Tsukiyama, in 2015, [11] tried to consider problems regarding the limited number of caregivers when it comes to monitoring the condition of elderly people. He proposed a sensor-based monitoring system that evaluates the health status of solitary elderly based on daily living activities, and provides forecasts of emergency situations to a local nursing center without explicit user interaction. Thus with the three studies mentioned above, it was evident that monitoring people remotely through technology is now a widely-used practice.

Because of the continuous development in technology, different rehabilitation techniques for coping up with certain conditions are also being automated widely through the development and use of rehabilitation systems. In 2014, Y.Z. Chong et. al. [12] designed and developed a cost-effective rehabilitation system in the form of a wearable upper extremities powered exoskeleton. The system's purposes are to provide rehabilitation to post-stroke individuals, as well as those with related movement disorders, and just plainly help anyone to increase lifting capabilities.

Aside from the physical rehabilitation systems, there are also a lot of cognitive rehabilitation systems which is one of the main ideas of this study: to provide an online occupational therapy rehabilitation. A system was proposed by L. Jiang et. al. [13] to provide rehabilitation and training to the individuals suffering from Attention Deficit Hyperactivity Disorder (ADHD) or other similar neurological disorders. The idea of the researchers is to produce a 3D game that uses Brain-Computer Interface or BCI technology, a direct communication pathway between a brain and an external device. It aims to fulfill the objective of enhancing attention and retain the essence of effective treatment on people with ADHD. The system was tested with chosen subjects and got a positive solution so it is expected to replace or complement existing counselling methods for treating ADHD.

Both monitoring systems and rehabilitation systems are proven efficient, at least by the mentioned studies, in the context of health-related problems and situations. Patients with anterograde amnesia, as mentioned in the previous chapter, are oftentimes confused and disoriented. Furthermore, it was also stated that memory techniques are used to help patients cope up with their inability to form new memories. Given these two facts, patients with anterograde amnesia are most likely candidates to benefit from a monitoring and rehabilitation system. In fact, there are a number of systems that were already made or proposed to help people, in general, with their memory difficulties. The following related literatures are in line with the support for memory recall for different types of people and their conditions.

In 2009, E. Svoboda and B. Richards [14] proposed a newly established theory-driven training method to specifically compensate for anterograde amnesia that capitalizes on emerging smartphone technologies. Basically, the study has a 55-year old woman subject, hidden in the name RR, who undergone two phases: skill acquisition and skill generalization. In the skill acquisition phase, she was trained in eight 1-hr sessions to use her smartphone's calendar for reminders instead of the usual paper-based way and was successful in acquiring the skill. In the second phase, RR further generalized use of her smartphone to everyday activities and successfully acquired other skill sets in using other smartphone features such as camera, address book, and voice recorder.

A.Zmily and Dirar S. [15] said that advances in mobile phone technology have paved the way for new applications including those which are used as medical devices. They, therefore, proposed using smartphones to enhance the quality of life for individuals with Alzheimer's disease. They developed an integrated mobile application called ADcope that aims to maximize the patients' remaining capabilities. The application contains three modules: (1) a memory wallet that contains pictures and sentences about familiar people, places and events, (2) a calendar with reminders of all daily activities, and (3) a module that utilizes Near Field Communication (NFC) tags that are placed on various things like drawers and doors. After the initial testing, it was concluded that the benefits of using the manual methods can also be achieved using a smartphone application. The integration of all of the modules into a single application simplified the exercises for the patients.

In 2014, a mobile memory game for patients with acquired brain damage was presented by M.J. Moron et. al. [16] Instead of formulating a new game, they decided to go with the classic, well-known memory card game because (1) the game should be familiar, straightforward and easy to learn, (2) level of difficulty is relatively easy to personalize, and (3) it has high usability and accessibility. The goal of the game is to find out pairs of matching cards and the initial prototype testing was done through letting two groups of users use the Android application. The results showed several usability and accessibility flaws but were identified and corrected.

A. Molina et. al. [17] conducted a study which aims to clinically validate a new modality of cognitive rehabilitation services based on telemedicine systems for patients with moderate to severe traumatic brain injury. The idea was to give patients computerized cognitive rehabilitation program based on telemedicine systems. It was tested on eighty patients and neuropsychological test scores were recorded before and after treatment. As a result, patients showed significant improvement after the application of the program.

A paper by C. Dobbins et. al. [18] was presented in 2013 to investigate and present DigMem, a platform for creating human digital memories using pervasive devices and linked data. These human digital memories are archived through accessing the data from a number of services, thus resulting in a vast amount of diverse information. The study offers a novel solution into building memories that are composed of a variety of information and developing a prototype to demonstrate the design. Initial results were good but there's a room for a lot of further works like using clustering and linking techniques to enable an endless stream of memories.

An interesting study was presented by M. Hamiz et. al. [19] in 2014 called "Repetitive Memorization Mobile Application Development for Elderly Memory Recall". The inspiration behind the idea is to help the elderly Muslims to avoid frustrations when they forget the Quranic verses that they recite regularly. This is a very important practice that they do to strengthen their spiritual lives. The researchers developed a mobile application that will help them memorize these verses using the repetitive memorization technique. This technique, also known as rote learning, deals with words, not ideas and relationships, meaning that it is the ability to remember things without giving any thought to the meaning. It is also a rule-based expert system that suggests what the user need to memorize based on the usage history. It was designed as interactive and flexible to deal with the elderly better.

III. Theoretical Framework

A. UP-PGH Department of Rehabilitation Medicine, Section of Occupational Therapy

The Department of Rehabilitation Medicine (DRM) of the Philippine General Hospital (PGH) started out in 1910 as part of the Department of Radiology. In the 1970s, the remarkable growth of the DRM was noticed and was then recognized as distinct from Radiology. The DRM was recognized as a clinical department of PGH on October 28, 1971 with Dr. Guillermo Damian as its first chairman and resident. [20]

The Section of Occupational Therapy is consistent with the mission-vision of the DRM. It aims to serve as the center of excellence in providing quality service to clients by helping people help themselves. It also molds globally competitive occupational therapy professionals and implements researches that will contribute to the growth of knowledge in the field of occupational therapy and rehabilitation medicine. [21]

With their mission of helping people help themselves, the Section of Occupational Therapy offers a variety of services for patients with memory problems in general. They offer general services such as ADL/iADL or (Instrumental) Activities for Daily Living skills training to help patients cope with everyday living given their condition. Other services include environmental modification, perceptual skills training, work and productive activities, work simplification techniques, and social skills training. They also offer cognitive skills training through memory training and habitual/routine training, the usual services offered to people with amnesia.[21] Cognitive skills are the core skills that the brain uses to think, learn, remember, reason etc. which are practically impaired for patients with amnesia. [22]

B. Amnesia

The Oxford Advanced Learner's Dictionary simply defined amnesia as a medical condition in which somebody partly or completely loses their memory. [23] Amnesia can refer to a memory loss in the absence of, or out of proportion to, other cognitive problems that the affected individual might suffer. The typical amnesiac patient is unable to recall explicit memories; these are memories for facts and events that are capable of being consciously recalled. However, patients with amnesia, even those who are severely impaired individuals, retain implicit memories; this type of memory refers to a patients ability to demonstrate his responses in a material that has been registered in his memory even without his knowledge that he has this information. [24]

There are several root causes for amnesia. These causes are mostly traceable to brain injuries that are related to physical trauma, disease and infection, drug and alcohol abuse, or reduced blood flow to the brain also called as vascular sufficiency. Encephalitis, herpes, and other infections that damage tissues in the brain can cause amnesia. Doctors diagnosing amnesia look at several factors to diagnose amnesia and determine its cause. They may look into the patient's illnesses, drug and medication history and his general health. Psychological exams and imaging tests are also important to evaluate the extent of amnesia that the patient has as well as to examine the possible brain damages. [25]

Generally, there are two kinds of amnesia. One is the loss of memories preceding the onset of brain damage; this kind is called the retrograde amnesia. On the other hand, the impaired ability to remember or recall memories beginning with the onset of a condition is called anterograde amnesia. Patients with anterograde amnesia are unable to learn and remember new or recent memories. The severity of memory defect varies with the nature of the disorder. [4] It can be so extreme like in HM's case.

Henry Gustav Molaison, or popularly known as H.M., was an American patient whose life becomes the most popular case study there is for amnesia and other memory disorders as well as for the cognitive neuropsychology in general. He was widely studied from 1957 until his death in 2008. In his case, H.M. consistently failed to recall having eaten a meal or even to get to know the people who provided his daily care. His case of anterograde amnesia was so severe that he could only hold onto new information for only a few seconds without distractions. [26] [27]

C. Memory Rehabilitation Techniques

There are several techniques and strategies that can help restore lost memory capacity, provide compensatory techniques or teach the use of external memory aids. These techniques have been developed to enhance new learning, or at least modify behavior of patients with amnesia. [28] Many rehabilitation techniques are actually used to treat individuals who specifically suffer from anterograde amnesia. Compensatory techniques, such as computers, beepers, written notes, diaries or through intensive training programs involving the active participation of the individual, as well as his/her family and friend circle, can be the focus of interventions for the patient. In moderately or severely injured individuals, it is proven that those interventions appealing to external aids, such as reminders in order to facilitate particular knowledge or skill acquisition, are effective. Interventions can also focus on reality orientation techniques which has the purpose to enhance orientation using stimulation and repetition of the basic orientation information. [29]

The primary objective of memory therapy is to lessen the patient's dependency on others by training him to be as independent as possible in activities of daily life. Rehabilitation does, therefore, not only focuses on the acquisition of specific knowledge but to also develop the individual's ability to remember to do something in the future. Memory rehabilitation has strongly been influenced by memory theory, and the interaction between both has stimulated the development of techniques that partly rely on implicit memory and therefore enable even patients with dense amnesia to acquire new information. Techniques such as the spaced-retrieval technique, which prompts recall of information over increasingly longer retention intervals, and vanishing cue methods, which involves giving individuals cues which are gradually withdrawn throughout trials until responses do not depend on cues anymore, are examples of techniques influenced by the memory theory. [28]

Memory tests vary from one type to the other and patients with anterograde amnesia usually need types of tests that focus on the following:

1. Short Term Memory - this type of test is widely available on different websites. It usually requires participants to memorize certain sequences of words and/or numbers and have him repeat them afterwards. [30]

2. General Knowledge - a test where questions are something that are more general such as the name of the current president of the country. [3]

3. Personal Life Events - this test is composed of questions on the personal level of the patient where the focus depends on the type of memory. [30]

   (a) To exercise a patient's episodic memory, questions usually focus on the significant life events of a patient with more importance on the details.
   "Tell me about your wedding day."
   "What happened during the time you joined the international quiz bee?"

   (b) To exercise a patient's long term remote memory, questions are usually about what happened in a normal event relatively long period of time ago.
   "Where did you go last summer vacation?"
   "What did you get from your parents on Christmas two years ago?"

   (c) To exercise a patient's long term recent memory, questions are of the things that happened recently.
   "What did you eat for dinner last night?"
   "What did you watch after breakfast?"

4. Photo Recognition - a test where picture of important people, places, and events are shown to the patient for recognition. [31]

D. Monitoring System

A Monitoring System is a system that allows its users to capture data, process and disseminate information in a systematic way. It provides sufficient information to the decision makers to (1) take initiatives to improve the quality of the program and (2) measure the expected objectives and outputs. To put it up shortly, monitoring system ensures that activities and objectives are being carried out on the right track by checking on them, measuring progress, identifying problems as they come up and finding strengths that can be built up. [32]

Monitoring systems is a very broad area; they can be used for monitoring disasters, risks, business processes and more. In the field of health, monitoring systems for different conditions are abundant nowadays because of the continuously increasing number of people suffering from certain diseases while the labor force assigned to give the necessary care is decreasing. Monitoring systems are, therefore, important to help the caregivers aid the patients without much manual intervention. [9]

E. Rehabilitation System

Rehabilitation engineering is the use of engineering science and principles which aims to (1) provide technological solutions to assist individuals with disabilities, and (2) aid the recovery of physical and cognitive functions lost through technologies. [33] Rehabilitation system is the software part of rehabilitation engineering. In a research conducted for developing a system for stroke patients [34], their findings were that home-based rehabilitation systems should be

- An aid to therapy
- Not specific to one 'model of therapy'

- Flexible to individual needs
- Simple and compact to uses
- Take into account other conditions/difficulties of the patient
- Give feedback on rehabilitation performance

F. Information System

Information system is a computer science subfield that can be defined as an integrated set of components for collecting, storing, and processing data. The principle of information systems focus more on delivering information, knowledge, and digital products. [35]

In addition to the embedded role of information technology in clinical and diagnostics equipment, IS are uniquely positioned and used to capture, store, process, and communicate timely information to decision makers. These processes done by information systems aim for a better coordination of healthcare at both the individual and population levels. Information systems have great potential to reduce healthcare costs and improve outcomes. [36]

G. Database Management System

A database management system (DBMS) is a software package designed to define, manipulate, retrieve and manage data in a database. In general, a DBMS manipulates the data itself, the data format, field names, record structure and file structure. Rules to validate and manipulate this data are also being defined by the DBMS. Fourth-generation query languages, such as SQL, are used along with the DBMS package to interact with a database. [37]

The DBMS essentially serves as an interface between the database and end users or application programs. It allows the end users or application programs to create, read, update and delete data in a database. It also ensures that data is consistently organized and remains easily accessible. The DBMS manages three important things: (1) the data, (2) the database engine that allows data to be accessed and modified, and (3) the database schema, which defines the logical structure of the database. [38]

H. Model-View-Controller Architecture

The Model-View-Controller (MVC) design pattern assigns objects in an application one of three roles: model, view, or controller. The pattern defines not only the roles that objects will be assigned to do in the application, it also defines the way objects communicate with each other. Each of the three types of objects is separated from the others by abstract boundaries and communicates with objects of the other types across those boundaries. [39] The model is where the applications data objects are stored. Models are usually the one communicating with the database. The view is basically the user interface; it is whats presented to the users and how users interact with the application. The view is usually made with HTML, CSS, JavaScript and often, templates. The controller is the decision maker and it serves as the connector between the model and the view. The controller updates the view when the model changes. It also adds event listeners to the view and updates the model when the user manipulates the view. [40]

IV. Design and Implementation

A. Use Case Diagram

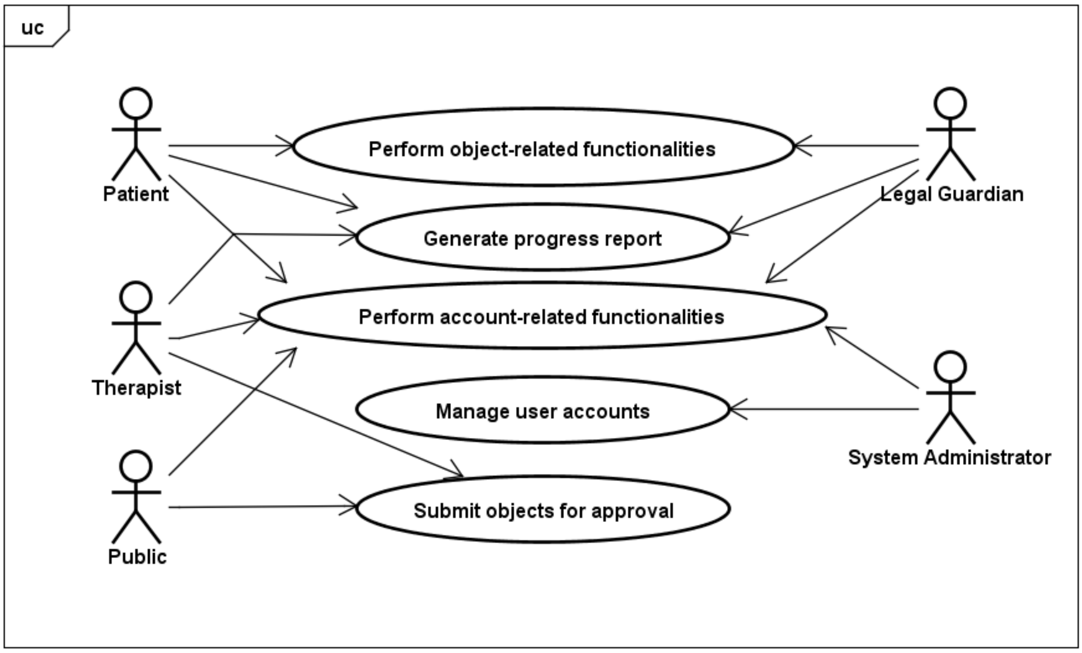

uc
Patient
Therapist
Public
Legal Guardian
System Administrator
Perform object-related functionalities
Generate progress report
Perform account-related functionalities
Manage user accounts
Submit objects for approval

Figure 1: Use Case Diagram: Overview

The system will have five types of users: the patients, the legal guardians, the occupational therapists, the system administrators, and the general public. Figure 1 shows the overview of the roles that each of them can perform. As a convention for this system, journal entries, photos, reminders and memory tests will be referred to as objects. All users who have accounts can perform specific account-related functionalities. The patient and the guardian have the privileges of performing object-related functionalities. They, together with the therapist, are eligible of generating progress report; the patient and guardian can only generate the report of the patient himself while the therapist can view progress reports of all of his patients. The therapist and the public, as discussed in the previous chapters, can submit objects subject to the approval of the guardian. Lastly, the system administrator is the one in charge for managing user accounts.

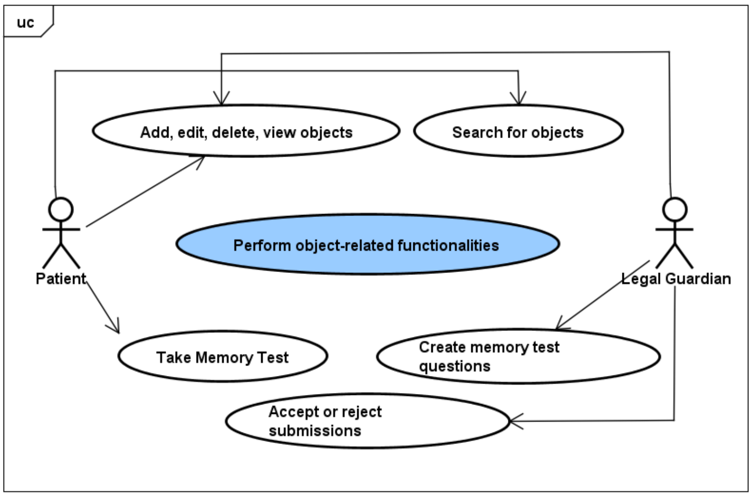

uc
Add, edit, delete, view objects
Search for objects
Patient
Perform object-related functionalities
Legal Guardian
Take Memory Test
Create memory test questions
Accept or reject submissions

Figure 2: Use Case Diagram: Manage Users

Figure 2 shows the role of the system administrator for managing user accounts. All user accounts are made through the system administrator. During the initial visit to the hospital, accounts will be made both for the patient and his guardian. They will be given temporary usernames and passwords that they can change later on. System admins are also responsible for deleting user accounts, re-assigning therapists.

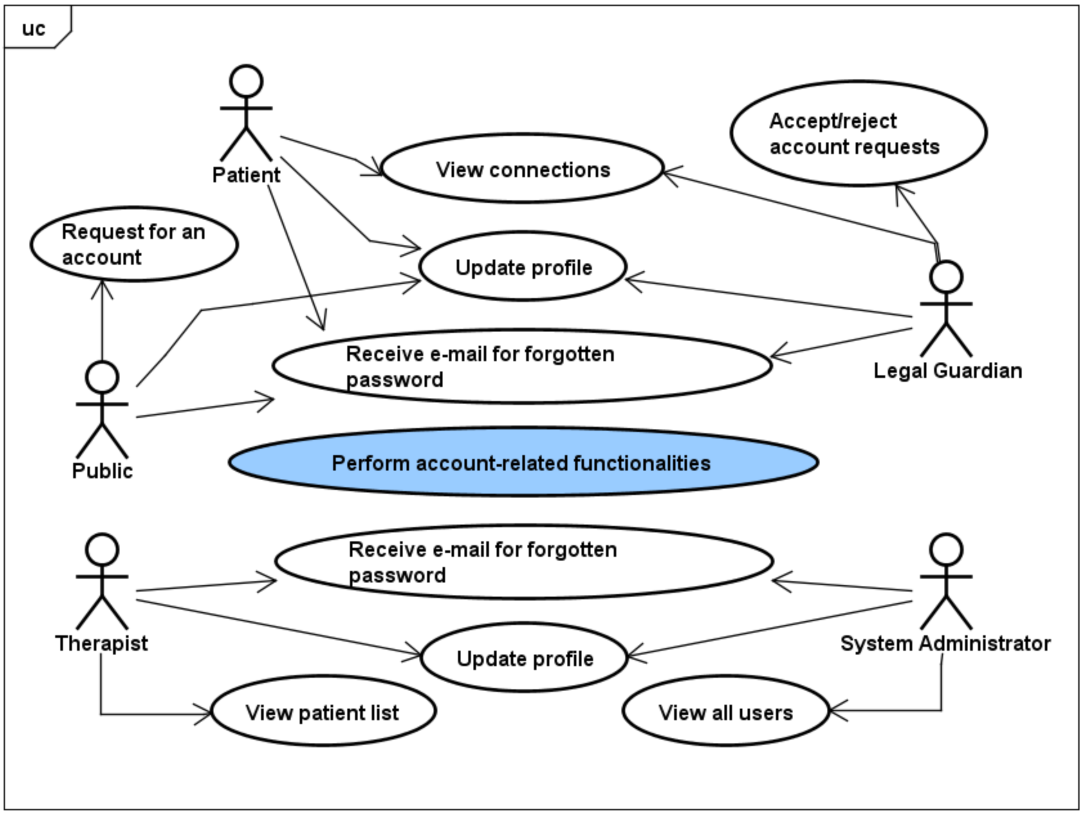


Figure 3: Use Case Diagram: Account-related Functionalities

When the users log in, they can edit their accounts immediately to change their password into something easier to remember than the randomly generated string assigned to them. This happens by updating their profiles. Figure 3 shows all other account-related functionalities for the users. They are all capable of requesting and receiving an e-mail for forgotten passwords upon request. Each of them are capable of viewing accounts of a specific set of people: the patient and the guardian can only view each others account plus the therapist assigned to the patient, the therapist can view all of his patients accounts, the public can view only his account, and the system administrator can view all accounts. The public users account is requested through the patients public ID and the guardian has the power to accept or reject this request.

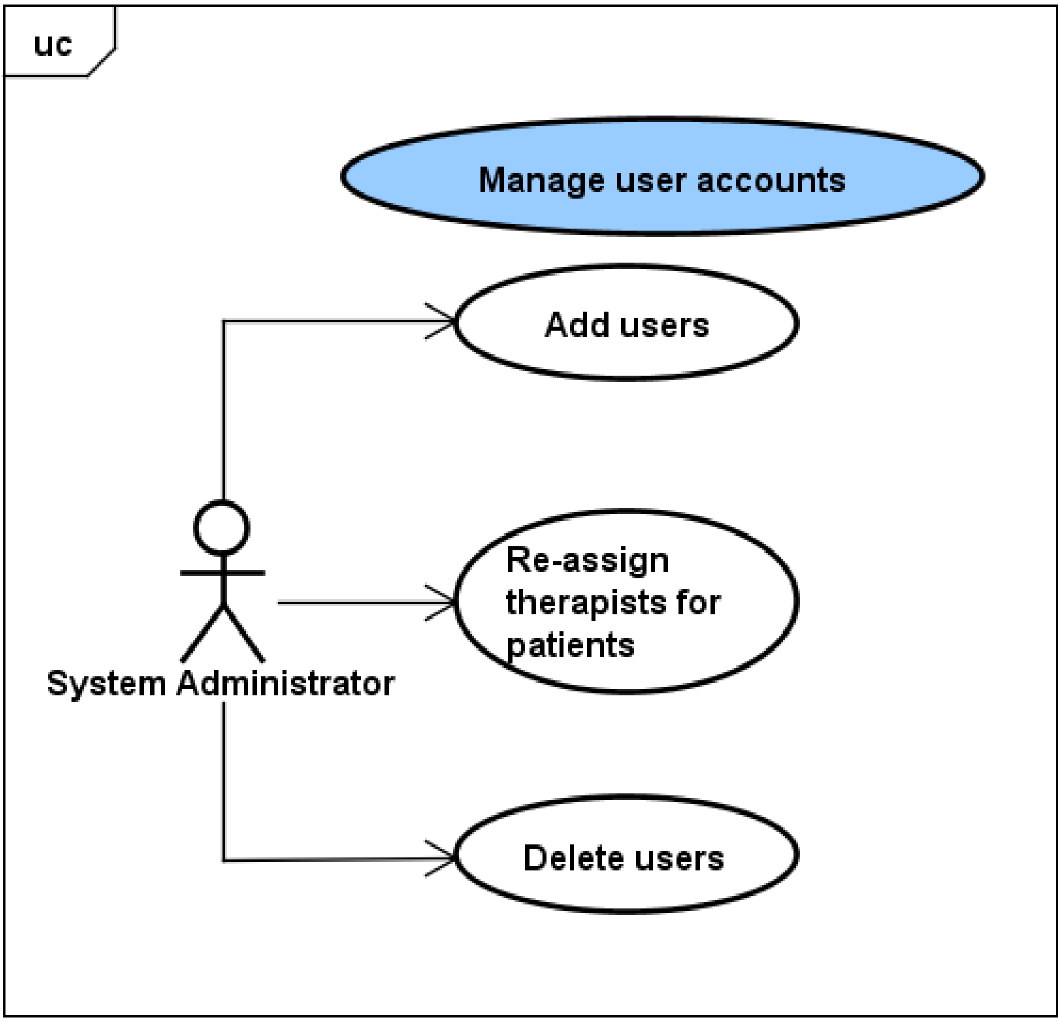


Figure 4: Use Case Diagram: Activity-related Functionalities

The patient can add, edit, delete, and view objects, which were either made by or for him, except for memory tests. He can view these objects according to filters or categories. He can also search for these objects through keywords. The patient can take memory tests of different types at most once a day for each. Just the same as the patient, the legal guardian can add, edit, delete and view objects for the patient and search for these objects. He can contribute questions for the memory tests of the patient and even create photo questions from the readily available photos in the system. The legal guardian also has the power to accept or reject submissions of objects by the public and the therapist for the patient.

B. Context Diagram

Figure 2 shows the context diagram of the system. This shows the limitations and restrictions for each type of user that can interact with the system. The five types of users which are the patient, the legal guardian, the occupational therapist, the public and the system administrator are restricted to the things that they can input to the system and is limited to the outputs that they are allowed to get from the system.

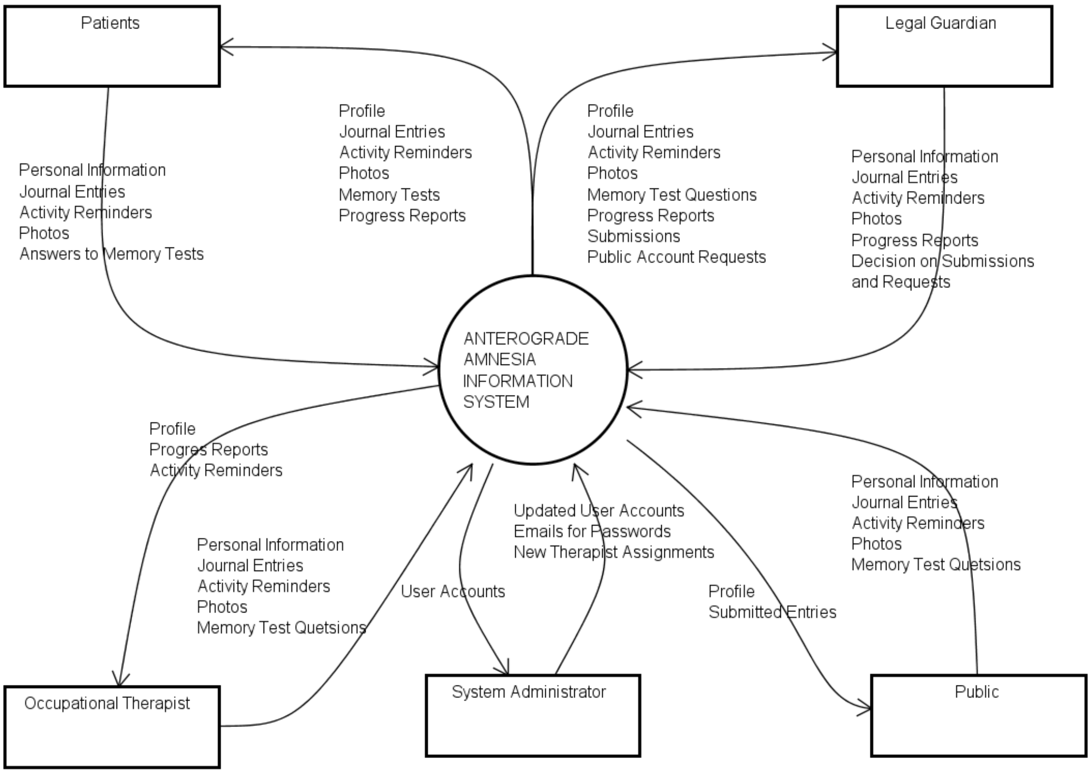


Figure 5: Context Diagram

C. Database Design

The system will be database-dependent since it is intended to keep records. Therefore, a good database design is necessary to better fulfill the system's objectives. Figure 3 shows the Entity Relationship Diagram for the database design of the system followed by the tables for Data Dictionary.

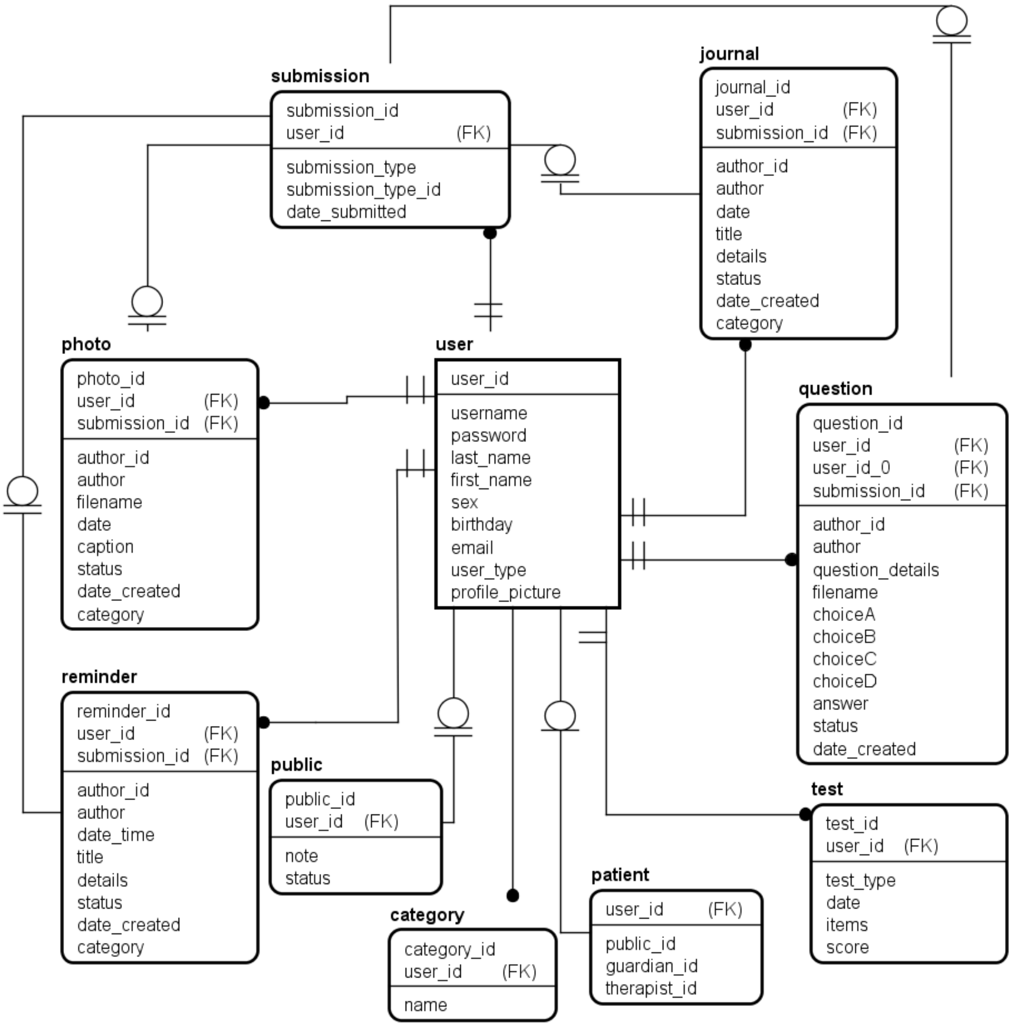


Figure 6: Entity Relationship Diagram

Attribute	**Data Type**	**Description**
user_id	int(11)	unique id of the user
username	varchar(20)	username of the user
password	varchar(50)	password of the user
last_name	varchar(50)	last name of the user
first_name	varchar(50)	first name of the user
sex	varchar(1)	sex of the user: M (male) or F (female)
birthday	date	birthday of the user
email	varchar(50)	email address of the user
user_type	tinyint(1)	type of user; 0-admin, 1-patient, 2-guardian, 3-therapist
profile_picture	varchar(255)	filename of the user's profile picture

Table 1: user table

Attribute	**Data Type**	**Description**
user_id	int(11)	user id of the patient
public_id	int(11)	patient id for submissions
guardian_id	int(11)	user id of the patient's guardian
therapist_id	int(11)	user id of the patient's guardian
request	tinyint(1)	new public id request; 0-no request, 1-request

Table 2: patient table

Attribute	**Data Type**	**Description**
journal_id	int(11)	unique id of the journal entry
user_id	int(11)	user id of the patient
author_id	int(11)	user id of the author; 0 if from public
author	varchar(255)	name of the author
date	date	date of the event
title	char(100)	title of the event
details	longtext	narrative description of the event
status	tinyint(1)	status of the entry; 0-pending, 1-accepted
date_created	date	date the entry was created

Table 3: journal table

Attribute	**Data Type**	**Description**
reminder_id	int(11)	unique id of the reminder
user_id	int(11)	user id of the patient
author_id	int(11)	user id of the author; 0 if from public
author	varchar(255)	name of the author
date_time	datetime	date/time of when to remind
title	varchar(50)	title of the reminder
details	longtext	details of the reminder
status	tinyint(1)	status of the entry; 0-pending, 1-accepted
date_created	date	date the entry was created

Table 4: reminder table

Attribute	**Data Type**	**Description**
photo_id	int(11)	unique id of the photo
user_id	int(11)	user id of the patient
author_id	int(11)	user id of the author; 0 if from public
author	varchar(255)	name of the author
filename	varchar(20)	filename of the photo
date	date	date the photo was taken
caption	longtext	description of the photo
status	tinyint(1)	status of the entry; 0-pending, 1-accepted
date_created	date	date the entry was created

Table 5: photo table

Attribute	**Data Type**	**Description**
question_id	int(11)	unique id of the question
user_id	int(11)	user id of the patient
author_id	int(11)	user id of the author; 0 if from public
author	varchar(255)	name of the author
question_details	longtext	the question itself
filename	varchar(20)	filename of photo(if any); 0 if none
choiceA	varchar(255)	multiple choice answer A
choiceB	varchar(255)	multiple choice answer B
choiceC	varchar(255)	multiple choice answer C
choiceD	varchar(255)	multiple choice answer D
answer	varchar(50)	correct answer
type	tinyint(1)	1-personal, 2-general knowledge
status	tinyint(1)	status of the entry; 0-pending, 1-accepted
date_created	date	date the entry was created

Table 6: question table

Attribute	**Data Type**	**Description**
test_id	int(11)	unique id of the test
user_id	int(11)	user id of the patient
test_type	tinyint(1)	type of the test; 1 - personal, 2 - photo recognition, 3 - general knowledge
date	date	date taken
items	tinyint(2)	number of items
score	tinyint(2)	score

Table 7: test table

Attribute	**Data Type**	**Description**
submission_id	int(11)	unique id of the submission
user_id	int(11)	user id of the patient
submission_type	tinyint(1)	type of submission; 1-journal, 2-reminder, 3-photo, 4-question
submission_type_id	int(11)	id of the entry in its respected table
date	date	date taken

Table 8: submission table

D. System Architecture

The system will be implemented in PHP programming language using the Model-View-Controller architecture through the CodeIgniter framework. The front end will be implemented in HTML, CSS, JavaScript and jQuery using the Bootstrap framework. For the database, the system will be using MySQL. Figure 4 shows the visual representation of the system architecture.

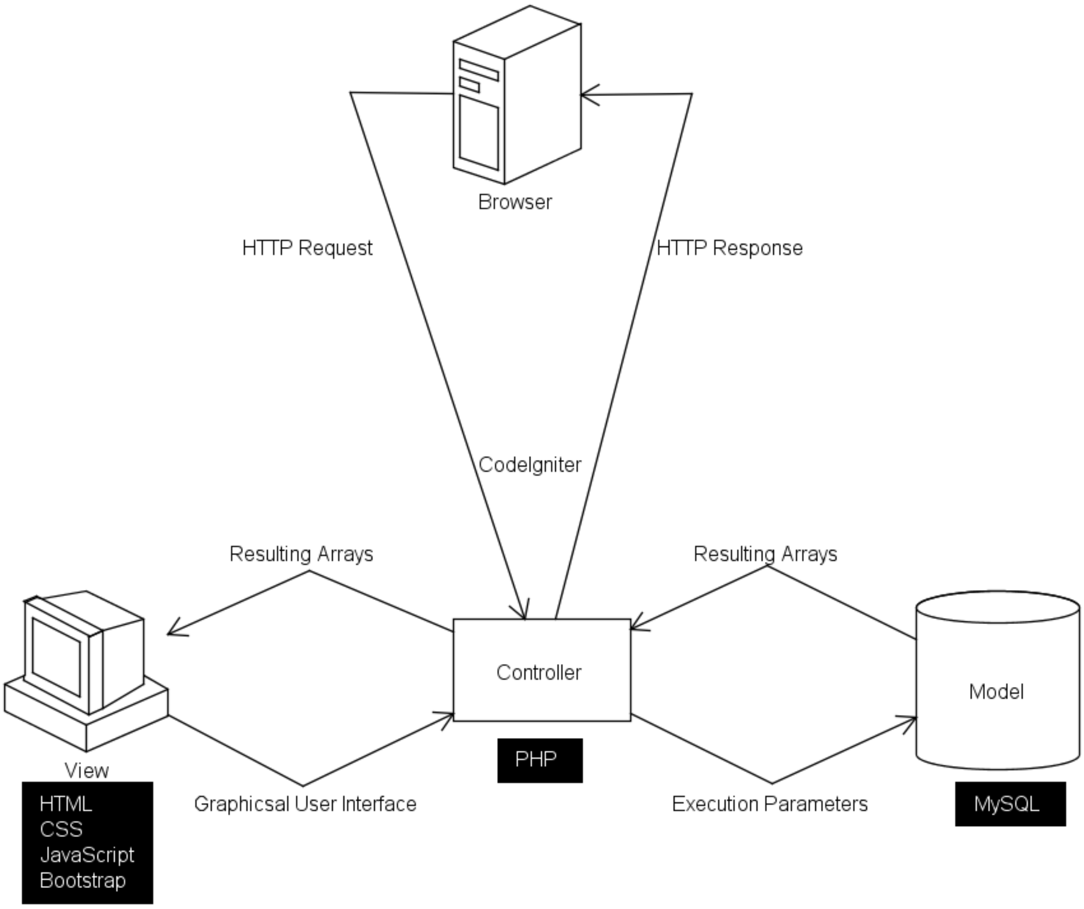


Figure 7: Context Diagram

E. Technical Architecture

The minimum requirements for the server machine include:

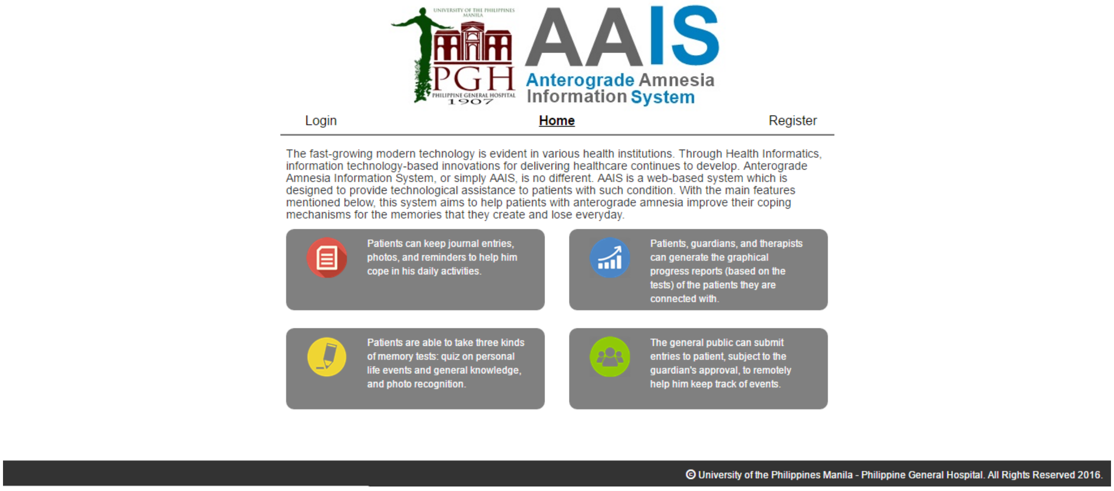
- PHP version 5.6
- MySQL version 5
- Apache version 2.4
- 1 GB free disk space
- 2.4 MHz processor
- 500MB RAM

The minimum requirements for the client include:

- 1 GB RAM
- JavaScript-enabled browser

V. Results

1. General Public View


UNIVERSITY OF THE PHILIPPINES MANILA
PGH
PHILIPPINE GENERAL HOSPITAL
1907
AAIS
Anterograde Amnesia Information System
Login
Home
Register

The fast-growing modern technology is evident in various health institutions. Through Health Informatics, information technology-based innovations for delivering healthcare continues to develop. Anterograde Amnesia Information System, or simply AAIS, is no different. AAIS is a web-based system which is designed to provide technological assistance to patients with such condition. With the main features mentioned below, this system aims to help patients with anterograde amnesia improve their coping mechanisms for the memories that they create and lose everyday.

Patients can keep journal entries, photos, and reminders to help him cope in his daily activities.

Patients, guardians, and therapists can generate the graphical progress reports (based on the tests) of the patients they are connected with.

Patients are able to take three kinds of memory tests: quiz on personal life events and general knowledge, and photo recognition.

The general public can submit entries to patient, subject to the guardian's approval, to remotely help him keep track of events.

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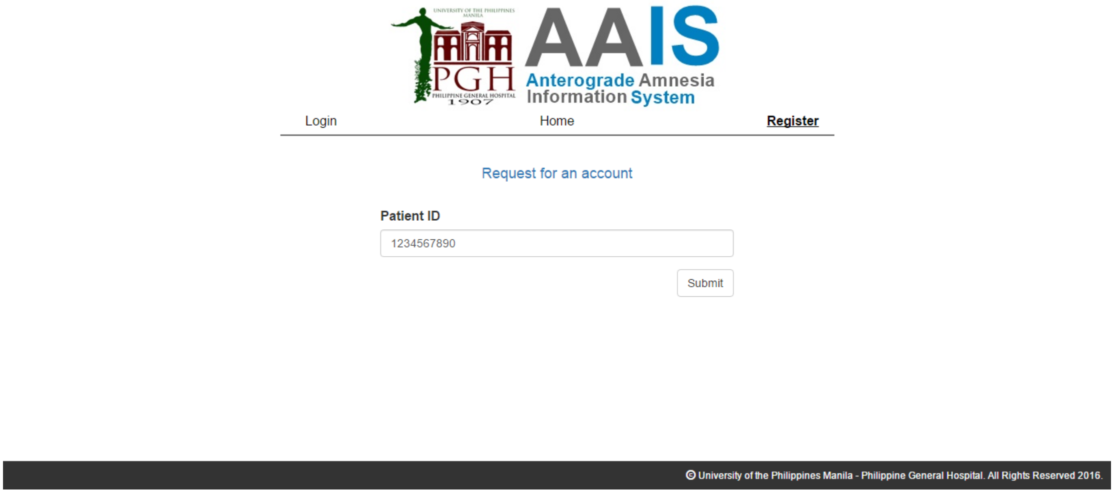
Figure 8: Home Page

Figure 8 shows the home page of the system. It gives a brief description about the features of the website.


UNIVERSITY OF THE PHILIPPINES MANILA
PGH
PHILIPPINE GENERAL HOSPITAL
1907
AAIS
Anterograde Amnesia Information System
Login
Home
Register
Submit

Request for an account

Patient ID: 1234567890

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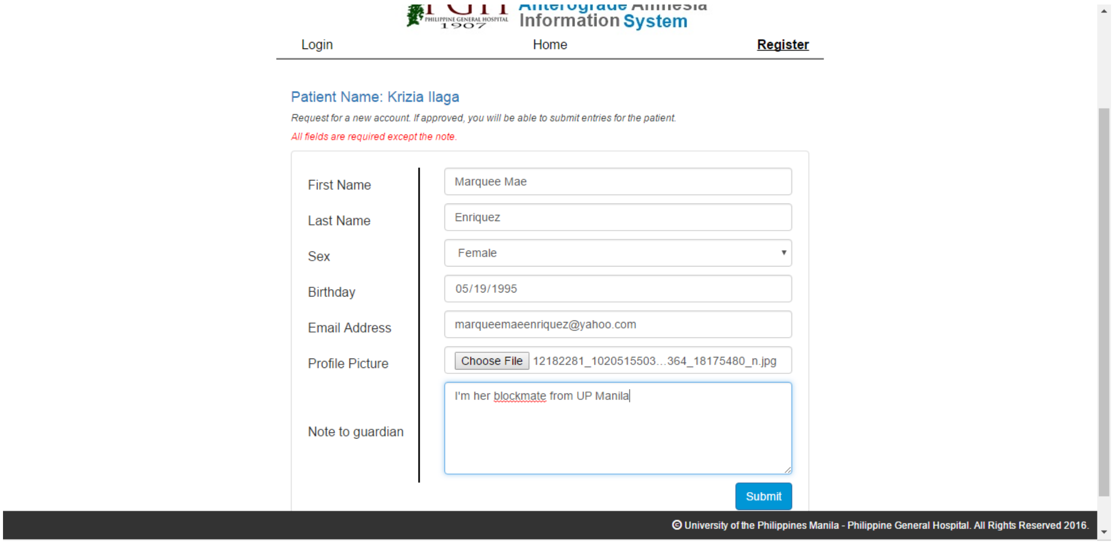
Figure 9: Public Registration: Entering public ID

For public registration, they should get a hold of the patient's public ID. Figure 9 shows the page where the public ID should be entered to proceed.


Information System

Patient Name: Krizia Ilaga

Request for a new account. If approved, you will be able to submit entries for the patient.

All fields are required except the note.

First Name	Marquee Mae
Last Name	Enriquez
Sex	Female
Birthday	05/19/1995
Email Address	marqueemaeenriquez@yahoo.com
Profile Picture	Choose File 12182281_1020515503...364_18175480_n.jpg
Note to guardian	I'm her blockmate from UP Manila

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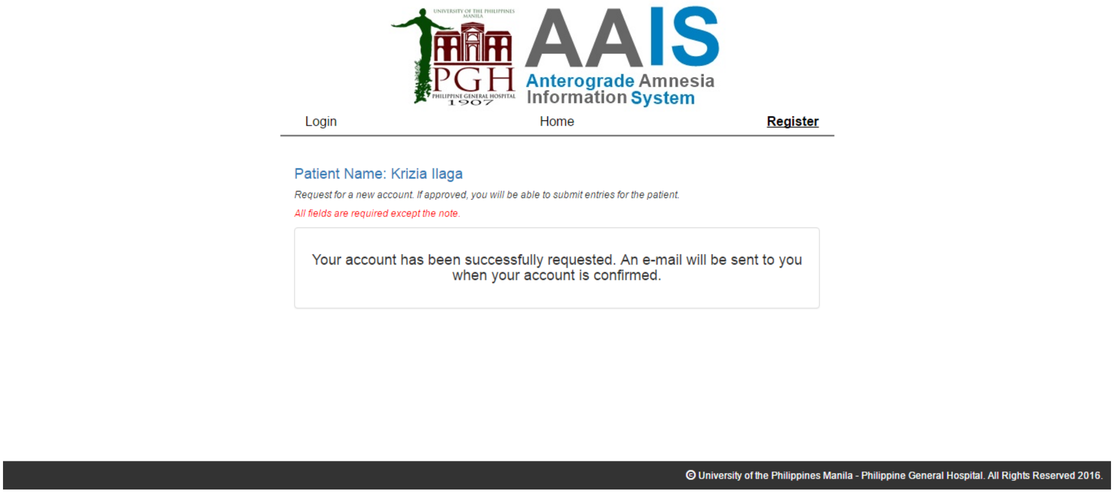
Figure 10: Public Registration: Registration form


AAIS Anterograde Amnesia Information System

Patient Name: Krizia Ilaga

Request for a new account. If approved, you will be able to submit entries for the patient.

All fields are required except the note.

Your account has been successfully requested. An e-mail will be sent to you when your account is confirmed.

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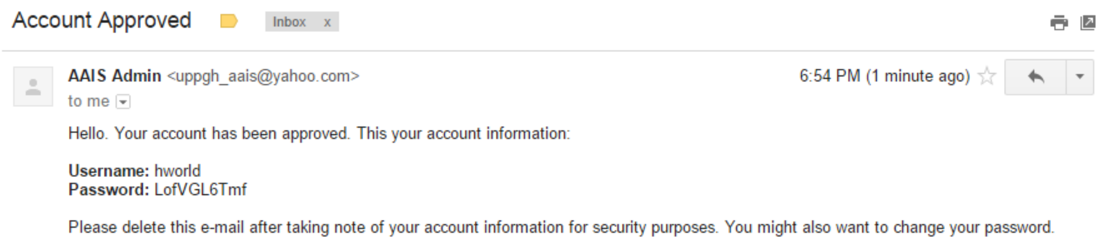
Figure 11: Public Registration: Confirmation message



Account Approved

AAIS Admin <uppgh_aais@yahoo.com>

to me

6:54 PM (1 minute ago)

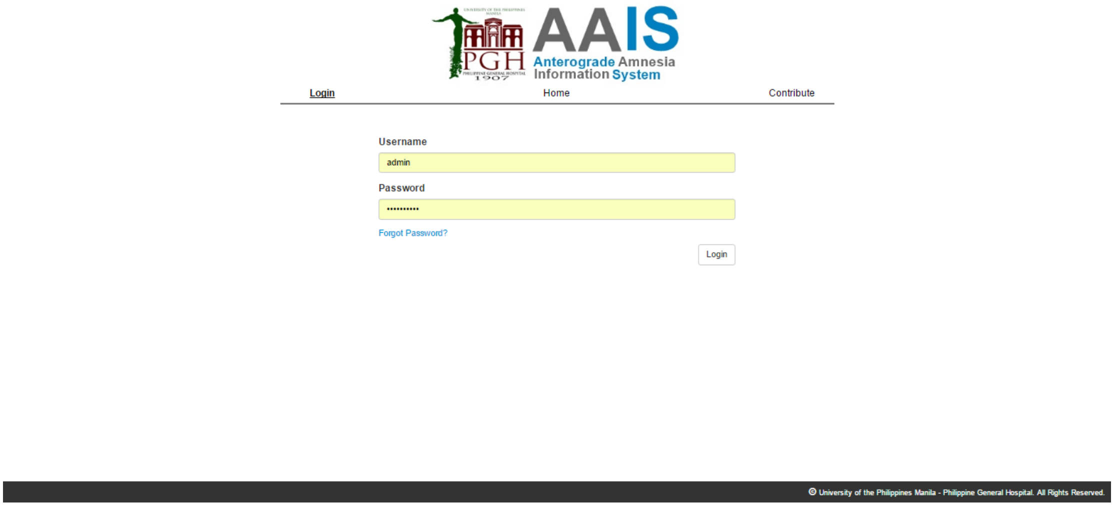
Hello. Your account has been approved. This your account information:

Username: hworld
Password: LofVGL6Tmf

Please delete this e-mail after taking note of your account information for security purposes. You might also want to change your password.

Figure 12: Public Registration: Confirmation email

Figure 10 shows the form for account registration. When account information has no input errors, a confirmation message will appear as shown in Figure 11. Figure 12 shows the e-mail that will be received by the user once his account was approved by the legal guardian.



Username: admin

Password: ••••••••••

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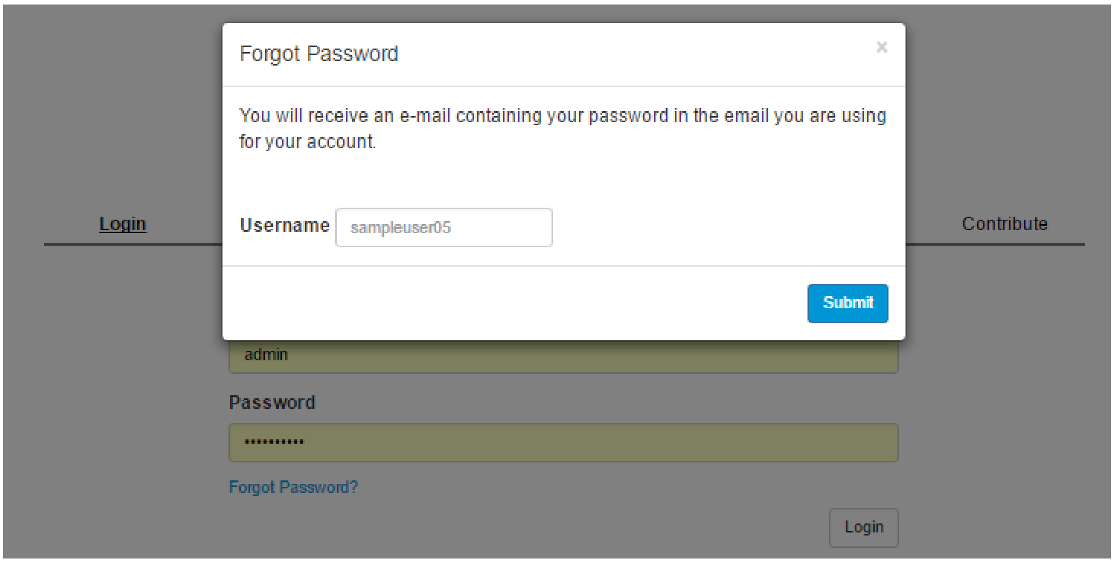
Figure 13: Login Page

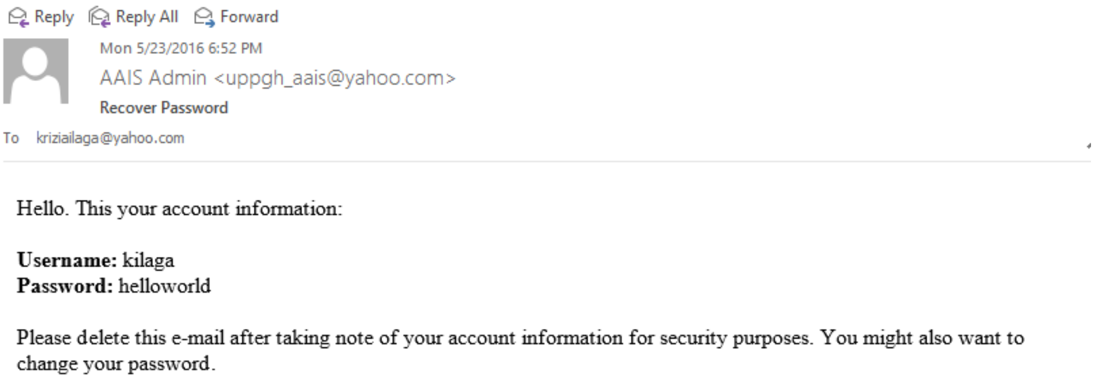


Forgot Password

You will receive an e-mail containing your password in the email you are using for your account.

Username: sampleuser05

Figure 14: Forgot password modal



Mon 5/23/2016 6:52 PM
AAIS Admin <uppgh_aais@yahoo.com>
Recover Password
To kriziailaga@yahoo.com

Hello. This your account information:

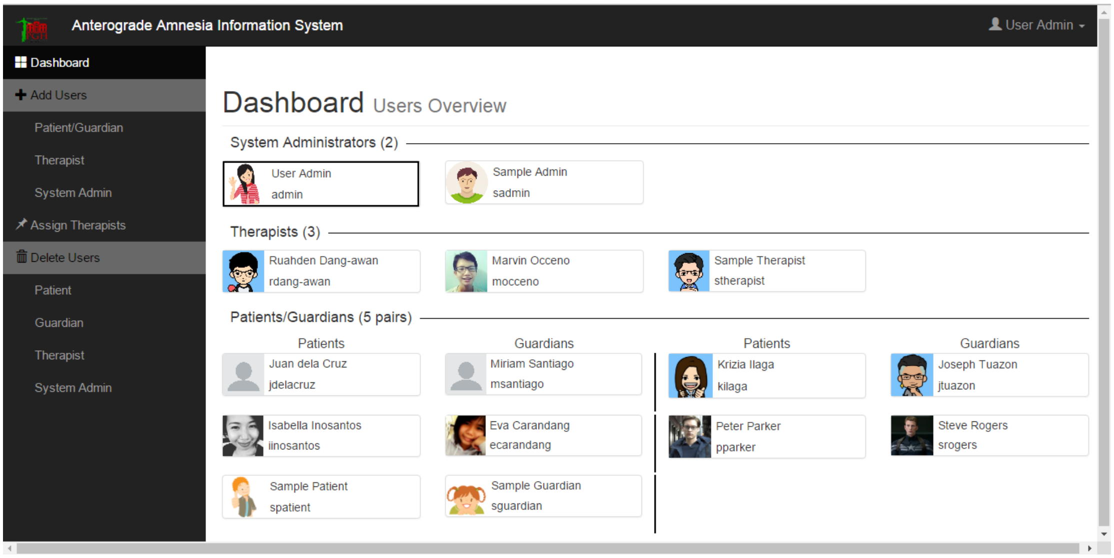
Username: kilaga
Password: helloworld

Please delete this e-mail after taking note of your account information for security purposes. You might also want to change your password.

Figure 15: Forgot password email

At the login tab in the home page, a user will be asked for his username and password as shown in Figure 13. Figure 14 shows the modal that will ask for your username for recovering a forgotten password. An email will be sent to the email address of the username entered like the e-mail message in Figure 15.

2. System Adminisitrator View



Dashboard Users Overview

System Administrators (2)

User Admin admin

Sample Admin sadmin

Therapists (3)

Ruahden Dang-awan rdang-awan

Marvin Occeno mocceno

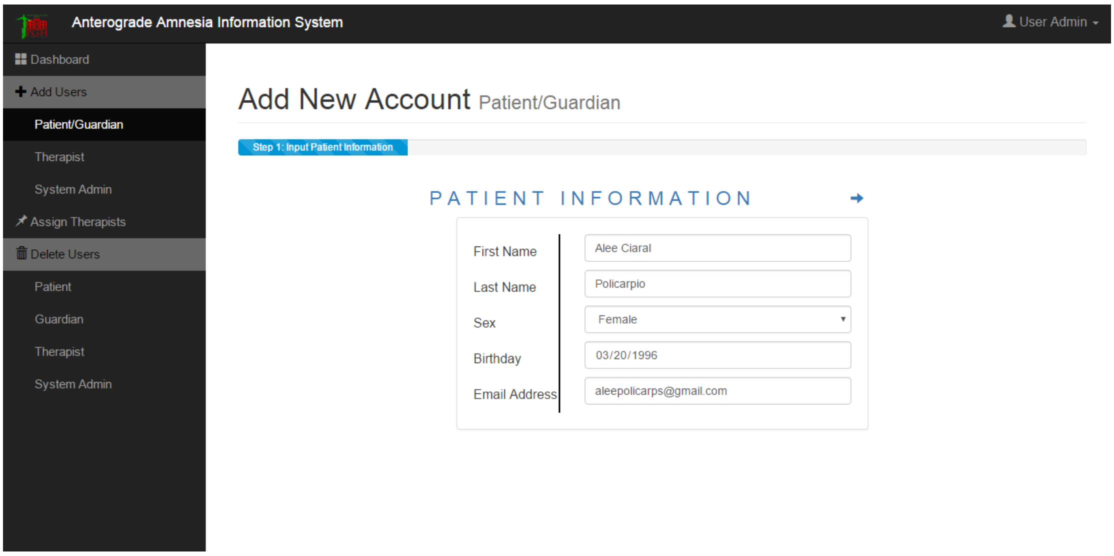
Sample Therapist stherapist

Patients/Guardians (5 pairs)

Patients	Guardians	Patients	Guardians
Juan dela Cruz jdelacruz	Miriam Santiago msantiago	Krizia Ilaga kilaga	Joseph Tuazon jtuazon
Isabella Inosantos iinosantos	Eva Carandang ecarandang	Peter Parker pparker	Steve Rogers srogers
Sample Patient spatient	Sample Guardian sguardian		

Figure 16: System Admin Dashboard

The system admin's dashboard shows the users overview as seen in Figure 16.

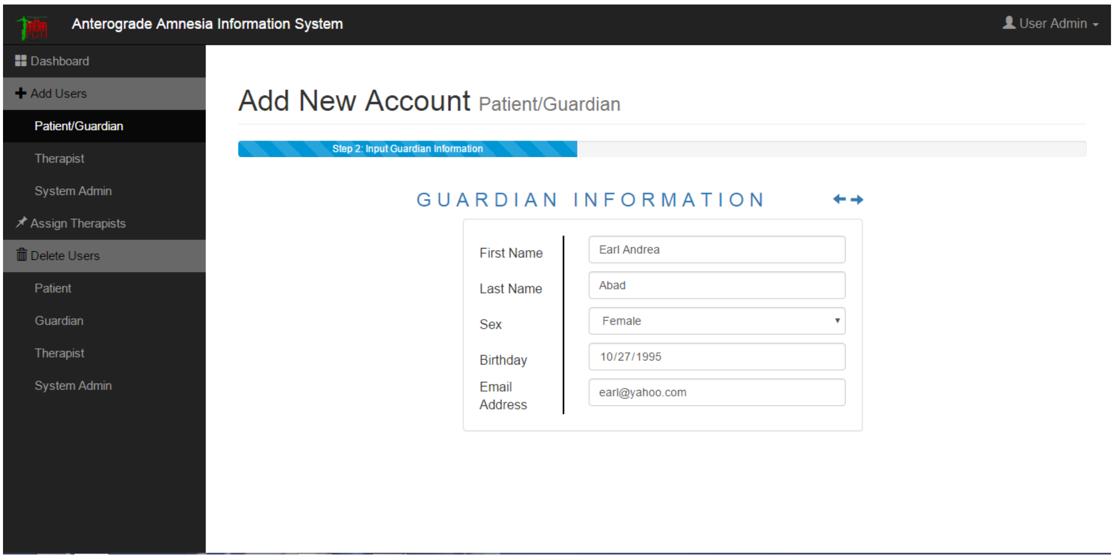


Add New Account Patient/Guardian

PATIENT INFORMATION

First Name	Alee Ciaral
Last Name	Policarpio
Sex	Female
Birthday	03/20/1996
Email Address	aleepolicarps@gmail.com

Figure 17: Add User: Patient



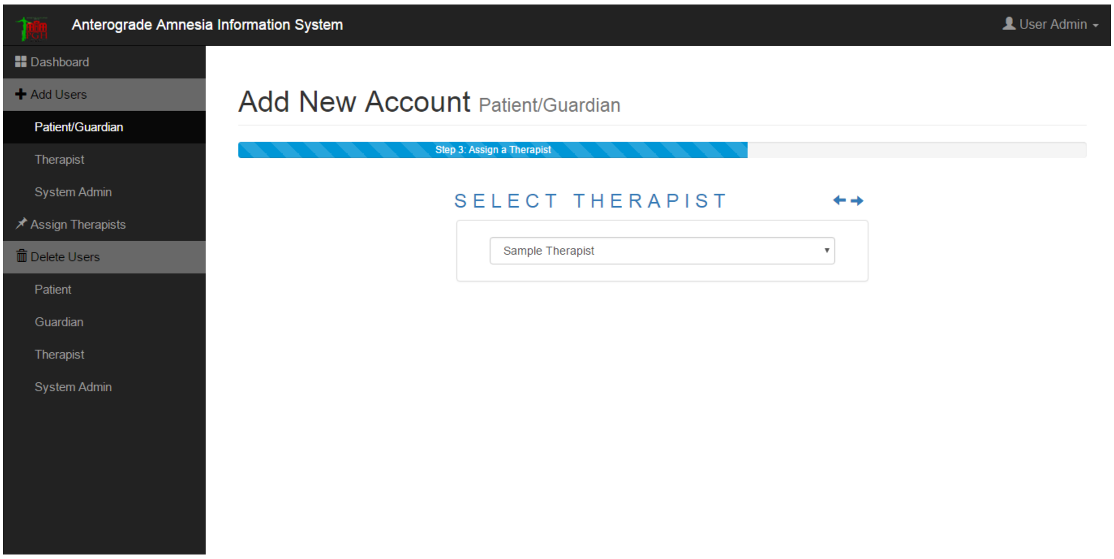
Add New Account Patient/Guardian

Step 2: Input Guardian Information

GUARDIAN INFORMATION

First Name	Earl Andrea
Last Name	Abad
Sex	Female
Birthday	10/27/1995
Email Address	earl@yahoo.com

Figure 18: Add User: Guardian



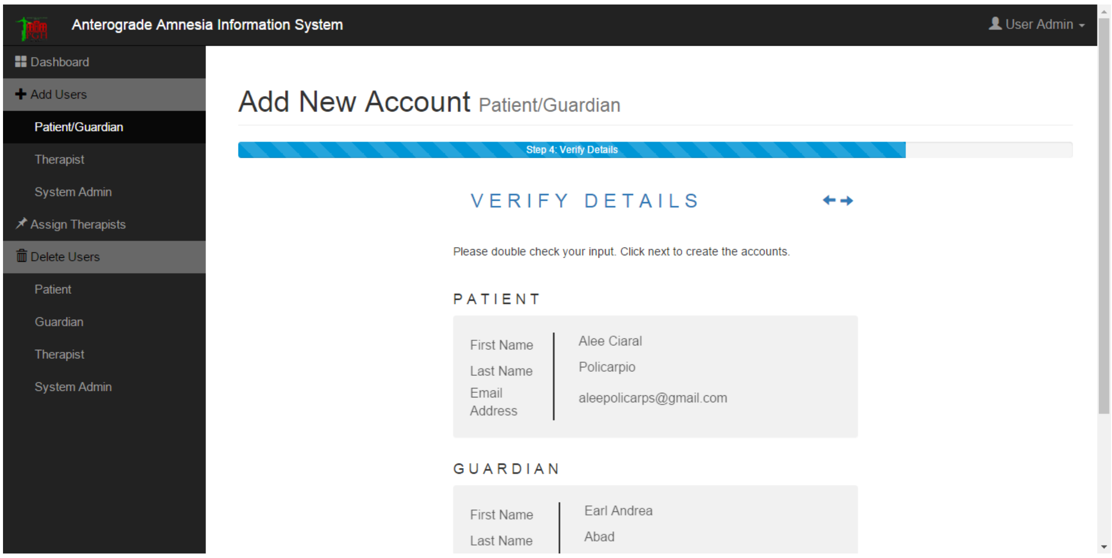
Add New Account Patient/Guardian

Step 3: Assign a Therapist

SELECT THERAPIST

Sample Therapist

Figure 19: Add User: Select therapist



Add New Account Patient/Guardian

VERIFY DETAILS

Please double check your input. Click next to create the accounts.

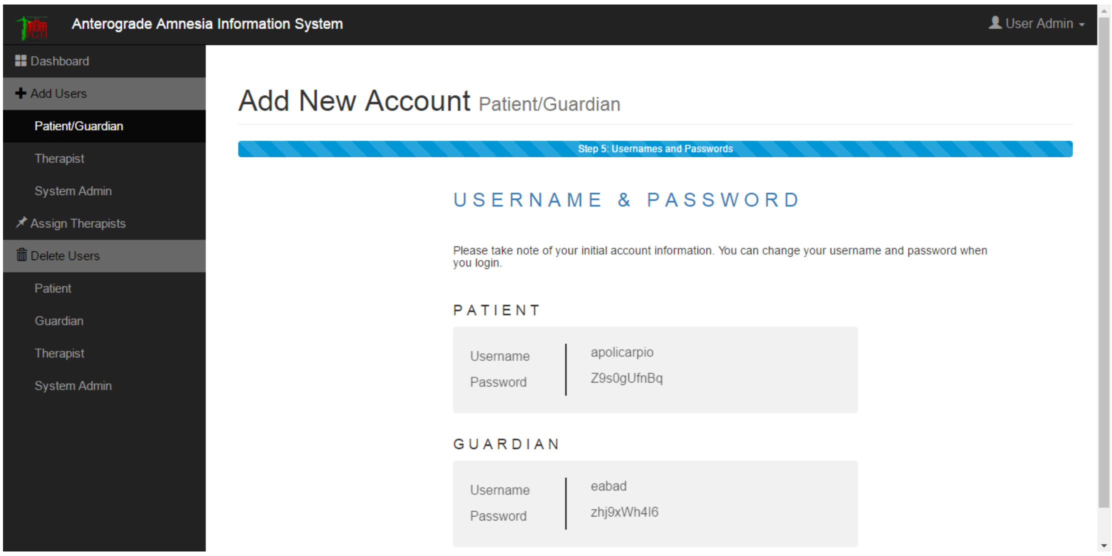
PATIENT

First Name	Alee Ciaral
Last Name	Policarpio
Email Address	aleepolicarps@gmail.com

GUARDIAN

First Name	Earl Andrea
Last Name	Abad

Figure 20: Add User: Verify details page



Add New Account Patient/Guardian

USERNAME & PASSWORD

Please take note of your initial account information. You can change your username and password when you login.

PATIENT

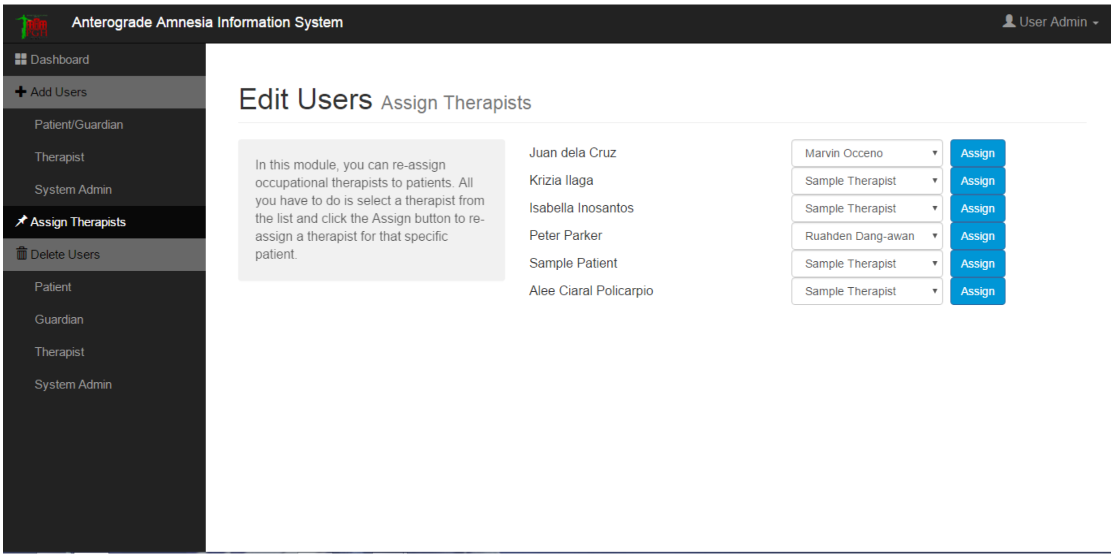
Username	apolicarpio
Password	Z9s0gUfnBq

GUARDIAN

Username	eabad
Password	zhj9xWh4l6

Figure 21: Add User: Generated username and password

Figures 17-21 shows the process of adding new users. This is specifically for adding patient and guardian which always come in pair. Figure 17 shows the adding of patient information, this will be followed by the guardian registration form in Figure 18. In Figure 19, a therapist will be selected to be assigned to the patient. The system allows the admin to verify the details entered as shown in Figure 20. Figure 21 shows the display of the auto-generated usernames and passwords for the new accounts. Adding therapist and admin accounts follow the same process.



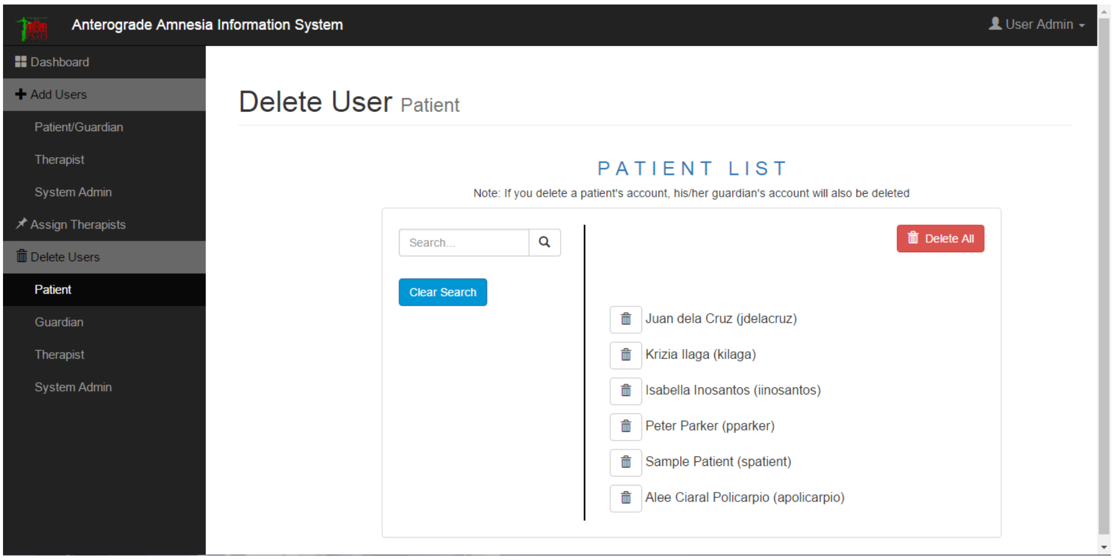
Edit Users Assign Therapists

In this module, you can re-assign occupational therapists to patients. All you have to do is select a therapist from the list and click the Assign button to re-assign a therapist for that specific patient.

Juan dela Cruz	Marvin Occeno	Assign
Krizia Ilaga	Sample Therapist	Assign
Isabella Inosantos	Sample Therapist	Assign
Peter Parker	Ruahden Dang-awan	Assign
Sample Patient	Sample Therapist	Assign
Alee Ciaral Policarpio	Sample Therapist	Assign

Figure 22: Edit User: Re-assign therapists page

Figure 22 shows the list of all of the patients with the Assign option to re-assign new therapists for them.



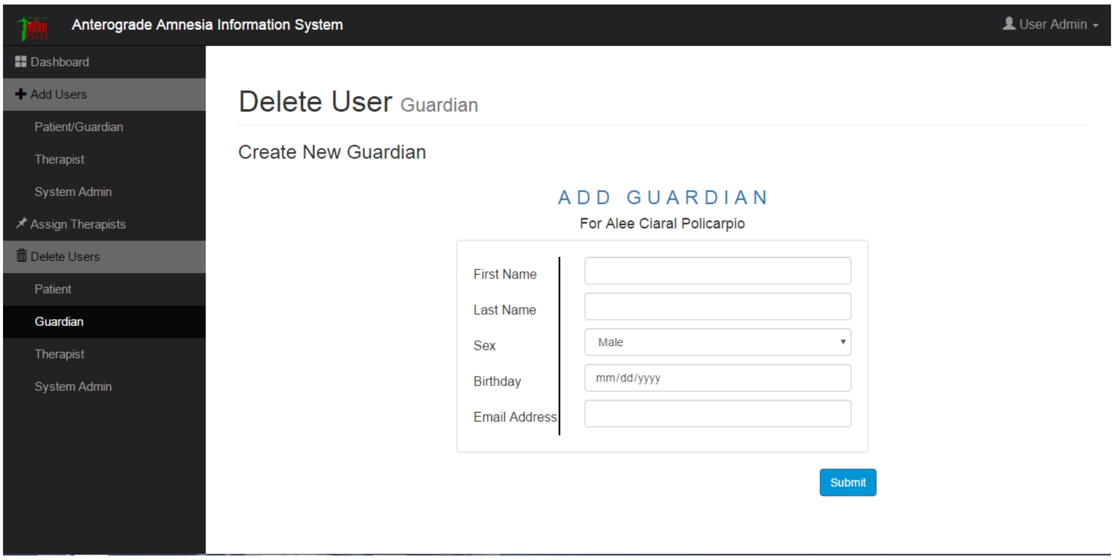
Delete User Patient

PATIENT LIST

Note: If you delete a patient's account, his/her guardian's account will also be deleted

- Juan dela Cruz (jdelacruz)
- Krizia Ilaga (kilaga)
- Isabella Inosantos (iinosantos)
- Peter Parker (pparker)
- Sample Patient (spatient)
- Alee Ciaral Policarpio (apolicarpio)

Figure 23: Delete User: Delete patient



Delete User Guardian

Create New Guardian

ADD GUARDIAN

For Alee Ciaral Policarpio

First Name

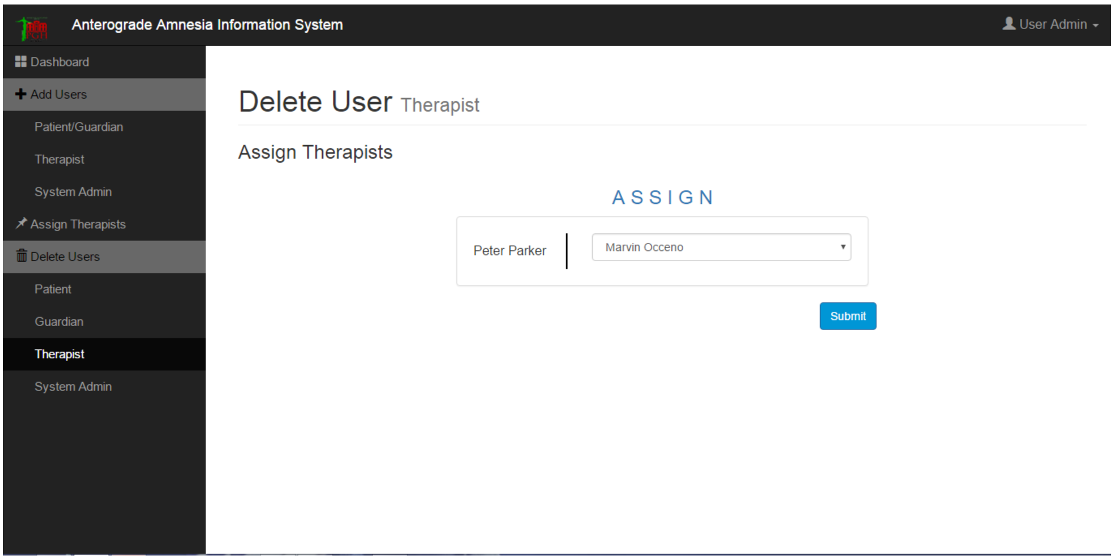
Last Name

Sex: Male

Birthday: mm/dd/yyyy

Email Address

Figure 24: Delete User: Replace guardian



Delete User Therapist

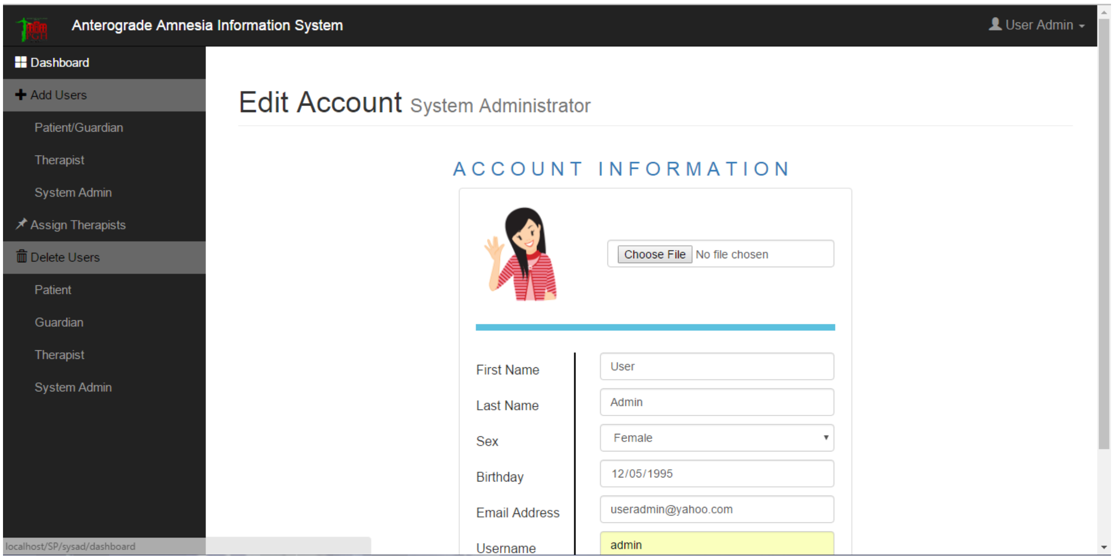
Assign Therapists

ASSIGN

Peter Parker: Marvin Occeno

Figure 25: Delete User: Assign new therapist

Figure 23 shows the page where patients can be deleted. This is the same as those for other types of users. However, deleting a certain type of user leads to another process. As seen in Figure 24, deleting a guardian requires the admin to create a new guardian account for the patient. Figure 25 happens when deleting a therapist account, the admin must re-assign all his patients to other therapists.



Edit Account System Administrator

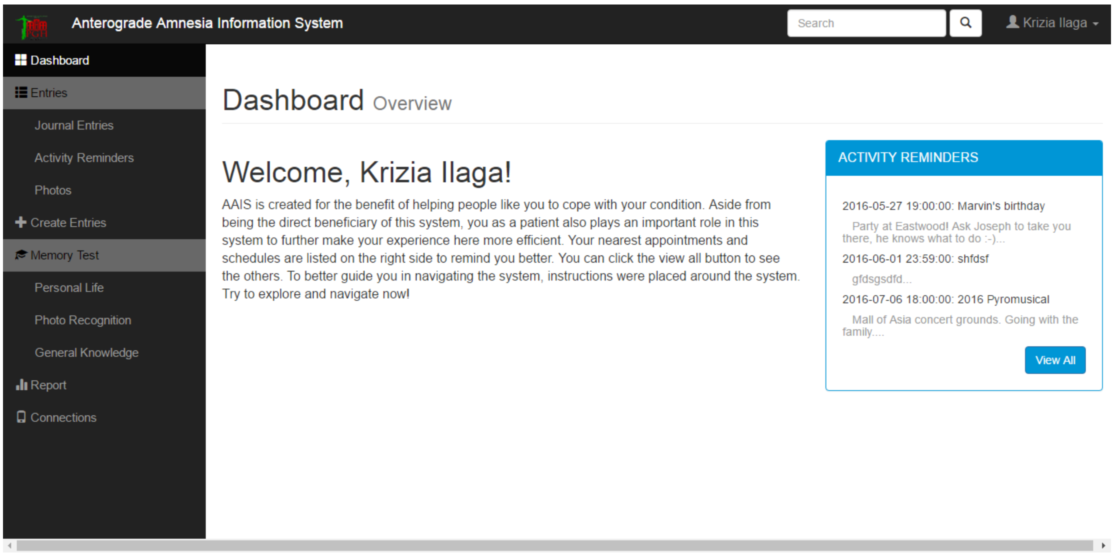
ACCOUNT INFORMATION

First Name: User
Last Name: Admin
Sex: Female
Birthday: 12/05/1995
Email Address: useradmin@yahoo.com
Username: admin

Figure 26: Edit Account

Figure 26 shows the edit account page which is similar to all the other users' edit account page.

3. Patient View



Dashboard Overview

Welcome, Krizia Ilaga!

AAIS is created for the benefit of helping people like you to cope with your condition. Aside from being the direct beneficiary of this system, you as a patient also plays an important role in this system to further make your experience here more efficient. Your nearest appointments and schedules are listed on the right side to remind you better. You can click the view all button to see the others. To better guide you in navigating the system, instructions were placed around the system. Try to explore and navigate now!

ACTIVITY REMINDERS

2016-05-27 19:00:00: Marvin's birthday

Party at Eastwood! Ask Joseph to take you there, he knows what to do :-)...

2016-06-01 23:59:00: shfdsf

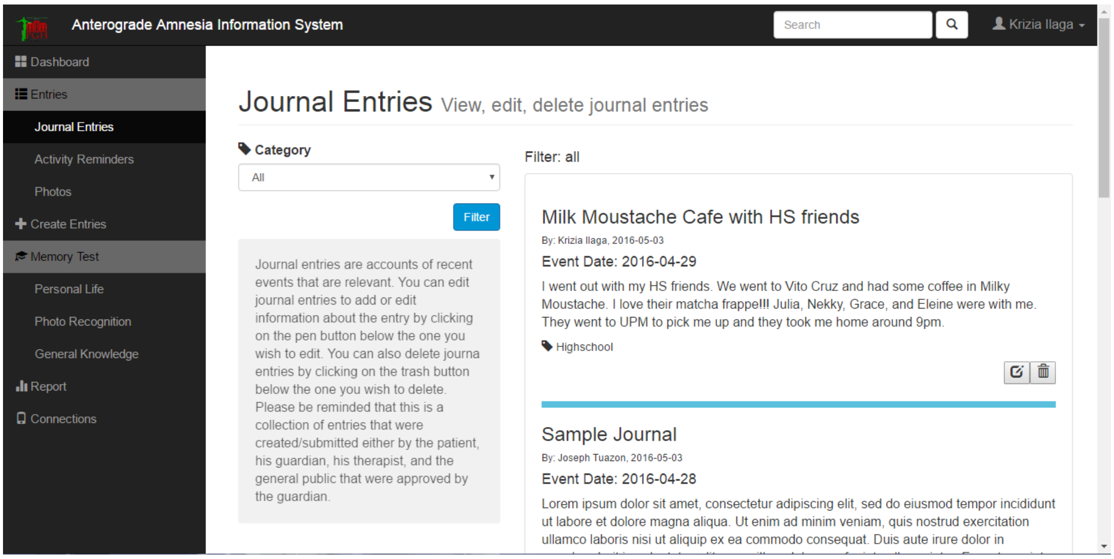
gfdsgsdfd...

2016-07-06 18:00:00: 2016 Pyromusical

Mall of Asia concert grounds. Going with the family....

Figure 27: Dashboard

Figure 27 shows the patient's dahsboard where navigation guide and activity reminders are displayed. This is the same for the guardians and therapists.



Journal Entries View, edit, delete journal entries

Category: All

Filter: all

Journal entries are accounts of recent events that are relevant. You can edit journal entries to add or edit information about the entry by clicking on the pen button below the one you wish to edit. You can also delete journa entries by clicking on the trash button below the one you wish to delete. Please be reminded that this is a collection of entries that were created/submitted either by the patient, his guardian, his therapist, and the general public that were approved by the guardian.

Milk Moustache Cafe with HS friends

By: Krizia Ilaga, 2016-05-03

Event Date: 2016-04-29

I went out with my HS friends. We went to Vito Cruz and had some coffee in Milky Moustache. I love their matcha frappe!!! Julia, Nekky, Grace, and Eleine were with me. They went to UPM to pick me up and they took me home around 9pm.

Highschool

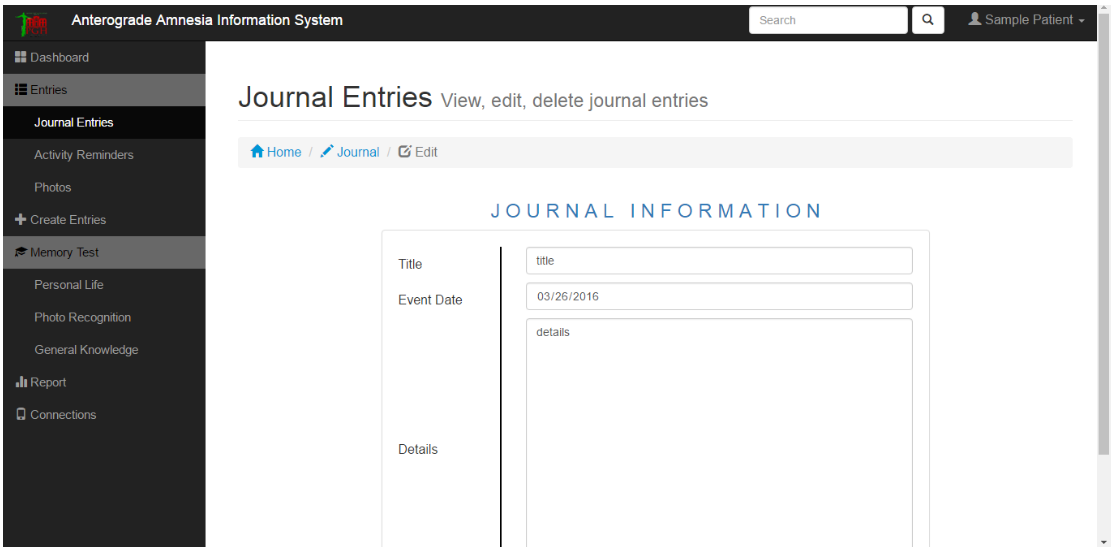
Sample Journal

By: Joseph Tuazon, 2016-05-03

Event Date: 2016-04-28

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in

Figure 28: Journal Entries



Journal Entries View, edit, delete journal entries

JOURNAL INFORMATION

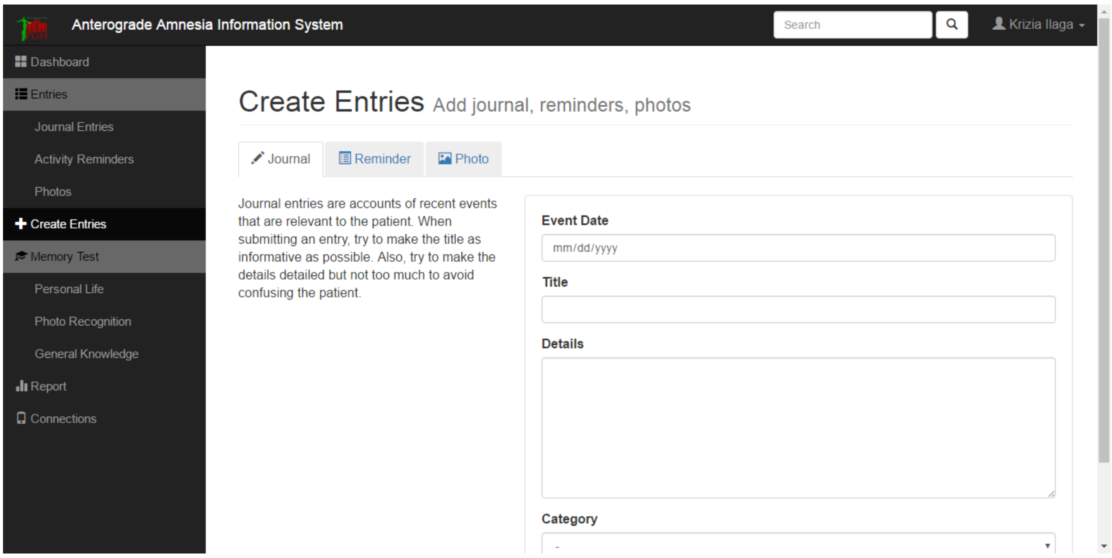
Title: title

Event Date: 03/26/2016

Details: details

Figure 29: Edit journal entries

The dashboard-like design for viewing journal entries can be seen in Figure 28, this is similar to the other types of entries. The entries can be filtered according to the entered category in the box at the right side. Figure 29 shows the edit entry page.



Create Entries Add journal, reminders, photos

Journal entries are accounts of recent events that are relevant to the patient. When submitting an entry, try to make the title as informative as possible. Also, try to make the details detailed but not too much to avoid confusing the patient.

Event Date
mm/dd/yyyy

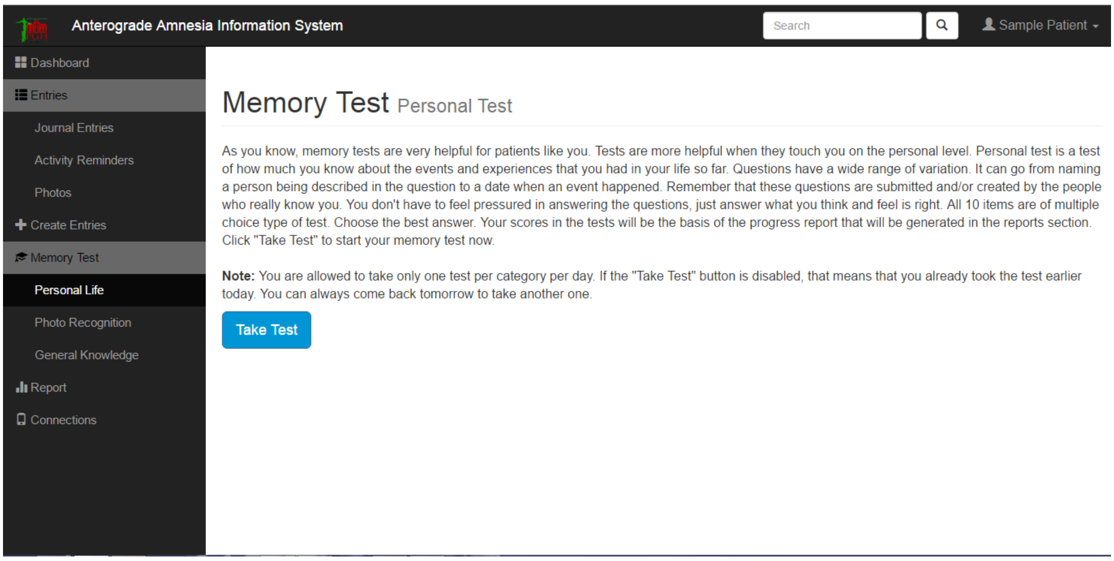
Title

Details

Category
-

Figure 30: Create entries

This page is where entries are being created for the patient. Figure 30 is also available in the therapists' and guardians' accounts.

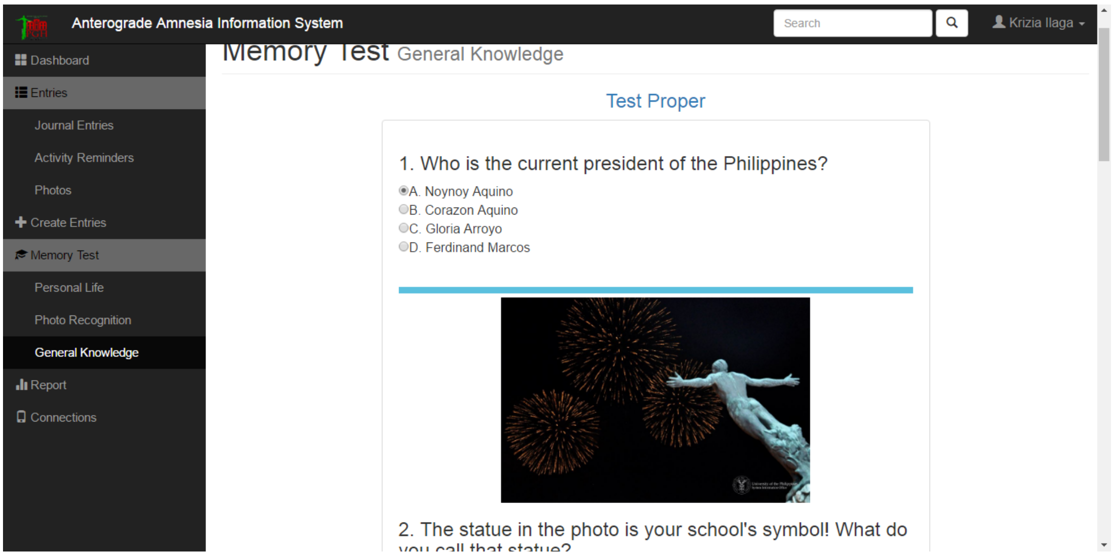


Memory Test Personal Test

As you know, memory tests are very helpful for patients like you. Tests are more helpful when they touch you on the personal level. Personal test is a test of how much you know about the events and experiences that you had in your life so far. Questions have a wide range of variation. It can go from naming a person being described in the question to a date when an event happened. Remember that these questions are submitted and/or created by the people who really know you. You don't have to feel pressured in answering the questions, just answer what you think and feel is right. All 10 items are of multiple choice type of test. Choose the best answer. Your scores in the tests will be the basis of the progress report that will be generated in the reports section. Click "Take Test" to start your memory test now.

Note: You are allowed to take only one test per category per day. If the "Take Test" button is disabled, that means that you already took the test earlier today. You can always come back tomorrow to take another one.

Figure 31: Memory Test Home Page



Memory Test General Knowledge

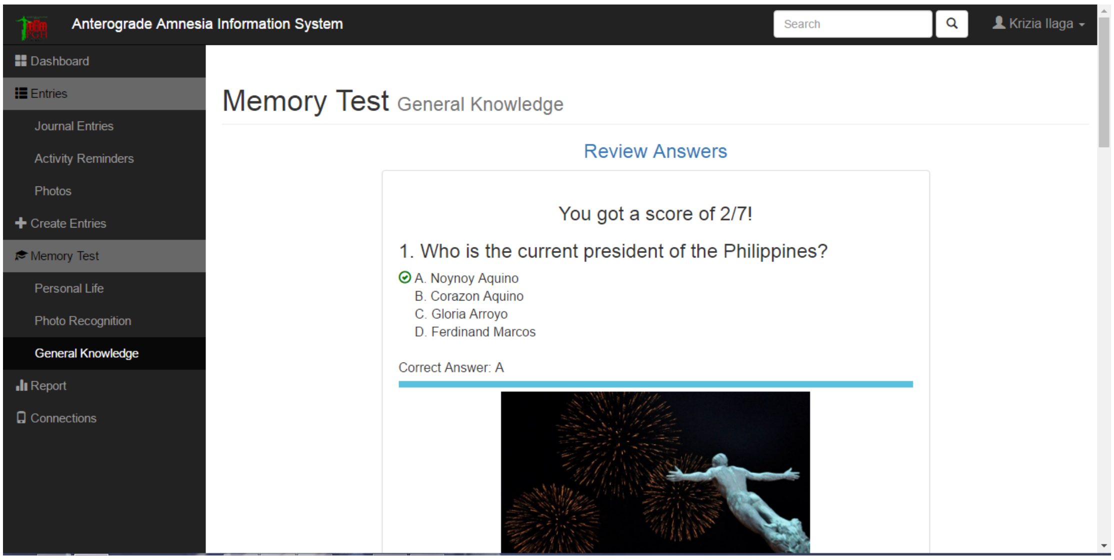
Test Proper

1. Who is the current president of the Philippines?

● A. Noynoy Aquino
○ B. Corazon Aquino
○ C. Gloria Arroyo
○ D. Ferdinand Marcos

2. The statue in the photo is your school's symbol! What do you call that statue?

Figure 32: Memory Test Proper



Memory Test General Knowledge

Review Answers

You got a score of 2/7!

1. Who is the current president of the Philippines?

✓ A. Noynoy Aquino
B. Corazon Aquino
C. Gloria Arroyo
D. Ferdinand Marcos

Correct Answer: A

Figure 33: Memory Test Results

With memory tests being one of the main features, Figures 31-33 show the process of taking one. Figure 31 shows the introduction page, Figure 32 shows the test proper and Figure 33 shows the results page where the patients can review their answers.

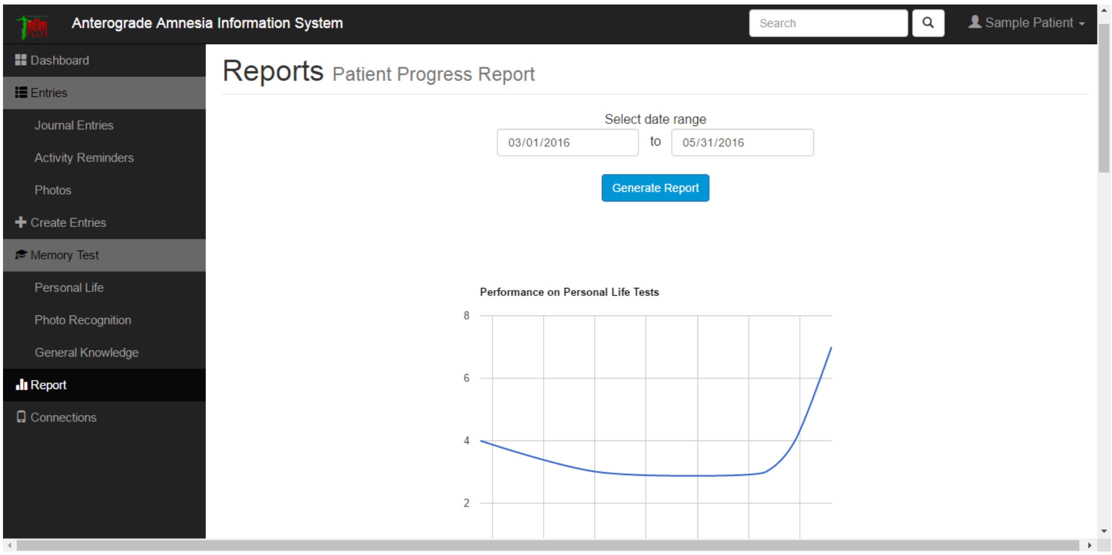
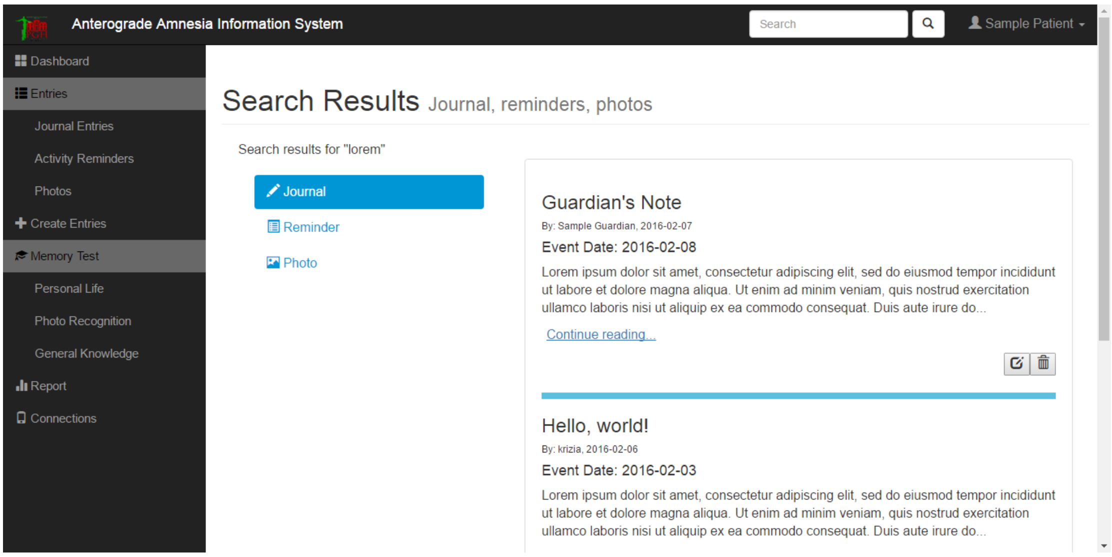


Figure 34: Generate progress report page

Figure 34 shows the progress report generation through graphs given the specified span of time.



Search results for "lorem"

Guardian's Note

By: Sample Guardian, 2016-02-07

Event Date: 2016-02-08

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure do...

Continue reading...

Hello, world!

By: krizia, 2016-02-06

Event Date: 2016-02-03

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure do...

Figure 35: Search Results

The search function is also available for the guardians. This displays all entries matching the keyword/s entered as shown in Figure 35.

4. Guardian View

A lot of functionalities and/or pages in the guardian view are similar to that of the patient's. This section will cover only the functionalities unique to the guardians.

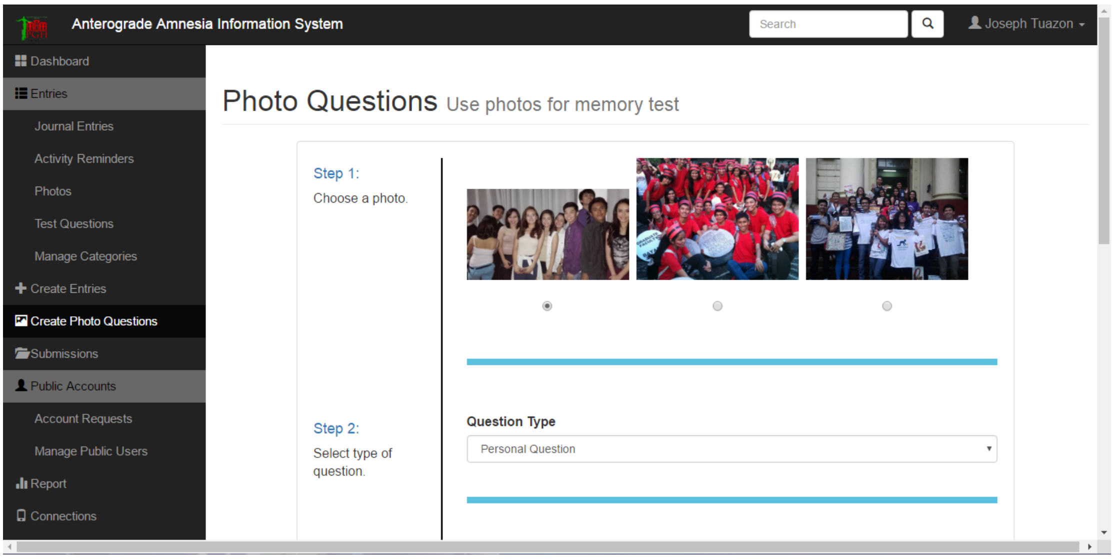


Photo Questions Use photos for memory test

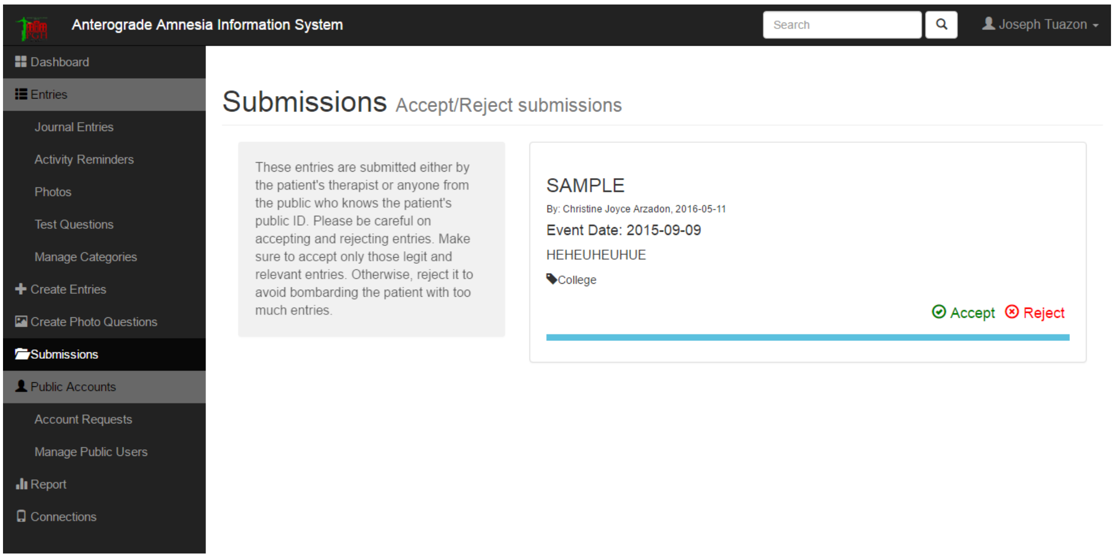
Step 1:
Choose a photo.

Step 2:
Select type of question.

Question Type
Personal Question

Figure 36: Create Photo Questions

Figure 36 shows the role of the guardian to create new photo questions from old photos which are previously uploaded in the system



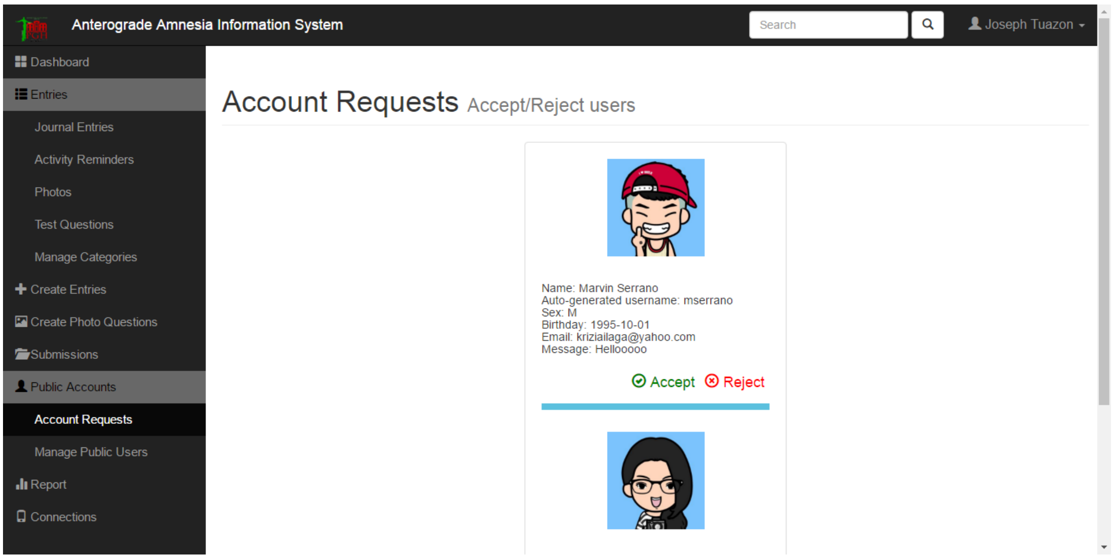
Submissions Accept/Reject submissions

These entries are submitted either by the patient's therapist or anyone from the public who knows the patient's public ID. Please be careful on accepting and rejecting entries. Make sure to accept only those legit and relevant entries. Otherwise, reject it to avoid bombarding the patient with too much entries.

SAMPLE
By: Christine Joyce Arzadon, 2016-05-11
Event Date: 2015-09-09
HEHEUHEUHUE
College

Figure 37: Submissions

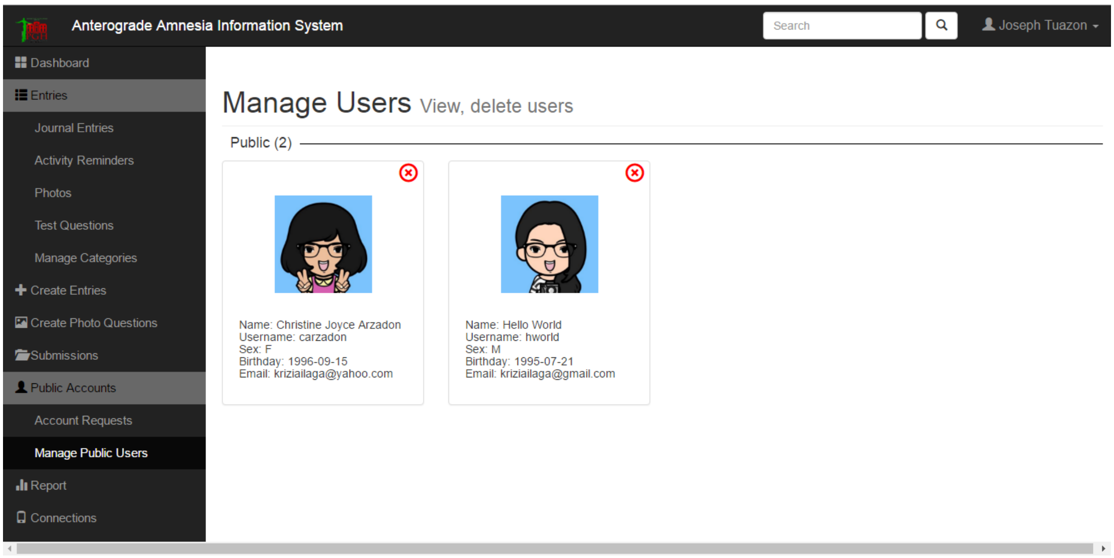
Figure 37 shows the Submissions page where the guardian accepts and/or rejects entries for the patient.



Account Requests Accept/Reject users

Name: Marvin Serrano
Auto-generated username: mserrano
Sex: M
Birthday: 1995-10-01
Email: kriziailaga@yahoo.com
Message: Hellooooo

Figure 38: Account Requests



Manage Users View, delete users

Public (2)

Name: Christine Joyce Arzadon
Username: carzadon
Sex: F
Birthday: 1996-09-15
Email: kriziailaga@yahoo.com

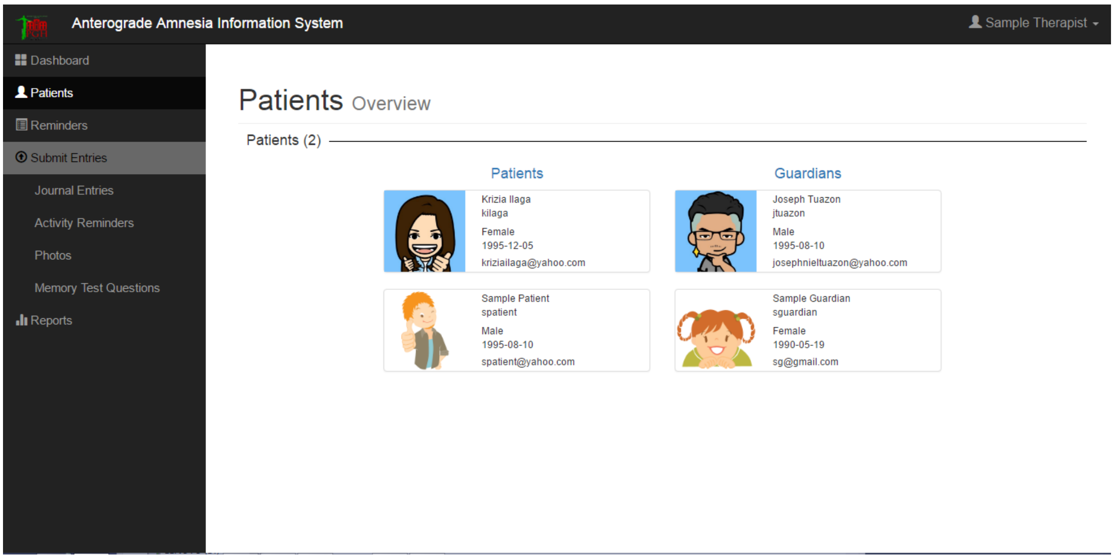
Name: Hello World
Username: hworld
Sex: M
Birthday: 1995-07-21
Email: kriziailaga@gmail.com

Figure 39: Manage Public Users

One of the guardian's function is to accept and/or reject public accounts. Figure 38 shows the requested accounts page while Figure 39 shows all the accepted public accounts linked to the patient.

5. Therapist View

Some functionalities and/or pages in the therapist view were also already discussed previously. This section will cover only the functionalities unique to the therapists.



Patients Overview

Patients (2)

Patients

Krizia Ilaga
kilaga
Female
1995-12-05
kriziailaga@yahoo.com

Sample Patient
spatient
Male
1995-08-10
spatient@yahoo.com

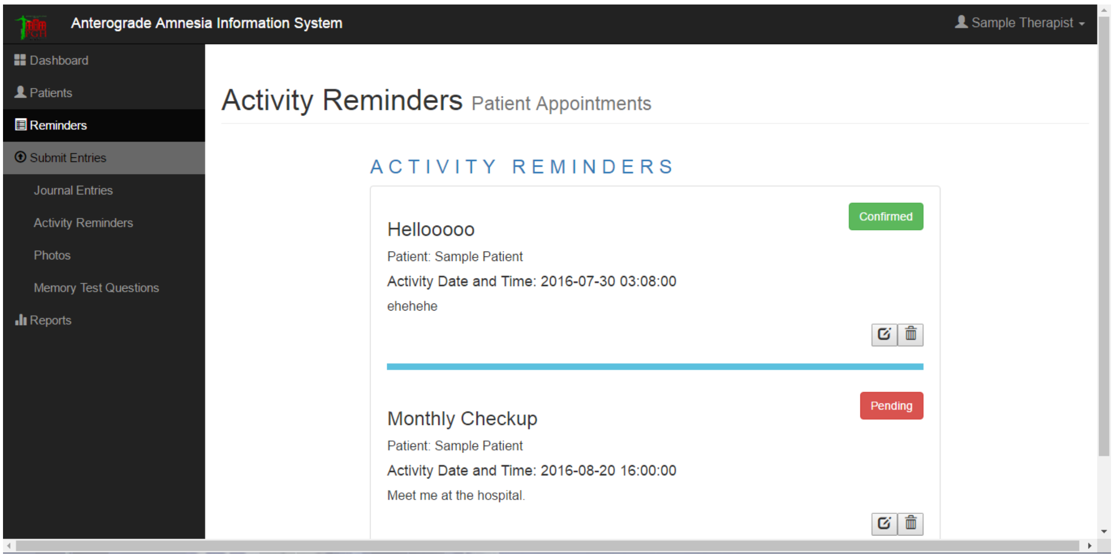
Guardians

Joseph Tuazon
jtuazon
Male
1995-08-10
josephnieltuazon@yahoo.com

Sample Guardian
sguardian
Female
1990-05-19
sg@gmail.com

Figure 40: Patients List

Figure 40 shows the patients list for the therapist.



Activity Reminders Patient Appointments

ACTIVITY REMINDERS

Confirmed

Hellooooo

Patient: Sample Patient

Activity Date and Time: 2016-07-30 03:08:00

ehehehe

Pending

Monthly Checkup

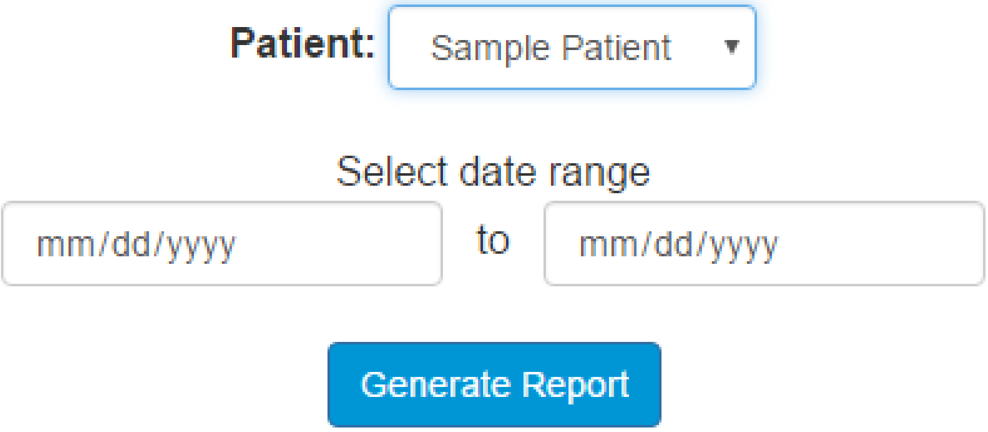
Patient: Sample Patient

Activity Date and Time: 2016-08-20 16:00:00

Meet me at the hospital.

Figure 41: Therapist: Reminders page

As seen in Figure 41, therapists can view all their scheduled appointments with their patients in a page, both the pending and confirmed appointments.



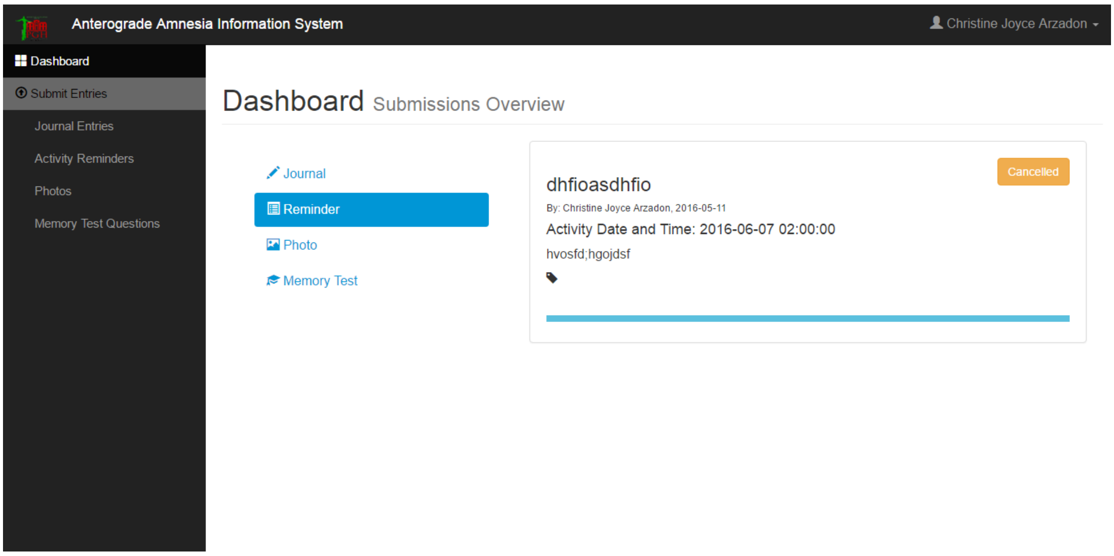
Patient: Sample Patient

Figure 42: Therapist: Generate Report

In the therapist view, the page where progress reports are generated include an additional field, the patient. Figure 42 shows how a therapist can view the progress reports of all of his patients.

6. Public User View

The public users have only a very limited number of functionalities. Aside from the account-related functions (edit profile, forgot password, etc.), here are the remaining functionalities that a public user can perform.



dhfioasdhfio

Cancelled

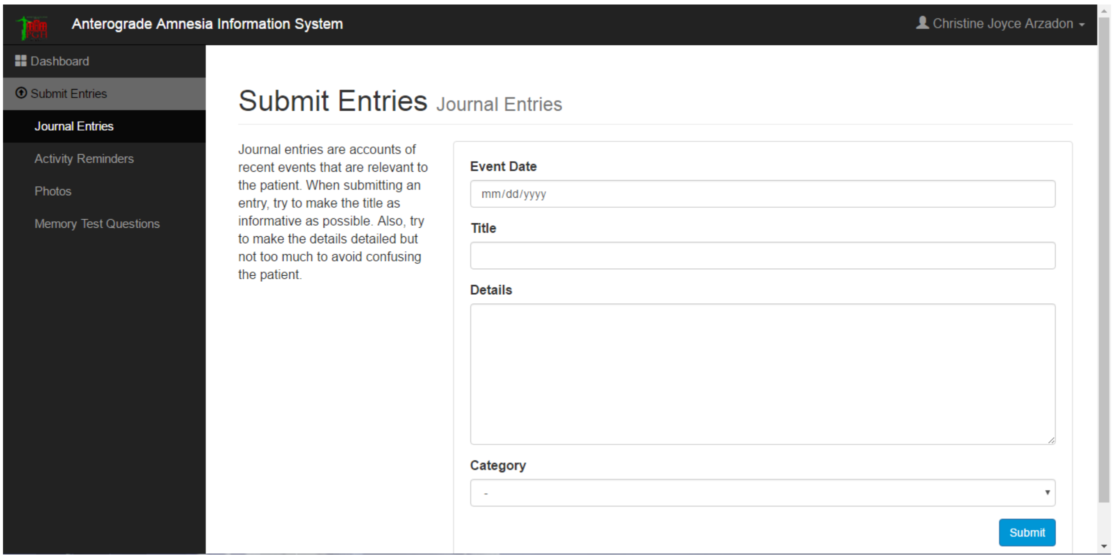
By: Christine Joyce Arzadon, 2016-05-11

Activity Date and Time: 2016-06-07 02:00:00

hvosfd;hgojdsf

Figure 43: Public User Dashboard

Figure 43 shows the public user's dashboard. Here, he can see all the entries that he submitted for the patient as well as the status of the submission (pending or confirmed, and cancelled for activity reminders).



Submit Entries Journal Entries

Journal entries are accounts of recent events that are relevant to the patient. When submitting an entry, try to make the title as informative as possible. Also, try to make the details detailed but not too much to avoid confusing the patient.

Event Date: mm/dd/yyyy

Title:

Details:

Category: -

Figure 44: Submit Entries

Figure 44 shows the submit entries page for the public, this is just the same as the one in the patient view.

VI. Discussions

The Anterograde Amnesia Information System (AAIS) is a web-based application system for patients with such condition that hosts the compensatory techniques that can help them improve their condition. The system has four main features: (1) it keeps all records of journal entries, activity reminders, photographs, and memory tests for the patient in an organized manner, (2) it allows people who know the patient contribute information, (3) it hosts memory tests for the online rehabilitation of the patient, and (4) it has a remote monitoring capacity that will allow the patients legal guardian and therapist to generate his technical progress report.

AAIS offers its services to five types of user including the general public. The first type of user is the system administrator. The system administrators job is basically to manage the other users in the system. It is through the system administrators account that patients and guardians accounts are created during the initial visit to the hospital. He is in charge for creating all user accounts as well as deleting them except for the public accounts. He also has an additional task of re-assigning therapists to patients in case of some changes.

The roles of the patient and the guardian are almost the same. They can both add, edit, delete, and search for entries. Both types of user can also generate the graphical progress report of the patient. Though they may seem to have the same functionalities, they also differ on some roles. While the patient can take memory tests, the guardian can add questions for the patients memory test. The guardian is also the one responsible for accepting and/or rejecting the entries submitted by the fourth and fifth user which are the therapists and the public, respectively. The therapists can also view his patients progress reports. He can also add, edit, delete, and view his own reminders (usually appointments with his patients). Both the therapists and the public can submit entries for the patient that will be subjected to the guardians approval. While the therapist can submit entries for any of his patients, anyone from the public can only submit entries once his account was approved by the guardian.

The system uses various technologies in order to ensure that the objectives of the study are properly met and achieved. The whole application has, mainly, a PHP back end with CodeIgniter used as the framework for an efficient Model-View-Controller implementation. It is important to take note that MVC provides a smoother relationships between the functionalities in a system thus making the code more flexible and easier to edit. CodeIgniter, however, is not a perfect framework. Issues like the lack of bug fixing feature happened while developing the system but this was balanced out by the fact that using a framework, in general, with MVC architecture makes it a lot easier for the developer to make changes. For the front end, Bootstrap, a framework that displays a simple and user-friendly interface, is used. The simplicity of Bootstrap is actually relevant so patients wont have to deal with the burden of complex interfaces. Bootstrap integrates HTML, CSS, Javascript, and jQuery files to produce an aesthetically appealing look. MySQL is used as the database for the system simply because it has a popular good reputation and it is easy to use and play with. The Google Chart API was used for generating charts in presenting the progress report of the patients. As an additional feature, encrypted cookies using OpenSSL were used throughout the system instead of sessions for better security. Though there were some minor difficulties with using the mentioned technologies, none of them became a hindrance in completing the objectives of the study.

VII. Conclusions

Through the different frameworks, libraries, and technologies used, the system was properly developed to meet the objectives of the study. The system has five types of user namely, (1) the patients and (2) their guardians, (3) the therapists, (4) the system administrators, and (5) the public. The patients, guardians, therapists, and the public, given the proper permission, can be able to create entries (journal entries, activity reminders, photos, and memory test questions) for the patients. Through this record-keeping feature of the system, problems with disorganization for the patients can be lessen as compared to the traditional paper-based way of keeping records.

The currently available online memory tests lack two things: (1) personal-level tests, and (2) monitoring capacity. Since memory test questions are created and/or submitted by the people who actually know the patient, the questions are on the patient's personal level. This means that questions that will be asked are about his life, experiences, relevant people, places, etc. The system also keeps track of the scores that the patient gets from his memory test for monitoring purposes which are the progress reports. These reports allow the legal guardians and therapists to generate the technical progress report of a patient based on his performance on the memory tests given a specific period of time. The reports are in a graphical form for easier and faster understanding. The system is made for online use; that is why remote monitoring and contributing information is now possible hence lessening the need for manual intervention.

The proposed objectives of the system is intended to attain the goal of helping patients with anterograde amnesia cope in their everyday lives. With the functionalities successfully developed, the system can now be considered as ready for deployment.

VIII. Recommendations

The Anterograde Amnesia Information System was developed to aid patients with such condition in living their lives as normal as possible. The system was built to, as what the Section of Occupational Therapy of the Department of Rehabilitation Medicine in UP-PGH would say, “help people help themselves.” Though all the major objectives in this study were achieved, there are still a lot of improvements that can make the system better in order to help the people better.

Probably the most important recommendation is to make a mobile app clone of this web-based system so the users can more conveniently use it anywhere. However, future developers who plan to do this should take into consideration a lot of limitations that mobile phones have: (1) small screen display which can be hard especially for patients with memory problems and cognitive impairment, and (2) small memory which is a pretty huge problem given that the application keeps hold of possibly lifetime records.

In terms of functionalities, the memory test part has a huge room for improvement. Future developers should think more creatively and create wider variations of these tests. It is recommended to explore other types of test aside from multiple choice. It will also be good to have short term memory tests be included in the system with supporting details such as timers to make the tests a bit more fun and creative. The progress reports can also be improved in a way where the patient’s progress will be presented through more than just line graphs. Overall, there’s still a lot of room for improvement in the system that future developers can explore and try to meet.

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X. Appendix

A. Source Code

Listing 1: Public_Controller.php

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

class Public_Controller extends CI_Controller {

    private $publicCookie;
    private $userCookie;

    public function __construct()
    {
        parent::__construct();

        date_default_timezone_set('Asia/Manila');

        if( $this->AAIS_model->hasCookie('thePublicCookie') ) {
            $this->publicCookie = $this->AAIS_model->getCookie('thePublicCookie');
        }
        if( $this->AAIS_model->hasCookie('theUserCookie') ) {
            $this->userCookie = $this->AAIS_model->getCookie('theUserCookie');
        }

    }

        public function index()
        {
        if($this->AAIS_model->hasCookie('thePublicCookie')){
            if($this->publicCookie->error == 2)
                echo "<script>alert('Patient␣ID␣does␣not␣exist.')</script>";
            $this->publicCookie = $this->AAIS_model->deleteCookie('thePublicCookie');
        }
        if($this->AAIS_model->hasCookie('theUserCookie')){
            if($this->userCookie->error == 1)
                echo "<script>alert('Username-Password␣combination␣does␣not␣exist.')</script>";
            $this->AAIS_model->deleteCookie('theUserCookie');
        }
        //sysad cookies
        if($this->AAIS_model->hasCookie('addAccountCookie')){
            $this->AAIS_model->deleteCookie('addAccountCookie');
        }
        //patient/guardian cookies
        if($this->AAIS_model->hasCookie('theEntryCookie')){
            $this->AAIS_model->deleteCookie('theEntryCookie');
        }
        if($this->AAIS_model->hasCookie('theSubmissionCookie')){
            $this->AAIS_model->deleteCookie('theSubmissionCookie');
        }
        if($this->AAIS_model->hasCookie('theSearchCookie')){
            $this->AAIS_model->deleteCookie('theSearchCookie');
        }

        $data["content"] = "public/main.php";
        $this->load->view( 'main.php', $data);
        //$this->AAIS_model->setter();
        //$this->AAIS_model->getter();
        }

    public function loginPage()
    {
        $data["content"] = "public/login.php";
        $this->load->view( 'main.php', $data);
    }

    public function request()
    {
        $data["content"] = "public/request.php";
        $this->load->view( 'main.php', $data);
    }

    public function login()
    {
        $userType = $this->AAIS_model->login();
        if($userType==0){
            redirect( base_url('sysad/dashboard') );
        }
        else if($userType==1){
            redirect( base_url('patient/dashboard') );
        }
        else if($userType==2){
            redirect( base_url('guardian/dashboard') );
        }
        else if($userType==3){
            redirect( base_url('ot/dashboard') );
        }
        else if($userType==4){
            redirect( base_url('publicUser/dashboard') );
        }
        else
           redirect( base_url() );
    }

    public function publicPanel()
    {
        if(isset($_POST['back']))
            redirect( base_url());

        $data["content"] = "public/public.php";
        $data["cookie"] = $this->publicCookie;
        $data["patients"] = $this->AAIS_model->getPatientList();

        $this->load->view( 'main.php', $data);
    }

        public function submitAccount()
        {
            $this->load->library('form_validation');

            $this->form_validation->set_rules('firstName', 'First␣Name', 'required');
            $this->form_validation->set_rules('lastName', 'Last␣Name', 'required');
            $this->form_validation->set_rules('sex', 'Sex', 'required');
            $this->form_validation->set_rules('birthday', 'Birthday', 'required');
            $this->form_validation->set_rules('email', 'Email', 'required');

            if($_FILES['picture']['name'] == ""){
                $this->publicCookie->error = 1;
                $this->AAIS_model->setCookie( (array) $this->publicCookie, 'thePublicCookie' );
                redirect( base_url('public') );
            }
            if($this->form_validation->run()
                 == FALSE)
            {
                $this->publicCookie->error =
                     1;
                $this->AAIS_model->setCookie(
                     (array) $this->
                     publicCookie, '
                     thePublicCookie');
            }
            else{
                if($this->AAIS_model->
                     dateChecker($_POST['
                     birthday']) == 1){
                    $this->publicCookie->error
                         = 2;
                    $this->AAIS_model->
                         setCookie( (array)
                         $this->publicCookie,
                         'thePublicCookie' );
                    redirect( base_url('public
                         ') );
                }
                $date_time = date( "YmdHis" );
                $filename = $this->AAIS_model
                     ->moveDpUpload('picture',
                      $date_time);

                $this->AAIS_model->addPublic(
                     $_POST['firstName'],
                     $_POST['lastName'],
                     $_POST['sex'], $_POST['
                     birthday'], $_POST['email
                     '], $filename, $_POST['
                     note']);
                $this->publicCookie->error =
                     3;
                $this->AAIS_model->setCookie(
                     (array) $this->
                     publicCookie, '
                     thePublicCookie' );
           }

            redirect( base_url('public') );
        }

        public function newSubmission()
        {
            $this->publicCookie->step = 1;
            $this->AAIS_model->setCookie( (
                 array) $this->publicCookie, '
                 thePublicCookie' );
            redirect( base_url('public') );
        }

    public function forgotPassword()
    {
        $this->AAIS_model->sendPassword($_POST
             ['username']);
        redirect( base_url('public') );
    }


}
```

Listing 2: SystemAdmin_Controller.php

```
 <?php
defined('BASEPATH') OR exit('No_direct_script_
     access_allowed');

class SystemAdmin_Controller extends
     CI_Controller {

    private $userCookie;
    private $addAccountCookie;
    private $searchResults;
    private $patient;

    public function __construct()
    {
        parent::__construct();

        date_default_timezone_set('Asia/Manila
             ');

        if(isset($_POST['logout'])){
            $this->AAIS_model->getCookie('
                 patientCookie');
            redirect( base_url());
        }
        if( $this->AAIS_model->hasCookie('
             theUserCookie') )
            $this->userCookie = $this->
                 AAIS_model->getCookie('
                 theUserCookie');
        else
            redirect( base_url() );
        if( $this->AAIS_model->hasCookie('
             patientCookie') )
            $this->patient = $this->AAIS_model
                 ->getCookie('patientCookie');
        if( $this->AAIS_model->hasCookie('
             addAccountCookie') )
            $this->addAccountCookie = $this->
                 AAIS_model->getCookie('
                 addAccountCookie');

    }

    public function dashboard()
    {
        $this->userCookie->active = "dashboard
             ";
        $this->AAIS_model->setCookie( (array)
             $this->userCookie, 'theUserCookie
             ' );

        $data["admins"] = $this->AAIS_model->
             getAdmins();
        $data["therapists"] = $this->
             AAIS_model->getTherapists();
        $data["connections"] = $this->
             AAIS_model->getAllPatientGuardian
             ();
        $data["cookie"] = $this->userCookie;
        $data["content"] =  'sysad/dashboard.
             php';
        $this->load->view( 'home.php', $data);
    }

        public function addUser()
        {
        $this->userCookie->active = "addUser";
        $this->userCookie->step = 1;
        $this->AAIS_model->setCookie( (array)
             $this->userCookie, 'theUserCookie
             ' );

        if( $this->AAIS_model->hasCookie('
             addAccountCookie') )
            $this->addAccountCookie = $this->
                 AAIS_model->getCookie('
                 addAccountCookie');
        else{
            $this->AAIS_model->
                 setAddAccountCookie();
            redirect( base_url('sysad/addUser'
                 ) );
        }

        $this->addUserPanel();
        }

        public function addUserStepTwo()
        {
            $temp = $this->userCookie->step;
            $this->userCookie->step = 2;
            $this->AAIS_model->setCookie( (
                 array) $this->userCookie, '
                 theUserCookie' );

            if($temp==1){
                $this->load->library('
                     form_validation');

                $this->form_validation->
                     set_rules('firstName', '
                     First_Name', 'required');
                $this->form_validation->
                     set_rules('lastName', '
                     Last_Name', 'required');
                $this->form_validation->
                     set_rules('sex', 'Sex', '
                     required');
                $this->form_validation->
                     set_rules('birthday', '
                     Birthday', 'required');
                $this->form_validation->
                     set_rules('email', 'Email
                     ', 'trim|required|
                     valid_email');

                if($this->form_validation->run
                     () == FALSE || $this->
                     AAIS_model->dateChecker(
                     $_POST['birthday'])==1){
                    $this->userCookie->error =
                         1;
                    $this->AAIS_model->
                         setCookie( (array)
                         $this->userCookie, '
                         theUserCookie');
                    redirect( base_url('sysad/
                         addUser') );
                }
                else{
                    $this->addAccountCookie->
                         patientFirst = $_POST
                         ['firstName'];
                    $this->addAccountCookie->
                         patientLast = $_POST[
                         'lastName'];
                    $this->addAccountCookie->
                         patientSex = $_POST['
                         sex'];
                    $this->addAccountCookie->
                         patientBirthday =
                         $_POST['birthday'];
                    $this->addAccountCookie->
                         patientEmail = $_POST
                         ['email'];
                    $this->AAIS_model->
                         setCookie( (array)
                         $this->
                         addAccountCookie, '
                         addAccountCookie' );
                    redirect( base_url('sysad/
                         addUserPanel') );
                }
            }

            redirect( base_url('sysad/
                 addUserPanel') );

        }

        public function addUserStepThree()
        {
            $temp = $this->userCookie->step;
            $this->userCookie->step = 3;
            $this->AAIS_model->setCookie( (
                 array) $this->userCookie, '
                 theUserCookie' );

            if($temp==2){
                $this->load->library('
                     form_validation');

                $this->form_validation->
                     set_rules('firstName', '
                     First_Name', 'required');
                $this->form_validation->
                     set_rules('lastName', '
                     Last_Name', 'required');
                $this->form_validation->
                     set_rules('sex', 'Sex', '
                     required');
                $this->form_validation->
                     set_rules('birthday', '
                     Birthday', 'required');
                $this->form_validation->
                     set_rules('email', 'Email
                     ', 'trim|required|
                     valid_email');

                if($this->form_validation->run
                     () == FALSE || $this->
                     AAIS_model->dateChecker(
                     $_POST['birthday'])==1){
                    $this->userCookie->error =
                          1;
                    $this->AAIS_model->
                         setCookie( (array)
                         $this->userCookie, '
                         theUserCookie');
                    redirect( base_url('sysad/
                         addUser/stepTwo') );
                }
                else{
                    $this->addAccountCookie->
                         guardianFirst =
                         $_POST['firstName'];
                    $this->addAccountCookie->
                         guardianLast = $_POST
                         ['lastName'];
                    $this->addAccountCookie->
                         guardianSex = $_POST[
                         'sex'];
                    $this->addAccountCookie->
                         guardianBirthday =
                         $_POST['birthday'];
                    $this->addAccountCookie->
                         guardianEmail =
                         $_POST['email'];
                    $this->AAIS_model->
                         setCookie( (array)
                         $this->
                         addAccountCookie, '
                         addAccountCookie' );
                    redirect( base_url('sysad/
                         addUserPanel') );
                }
            }
```

```
            redirect( base_url('sysad/
                 addUserPanel') );
        }

        public function addUserStepFour()
        {
            $temp = $this->userCookie->step;
            $this->userCookie->step = 4;
            $this->AAIS_model->setCookie( (
                 array) $this->userCookie, '
                 theUserCookie' );

            if($temp==3){
                $this->addAccountCookie->ot_id
                      = $_POST['therapist'];
                $this->AAIS_model->setCookie(
                     (array) $this->
                     addAccountCookie, '
                     addAccountCookie' );
                redirect( base_url('sysad/
                     addUserPanel') );
            }

            redirect( base_url('sysad/
                 addUserPanel') );
        }

        public function addUserStepFive()
        {
            $this->userCookie->step = 5;
            $this->AAIS_model->setCookie( (
                 array) $this->userCookie, '
                 theUserCookie' );
            $this->AAIS_model->createAccount()
                 ;

            redirect( base_url('sysad/
                 addUserPanel') );
        }


    public function addUserPanel()
    {
        $data["cookie"] = $this->userCookie;
        $data["addCookie"] = $this->
             addAccountCookie;
        if($this->userCookie->step==3)
            $data["therapists"] = $this->
                 AAIS_model->getTherapists();
        else if($this->userCookie->step==4)
            $data["therapist"] = $this->
                 AAIS_model->getUser($this->
                 addAccountCookie->ot_id);
        else if($this->userCookie->step==5)
            $this->AAIS_model->deleteCookie('
                 addAccountCookie');
        $data["content"] =  'sysad/addUser/
             main.php';
        $this->load->view( 'home.php', $data);
    }

    public function addOT()
    {
        $this->userCookie->active = "addOT";
        $this->AAIS_model->setCookie( (array)
             $this->userCookie, 'theUserCookie
             ' );

        $data["cookie"] = $this->userCookie;
        $data["content"] =  'sysad/addOT/main.
             php';
        $this->load->view( 'home.php', $data);
    }

        public function addOTStepTwo()
        {
            if(isset($_POST)){
                $this->load->library('
                     form_validation');

                $this->form_validation->
                     set_rules('firstName', '
                     First_Name', 'required');
                $this->form_validation->
                     set_rules('lastName', '
                     Last_Name', 'required');
                $this->form_validation->
                     set_rules('sex', 'Sex', '
                     required');
                $this->form_validation->
                     set_rules('birthday', '
                     Birthday', 'required');
                $this->form_validation->
                     set_rules('email', 'Email
                     ', 'trim|required|
                     valid_email');

                if($this->form_validation->run
                     () == FALSE || $this->
                AAIS_model->dateChecker(
                $_POST['birthday'])==1){
                $this->userCookie->error =
                    1;
                $this->AAIS_model->
                    setCookie( (array)
                    $this->userCookie, '
                    theUserCookie');
                redirect( base_url('sysad/
                    addOT') );
            }
            else{
                $data[”details”] = $this->
                    AAIS_model->insertOT(
                    $_POST['firstName'],
                    $_POST['lastName'],
                    $_POST['sex'], $_POST
                    ['birthday'], $_POST[
                    'email']);
                $data[”cookie”] = $this->
                    userCookie;
                $data[”content”] = 'sysad
                    /addOT/generate.php';
                $this->load->view( 'home.
                    php', $data);
            }
        }
        else
            redirect( base_url('sysad/
                addOT') );
    }

public function addSysad()
{
    $this->userCookie->active = ”addSysad”
        ;
    $this->AAIS_model->setCookie( (array)
        $this->userCookie, 'theUserCookie
        ' );

    $data[”cookie”] = $this->userCookie;
    $data[”content”] = 'sysad/addSysad/
        main.php';
    $this->load->view( 'home.php', $data);
}

    public function addSysadStepTwo()
    {
        if(isset($_POST)){
            $this->load->library('
                form_validation');

            $this->form_validation->
                set_rules('firstName', '
                First_Name', 'required');
            $this->form_validation->
                set_rules('lastName', '
                Last_Name', 'required');
            $this->form_validation->
                set_rules('sex', 'Sex', '
                required');
            $this->form_validation->
                set_rules('birthday', '
                Birthday', 'required');
            $this->form_validation->
                set_rules('email', 'Email
                ', 'trim|required|
                valid_email');

            if($this->form_validation->run
                () == FALSE || $this->
                AAIS_model->dateChecker(
                $_POST['birthday'])==1){
                $this->userCookie->error =
                    1;
                $this->AAIS_model->
                    setCookie( (array)
                    $this->userCookie, '
                    theUserCookie');
                redirect( base_url('sysad/
                    addSysad') );
            }
            else{
                $data[”details”] = $this->
                    AAIS_model->
                    insertSysad($_POST['
                    firstName'], $_POST['
                    lastName'], $_POST['
                    sex'], $_POST['
                    birthday'], $_POST['
                    email']);
                $data[”cookie”] = $this->
                    userCookie;
                $data[”content”] = 'sysad
                    /addSysad/generate.
                    php';
                $this->load->view( 'home.
                    php', $data);
            }
```

```
        }
        else
            redirect( base_url('sysad/
                addSysad') );
    }

public function editAccount()
{
    $this->userCookie->active = ”none”;
    $this->AAIS_model->setCookie( (array)
        $this->userCookie, 'theUserCookie
        ' );
    $data[”cookie”] = $this->userCookie;
    $data[”content”] = 'sysad/editAccount
        .php';
    $this->load->view( 'home.php', $data);
}

    public function editAccountStepTwo()
    {
        if(isset($_POST)){
            $this->load->library('
                form_validation');

            $this->form_validation->
                set_rules('firstName', '
                First_Name', 'required');
            $this->form_validation->
                set_rules('lastName', '
                Last_Name', 'required');
            $this->form_validation->
                set_rules('sex', 'Sex', '
                required');
            $this->form_validation->
                set_rules('birthday', '
                Birthday', 'required');
            $this->form_validation->
                set_rules('email', 'Email
                ', 'trim|required|
                valid_email');
            $this->form_validation->
                set_rules('username', '
                Username', 'required');
            $this->form_validation->
                set_rules('password', '
                Password', 'required');

            if($_FILES['dp']['name'] == ””
                ){
                $filename = $this->
                    userCookie->
                    profile_picture;
            }
            else{
                $date_time = date( ”YmdHis
                    ” );
                $filename = $this->
                    AAIS_model->
                    moveDpUpload('dp',
                    $date_time);
            }

            if($this->form_validation->run
                () == FALSE || $this->
                AAIS_model->dateChecker(
                $_POST['birthday'])==1){
                $this->userCookie->error =
                    1;
                $this->AAIS_model->
                    setCookie( (array)
                    $this->userCookie, '
                    theUserCookie');
                redirect( base_url('sysad/
                    editAccount') );
            }
            else{
                $this->AAIS_model->
                    editAccount($this->
                    userCookie->user_id,
                    $_POST['firstName'],
                    $_POST['lastName'],
                    $_POST['sex'], $_POST
                    ['birthday'], $_POST[
                    'email'], $_POST['
                    username'], $_POST['
                    password'], $filename
                    );
                redirect( base_url('sysad/
                    editAccount') );
            }
        }
        else{
            $this->userCookie->error = 1;
            $this->AAIS_model->setCookie(
                (array) $this->userCookie
                , 'theUserCookie');
            redirect( base_url('sysad/
                editAccount') );
        }
    }

private function deleteUserPanel($type)
{
    if($type==1)
        $data["patients"] = $this->
             AAIS_model->getPatients();
    else if($type==2)
        $data["patients"] = $this->
             searchResults;
    else if($type==3)
        $data["guardians"] = $this->
             AAIS_model->getGuardians();
    else if($type==4)
        $data["guardians"] = $this->
             searchResults;
    else if($type==5){
        $data["search"] = 0;
        $data["therapists"] = $this->
             AAIS_model->getTherapists();
    }
    else if($type==6){
        $data["search"] = 1;
        $data["therapists"] = $this->
             searchResults;
    }
    else if($type==7)
        $data["admins"] = $this->
             AAIS_model->getAdmins();
    else if($type==8)
        $data["admins"] = $this->
             searchResults;
    $data["cookie"] = $this->userCookie;
    $data["content"] =  'sysad/delete/main
         .php';
    $this->load->view( 'home.php', $data);
}

public function deletePatient()
{
    $this->userCookie->active = "
         deletePatient";
    $this->userCookie->step = 1;
    $this->AAIS_model->setCookie( (array)
         $this->userCookie, 'theUserCookie
         ' );

    $this->deleteUserPanel(1);
}

    public function deletePatientStepTwo()
    {
        $this->AAIS_model->deletePatient(
             $_POST['user_id']);
        redirect( base_url('sysad/
             deletePatient') );
    }

    public function deletePatientAll()
    {
        $this->AAIS_model->
             deleteAllPatients();
        redirect( base_url('sysad/
             deletePatient') );
    }

    public function deletePatientSearch()
    {
        $this->searchResults = $this->
             AAIS_model->searchUser($_POST
             ['search'], 1);
        $this->deleteUserPanel(2);
    }

public function deleteGuardian()
{
    $this->userCookie->active = "
         deleteGuardian";
    $this->userCookie->step = 2;
    $this->AAIS_model->setCookie( (array)
         $this->userCookie, 'theUserCookie
         ' );

    $this->deleteUserPanel(3);
}

    public function deleteGuardianStepTwo
         ()
    {
       // $patient = $this->AAIS_model->
             deleteUser($_POST['user_id']);
        $patient = $this->AAIS_model->
             getPatientGuardian($_POST['
             user_id']);
        $array =
            array(
                "guardian_id" => $_POST["
                     user_id"],
                "user_id" => $patient->
```

```
                     user_id,
                "first_name" => $patient->
                     first_name,
                "last_name" => $patient->
                     last_name
            );
        $this->AAIS_model->setCookie(
             $array, "patientCookie");
        redirect( base_url('sysad/
             deleteGuardian/new') );
    }

    public function deleteGuardianNew()
    {
        $data["patient"] = $this->patient;
        $data["cookie"] = $this->
             userCookie;
        $data["content"] =  'sysad/delete/
             newGuardian.php';
        $this->load->view( 'home.php',
             $data);
    }
        public function
             deleteGuardianNewStepTwo()
        {
            $this->load->library('
                 form_validation');

            $this->form_validation->
                 set_rules('firstName', '
                 First_Name', 'required');
            $this->form_validation->
                 set_rules('lastName', '
                 Last_Name', 'required');
            $this->form_validation->
                 set_rules('sex', 'Sex', '
                 required');
            $this->form_validation->
                 set_rules('birthday', '
                 Birthday', 'required');
            $this->form_validation->
                 set_rules('email', 'Email
                 ', 'trim|required|
                 valid_email');

            if($this->form_validation->run
                 () == FALSE || $this->
                 AAIS_model->dateChecker(
                 $_POST['birthday'])==1){
                $this->userCookie->error =
                      1;
                $this->AAIS_model->
                     setCookie( (array)
                     $this->userCookie, '
                     theUserCookie');
                redirect( base_url('sysad/
                     deleteGuardian/new')
                     );
            }
            else{
                $this->AAIS_model->
                     deleteUser($this->
                     patient->guardian_id)
                     ;
                $data["details"] = $this->
                     AAIS_model->
                     insertGuardian($_POST
                     ['firstName'], $_POST
                     ['lastName'], $_POST[
                     'sex'], $_POST['
                     birthday'], $_POST['
                     email'], $this->
                     patient->user_id);
                $data["patient"] = $this->
                     patient;
                $data["cookie"] = $this->
                     userCookie;
                $data["content"] =  'sysad
                     /delete/
                     generateNewGuardian.
                     php';
                $this->load->view( 'home.
                     php', $data);
            }
        }

    public function deleteGuardianSearch()
    {
        $this->searchResults = $this->
             AAIS_model->searchUser($_POST
             ['search'], 2);
        $this->deleteUserPanel(4);
    }

public function deleteOT()
{
    $this->userCookie->active = "deleteOT"
         ;
    $this->userCookie->step = 3;
    $this->AAIS_model->setCookie( (array)
         $this->userCookie, 'theUserCookie
         ' );

    $this->deleteUserPanel(5);
}

    public function deleteOTStepTwo()
    {
       //$data["patients"] = $this->
            AAIS_model->deleteOT($_POST['
            user_id']);
       $data["patients"] = $this->
            AAIS_model->checkOTPatients(
            $_POST['user_id']);
       if(is_int($data["patients"])){
            redirect( base_url('sysad/
                deleteOT') );
       }
       else{
            $data["current"] = $_POST['
                user_id'];
            $data["therapists"] = $this->
                AAIS_model->getTherapists
                ();
            $data["cookie"] = $this->
                userCookie;
            $data["content"] =  'sysad/
                delete/newOT.php';
            $this->load->view( 'home.php',
                 $data);
       }
    }

    public function deleteOTNew()
    {
        $data["patients"] = array();
        $data["therapists"] = array();

        foreach($_POST['patients'] as $p)
            array_push($data["patients"],
                $this->AAIS_model->
                getUser($p));
        foreach($_POST['therapists'] as $t
             )
            array_push($data["therapists"
                ], $this->AAIS_model->
                getUser($t));

        $this->AAIS_model->
             updateTherapists($_POST['
             patients'], $_POST['
             therapists']);
        $this->AAIS_model->deleteUser(
             $_POST['current']);

        $data["cookie"] = $this->
             userCookie;
        $data["content"] =  'sysad/delete/
             generateNewOT.php';
            $this->load->view( 'home.php',
                 $data);
    }

    public function deleteOTSearch()
    {
        $this->searchResults = $this->
             AAIS_model->searchUser($_POST
             ['search'], 3);
        $this->deleteUserPanel(6);
    }

public function deleteSysad()
{
    $this->userCookie->active = "
         deleteSysad";
    $this->userCookie->step = 4;
    $this->AAIS_model->setCookie( (array)
         $this->userCookie, 'theUserCookie
         ' );

    $this->deleteUserPanel(7);
}

    public function deleteSysadStepTwo()
    {
        $this->AAIS_model->deleteUser(
             $_POST['user_id']);
        redirect( base_url('sysad/
             deleteSysad') );
    }

    public function deleteSysadSearch()
    {
        $this->searchResults = $this->
             AAIS_model->searchUser($_POST
             ['search'], 0);
        $this->deleteUserPanel(8);
    }
```

```
    public function assignTherapist()
    {
        $this->userCookie->active = "
            assignTherapist";
        $this->userCookie->step = 2;
        $this->AAIS_model->setCookie( (array)
            $this->userCookie, 'theUserCookie
            ' );
        $data["patients"] = $this->AAIS_model
            ->getPatientList();
        $data["therapists"] = $this->
            AAIS_model->getTherapists();
        $data["cookie"] = $this->userCookie;
        $data["content"] = 'sysad/edit/main.
            php';
        $this->load->view( 'home.php', $data);
    }

        public function assignNewTherapist()
        {
            $this->AAIS_model->updateTherapist
                ($_POST['patient'], $_POST['
                therapist']);
            $this->userCookie->error = 2;
            $this->AAIS_model->setCookie( (
                array) $this->userCookie, '
                theUserCookie' );
            redirect( base_url('sysad/
                assignTherapist') );
        }

}
```

Listing 3: User_Controller.php

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

class User_Controller extends CI_Controller {

    private $userCookie;
    private $entryCookie;
    private $submissionCookie;
    private $searchCookie;

    public function __construct()
    {
        parent::__construct();

        date_default_timezone_set('Asia/Manila
            ');

        if(isset($_POST['logout'])){
            redirect( base_url());
        }
        if( $this->AAIS_model->hasCookie('
            theUserCookie') )
            $this->userCookie = $this->
                AAIS_model->getCookie('
                theUserCookie');
        else
            redirect( base_url() );
        if( $this->AAIS_model->hasCookie('
            theEntryCookie') )
            $this->entryCookie = $this->
                AAIS_model->getCookie('
                theEntryCookie');
        if( $this->AAIS_model->hasCookie('
            theSubmissionCookie') )
            $this->submissionCookie = $this->
                AAIS_model->getCookie('
                theSubmissionCookie');
        if( $this->AAIS_model->hasCookie('
            theSearchCookie') )
            $this->searchCookie = $this->
                AAIS_model->getCookie('
                theSearchCookie');

    }

    public function editAccount()
    {
        $this->userCookie->active = "none";
        $this->AAIS_model->setCookie( (array)
            $this->userCookie, 'theUserCookie
            ' );
        $data["cookie"] = $this->userCookie;
        $data["content"] =  'user/editAccount.
            php';
        $this->load->view( 'home.php', $data);
    }

        public function editAccountStepTwo()
        {
            if(isset($_POST)){
```

```
            $this->load->library('
                form_validation');

            $this->form_validation->
                set_rules('firstName', '
                First_Name', 'required');
            $this->form_validation->
                set_rules('lastName', '
                Last_Name', 'required');
            $this->form_validation->
                set_rules('sex', 'Sex', '
                required');
            $this->form_validation->
                set_rules('birthday', '
                Birthday', 'required');
            $this->form_validation->
                set_rules('email', 'Email
                ', 'trim|required|
                valid_email');
            $this->form_validation->
                set_rules('username', '
                Username', 'required');
            $this->form_validation->
                set_rules('password', '
                Password', 'required');

            if($_FILES['dp']['name'] == ""
                ){
                $filename = $this->
                    userCookie->
                    profile_picture;
            }
            else{
                $date_time = date( "YmdHis
                    " );
                $filename = $this->
                    AAIS_model->
                    moveDpUpload('dp',
                    $date_time);
            }

            if($this->form_validation->run
                () == FALSE || $this->
                AAIS_model->dateChecker(
                $_POST['birthday'])==1){
                $this->userCookie->error =
                    1;
                $this->AAIS_model->
                    setCookie( (array)
                    $this->userCookie, '
                    theUserCookie');
                redirect( base_url('user/
                    editAccount') );
            }
            else{
                $id = $this->userCookie->
                    user_id;
                if($this->userCookie->
                    user_type == 2)
                    $id = $this->
                        userCookie->
                        guardian_id;
                $this->AAIS_model->
                    editAccount($id,
                    $_POST['firstName'],
                    $_POST['lastName'],
                    $_POST['sex'], $_POST
                    ['birthday'], $_POST[
                    'email'], $_POST['
                    username'], $_POST['
                    password'], $filename
                    );
                redirect( base_url('user/
                    editAccount') );
            }
        }
        else{
            $this->userCookie->error = 1;
            $this->AAIS_model->setCookie(
                (array) $this->userCookie
                , 'theUserCookie');
            redirect( base_url('user/
                editAccount') );
        }
    }
public function journals()
{
    $this->userCookie->active = "journals"
        ;
    $this->AAIS_model->setCookie( (array)
        $this->userCookie, 'theUserCookie
        ' );
    if($this->AAIS_model->hasCookie('
        theEntryCookie'))
        $this->AAIS_model->deleteCookie('
            theEntryCookie');
    if($this->AAIS_model->hasCookie('
        theSearchCookie'))
        $this->AAIS_model->deleteCookie('
            theSearchCookie');
    $this->load->helper('url');
    $this->load->library('pagination');
    //pagination settings
    $config['base_url'] = site_url('
        User_Controller/journals');
    $config['total_rows'] = $this->
        AAIS_model->countJournals($this->
        userCookie->user_id, $this->
        userCookie->category);
    $config['per_page'] = "5";
    $config["uri_segment"] = 3;
    $choice = $config["total_rows"] /
        $config["per_page"];
    $config["num_links"] = floor($choice);

    //config for bootstrap pagination
        class integration
    $config['full_tag_open'] = '<ul class
        ="pagination">';
    $config['full_tag_close'] = '</ul>';
    $config['first_tag_open'] = '<li>';
    $config['first_tag_close'] = '</li>';
    $config['prev_link'] = '&laquo';
    $config['prev_tag_open'] = '<li class
        ="prev">';
    $config['prev_tag_close'] = '</li>';
    $config['next_link'] = '&raquo';
    $config['next_tag_open'] = '<li>';
    $config['next_tag_close'] = '</li>';
    $config['last_tag_open'] = '<li>';
    $config['last_tag_close'] = '</li>';
    $config['cur_tag_open'] = '<li class="
        active"><a href="#">';
    $config['cur_tag_close'] = '</a></li>'
        ;
    $config['num_tag_open'] = '<li>';
    $config['num_tag_close'] = '</li>';

    $this->pagination->initialize($config)
        ;
    $data['page'] = ($this->uri->segment
        (3)) ? $this->uri->segment(3) :
        0;

    //call the model function to get the
        department data
    $data['journals'] = $this->AAIS_model
        ->getJournals($config["per_page"
        ], $data['page'], $this->
        userCookie->user_id, 1, $this->
        userCookie->category);

    $data['pagination'] = $this->
        pagination->create_links();

    //load the department_view
    $data["categories"] = $this->
        AAIS_model->getCategories($this->
        userCookie->user_id);
    $data["cookie"] = $this->userCookie;
    $data["content"] =  'user/journals/
        main.php';
    $this->load->view('home.php',$data);
}

    public function deleteJournal()
    {
        $this->AAIS_model->deleteJournal(
            $_POST['delete']);
        if($this->AAIS_model->hasCookie('
            theSearchCookie'))
            redirect( base_url('user/
                search/1') );
        redirect( base_url('user/journals'
            ) );
    }

    public function editJournal()
    {
        if($this->AAIS_model->hasCookie('
            theEntryCookie'))
            $data["journal"] = $this->
                entryCookie;
        else{
            $row = $this->AAIS_model->
                getJournal($_POST['edit'
                ]);
            $array =
                array(
                    'journal_id' => $row->
                        journal_id,
                    'title' => $row->title
                        ,
                    'date' => $row->date,
                    'details' => $row->
                        details,
                    'category' => $row->
                        category,
                'error' => 0
            );
        $this->AAIS_model->setCookie(
            $array, "theEntryCookie")
            ;
        redirect( base_url('user/
            editJournal') );
    }
    $data["categories"] = $this->
        AAIS_model->getCategories(
        $this->userCookie->user_id);
    $data["cookie"] = $this->
        userCookie;
    $data["content"] =  'user/journals
        /edit.php';
    $this->load->view('home.php',$data
        );
}

    public function editJournalStepTwo
        ()
    {
        if(isset($_POST)){
            $this->load->library('
                form_validation');

            $this->form_validation->
                set_rules('title', '
                Title', 'required');
            $this->form_validation->
                set_rules('date', '
                Date', 'required');
            $this->form_validation->
                set_rules('details',
                'Details', 'required'
                );

            if($this->form_validation
                ->run() == FALSE){
                $this->entryCookie->
                    error = 1;
                $this->AAIS_model->
                    setCookie( (array
                    ) $this->
                    entryCookie, '
                    theEntryCookie');
                redirect( base_url('
                    user/editJournal'
                    ) );
            }

            else if($this->AAIS_model
                ->dateChecker($_POST[
                'date']) == 1){
                $this->entryCookie->
                    error = 3;
                $this->AAIS_model->
                    setCookie( (array
                    ) $this->
                    entryCookie, '
                    theEntryCookie');
                redirect( base_url('
                    user/editJournal'
                    ) );
            }

            else{
                $this->entryCookie->
                    error = 2;
                $this->entryCookie->
                    title = $_POST['
                    title'];
                $this->entryCookie->
                    date = $_POST['
                    date'];
                $this->entryCookie->
                    details = $_POST[
                    'details'];
                $this->entryCookie->
                    category = $_POST
                    ['category'];
                $this->AAIS_model->
                    setCookie( (array
                    ) $this->
                    entryCookie, '
                    theEntryCookie');
                $this->AAIS_model->
                    editJournal(
                    $_POST['id'],
                    $_POST['title'],
                    $_POST['date'],
                    $_POST['details'
                    ], $_POST['
                    category']);
                redirect( base_url('
                    user/editJournal'
                    ) );
            }
        }
```

```
            else{
                $this->entryCookie->error
                    = 1;
                $this->AAIS_model->
                    setCookie( (array)
                    $this->entryCookie, '
                    theEntryCookie');
                redirect( base_url('user/
                    editJournal') );
            }
        }
    public function filter($type){
        $this->userCookie->category =
            $_POST['category'];
        $this->AAIS_model->setCookie( (
            array) $this->userCookie, '
            theUserCookie' );
        switch($type){
            case 1: redirect( base_url('
                user/journals') );
                break;
            case 2: redirect( base_url('
                user/reminders') );
                break;
            case 3: redirect( base_url('
                user/photos') );
                break;
        }
    }

public function reminders()
{
    $this->userCookie->active = "reminders
        ";
    $this->AAIS_model->setCookie( (array)
        $this->userCookie, 'theUserCookie
        ' );
    if($this->AAIS_model->hasCookie('
        theEntryCookie'))
        $this->AAIS_model->deleteCookie('
            theEntryCookie');
    if($this->AAIS_model->hasCookie('
        theSearchCookie'))
        $this->AAIS_model->deleteCookie('
            theSearchCookie');
    $this->load->helper('url');
    $this->load->library('pagination');
    //pagination settings
    $config['base_url'] = site_url('
        User_Controller/reminders');
    $config['total_rows'] = $this->
        AAIS_model->countReminders($this
        ->userCookie->user_id, $this->
        userCookie->category);
    $config['per_page'] = "5";
    $config["uri_segment"] = 3;
    $choice = $config["total_rows"] /
        $config["per_page"];
    $config["num_links"] = floor($choice);

    //config for bootstrap pagination
        class integration
    $config['full_tag_open'] = '<ul_class
        ="pagination">';
    $config['full_tag_close'] = '</ul>';
    $config['first_tag_open'] = '<li>';
    $config['first_tag_close'] = '</li>';
    $config['prev_link'] = '&laquo';
    $config['prev_tag_open'] = '<li_class
        ="prev">';
    $config['prev_tag_close'] = '</li>';
    $config['next_link'] = '&raquo';
    $config['next_tag_open'] = '<li>';
    $config['next_tag_close'] = '</li>';
    $config['last_tag_open'] = '<li>';
    $config['last_tag_close'] = '</li>';
    $config['cur_tag_open'] = '<li_class="
        active"><a_href="#">';
    $config['cur_tag_close'] = '</a></li>'
        ;
    $config['num_tag_open'] = '<li>';
    $config['num_tag_close'] = '</li>';

    $this->pagination->initialize($config)
        ;
    $data['page'] = ($this->uri->segment
        (3)) ? $this->uri->segment(3) :
        0;

    //call the model function to get the
        department data
    $data['reminders'] = $this->AAIS_model
        ->getReminders($config["per_page"
        ], $data['page'], $this->
        userCookie->user_id, 1, $this->
        userCookie->category);

    $data['pagination'] = $this->
        pagination->create_links();
        //load the department_view
        $data["categories"] = $this->
             AAIS_model->getCategories($this->
             userCookie->user_id);
        $data["cookie"] = $this->userCookie;
        $data["content"] =  'user/reminders/
             main.php';
        $this->load->view('home.php',$data);
}

        public function deleteReminder()
        {
            $this->AAIS_model->deleteReminder(
                 $_POST['delete']);
            if($this->AAIS_model->hasCookie('
                 theSearchCookie'))
                redirect( base_url('user/
                     search/2') );
            redirect( base_url('user/reminders
                 ') );
        }

        public function editReminder()
        {
            if($this->AAIS_model->hasCookie('
                 theEntryCookie'))
                $data["reminder"] = $this->
                     entryCookie;
            else{
                $row = $this->AAIS_model->
                     getReminder($_POST['edit'
                     ]);
                $array =
                    array(
                        'reminder_id' => $row
                             ->reminder_id,
                        'title' => $row->title
                             ,
                        'date_time' => $row->
                             date_time,
                        'details' => $row->
                             details,
                        'category' => $row->
                             category,
                        'error' => 0
                    );
                $this->AAIS_model->setCookie(
                     $array, "theEntryCookie")
                     ;
                redirect( base_url('user/
                     editReminder') );
            }
            $data["categories"] = $this->
                 AAIS_model->getCategories(
                 $this->userCookie->user_id);
            $data["cookie"] = $this->
                 userCookie;
            $data["content"] =  'user/
                 reminders/edit.php';
            $this->load->view('home.php',$data
                 );
        }

            public function
                 editReminderStepTwo()
            {
                if(isset($_POST)){

                    if($this->AAIS_model->
                         dateChecker($_POST['
                         date_time']) == 0){
                        $this->entryCookie->
                             error = 3;
                        $this->AAIS_model->
                             setCookie( (array
                             ) $this->
                             entryCookie, '
                             theEntryCookie');
                        redirect( base_url('
                             user/editReminder
                             ') );
                    }

                    $this->load->library('
                         form_validation');

                    $this->form_validation->
                         set_rules('title', '
                         Title', 'required');
                    $this->form_validation->
                         set_rules('date_time'
                         , 'DateTime', '
                         required');
                    $this->form_validation->
                         set_rules('details',
                         'Details', 'required'
                         );
```

```
                    if($this->form_validation
                         ->run() == FALSE){
                        $this->entryCookie->
                             error = 1;
                        $this->AAIS_model->
                             setCookie( (array
                             ) $this->
                             entryCookie, '
                             theEntryCookie');
                        redirect( base_url('
                             user/editReminder
                             ') );
                    }
                    else if($this->AAIS_model
                         ->dateChecker($_POST[
                         'date_time']) == 0){
                        $this->entryCookie->
                             error = 3;
                        $this->AAIS_model->
                             setCookie( (array
                             ) $this->
                             entryCookie, '
                             theEntryCookie');
                        redirect( base_url('
                             user/editReminder
                             ') );
                    }
                    else{
                        $this->entryCookie->
                             error = 2;
                        $this->entryCookie->
                             title = $_POST['
                             title'];
                        $this->entryCookie->
                             date_time =
                             $_POST['date_time
                             '];
                        $this->entryCookie->
                             details = $_POST[
                             'details'];
                        $this->entryCookie->
                             category = $_POST
                             ['category'];
                        $this->AAIS_model->
                             setCookie( (array
                             ) $this->
                             entryCookie, '
                             theEntryCookie');
                        $this->AAIS_model->
                             editReminder(
                             $_POST['id'],
                             $_POST['title'],
                             $_POST['date_time
                             '], $_POST['
                             details'], $_POST
                             ['category']);
                        redirect( base_url('
                             user/editReminder
                             ') );
                    }
                }
                else{
                    $this->entryCookie->error
                         = 1;
                    $this->AAIS_model->
                         setCookie( (array)
                         $this->entryCookie, '
                         theEntryCookie');
                    redirect( base_url('user/
                         editReminder') );
                }
            }

        public function photos()
        {
            $this->userCookie->active = "photos";
            $this->AAIS_model->setCookie( (array)
                 $this->userCookie, 'theUserCookie
                 ' );
            if($this->AAIS_model->hasCookie('
                 theEntryCookie'))
                $this->AAIS_model->deleteCookie('
                     theEntryCookie');
            if($this->AAIS_model->hasCookie('
                 theSearchCookie'))
                $this->AAIS_model->deleteCookie('
                     theSearchCookie');
            $this->load->helper('url');
            $this->load->library('pagination');
            //pagination settings
            $config['base_url'] = site_url('
                 User_Controller/photos');
            $config['total_rows'] = $this->
                 AAIS_model->countPhotos($this->
                 userCookie->user_id, $this->
                 userCookie->category);
            $config['per_page'] = "5";
            $config["uri_segment"] = 3;
            $choice = $config["total_rows"] /
```

```
         $config["per_page"];
    $config["num_links"] = floor($choice);

    //config for bootstrap pagination
         class integration
    $config['full_tag_open'] = '<ul class
         ="pagination">';
    $config['full_tag_close'] = '</ul>';
    $config['first_tag_open'] = '<li>';
    $config['first_tag_close'] = '</li>';
    $config['prev_link'] = '&laquo';
    $config['prev_tag_open'] = '<li class
         ="prev">';
    $config['prev_tag_close'] = '</li>';
    $config['next_link'] = '&raquo';
    $config['next_tag_open'] = '<li>';
    $config['next_tag_close'] = '</li>';
    $config['last_tag_open'] = '<li>';
    $config['last_tag_close'] = '</li>';
    $config['cur_tag_open'] = '<li class="
         active"><a href="#">';
    $config['cur_tag_close'] = '</a></li>'
         ;
    $config['num_tag_open'] = '<li>';
    $config['num_tag_close'] = '</li>';

    $this->pagination->initialize($config)
         ;
    $data['page'] = ($this->uri->segment
         (3)) ? $this->uri->segment(3) :
         0;

    //call the model function to get the
         department data
    $data['photos'] = $this->AAIS_model->
         getPhotos($config["per_page"],
         $data['page'], $this->userCookie
         ->user_id, 1, $this->userCookie->
         category);

    $data['pagination'] = $this->
         pagination->create_links();

    //load the department_view
    $data["categories"] = $this->
         AAIS_model->getCategories($this->
         userCookie->user_id);
    $data["cookie"] = $this->userCookie;
    $data["content"] =  'user/photos/main.
         php';
    $this->load->view('home.php',$data);
}

    public function deletePhoto()
    {
        $this->AAIS_model->deletePhoto(
             $_POST['delete']);
        if($this->AAIS_model->hasCookie('
             theSearchCookie'))
            redirect( base_url('user/
                 search/3') );
        redirect( base_url('user/photos')
             );
    }

    public function editPhoto()
    {
        if($this->AAIS_model->hasCookie('
             theEntryCookie'))
            $data["photo"] = $this->
                 entryCookie;
        else{
            $row = $this->AAIS_model->
                 getPhoto($_POST['edit']);
            $array =
                array(
                    'path' => base_url("
                         assets/photos/".
                         $row->filename),
                    'photo_id' => $row->
                         photo_id,
                    'date' => $row->date,
                    'caption' => $row->
                         caption,
                    'category' => $row->
                         category,
                    'error' => 0
                );
            $this->AAIS_model->setCookie(
                 $array, "theEntryCookie")
                 ;
            redirect( base_url('user/
                 editPhoto') );
        }
        $data["categories"] = $this->
             AAIS_model->getCategories(
             $this->userCookie->user_id);
        $data["cookie"] = $this->
             userCookie;
            $data["content"] =  'user/photos/
                 edit.php';
            $this->load->view('home.php',$data
                 );
        }

            public function editPhotoStepTwo()
            {
                if(isset($_POST)){

                    $this->load->library('
                         form_validation');

                    $this->form_validation->
                         set_rules('date', '
                         Date', 'required');
                    $this->form_validation->
                         set_rules('caption',
                         'Caption', 'required'
                         );

                    if($this->form_validation
                         ->run() == FALSE){
                        $this->entryCookie->
                             error = 1;
                        $this->AAIS_model->
                             setCookie( (array
                             ) $this->
                             entryCookie, '
                             theEntryCookie');
                        redirect( base_url('
                             user/editPhoto')
                             );
                    }
                    else if($this->AAIS_model
                         ->dateChecker($_POST[
                         'date']) == 1){
                        $this->entryCookie->
                             error = 3;
                        $this->AAIS_model->
                             setCookie( (array
                             ) $this->
                             entryCookie, '
                             theEntryCookie');
                        redirect( base_url('
                             user/editPhoto')
                             );
                    }
                    else{
                        $this->entryCookie->
                             error = 2;
                        $this->entryCookie->
                             date = $_POST['
                             date'];
                        $this->entryCookie->
                             caption = $_POST[
                             'caption'];
                        $this->entryCookie->
                             category = $_POST
                             ['category'];
                        $this->AAIS_model->
                             setCookie( (array
                             ) $this->
                             entryCookie, '
                             theEntryCookie');
                        $this->AAIS_model->
                             editPhoto($_POST[
                             'id'], $_POST['
                             date'], $_POST['
                             caption'], $_POST
                             ['category']);
                        redirect( base_url('
                             user/editPhoto')
                             );
                    }
                }
                else{
                    $this->entryCookie->error
                         = 1;
                    $this->AAIS_model->
                         setCookie( (array)
                         $this->entryCookie, '
                         theEntryCookie');
                    redirect( base_url('user/
                         editPhoto') );
                }
            }

    public function create($pageType)
    {
        $this->userCookie->active = "create";
        $this->AAIS_model->setCookie( (array)
             $this->userCookie, 'theUserCookie
             ' );
        if($this->AAIS_model->hasCookie('
             theSubmissionCookie')){
            $this->submissionCookie->pageType
                 = $pageType;
            $this->AAIS_model->setCookie( (
            array) $this->
            submissionCookie, '
            theSubmissionCookie');
        $data["entry"] = $this->
            submissionCookie;
    }
    else{
        $array =
            array(
                'pageType' => $pageType,
                'error' => 0
            );
        $this->AAIS_model->setCookie(
            $array, "theSubmissionCookie"
            );
        redirect( base_url("user/create/".
            $pageType) );
    }
    $data["categories"] = $this->
        AAIS_model->getCategories($this->
        userCookie->user_id);
    $data["cookie"] = $this->userCookie;
    $data["content"] =  'user/create/main.
        php';
    $this->load->view('home.php',$data);
}

public function submit($type)
{
    $this->load->library('form_validation'
        );
    $name = $this->userCookie->first_name
        . "_" . $this->userCookie->
        last_name;

    if($type==1 || $type==2){
        $this->form_validation->set_rules(
            'date', 'date', 'required');
        $this->form_validation->set_rules(
            'title', 'title', 'required')
            ;
        $this->form_validation->set_rules(
            'details', 'details', '
            required');
    }

    if($type==3){
        $this->form_validation->set_rules(
            'date', 'date', 'required');
        $this->form_validation->set_rules(
            'details', 'details', '
            required');
        if($_FILES['title']['name'] == "")
            {
            $this->submissionCookie->error
                = 1;
            $this->AAIS_model->setCookie(
                (array) $this->
                submissionCookie, '
                theSubmissionCookie' );
            redirect( base_url('user/
                create/3') );
        }
    }

    if($type==4){
        $this->form_validation->set_rules(
            'question', 'question', '
            required');
        $this->form_validation->set_rules(
            'choiceA', 'choiceA', '
            required');
        $this->form_validation->set_rules(
            'choiceB', 'choiceB', '
            required');
        $this->form_validation->set_rules(
            'choiceC', 'choiceC', '
            required');
        $this->form_validation->set_rules(
            'choiceD', 'choicD', '
            required');
        $this->form_validation->set_rules(
            'answer', 'answer', 'required
            ');
    }

    if($this->form_validation->run() ==
        FALSE){
        $this->submissionCookie->error =
            1;
        $this->AAIS_model->setCookie( (
            array) $this->
            submissionCookie, '
            theSubmissionCookie');
        redirect(base_url("user/create/".
            $type));
    }
    else{
```

```
        if($type==1 || $type==3){
            if($this->AAIS_model->
                dateChecker($_POST['date'
                ]) == 1){
                $this->submissionCookie->
                    error = 3;
                $this->AAIS_model->
                    setCookie( (array)
                    $this->
                    submissionCookie, '
                    theSubmissionCookie')
                    ;
                redirect(base_url("user/
                    create/".$type));
            }
        }

        else if($type==2){
            if($this->AAIS_model->
                dateChecker($_POST['date'
                ]) == 0){
                $this->submissionCookie->
                    error = 3;
                $this->AAIS_model->
                    setCookie( (array)
                    $this->
                    submissionCookie, '
                    theSubmissionCookie')
                    ;
                redirect(base_url("user/
                    create/".$type));
            }
        }

        $author_id = $this->userCookie->
            user_id;
        if($this->userCookie->user_type ==
            2)
            $author_id = $this->userCookie
                ->guardian_id;
        switch($type){
            case 1:
                $this->AAIS_model->
                    addJournal($this->
                    userCookie->user_id,
                    $_POST['date'],
                    $_POST['title'],
                    $_POST['details'],
                    $author_id, $name, 1,
                     $_POST['category']);
                break;
            case 2:
                $this->AAIS_model->
                    addReminder($this->
                    userCookie->user_id,
                    $_POST['date'],
                    $_POST['title'],
                    $_POST['details'],
                    $author_id, $name, 1,
                     $_POST['category']);
                break;
            case 3:
                $date_time = date( "YmdHis
                    " );
                $filename = $this->
                    AAIS_model->
                    movePhotoUpload('
                    title', $date_time);
                $this->AAIS_model->
                    addPhoto($this->
                    userCookie->user_id,
                    $_POST['date'],
                    $filename, $_POST['
                    details'], $author_id
                    , $name, 1, $_POST['
                    category']);
                break;
            case 4:
                $filename = 0;
                $qtype = $_POST['type'];
                    if($_FILES['filename'
                        ]['name'] != ""){
                        $date_time = date(
                            "YmdHis" );
                        $filename = $this
                            ->AAIS_model
                            ->
                            movePhotoUpload
                            ('filename',
                            $date_time);
                        if($qtype==1)
                            $qtype = 2;
                    }
                $this->AAIS_model->
                    addQuestion($this->
                    userCookie->user_id,
                    $_POST['question'],
                    $filename,
                  $_POST['choiceA'],
                    $_POST['choiceB'],
                     $_POST['choiceC'
                    ], $_POST['choiceD
                    '], $_POST['answer
                    '], $author_id,
                    $name, 1, $qtype);
                break;
            default: break;

        }
        $this->submissionCookie->error =
             2;
        $this->AAIS_model->setCookie( (
             array) $this->
             submissionCookie, '
             theSubmissionCookie');
        redirect(base_url("user/create/".
             $type));
    }
}

public function questions()
{
    $this->userCookie->active = "questions
         ";
    $this->AAIS_model->setCookie( (array)
         $this->userCookie, 'theUserCookie
         ' );
    if($this->AAIS_model->hasCookie('
         theEntryCookie'))
        $this->AAIS_model->deleteCookie('
             theEntryCookie');
    if($this->AAIS_model->hasCookie('
         theSearchCookie'))
        $this->AAIS_model->deleteCookie('
             theSearchCookie');
    $this->load->helper('url');
    $this->load->library('pagination');
    //pagination settings
    $config['base_url'] = site_url('
         User_Controller/questions');
    $config['total_rows'] = $this->
         AAIS_model->countQuestions($this
         ->userCookie->user_id);
    $config['per_page'] = "5";
    $config["uri_segment"] = 3;
    $choice = $config["total_rows"] /
         $config["per_page"];
    $config["num_links"] = floor($choice);

    //config for bootstrap pagination
         class integration
    $config['full_tag_open'] = '<ul␣class
         ="pagination">';
    $config['full_tag_close'] = '</ul>';
    $config['first_tag_open'] = '<li>';
    $config['first_tag_close'] = '</li>';
    $config['prev_link'] = '&laquo';
    $config['prev_tag_open'] = '<li␣class
         ="prev">';
    $config['prev_tag_close'] = '</li>';
    $config['next_link'] = '&raquo';
    $config['next_tag_open'] = '<li>';
    $config['next_tag_close'] = '</li>';
    $config['last_tag_open'] = '<li>';
    $config['last_tag_close'] = '</li>';
    $config['cur_tag_open'] = '<li␣class="
         active"><a␣href="#">';
    $config['cur_tag_close'] = '</a></li>'
         ;
    $config['num_tag_open'] = '<li>';
    $config['num_tag_close'] = '</li>';

    $this->pagination->initialize($config)
         ;
    $data['page'] = ($this->uri->segment
         (3)) ? $this->uri->segment(3) :
         0;

    //call the model function to get the
         department data
    $data['questions'] = $this->AAIS_model
         ->getQuestions($config["per_page"
         ], $data['page'], $this->
         userCookie->user_id, 1);

    $data['pagination'] = $this->
         pagination->create_links();

    //load the department_view
    $data["cookie"] = $this->userCookie;
    $data["content"] =  'user/questions/
         main.php';
    $this->load->view('home.php',$data);
}

    public function deleteQuestion()
    {
        $this->AAIS_model->deleteQuestion(
```

```
        $_POST['delete']);
    if($this->AAIS_model->hasCookie('
         theSearchCookie'))
        redirect( base_url('user/
             search/4') );
    redirect( base_url('user/questions
         ') );
}

public function editQuestion()
{
    if($this->AAIS_model->hasCookie('
         theEntryCookie'))
        $data["question"] = $this->
             entryCookie;
    else{
        $row = $this->AAIS_model->
             getQuestion($_POST['edit'
             ]);
        $array =
             array(
                 'question_id' => $row
                      ->question_id,
                 'question_details' =>
                      $row->
                      question_details,
                 'type' => $row->type,
                 'filename' => $row->
                      filename,
                 'choiceA' => $row->
                      choiceA,
                 'choiceB' => $row->
                      choiceB,
                 'choiceC' => $row->
                      choiceC,
                 'choiceD' => $row->
                      choiceD,
                 'answer' => $row->
                      answer,
                 'error' => 0
             );
        $this->AAIS_model->setCookie(
             $array, "theEntryCookie")
             ;
        redirect( base_url('user/
             editQuestion') );
    }
    $data["cookie"] = $this->
         userCookie;
    $data["content"] =  'user/
         questions/edit.php';
    $this->load->view('home.php',$data
         );
}

    public function
         editQuestionStepTwo()
    {
        if(isset($_POST)){
            $this->load->library('
                 form_validation');

            $this->form_validation->
                 set_rules('question',
                  'Question', '
                 required');
            $this->form_validation->
                 set_rules('type', '
                 type', 'required');
            $this->form_validation->
                 set_rules('choiceA',
                 'choiceA', 'required'
                 );
            $this->form_validation->
                 set_rules('choiceB',
                 'choiceB', 'required'
                 );
            $this->form_validation->
                 set_rules('choiceC',
                 'choiceC', 'required'
                 );
            $this->form_validation->
                 set_rules('choiceD',
                 'choiceD', 'required'
                 );
            $this->form_validation->
                 set_rules('answer', '
                 answer', 'required');

            if($this->form_validation
                 ->run() == FALSE){
                $this->entryCookie->
                     error = 1;
                $this->AAIS_model->
                     setCookie( (array
                     ) $this->
                     entryCookie, '
                     theEntryCookie');
                redirect( base_url('
            user/editQuestion
            ') );
    }
    else{
        $qtype = $_POST['type'
            ];
        $filename = $this->
            entryCookie->
            filename;
        if($_FILES['filename'
            ]['name'] != ""
            || $this->
            entryCookie->
            filename != 0){
            if($qtype==1)
                $qtype = 2;
        }
        if($_FILES['filename'
            ]['name'] != ""){
            $date_time = date(
                "YmdHis" );
            $filename = $this
                ->AAIS_model
                ->
                movePhotoUpload
                ('filename',
                $date_time);
            if($this->
                entryCookie->
                filename !=
                0){
                $path = "
                    assets/
                    photos/"
                    . $this->
                    entryCookie
                    ->
                    filename;
                unlink($path);
            }
        }
        $this->entryCookie->
            error = 2;
        $this->entryCookie->
            question_details
            = $_POST['
            question'];
        $this->entryCookie->
            filename =
            $filename;
        $this->entryCookie->
            type = $qtype;
        $this->entryCookie->
            choiceA = $_POST[
            'choiceA'];
        $this->entryCookie->
            choiceB = $_POST[
            'choiceB'];
        $this->entryCookie->
            choiceC = $_POST[
            'choiceC'];
        $this->entryCookie->
            choiceD = $_POST[
            'choiceD'];
        $this->entryCookie->
            answer = $_POST['
            answer'];
        $this->AAIS_model->
            setCookie( (array
            ) $this->
            entryCookie, '
            theEntryCookie');
        $this->AAIS_model->
            editQuestion(
            $_POST['id'],
            $_POST['question'
            ], $filename,
            $_POST['choiceA'
            ], $_POST['
            choiceB'],$_POST[
            'choiceC'],$_POST
            ['choiceD'],
            $_POST['answer'],
             $qtype);
        redirect( base_url('
            user/editQuestion
            ') );
    }
}
else{
    $this->entryCookie->error
        = 1;
    $this->AAIS_model->
        setCookie( (array)
        $this->entryCookie, '
        theEntryCookie');
    redirect( base_url('user/
        editQuestion') );
}
```

```
    }

public function search($pageType)
{
    $this->userCookie->active = "search";
    $this->AAIS_model->setCookie( (array)
        $this->userCookie, 'theUserCookie
        ' );

    if(!$this->AAIS_model->hasCookie('
        theSearchCookie')){
        $array =
            array(
                'keyword' => $_POST['
                    keyword'],
                'pageType' => $pageType,
                'error' => 0
            );
        $this->AAIS_model->setCookie(
            $array, "theSearchCookie");
        redirect( base_url("user/search/".
            $pageType) );
    }
    else{
        if(isset($_POST['keyword'])){
            $this->searchCookie->keyword =
                $_POST['keyword'];
            $this->AAIS_model->setCookie(
                (array) $this->
                searchCookie, '
                theSearchCookie');
        }
    }

    if($this->AAIS_model->hasCookie('
        theEntryCookie'))
            $this->AAIS_model->
                deleteCookie('
                theEntryCookie');

    switch($pageType){
        case '1': $data['entries'] = $this
            ->AAIS_model->searchJournals(
            $this->userCookie->user_id ,
            1, $this->searchCookie->
            keyword);
            $this->searchCookie->pageType
                = 1;
            $this->AAIS_model->setCookie(
                (array) $this->
                searchCookie, '
                theSearchCookie');
            break;
        case '2': $data['entries'] = $this
            ->AAIS_model->searchReminders
            ($this->userCookie->user_id ,
            1, $this->searchCookie->
            keyword);
            $this->searchCookie->pageType
                = 2;
            $this->AAIS_model->setCookie(
                (array) $this->
                searchCookie, '
                theSearchCookie');
            break;
        case '3': $data['entries'] = $this
            ->AAIS_model->searchPhotos(
            $this->userCookie->user_id ,
            1, $this->searchCookie->
            keyword);
            $this->searchCookie->pageType
                = 3;
            $this->AAIS_model->setCookie(
                (array) $this->
                searchCookie, '
                theSearchCookie');
            break;
        case '4': $data['entries'] = $this
            ->AAIS_model->searchQuestions
            ($this->userCookie->user_id ,
            1, $this->searchCookie->
            keyword);
            $this->searchCookie->pageType
                = 4;
            $this->AAIS_model->setCookie(
                (array) $this->
                searchCookie, '
                theSearchCookie');
            break;
        default: break;
    }

    $data["cookie"] = $this->userCookie;
    $data["content"] =  'user/search/main.
        php';
    $data["searchCookie"] = $this->
        searchCookie;
    $this->load->view('home.php',$data);
}
```

```
    public function view($type){
        $this->userCookie->active = "view";
        $this->AAIS_model->setCookie( (array)
             $this->userCookie, 'theUserCookie
             ' );
        $array = array();
        switch($type)
        {
            case 1: $journal = $this->
                 AAIS_model->getJournal($_POST
                 ['view']);
                array_push($array, $journal);
                $data["entries"] = $array;
                break;
            case 2: $reminder = $this->
                 AAIS_model->getReminder(
                 $_POST['view']);
                array_push($array, $reminder);
                $data["entries"] = $array;
                break;
            default:
                break;
        }
        $data["cookie"] = $this->userCookie;
        $data["type"] = $type;
        $data["content"] =  'user/search/view.
             php';
        $this->load->view('home.php',$data);
    }

    public function report($pageType)
    {
        $this->userCookie->active = "report";
        $this->AAIS_model->setCookie( (array)
             $this->userCookie, 'theUserCookie
             ' );
        if($pageType==2){
            $data["personal"] = $this->
                 AAIS_model->getScores($this->
                 userCookie->user_id, 1,
                 $_POST['start'], $_POST['end'
                 ]);
            $data["photo"] = $this->AAIS_model
                 ->getScores($this->userCookie
                 ->user_id, 2, $_POST['start'
                 ], $_POST['end']);
            $data["general"] = $this->
                 AAIS_model->getScores($this->
                 userCookie->user_id, 3,
                 $_POST['start'], $_POST['end'
                 ]);
        }
        $this->userCookie->step = $pageType;
        $this->AAIS_model->setCookie( (array)
             $this->userCookie, 'theUserCookie
             ');
        $data["cookie"] = $this->userCookie;
        $data["content"] =  'user/report/main.
             php';
        $this->load->view('home.php',$data);
    }

}
```

Listing 4: Patient_Controller.php

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

class Patient_Controller extends CI_Controller
     {

    private $userCookie;

    public function __construct()
    {
        parent::__construct();

        date_default_timezone_set('Asia/Manila
             ');

        if(isset($_POST['logout'])){
            redirect( base_url());
        }
        if( $this->AAIS_model->hasCookie('
             theUserCookie') )
            $this->userCookie = $this->
                 AAIS_model->getCookie('
                 theUserCookie');
        else
            redirect( base_url() );

    }

    public function dashboard()
{
    $this->userCookie->active = "dashboard
         ";
    $this->AAIS_model->setCookie( (array)
         $this->userCookie, 'theUserCookie
         ' );
    $data["reminders"] = $this->AAIS_model
         ->getReminders(3, 0, $this->
         userCookie->user_id, 1, "all");
    $data["cookie"] = $this->userCookie;
    $data["content"] =  'patient/dashboard
         .php';
    $this->load->view('home.php',$data);
}

public function connections()
{
    $this->userCookie->active = "
         connections";
    $this->AAIS_model->setCookie( (array)
         $this->userCookie, 'theUserCookie
         ' );
    $data["guardian"] = $this->AAIS_model
         ->getGuardian($this->userCookie->
         user_id);
    $data["therapist"] = $this->AAIS_model
         ->getTherapist($this->userCookie
         ->user_id);
    $data["cookie"] = $this->userCookie;
    $data["content"] =  'patient/
         connections.php';
    $this->load->view('home.php',$data);
}

public function personalTest()
{
    $this->userCookie->active = "
         personalTest";
    $this->AAIS_model->setCookie( (array)
         $this->userCookie, 'theUserCookie
         ' );

    $check1 = $this->AAIS_model->
         getLastTest($this->userCookie->
         user_id, 1);
    if($check1>0){
        $this->userCookie->error = 1;
        $this->AAIS_model->setCookie( (
             array) $this->userCookie, '
             theUserCookie');
    }
    $data["cookie"] = $this->userCookie;
    $data["content"] =  'patient/test/
         personalTest.php';
    $this->load->view('home.php',$data);
}

public function personalTestProper()
{
    $data["questions"] = $this->AAIS_model
         ->getAllPersonalQuestions($this->
         userCookie->user_id, 1);
    $data["cookie"] = $this->userCookie;
    $data["content"] =  'patient/test/
         personalTestProper.php';
    $this->load->view('home.php',$data);
}

    public function submitPersonalTest()
    {
        $score = 0;
        $items = count($_POST['correct']);
        $answers = array();
        for($i=0; $i<$items; $i++){
            array_push($answers, $_POST['
                 answer'. $i]);
            if($_POST['correct'][$i] ==
                 $_POST['answer'. $i])
                $score++;
        }
        $this->AAIS_model->recordTest(
             $this->userCookie->user_id,
             1, $items, $score);
        $data["score"] = $score . "/" .
             $items;
        $data["questions"] = $this->
             AAIS_model->getTestQuestions(
             $_POST['items']);
        $data["answers"] = $answers;
        $data["cookie"] = $this->
             userCookie;
        $data["content"] =  'patient/test/
             personalTestAnswers.php';
        $this->load->view('home.php',$data
             );
    }

public function photoRecognition()
{
    $this->userCookie->active = ”
        photoRecognition”;
    $this->AAIS_model->setCookie( (array)
        $this->userCookie, 'theUserCookie
        ' );

    $check1 = $this->AAIS_model->
        getLastTest($this->userCookie->
        user_id, 2);
    if($check1>0){
        $this->userCookie->error = 2;
        $this->AAIS_model->setCookie( (
            array) $this->userCookie, '
            theUserCookie');
    }
    $data[”cookie”] = $this->userCookie;
    $data[”content”] = 'patient/test/
        photoRecognition.php';
    $this->load->view('home.php',$data);
}

public function photoRecognitionProper()
{
    $data[”questions”] = $this->AAIS_model
        ->getAllPhotoQuestions($this->
        userCookie->user_id, 1);
    $data[”cookie”] = $this->userCookie;
    $data[”content”] = 'patient/test/
        photoRecognitionProper.php';
    $this->load->view('home.php',$data);
}

    public function submitPhotoRecognition
        ()
    {
        $score = 0;
        $items = count($_POST['correct']);
        $answers = array();
        for($i=0; $i<$items; $i++){
            array_push($answers, $_POST['
                answer'. $i]);
            if($_POST['correct'][$i] ==
                $_POST['answer'. $i])
                $score++;
        }
        $this->AAIS_model->recordTest(
            $this->userCookie->user_id,
            2, $items, $score);
        $data[”score”] = $score . ”/” .
            $items;
        $data[”questions”] = $this->
            AAIS_model->getTestQuestions(
            $_POST['items']);
        $data[”answers”] = $answers;
        $data[”cookie”] = $this->
            userCookie;
        $data[”content”] = 'patient/test/
            photoRecognitionAnswers.php';
        $this->load->view('home.php',$data
            );
    }

public function generalKnowledge()
{
    $this->userCookie->active = ”
        generalKnowledge”;
    $this->AAIS_model->setCookie( (array)
        $this->userCookie, 'theUserCookie
        ' );

    $check1 = $this->AAIS_model->
        getLastTest($this->userCookie->
        user_id, 3);
    if($check1>0){
        $this->userCookie->error = 3;
        $this->AAIS_model->setCookie( (
            array) $this->userCookie, '
            theUserCookie');
    }
    $data[”cookie”] = $this->userCookie;
    $data[”content”] = 'patient/test/
        generalKnowledge.php';
    $this->load->view('home.php',$data);
}

public function generalKnowledgeProper()
{
    $data[”questions”] = $this->AAIS_model
        ->getAllGeneralQuestions($this->
        userCookie->user_id, 1);
    $data[”cookie”] = $this->userCookie;
    $data[”content”] = 'patient/test/
        generalKnowledgeProper.php';
    $this->load->view('home.php',$data);
}

    public function submitGeneralKnowledge
        ()
    {
        $score = 0;
        $items = count($_POST['correct']);
        $answers = array();
        for($i=0; $i<$items; $i++){
            array_push($answers, $_POST['
                answer'. $i]);
            if($_POST['correct'][$i] ==
                $_POST['answer'. $i])
                $score++;
        }
        $this->AAIS_model->recordTest(
            $this->userCookie->user_id,
            3, $items, $score);
        $data[”score”] = $score . ”/” .
            $items;
        $data[”questions”] = $this->
            AAIS_model->getTestQuestions(
            $_POST['items']);
        $data[”answers”] = $answers;
        $data[”cookie”] = $this->
            userCookie;
        $data[”content”] = 'patient/test/
            generalKnowledgeAnswers.php';
        $this->load->view('home.php',$data
            );
    }
}
```

Listing 5: Guardian_Controller.php

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

class Guardian_Controller extends
    CI_Controller {

    private $userCookie;

    public function __construct()
    {
        parent::__construct();

        date_default_timezone_set('Asia/Manila
            ');

        if(isset($_POST['logout'])){
            redirect( base_url());
        }
        if( $this->AAIS_model->hasCookie('
            theUserCookie') )
            $this->userCookie = $this->
                AAIS_model->getCookie('
                theUserCookie');
        else
            redirect( base_url() );

    }

    public function dashboard()
    {
        $this->userCookie->active = ”dashboard
            ”;
        $this->AAIS_model->setCookie( (array)
            $this->userCookie, 'theUserCookie
            ' );
        $data[”reminders”] = $this->AAIS_model
            ->getReminders(3, 0, $this->
            userCookie->user_id, 1, ”all”);
        $data[”cookie”] = $this->userCookie;
        $data[”content”] = 'guardian/
            dashboard.php';
        $this->load->view('home.php',$data);
    }

    public function userRequests()
    {
        $this->userCookie->active = ”
            userRequests”;
        $this->AAIS_model->setCookie( (array)
            $this->userCookie, 'theUserCookie
            ' );
        $this->load->helper('url');
        $this->load->library('pagination');
        //pagination settings
        $config['base_url'] = site_url('
            Guardian_Controller/userRequests'
            );
        $config['total_rows'] = $this->
            AAIS_model->countUserRequests(
            $this->userCookie->user_id, 0);
        $config['per_page'] = ”5”;
        $config[”uri_segment”] = 3;
        $choice = $config[”total_rows”] /
            $config[”per_page”];
        $config[”num_links”] = floor($choice);
    //config for bootstrap pagination
         class integration
    $config['full_tag_open'] = '<ul␣class
         =”pagination”>';
    $config['full_tag_close'] = '</ul>';
    $config['first_tag_open'] = '<li>';
    $config['first_tag_close'] = '</li>';
    $config['prev_link'] = '&laquo';
    $config['prev_tag_open'] = '<li␣class
         =”prev”>';
    $config['prev_tag_close'] = '</li>';
    $config['next_link'] = '&raquo';
    $config['next_tag_open'] = '<li>';
    $config['next_tag_close'] = '</li>';
    $config['last_tag_open'] = '<li>';
    $config['last_tag_close'] = '</li>';
    $config['cur_tag_open'] = '<li␣class=”
         active”><a␣href=”#”>';
    $config['cur_tag_close'] = '</a></li>'
         ;
    $config['num_tag_open'] = '<li>';
    $config['num_tag_close'] = '</li>';

    $this->pagination->initialize($config)
         ;
    $data['page'] = ($this->uri->segment
         (3)) ? $this->uri->segment(3) :
         0;

    //call the model function to get the
         department data
    $data['users'] = $this->AAIS_model->
         getUserRequests($this->userCookie
         ->user_id, $config[”per_page”],
         $data['page']);

    $data['pagination'] = $this->
         pagination->create_links();

    //load the department_view
    $data[”cookie”] = $this->userCookie;
    $data[”content”] =  'guardian/
         userRequests.php';
    $this->load->view('home.php',$data);
}

    public function acceptUser()
    {
        $this->AAIS_model->acceptUser(
             $_POST['user_id']);
        redirect( base_url('guardian/
             userRequests') );
    }

    public function rejectUser()
    {
        $this->AAIS_model->deleteUser(
             $_POST['user_id']);
        redirect( base_url('guardian/
             userRequests') );
    }

public function submissions()
{
    $this->userCookie->active = ”
         submissions”;
    $this->AAIS_model->setCookie( (array)
         $this->userCookie, 'theUserCookie
         ' );
    $this->load->helper('url');
    $this->load->library('pagination');
    //pagination settings
    $config['base_url'] = site_url('
         Guardian_Controller/submissions')
         ;
    $config['total_rows'] = $this->
         AAIS_model->countSubmissions(
         $this->userCookie->user_id);
    $config['per_page'] = ”5”;
    $config[”uri_segment”] = 3;
    $choice = $config[”total_rows”] /
         $config[”per_page”];
    $config[”num_links”] = floor($choice);

    //config for bootstrap pagination
         class integration
    $config['full_tag_open'] = '<ul␣class
         =”pagination”>';
    $config['full_tag_close'] = '</ul>';
    $config['first_tag_open'] = '<li>';
    $config['first_tag_close'] = '</li>';
    $config['prev_link'] = '&laquo';
    $config['prev_tag_open'] = '<li␣class
         =”prev”>';
    $config['prev_tag_close'] = '</li>';
    $config['next_link'] = '&raquo';
    $config['next_tag_open'] = '<li>';
    $config['next_tag_close'] = '</li>';
    $config['last_tag_open'] = '<li>';
```

```
    $config['last_tag_close'] = '</li>';
    $config['cur_tag_open'] = '<li␣class=”
         active”><a␣href=”#”>';
    $config['cur_tag_close'] = '</a></li>'
         ;
    $config['num_tag_open'] = '<li>';
    $config['num_tag_close'] = '</li>';

    $this->pagination->initialize($config)
         ;
    $data['page'] = ($this->uri->segment
         (3)) ? $this->uri->segment(3) :
         0;

    //call the model function to get the
         department data
    $data['entries'] = $this->AAIS_model->
         getSubmissions($this->userCookie
         ->user_id, $config[”per_page”],
         $data['page']);

    $data['pagination'] = $this->
         pagination->create_links();

    //load the department_view
    $data[”cookie”] = $this->userCookie;
    $data[”content”] =  'guardian/
         submissions.php';
    $this->load->view('home.php',$data);
}

    public function reject()
    {
        switch($_POST['submission_type']){
            case '1': $this->AAIS_model->
                 deleteJournal($_POST['
                 submission_type_id']);
                break;
            case '2': $this->AAIS_model->
                 deleteReminder($_POST['
                 submission_type_id']);
                break;
            case '3': $this->AAIS_model->
                 deletePhoto($_POST['
                 submission_type_id']);
                break;
            case '4': $this->AAIS_model->
                 deleteQuestion($_POST['
                 submission_type_id']);
                break;
            default: break;
        }

        $this->AAIS_model->
             deleteSubmission($_POST['
             submission_id']);
        redirect( base_url('guardian/
             submissions') );
    }

    public function accept()
    {
        switch($_POST['submission_type']){
            case '1': $this->AAIS_model->
                 acceptJournal($_POST['
                 submission_type_id']);
                break;
            case '2': $this->AAIS_model->
                 acceptReminder($_POST['
                 submission_type_id']);
                break;
            case '3': $this->AAIS_model->
                 acceptPhoto($_POST['
                 submission_type_id']);
                break;
            case '4': $this->AAIS_model->
                 acceptQuestion($_POST['
                 submission_type_id']);
                break;
            default: break;
        }

        $this->AAIS_model->
             deleteSubmission($_POST['
             submission_id']);
        redirect( base_url('guardian/
             submissions') );
    }

public function connections()
{
    $this->userCookie->active = ”
         connections”;
    $this->AAIS_model->setCookie( (array)
         $this->userCookie, 'theUserCookie
         ' );
    $data[”patient”] = $this->AAIS_model->
         getUser($this->userCookie->
         user_id);
        $data["therapist"] = $this->AAIS_model
            ->getTherapist($this->userCookie
            ->user_id);
        $data["cookie"] = $this->userCookie;
        $data["content"] =  'guardian/
            connections.php';
        $this->load->view('home.php',$data);
    }

    public function photoQuestions()
    {
        $this->userCookie->active = "
            photoQuestion";
        $this->AAIS_model->setCookie( (array)
            $this->userCookie, 'theUserCookie
            ' );
        $data["photos"] = $this->AAIS_model->
            getUserPhotos($this->userCookie->
            user_id);
        $data["cookie"] = $this->userCookie;
        $data["content"] =  'guardian/
            photoQuestions.php';
        $this->load->view('home.php',$data);
    }

        public function processPhotoQuestion()
        {
            $this->load->library('
                form_validation');
            $this->form_validation->set_rules(
                'photo', 'photo', 'required')
                ;
            $this->form_validation->set_rules(
                'question', 'question', '
                required');
            $this->form_validation->set_rules(
                'choiceA', 'choiceA', '
                required');
            $this->form_validation->set_rules(
                'choiceB', 'choiceB', '
                required');
            $this->form_validation->set_rules(
                'choiceC', 'choiceC', '
                required');
            $this->form_validation->set_rules(
                'choiceD', 'choicD', '
                required');
            $this->form_validation->set_rules(
                'answer', 'answer', 'required
                ');

            if($this->form_validation->run()
                == FALSE){
                $this->userCookie->error = 1;
                $this->AAIS_model->setCookie(
                    (array) $this->userCookie
                    , 'theUserCookie');
                redirect( base_url('guardian/
                    photoQuestions') );
            }

            else{
                $name = $this->userCookie->
                    first_name . "␣" . $this
                    ->userCookie->last_name;
                $id = $this->AAIS_model->
                    addQuestion($this->
                    userCookie->user_id,
                    $_POST['question'],
                    $_POST['photo'], $_POST['
                    choiceA'], $_POST['
                    choiceB'], $_POST['
                    choiceC'], $_POST['
                    choiceD'], $_POST['answer
                    '], $this->userCookie->
                    guardian_id, $name, 1,
                    $_POST['type']);
                $data["question"] = $this->
                    AAIS_model->getQuestion(
                    $id);
                $data["cookie"] = $this->
                    userCookie;
                $data["content"] =  'guardian/
                    photoQuestionPreview.php'
                    ;
                $this->load->view('home.php',
                    $data);
            }
        }

    public function categories()
    {
        $this->userCookie->active = "
            categories";
        $this->AAIS_model->setCookie( (array)
            $this->userCookie, 'theUserCookie
            ' );
        $data["categories"] = $this->
            AAIS_model->getCategories($this->
            userCookie->user_id);
        $data["cookie"] = $this->userCookie;
        $data["content"] =  'guardian/
            categories.php';
        $this->load->view('home.php',$data);
    }

        public function addCategory()
        {
            $this->AAIS_model->addCategory(
                $this->userCookie->user_id,
                $_POST['category']);
            redirect( base_url('guardian/
                categories') );
        }
        public function deleteCategory()
        {
            $this->AAIS_model->deleteCategory(
                $_POST['category_id']);
            redirect( base_url('guardian/
                categories') );
        }

    public function manageUsers()
    {
        $this->userCookie->active = "
            manageUsers";
        $this->AAIS_model->setCookie( (array)
            $this->userCookie, 'theUserCookie
            ' );

        $this->load->helper('url');
        $this->load->library('pagination');
        //pagination settings
        $config['base_url'] = site_url('
            Guardian_Controller/manageUsers')
            ;
        $config['total_rows'] = $this->
            AAIS_model->countUserRequests(
            $this->userCookie->user_id, 1);
        $config['per_page'] = "8";
        $config["uri_segment"] = 3;
        $choice = $config["total_rows"] /
            $config["per_page"];
        $config["num_links"] = floor($choice);

        //config for bootstrap pagination
            class integration
        $config['full_tag_open'] = '<ul␣class
            ="pagination">';
        $config['full_tag_close'] = '</ul>';
        $config['first_tag_open'] = '<li>';
        $config['first_tag_close'] = '</li>';
        $config['prev_link'] = '&laquo';
        $config['prev_tag_open'] = '<li␣class
            ="prev">';
        $config['prev_tag_close'] = '</li>';
        $config['next_link'] = '&raquo';
        $config['next_tag_open'] = '<li>';
        $config['next_tag_close'] = '</li>';
        $config['last_tag_open'] = '<li>';
        $config['last_tag_close'] = '</li>';
        $config['cur_tag_open'] = '<li␣class="
            active"><a␣href="#">';
        $config['cur_tag_close'] = '</a></li>'
            ;
        $config['num_tag_open'] = '<li>';
        $config['num_tag_close'] = '</li>';

        $this->pagination->initialize($config)
            ;
        $data['page'] = ($this->uri->segment
            (3)) ? $this->uri->segment(3) :
            0;

        //call the model function to get the
            department data
        $data['public'] = $this->AAIS_model->
            getPublicUsers($this->userCookie
            ->user_id, $config["per_page"],
            $data['page']);

        $data['pagination'] = $this->
            pagination->create_links();

        $data["cookie"] = $this->userCookie;
        $data["content"] =  'guardian/
            manageUsers.php';
        $this->load->view('home.php',$data);
    }

        public function deleteUser()
        {
            $this->AAIS_model->deleteUser(
                $_POST['user_id']);
            redirect( base_url('guardian/
                manageUsers') );
        }
}
```

Listing 6: OT_Controller.php

```
 <?php
defined('BASEPATH') OR exit('No_direct_script_
     access_allowed');

class OT_Controller extends CI_Controller {

    private $userCookie;
    private $submissionCookie;
    private $entryCookie;

    public function __construct()
    {
        parent::__construct();

        date_default_timezone_set('Asia/Manila
             ');

        if(isset($_POST['logout'])){
            redirect( base_url());
        }
        if( $this->AAIS_model->hasCookie('
             theUserCookie') )
            $this->userCookie = $this->
                 AAIS_model->getCookie('
                 theUserCookie');
        else
            redirect( base_url() );
        if( $this->AAIS_model->hasCookie('
             theSubmissionCookie') )
            $this->submissionCookie = $this->
                 AAIS_model->getCookie('
                 theSubmissionCookie');
        if( $this->AAIS_model->hasCookie('
             theEntryCookie') )
            $this->entryCookie = $this->
                 AAIS_model->getCookie('
                 theEntryCookie');

    }

    public function dashboard()
    {
        $this->userCookie->active = "dashboard
             ";
        $this->AAIS_model->setCookie( (array)
             $this->userCookie, 'theUserCookie
             ' );
        $data["reminders"] = $this->AAIS_model
             ->getOTReminders($this->
             userCookie->user_id);
        $data["cookie"] = $this->userCookie;
        $data["content"] =  'ot/dashboard.php'
             ;
        $this->load->view('home.php',$data);
    }

    public function editAccount()
    {
        $this->userCookie->active = "none";
        $this->AAIS_model->setCookie( (array)
             $this->userCookie, 'theUserCookie
             ' );
        $data["cookie"] = $this->userCookie;
        $data["content"] =  'ot/editAccount.
             php';
        $this->load->view( 'home.php', $data);
    }

        public function editAccountStepTwo()
        {
            if(isset($_POST)){
                $this->load->library('
                     form_validation');

                $this->form_validation->
                     set_rules('firstName', '
                     First_Name', 'required');
                $this->form_validation->
                     set_rules('lastName', '
                     Last_Name', 'required');
                $this->form_validation->
                     set_rules('sex', 'Sex', '
                     required');
                $this->form_validation->
                     set_rules('birthday', '
                     Birthday', 'required');
                $this->form_validation->
                     set_rules('email', 'Email
                     ', 'trim|required|
                     valid_email');
                $this->form_validation->
                     set_rules('username', '
                     Username', 'required');
                $this->form_validation->
                     set_rules('password', '
                     Password', 'required');
```

```
                if($_FILES['dp']['name'] == ""
                     ){
                    $filename = $this->
                         userCookie->
                         profile_picture;
                }
                else{
                    $date_time = date( "YmdHis
                         " );
                    $filename = $this->
                         AAIS_model->
                         moveDpUpload('dp',
                         $date_time);
                }

                if($this->form_validation->run
                     () == FALSE || $this->
                     AAIS_model->dateChecker(
                     $_POST['birthday'])==1){
                    $this->userCookie->error =
                         1;
                    $this->AAIS_model->
                         setCookie( (array)
                         $this->userCookie, '
                         theUserCookie');
                    redirect( base_url('ot/
                         editAccount') );
                }
                else{
                    $id = $this->userCookie->
                         user_id;
                    if($this->userCookie->
                         user_type == 2)
                        $id = $this->
                             userCookie->
                             guardian_id;
                    $this->AAIS_model->
                         editAccount($id,
                         $_POST['firstName'],
                         $_POST['lastName'],
                         $_POST['sex'], $_POST
                         ['birthday'], $_POST[
                         'email'], $_POST['
                         username'], $_POST['
                         password'], $filename
                         );
                    redirect( base_url('ot/
                         editAccount') );
                }
            }
            else{
                $this->userCookie->error = 1;
                $this->AAIS_model->setCookie(
                     (array) $this->userCookie
                     , 'theUserCookie');
                redirect( base_url('ot/
                     editAccount') );
            }
        }

    public function create($pageType)
    {
        $this->userCookie->active = "create" .
              $pageType;
        $this->AAIS_model->setCookie( (array)
             $this->userCookie, 'theUserCookie
             ' );
        if($this->AAIS_model->hasCookie('
             theSubmissionCookie')){
            $this->submissionCookie->pageType
                 = $pageType;
            $this->AAIS_model->setCookie( (
                 array) $this->
                 submissionCookie, '
                 theSubmissionCookie');
            $data["entry"] = $this->
                 submissionCookie;
        }
        else{
            $array =
                array(
                    'pageType' => $pageType,
                    'error' => 0
                );
            $this->AAIS_model->setCookie(
                 $array, "theSubmissionCookie"
                 );
            redirect( base_url("ot/create/".
                 $pageType) );
        }
        $data["patient_list"] = $this->
             AAIS_model->getPatientOT($this->
             userCookie->user_id);
        $data["cookie"] = $this->userCookie;
        $data["content"] =  'ot/create/main.
             php';
        $this->load->view('home.php',$data);
    }
```

```
public function submit($type)
{
    $this->load->library('form_validation'
        );
    $name = $this->userCookie->first_name
        . "_" . $this->userCookie->
        last_name;
    $this->form_validation->set_rules('
        patient', 'patient', 'required');

    if($type==1 || $type==2){
        $this->form_validation->set_rules(
            'date', 'date', 'required');
        $this->form_validation->set_rules(
            'title', 'title', 'required')
            ;
        $this->form_validation->set_rules(
            'details', 'details', '
            required');
    }

    if($type==3){
        $this->form_validation->set_rules(
            'date', 'date', 'required');
        $this->form_validation->set_rules(
            'details', 'details', '
            required');
        if($_FILES['title']['name'] == "")
            {
            $this->submissionCookie->error
                = 1;
            $this->AAIS_model->setCookie(
                (array) $this->
                submissionCookie, '
                theSubmissionCookie' );
            redirect( base_url('ot/create
                /3') );
        }
    }

    if($type==4){
        $this->form_validation->set_rules(
            'question', 'question', '
            required');
        $this->form_validation->set_rules(
            'choiceA', 'choiceA', '
            required');
        $this->form_validation->set_rules(
            'choiceB', 'choiceB', '
            required');
        $this->form_validation->set_rules(
            'choiceC', 'choiceC', '
            required');
        $this->form_validation->set_rules(
            'choiceD', 'choicD', '
            required');
        $this->form_validation->set_rules(
            'answer', 'answer', 'required
            ');
    }

    if($this->form_validation->run() ==
        FALSE){
        $this->submissionCookie->error =
            1;
        $this->AAIS_model->setCookie( (
            array) $this->
            submissionCookie, '
            theSubmissionCookie');
        redirect(base_url("ot/create/".
            $type));
    }
    else{
        if($type==1 || $type==3){
            if($this->AAIS_model->
                dateChecker($_POST['date'
                ]) == 1){
                $this->submissionCookie->
                    error = 3;
                $this->AAIS_model->
                    setCookie( (array)
                    $this->
                    submissionCookie, '
                    theSubmissionCookie'
                    );
                redirect(base_url("ot/
                    create/".$type));
            }
        }

        else if($type==2){
            if($this->AAIS_model->
                dateChecker($_POST['date'
                ]) == 0){
                $this->submissionCookie->
                    error = 3;
                $this->AAIS_model->
                    setCookie( (array)
                    $this->
                    submissionCookie, '
                    theSubmissionCookie'
                    );
                redirect(base_url("ot/
                    create/".$type));
            }
        }

        $author_id = $this->userCookie->
            user_id;
        switch($type){
            case 1:
                $this->AAIS_model->
                    addJournal($_POST['
                    patient'], $_POST['
                    date'], $_POST['title
                    '], $_POST['details'
                    ], $author_id, $name,
                     0, "Therapy");
                break;
            case 2:
                $this->AAIS_model->
                    addReminder($_POST['
                    patient'], $_POST['
                    date'], $_POST['title
                    '], $_POST['details'
                    ], $author_id, $name,
                     0, "Therapy");
                break;
            case 3:
                $date_time = date( "YmdHis
                    " );
                $filename = $this->
                    AAIS_model->
                    movePhotoUpload('
                    title', $date_time);
                $this->AAIS_model->
                    addPhoto($_POST['
                    patient'], $_POST['
                    date'], $filename,
                    $_POST['details'],
                    $author_id, $name, 0,
                     "Therapy");
                break;
            case 4:
                $filename = 0;
                $qtype = $_POST['type'];
                    if($_FILES['filename'
                        ]['name'] != ""){
                        $date_time = date(
                             "YmdHis" );
                        $filename = $this
                            ->AAIS_model
                            ->
                            movePhotoUpload
                            ('filename',
                             $date_time);
                        if($qtype==1)
                            $qtype = 2;
                    }
                $this->AAIS_model->
                    addQuestion($_POST['
                    patient'], $_POST['
                    question'], $filename
                    ,
                   $_POST['choiceA'],
                       $_POST['choiceB'],
                        $_POST['choiceC'
                       ], $_POST['choiceD
                       '], $_POST['answer
                       '], $author_id,
                       $name, 0, $qtype);
                break;
            default: break;

        }
        $this->submissionCookie->error =
            2;
        $this->AAIS_model->setCookie( (
            array) $this->
            submissionCookie, '
            theSubmissionCookie');

        redirect(base_url("ot/create/".
            $type));
    }
}

public function patients()
{
    $this->userCookie->active = "patients"
        ;
    $this->AAIS_model->setCookie( (array)
        $this->userCookie, 'theUserCookie
        ' );
    $data["connections"] = $this->
        AAIS_model->getOTconnections(
        $this->userCookie->user_id);
    $data["cookie"] = $this->userCookie;
    $data["content"] = 'ot/patients.php';
    $this->load->view('home.php',$data);
}

public function reminders()
{
    $this->userCookie->active = "reminders
        ";
    $this->AAIS_model->setCookie( (array)
        $this->userCookie, 'theUserCookie
        ' );
    if($this->AAIS_model->hasCookie('
        theEntryCookie'))
        $this->AAIS_model->deleteCookie('
            theEntryCookie');
    $data["reminders"] = $this->AAIS_model
        ->getOTReminders($this->
        userCookie->user_id);
    $data["cookie"] = $this->userCookie;
    $data["content"] = 'ot/reminders/main
        .php';
    $this->load->view('home.php',$data);
}

    public function deleteReminder()
    {
        $this->AAIS_model->deleteReminder(
            $_POST['delete']);
        $this->AAIS_model->
            deleteSubmissionType($_POST['
            delete'], 2);
        redirect(base_url("ot/reminders"))
            ;
    }

    public function editReminder()
    {
        if($this->AAIS_model->hasCookie('
            theEntryCookie'))
            $data["reminder"] = $this->
                entryCookie;
        else{
            $row = $this->AAIS_model->
                getReminder($_POST['edit'
                ]);
            $array =
                array(
                    'patient_name' =>
                        $_POST['name'],
                    'reminder_id' => $row
                        ->reminder_id,
                    'title' => $row->title
                        ,
                    'date_time' => $row->
                        date_time,
                    'details' => $row->
                        details,
                    'error' => 0
                );
            $this->AAIS_model->setCookie(
                $array, "theEntryCookie")
                ;
            redirect( base_url('ot/
                editReminder') );
        }
        $data["cookie"] = $this->
            userCookie;
        $data["content"] = 'ot/reminders/
            edit.php';
        $this->load->view('home.php',$data
            );
    }

        public function
            editReminderStepTwo()
        {
            if(isset($_POST)){
                $this->load->library('
                    form_validation');

                $this->form_validation->
                    set_rules('title', '
                    Title', 'required');
                $this->form_validation->
                    set_rules('date_time'
                    , 'DateTime', '
                    required');
                $this->form_validation->
                    set_rules('details',
                    'Details', 'required'
                    );

                if($this->form_validation
                    ->run() == FALSE){
                    $this->entryCookie->
                        error = 1;
                    $this->AAIS_model->
                        setCookie( (array
                        ) $this->
                        entryCookie, '
                        theEntryCookie');
                    redirect( base_url('ot
                        /editReminder') )
                        ;
                }
                else if($this->AAIS_model
                    ->dateChecker($_POST[
                    'date_time']) == 0){
                    $this->entryCookie->
                        error = 3;
                    $this->AAIS_model->
                        setCookie( (array
                        ) $this->
                        entryCookie, '
                        theEntryCookie');
                    redirect( base_url('ot
                        /editReminder') )
                        ;
                }
                else{
                    $this->entryCookie->
                        error = 2;
                    $this->entryCookie->
                        title = $_POST['
                        title'];
                    $this->entryCookie->
                        date_time =
                        $_POST['date_time
                        '];
                    $this->entryCookie->
                        details = $_POST[
                        'details'];
                    $this->AAIS_model->
                        setCookie( (array
                        ) $this->
                        entryCookie, '
                        theEntryCookie');
                    $this->AAIS_model->
                        editReminder(
                        $_POST['id'],
                        $_POST['title'],
                        $_POST['date_time
                        '], $_POST['
                        details'], "
                        Therapy");
                    $this->AAIS_model->
                        changeReminderStatus
                        ($_POST['id']);
                    redirect( base_url('ot
                        /editReminder') )
                        ;
                }
            }
            else{
                $this->entryCookie->error
                    = 1;
                $this->AAIS_model->
                    setCookie( (array)
                    $this->entryCookie, '
                    theEntryCookie');
                redirect( base_url('ot/
                    editReminder') );
            }
        }

public function report($pageType)
{
    $this->userCookie->active = "report";
    $this->AAIS_model->setCookie( (array)
        $this->userCookie, 'theUserCookie
        ' );
    if($pageType==2){
        $data["personal"] = $this->
            AAIS_model->getScores($_POST[
            'patient'], 1, $_POST['start'
            ], $_POST['end']);
        $data["photo"] = $this->AAIS_model
            ->getScores($_POST['patient'
            ], 2, $_POST['start'], $_POST
            ['end']);
        $data["general"] = $this->
            AAIS_model->getScores($_POST[
            'patient'], 3, $_POST['start'
            ], $_POST['end']);
        $data["name"] = $this->AAIS_model
            ->getPatient($_POST['patient'
            ]);
    }
    $this->userCookie->step = $pageType;
    $this->AAIS_model->setCookie( (array)
        $this->userCookie, 'theUserCookie
        ');
    $data["patient_list"] = $this->
        AAIS_model->getPatientOT($this->
        userCookie->user_id);
    $data["cookie"] = $this->userCookie;
    $data["content"] = 'ot/report/main.
        php';
        $this->load->view('home.php',$data);
    }
}
```

Listing 7: PublicUser_Controller.php

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

class PublicUser_Controller extends
    CI_Controller {

    private $userCookie;
    private $submissionCookie;

    public function __construct()
    {
        parent::__construct();

        date_default_timezone_set('Asia/Manila
            ');

        if(isset($_POST['logout'])){
            redirect( base_url());
        }
        if( $this->AAIS_model->hasCookie('
            theUserCookie') )
            $this->userCookie = $this->
                AAIS_model->getCookie('
                theUserCookie');
        else
            redirect( base_url() );
        if( $this->AAIS_model->hasCookie('
            theSubmissionCookie') )
            $this->submissionCookie = $this->
                AAIS_model->getCookie('
                theSubmissionCookie');

    }

    public function dashboard()
    {
        $this->userCookie->active = "dashboard
            ";
        $this->AAIS_model->setCookie( (array)
            $this->userCookie, 'theUserCookie
            ' );
        $this->load->helper('url');
        $this->load->library('pagination');
        //pagination settings
        $config['base_url'] = site_url('
            PublicUser_Controller/dashboard')
            ;
        $config['total_rows'] = $this->
            AAIS_model->countUserSubmissions(
            $this->userCookie->publicUser_id,
             $this->userCookie->step);
        $config['per_page'] = "5";
        $config["uri_segment"] = 3;
        $choice = $config["total_rows"] /
            $config["per_page"];
        $config["num_links"] = floor($choice);

        //config for bootstrap pagination
            class integration
        $config['full_tag_open'] = '<ul␣class
            ="pagination">';
        $config['full_tag_close'] = '</ul>';
        $config['first_tag_open'] = '<li>';
        $config['first_tag_close'] = '</li>';
        $config['prev_link'] = '&laquo';
        $config['prev_tag_open'] = '<li␣class
            ="prev">';
        $config['prev_tag_close'] = '</li>';
        $config['next_link'] = '&raquo';
        $config['next_tag_open'] = '<li>';
        $config['next_tag_close'] = '</li>';
        $config['last_tag_open'] = '<li>';
        $config['last_tag_close'] = '</li>';
        $config['cur_tag_open'] = '<li␣class="
            active"><a␣href="#">';
        $config['cur_tag_close'] = '</a></li>'
            ;
        $config['num_tag_open'] = '<li>';
        $config['num_tag_close'] = '</li>';

        $this->pagination->initialize($config)
            ;
        $data['page'] = ($this->uri->segment
            (3)) ? $this->uri->segment(3) :
            0;

        //call the model function to get the
            department data
        $data['entries'] = $this->AAIS_model->
            getUserSubmissions($this->
            userCookie->publicUser_id, $this
            ->userCookie->step, $config["
            per_page"], $data['page']);

        $data['pagination'] = $this->
            pagination->create_links();

        //load the department_view
        $data["cookie"] = $this->userCookie;
        $data["content"] =  'publicUser/
            dashboard.php';
        $this->load->view('home.php',$data);
    }

    public function setCookie($type)
    {
        $this->userCookie->step = $type;
        $this->AAIS_model->setCookie( (array)
            $this->userCookie, 'theUserCookie
            ' );
        redirect( base_url('publicUser/
            dashboard') );
    }

    public function editAccount()
    {
        $this->userCookie->active = "none";
        $this->AAIS_model->setCookie( (array)
            $this->userCookie, 'theUserCookie
            ' );
        $data["cookie"] = $this->userCookie;
        $data["content"] =  'publicUser/
            editAccount.php';
        $this->load->view( 'home.php', $data);
    }

        public function editAccountStepTwo()
        {
            if(isset($_POST)){
                $this->load->library('
                    form_validation');

                $this->form_validation->
                    set_rules('firstName', '
                    First␣Name', 'required');
                $this->form_validation->
                    set_rules('lastName', '
                    Last␣Name', 'required');
                $this->form_validation->
                    set_rules('sex', 'Sex', '
                    required');
                $this->form_validation->
                    set_rules('birthday', '
                    Birthday', 'required');
                $this->form_validation->
                    set_rules('email', 'Email
                    ', 'trim|required|
                    valid_email');
                $this->form_validation->
                    set_rules('username', '
                    Username', 'required');
                $this->form_validation->
                    set_rules('password', '
                    Password', 'required');

                if($_FILES['dp']['name'] == ""
                    ){
                    $filename = $this->
                        userCookie->
                        profile_picture;
                }
                else{
                    $date_time = date( "YmdHis
                        " );
                    $filename = $this->
                        AAIS_model->
                        moveDpUpload('dp',
                        $date_time);
                }

                if($this->form_validation->run
                    () == FALSE  || $this->
                    AAIS_model->dateChecker(
                    $_POST['birthday'])==1){
                    $this->userCookie->error =
                         1;
                    $this->AAIS_model->
                        setCookie( (array)
                        $this->userCookie, '
                        theUserCookie');
                    redirect( base_url('
                        publicUser/
                        editAccount') );
                }
                else{
                    $id = $this->userCookie->
                        publicUser_id;
                    $this->AAIS_model->
                        editAccount($id,
                    $_POST['firstName'],
                    $_POST['lastName'],
                    $_POST['sex'], $_POST
                    ['birthday'], $_POST[
                    'email'], $_POST['
                    username'], $_POST['
                    password'], $filename
                    );
                redirect( base_url('
                    publicUser/
                    editAccount') );
            }
        }
        else{
            $this->userCookie->error = 1;
            $this->AAIS_model->setCookie(
                (array) $this->userCookie
                , 'theUserCookie');
            redirect( base_url('publicUser
                /editAccount') );
        }
    }

public function create($pageType)
{
    $this->userCookie->active = "create" .
         $pageType;
    $this->AAIS_model->setCookie( (array)
        $this->userCookie, 'theUserCookie
        ' );
    if($this->AAIS_model->hasCookie('
        theSubmissionCookie')){
        $this->submissionCookie->pageType
            = $pageType;
        $this->AAIS_model->setCookie( (
            array) $this->
            submissionCookie, '
            theSubmissionCookie');
        $data["entry"] = $this->
            submissionCookie;
    }
    else{
        $array =
            array(
                'pageType' => $pageType,
                'error' => 0
            );
        $this->AAIS_model->setCookie(
            $array, "theSubmissionCookie"
            );
        redirect( base_url("publicUser/
            create/".$pageType) );
    }
    $data["categories"] = $this->
        AAIS_model->getCategories($this->
        userCookie->user_id);
    $data["cookie"] = $this->userCookie;
    $data["content"] =  'publicUser/create
        /main.php';
    $this->load->view('home.php',$data);
}

public function submit($type)
{
    $this->load->library('form_validation'
        );
    $name = $this->userCookie->first_name
        . "␣" . $this->userCookie->
        last_name;

    if($type==1 || $type==2){
        $this->form_validation->set_rules(
            'date', 'date', 'required');
        $this->form_validation->set_rules(
            'title', 'title', 'required')
            ;
        $this->form_validation->set_rules(
            'details', 'details', '
            required');
    }

    if($type==3){
        $this->form_validation->set_rules(
            'date', 'date', 'required');
        $this->form_validation->set_rules(
            'details', 'details', '
            required');
        if($_FILES['title']['name'] == "")
            {
            $this->submissionCookie->error
                 = 1;
            $this->AAIS_model->setCookie(
                (array) $this->
                submissionCookie, '
                theSubmissionCookie' );
            redirect( base_url('publicUser
                /create/3') );
        }
    }
```

```
    if($type==4){
        $this->form_validation->set_rules(
             'question', 'question', '
             required');
        $this->form_validation->set_rules(
             'choiceA', 'choiceA', '
             required');
        $this->form_validation->set_rules(
             'choiceB', 'choiceB', '
             required');
        $this->form_validation->set_rules(
             'choiceC', 'choiceC', '
             required');
        $this->form_validation->set_rules(
             'choiceD', 'choicD', '
             required');
        $this->form_validation->set_rules(
             'answer', 'answer', 'required
             ');
    }

    if($this->form_validation->run() ==
        FALSE){
        $this->submissionCookie->error =
             1;
        $this->AAIS_model->setCookie( (
             array) $this->
             submissionCookie, '
             theSubmissionCookie');
        redirect(base_url("publicUser/
             create/".$type));
    }
    else{
        if($type==1 || $type==3){
            if($this->AAIS_model->
                 dateChecker($_POST['date'
                 ]) == 1){
                $this->submissionCookie->
                     error = 3;
                $this->AAIS_model->
                     setCookie( (array)
                     $this->
                     submissionCookie, '
                     theSubmissionCookie'
                     );
                redirect(base_url("
                     publicUser/create/".
                     $type));
            }
        }

        else if($type==2){
            if($this->AAIS_model->
                 dateChecker($_POST['date'
                 ]) == 0){
                $this->submissionCookie->
                     error = 3;
                $this->AAIS_model->
                     setCookie( (array)
                     $this->
                     submissionCookie, '
                     theSubmissionCookie'
                     );
                redirect(base_url("
                     publicUser/create/".
                     $type));
            }
        }

        $author_id = $this->userCookie->
             publicUser_id;
        switch($type){
            case 1:
                $this->AAIS_model->
                     addJournal($this->
                     userCookie->user_id,
                     $_POST['date'],
                     $_POST['title'],
                     $_POST['details'],
                     $author_id, $name, 0,
                      $_POST['category']);
                break;
            case 2:
                $this->AAIS_model->
                     addReminder($this->
                     userCookie->user_id,
                     $_POST['date'],
                     $_POST['title'],
                     $_POST['details'],
                     $author_id, $name, 0,
                      $_POST['category']);
                break;
            case 3:
                $date_time = date( "YmdHis
                     " );
                $filename = $this->
                     AAIS_model->
                     movePhotoUpload('
                        title', $date_time);
                    $this->AAIS_model->
                        addPhoto($this->
                        userCookie->user_id,
                        $_POST['date'],
                        $filename, $_POST['
                        details'], $author_id
                        , $name, 0, $_POST['
                        category']);
                    break;
                case 4:
                    $filename = 0;
                    $qtype = $_POST['type'];
                        if($_FILES['filename'
                            ]['name'] != ""){
                            $date_time = date(
                                "YmdHis" );
                            $filename = $this
                                ->AAIS_model
                                ->
                                movePhotoUpload
                                ('filename',
                                $date_time);
                            if($qtype==1)
                                $qtype = 2;
                        }
                    $this->AAIS_model->
                        addQuestion($this->
                        userCookie->user_id,
                        $_POST['question'],
                        $filename,
                      $_POST['choiceA'],
                           $_POST['choiceB'],
                            $_POST['choiceC'
                           ], $_POST['choiceD
                           '], $_POST['answer
                           '], $author_id,
                           $name, 0, $qtype);
                    break;
                default: break;

            }
            $this->submissionCookie->error =
                2;
            $this->AAIS_model->setCookie( (
                array) $this->
                submissionCookie, '
                theSubmissionCookie');

            redirect(base_url("publicUser/
                create/".$type));
        }
    }
}
```

Listing 8: AAIS_Model.php

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

class AAIS_model extends CI_Model {

    /*
        Security Functions
    */

    public function encrypt( $data, $password,
         $iv )
    {
        return openssl_encrypt($data, 'aes
            -256-cbc', $password,
            OPENSSL_RAW_DATA, $iv );
    }

    public function decrypt( $data, $password,
         $iv  )
    {
        return openssl_decrypt($data, 'aes
            -256-cbc', $password,
            OPENSSL_RAW_DATA, $iv );
    }

    public function getPassword( $first, $last
        , $password )
    {
        $encrypt_password = base64_encode(md5(
            $first));
        $encrypt_iv = substr(base64_encode(md5
            ($last)),0,16);
        return $this->decrypt( base64_decode(
            $password), $encrypt_password,
            $encrypt_iv );
    }

    public function setPassword( $first, $last
        , $password )
    {
        $encrypt_password = base64_encode(md5(
            $first));
        $encrypt_iv = substr(base64_encode(md5
            ($last)),0,16);
        return base64_encode($this->encrypt(
            $password, $encrypt_password,
            $encrypt_iv ));
    }

    /*
        Cookie Functions
    */

    public function getCookie($name)
    {
        $password = base64_encode(md5(date('l␣
            jS␣\of␣F␣Y')));
        $iv = substr(base64_encode(md5(date("
            Ymd"))),0,16);

        $unserialized_cookie = base64_decode(
            get_cookie($name));
        $decrypted_cookie = $this->AAIS_model
            ->decrypt( $unserialized_cookie,
            $password, $iv );
        $cookie = json_decode(
            $decrypted_cookie);
        return $cookie;
    }

    public function setCookie( $array, $name )
    {
        $password = base64_encode(md5(date('l␣
            jS␣\of␣F␣Y')));
        $iv = substr(base64_encode(md5(date("
            Ymd"))),0,16);

        $json = json_encode( $array );
        $encrypted_cookie = $this->AAIS_model
            ->encrypt( $json, $password, $iv
            );
        $encoded_cookie = base64_encode(
            $encrypted_cookie);
        set_cookie( $name, $encoded_cookie,
            (60*60*24) );
    }

    public function hasCookie($name)
    {
        return (get_cookie($name)) ? true :
            false;
    }

    public function deleteCookie($name)
    {
        delete_cookie($name);
    }

    /*
        All-user Functions
    */

    public function login()
    {
        $this->db->where( 'username', $_POST['
            username'] );
        $query = $this->db->get('user');
        if($query->num_rows() > 0){
            $row = $query->row();
            $pw = $this->getPassword($row->
                first_name, $row->last_name,
                $row->password);
            if($pw == $_POST['password']){
                $user = $row->user_id;
                $publicUser = 0;
                $guardian = 0;
                $public = 0;
                $step = 1;
                    if($row->user_type==1){
                        $this->db->where('
                            user_id', $row->
                            user_id);
                        $query2 = $this->db->
                            get('patient');
                        $row2 = $query2->row()
                            ;
                        $public = $row2->
                            public_id;
                        $this->
                            deleteOldReminders
                            ($row->user_id, '
                            user_id');
                    }
                    else if($row->user_type ==
                         2){
                        $guardian = $row->
                            user_id;
                        $this->db->where('
                         guardian_id',
                         $row->user_id);
                    $query2 = $this->db->
                         get('patient');
                    $row2 = $query2->row()
                         ;
                    $user = $row2->user_id
                         ;
                    $public = $row2->
                         public_id;
                    $this->
                         deleteOldReminders
                         ($row2->user_id,
                         'user_id');
                }
                else if($row->user_type ==
                     3){
                    $this->
                         deleteOldReminders
                         ($row->user_id, '
                         author_id');
                }
                else if($row->user_type ==
                     4){
                    $publicUser = $row->
                         user_id;
                    $this->db->where('
                         public_id', $row
                         ->user_id);
                    $query2 = $this->db->
                         get('public');
                    $row2 = $query2->row()
                         ;
                    $user = $row2->user_id
                         ;
                    $step = 2;
                    $public = $row2->
                         public_id;
                    $this->
                         deleteOldReminders
                         ($row2->user_id,
                         'user_id');
                }
            $array =
                array(
                    "isLoggedIn" => 1,
                    "user_id" => $user,
                    "first_name" => $row->
                         first_name,
                    "last_name" => $row->
                         last_name,
                    "sex" => $row->sex,
                    "birthday" => $row->
                         birthday,
                    "email" => $row->email
                         ,
                    "username" => $row->
                         username,
                    "password" => $pw,
                    "user_type" => $row->
                         user_type,
                    "profile_picture" =>
                         $row->
                         profile_picture,
                    "guardian_id" =>
                         $guardian,
                    "public_id" => $public
                         ,
                    "publicUser_id" =>
                         $publicUser,
                    "step" => $step,
                    "error" => 0,
                    "active" => "dashboard
                         ",
                    "category" => "all"
                );
            $this->setCookie($array, "
                 theUserCookie");
            return $row->user_type;
        }
    }
    $array = array("error"=>1);
    $this->setCookie($array, "
         theUserCookie");
    return 9;
}

public function sendPassword($username)
{
    $this->db->where('username', $username
         );
    $query = $this->db->get('user');
    if($query->num_rows()>0){
        $row = $query->row();
        $html = "<html><body>" .
            "Hello.␣This␣your␣account␣
                 information:<br><br>" .
            "<b>Username:␣</b>" . $row->
                 username . "<br>" .
            "<b>Password:␣</b>" . $this->
                 getPassword($row->
                 first_name, $row->
                 last_name, $row->password
                 ) . "<br><br>" .
            "Please␣delete␣this␣e-mail␣
                 after␣taking␣note␣of␣your
                 ␣account␣information␣for␣
                 security␣purposes.␣You␣
                 might␣also␣want␣to␣change
                 ␣your␣password." .
            "</body></html>";

        $this->load->library( 'email' );

        $config['protocol']      = 'smtp';
        $config['smtp_host']     = 'ssl://
             smtp.mail.yahoo.com';
        $config['smtp_port']     = '465';
        $config['smtp_user']     = '
             uppgh_aais@yahoo.com';
        $config['smtp_pass']     = '
             helloworld';
        $config['smtp_timeout'] = '100';
        $config['charset']       = 'utf-8';
        $config['newline']       = "\r\n";
        $config['mailtype']      = 'html';
        $config['validation']    = TRUE;

        $this->email->initialize( $config
             );

        $this->email->from( $config['
             smtp_user'], 'AAIS_Admin' );
        $this->email->to( $row->email );

        $this->email->subject( 'Recover␣
             Password' );
        $this->email->message( $html );

        $this->email->send();

        echo $this->email->print_debugger
             ();
    }
}

public function editAccount($id, $first,
     $last, $sex, $birthday, $email,
     $username, $password, $dp)
{
    $this->db->where( 'user_id', $id );
    $query = $this->db->get('user');
    $row = $query->row();
    $type = $row->user_type;
    $pic = $row->profile_picture;
    if($pic!=$dp && $pic!="blank.png"){
        $path = "assets/users/" . $pic;
        unlink($path);
    }

    $data = array(
           'username' => $username,
           'password' => $this->
                setPassword($first, $last,
                 $password),
           'first_name' => $first,
           'last_name' => $last,
           'sex' => $sex,
           'birthday' => $birthday,
           'email' => $email,
           'profile_picture' => $dp
        );

    $this->db->where('user_id', $id);
    $this->db->update('user', $data);

    $this->setUserCookie($id);
    if($type == 1 || $type == 2 || $type
         == 3){
        $name = $first . "␣" . $last;
        $this->changeAuthors($id, $name);
    }
}

public function setUserCookie($id)
{
    $this->db->where( 'user_id', $id );
    $query = $this->db->get('user');
    $row = $query->row();
    $user = $row->user_id;
    $publicUser = 0;
    $guardian = 0;
    $public = 0;
    if($row->user_type==1){
        $this->db->where('user_id', $row->
             user_id);
        $query2 = $this->db->get('patient'
             );
        $row2 = $query2->row();
        $public = $row2->public_id;
    }

    else if($row->user_type == 2){
        $guardian = $row->user_id;
        $this->db->where('guardian_id',
            $row->user_id);
        $query2 = $this->db->get('patient'
            );
        $row2 = $query2->row();
        $user = $row2->user_id;
        $public = $row2->public_id;
    }

    else if($row->user_type == 4){
        $publicUser = $row->user_id;
        $this->db->where('public_id', $row
            ->user_id);
        $query2 = $this->db->get('public')
            ;
        $row2 = $query2->row();
        $user = $row2->user_id;
        $public = $row2->public_id;
    }

    $array =
        array(
            "isLoggedIn" => 1,
            "user_id" => $user,
            'username' => $row->username,
            'password' => $this->
                getPassword($row->
                first_name, $row->
                last_name, $row->password
                ),
            "first_name" => $row->
                first_name,
            "last_name" => $row->last_name
                ,
            "sex" => $row->sex,
            "birthday" => $row->birthday,
            "email" => $row->email,
            "user_type" => $row->user_type
                ,
            "profile_picture" => $row->
                profile_picture,
            "guardian_id" => $guardian,
            "publicUser_id" => $publicUser
                ,
            "public_id" => $public,
            "step" => 1,
            "error" => 2,
            "category" => "all"
        );
    $this->AAIS_model->setCookie($array, "
        theUserCookie");
}

private function changeAuthors($id, $name)
{
    $array = array("author" => $name);
    $this->db->where( 'author_id', $id );
    $this->db->update('journal', $array);
    $this->db->where( 'author_id', $id );
    $this->db->update('reminder', $array);
    $this->db->where( 'author_id', $id );
    $this->db->update('photo', $array);
    $this->db->where( 'author_id', $id );
    $this->db->update('question', $array);
}

/*
    User Functions
*/

public function getPatientList()
{
    $this->db->where( 'user_type', '1' );
    $this->db->order_by("last_name", "asc"
        );
            $query = $this->db->get('user'
                );
            $array = $query->result();
            foreach($array as $user){
                    $this->db->where( '
                        user_id', $user->
                        user_id );
                    $query2 = $this->db->
                        get('patient');
                    $row = $query2->
                        first_row();
                    $user->public_id =
                        $row->public_id;
        $user->therapist_id = $row->
            therapist_id;
            }
            return $array;
}
```

```
public function getPatients()
{
    $this->db->where( 'user_type', 1 );
    $this->db->order_by("last_name", "asc"
        );
    $query = $this->db->get('user');
    return $query->result();
}

public function getPatient($user)
{
    $this->db->where( 'user_id', $user );
    $query = $this->db->get('user');
    return $query->row();
}

public function getPatientOT($id)
{
    $patient_list = array();
    $this->db->where( 'therapist_id', $id
        );
    $query = $this->db->get('patient');
    foreach($query->result() as $row){
        $this->db->where( 'user_id', $row
            ->user_id );
        $query2 = $this->db->get('user');
        array_push($patient_list, $query2
            ->row());
    }
    return $patient_list;
}

public function getPatientGuardian($id)
{
    $this->db->where( 'guardian_id', $id )
        ;
    $query = $this->db->get('patient');
    $row = $query->row();
    $patientID = $row->user_id;

    $this->db->where( 'user_id',
        $patientID );
    $query2 = $this->db->get('user');
    $patient = $query2->row();

    return $patient;
}

public function getAllPatientGuardian()
{
    $connections = array();
    $this->db->where( 'user_type', 1 );
    $this->db->order_by("last_name", "asc"
        );
    $query = $this->db->get('user');
    foreach($query->result() as $row){
        $this->db->where( 'user_id', $row
            ->user_id );
        $query2 = $this->db->get('patient'
            );
        $row2 = $query2->row();
        $this->db->where( 'user_id', $row2
            ->guardian_id );
        $query3 = $this->db->get('user');
        $array =
            array(
                "patient" => $row,
                "guardian" => $query3->row
                    ()
            );
        array_push($connections, $array);
    }
    return $connections;
}

public function getGuardians()
{
    $this->db->where( 'user_type', 2 );
    $this->db->order_by("last_name", "asc"
        );
    $query = $this->db->get('user');
    return $query->result();
}

public function getGuardian($id)
{
    $this->db->where( 'user_id', $id );
    $query = $this->db->get('patient');
    return $this->getUser($query->row()->
        guardian_id);
}

public function getTherapists()
{
    $this->db->where( 'user_type', 3 );
    $this->db->order_by("last_name", "asc"
        );
    $query = $this->db->get('user');
    return $query->result();
}

public function getTherapist($id)
{
    $this->db->where( 'user_id', $id );
    $query = $this->db->get('patient');
    return $this->getUser($query->row()->
        therapist_id);
}

public function getOTconnections($id)
{
    $connections = array();
    $this->db->where( 'therapist_id', $id
        );
    $query = $this->db->get('patient');
    foreach($query->result() as $row){
        $this->db->where( 'user_id', $row
            ->user_id );
        $query2 = $this->db->get('user');
        $this->db->where( 'user_id', $row
            ->guardian_id );
        $query3 = $this->db->get('user');
        $array =
            array(
                "patient" => $query2->row
                    (),
                "guardian" => $query3->row
                    (),
                "public_id" => $row->
                    public_id
            );
        array_push($connections, $array);
    }
    return $connections;
}

public function getAdmins()
{
    $this->db->where( 'user_type', 0 );
    $this->db->order_by("last_name", "asc"
        );
    $query = $this->db->get('user');
    return $query->result();
}

public function getUser($id)
{
    $this->db->where( 'user_id', $id );
    $query = $this->db->get('user');
    return $query->row();
}

public function searchUser($search,
    $userType)
{
    if (strpos($search,"_") !== false) {
        $string = explode("_", $search);
        $this->db->where('user_type',
            $userType);
        $this->db->where('first_name',
            $string[0]);
        foreach($string as $s){
            $this->db->or_where('
                first_name', $s);
            $this->db->or_where('last_name
                ', $s);
        }
        $this->db->where('user_type',
            $userType);
        $query = $this->db->get('user');
        return $query->result();
    }
    else{
        $this->db->where('user_type',
            $userType);
        $this->db->where('first_name',
            $search);
        $this->db->or_where('last_name',
            $search);
        $this->db->where('user_type',
            $userType);
        $query = $this->db->get('user');
        return $query->result();
    }
}

/*
    Objects Functions
*/

private function submit($user, $type, $id,
    $dateSub)
{
    $array = array(
            "user_id" => $user,
            "submission_type" => $type,
            "submission_type_id" => $id,
            "date_submitted" => $dateSub
    );
    $this->db->insert('submission', $array
        );

    return $this->db->affected_rows();
}

public function countSubmissions($user)
{
    $this->db->where('user_id', $user);
    $query = $this->db->get('submission');
    return $query->num_rows();
}

public function getSubmissions($user,
    $limit, $start)
{
    $this->db->where('user_id', $user);
    $this->db->order_by('date_submitted',
        'desc');
    $query = $this->db->get('submission',
        $limit, $start);
    $result = $query->result();
    $entries = array();
    foreach($result as $row){
        switch($row->submission_type){
            case '1':
                $this->db->where('
                    journal_id', $row->
                    submission_type_id);
                $query2 = $this->db->get('
                    journal');
                $array = array(
                        "object" =>
                            $query2->row
                            (),
                        "submission_id" =>
                             $row->
                            submission_id
                            ,
                        "submission_type"
                            => $row->
                            submission_type
                            ,
                        "
                            submission_type_id
                            " => $row->
                            submission_type_id

                    );
                array_push($entries,
                    $array);
                break;
            case '2':
                $this->db->where('
                    reminder_id', $row->
                    submission_type_id);
                $query2 = $this->db->get('
                    reminder');
                $array = array(
                        "object" =>
                            $query2->row
                            (),
                        "submission_id" =>
                             $row->
                            submission_id
                            ,
                        "submission_type"
                            => $row->
                            submission_type
                            ,
                        "
                            submission_type_id
                            " => $row->
                            submission_type_id

                    );
                array_push($entries,
                    $array);
                break;
            case '3':
                $this->db->where('photo_id
                    ', $row->
                    submission_type_id);
                $query2 = $this->db->get('
                    photo');
                $array = array(
                        "object" =>
                            $query2->row
                            (),
                        "submission_id" =>
                             $row->
                            submission_id
                            ,
                        "submission_type"
                            => $row->
                            submission_type
                            ,
                        "
                            submission_type_id
                            " => $row->
                            submission_type_id

                    );
                array_push($entries,
                    $array);
                break;
            case '4':
                $this->db->where('
                    question_id', $row->
                    submission_type_id);
                $query2 = $this->db->get('
                    question');
                $array = array(
                        "object" =>
                            $query2->row
                            (),
                        "submission_id" =>
                             $row->
                            submission_id
                            ,
                        "submission_type"
                            => $row->
                            submission_type
                            ,
                        "
                            submission_type_id
                            " => $row->
                            submission_type_id

                    );
                array_push($entries,
                    $array);
                break;
            default: break;
        }
    }
    return $entries;
}

public function deleteSubmission($id)
{
    $this->db->where( 'submission_id', $id
         );
    $this->db->delete('submission');
}

public function deleteSubmissionType($id,
     $type)
{
    $this->db->where( 'submission_type',
         $type );
    $this->db->where( 'submission_type_id'
        , $id );
    $this->db->delete('submission');
}

public function addJournal($user, $date,
     $title, $details, $authorID, $author,
      $status, $category)
{
    $dateSub = date("Y-m-d");
    $array = array(
                "user_id" => $user,
                "author_id" => $authorID,
                "author" => $author,
                "date" => $date,
                "title" => $title,
                "details" => $details,
                "status" => $status,
                "date_created" => $dateSub
                    ,
                "category" => $category
            );
    $this->db->insert('journal', $array);

    if($status == 0){
        $id = $this->db->insert_id();
        return $this->submit($user, 1, $id
            , $dateSub);
    }
    return 0;
}

public function getJournals($limit, $start
    , $user, $status, $category)
{
    $this->db->where( 'user_id', $user );
    $this->db->where( 'status', $status );
    if($category != "all")
        $this->db->where( 'category',
            $category );
    $this->db->order_by("date_created", "
        desc");
    $query = $this->db->get('journal',
        $limit, $start);
    return $query->result();
```

```
}

public function getJournal($id)
{
    $this->db->where( 'journal_id', $id );
    $query = $this->db->get('journal');
    return $query->row();
}

public function countJournals($user,
     $category)
{
    $this->db->where( 'user_id', $user );
    $this->db->where( 'status', 1 );
    if($category != "all")
        $this->db->where( 'category',
             $category );
    $query = $this->db->get('journal');
    return $query->num_rows();
}

public function deleteJournal($id)
{
    $this->db->where( 'journal_id', $id );
    $this->db->delete('journal');
}

public function editJournal($id, $title,
     $date, $details, $category)
{
    $array = array(
                "title" => $title,
                "date" => $date,
                "details" => $details,
                "category" => $category
            );
    $this->db->where( 'journal_id', $id );
    $this->db->update('journal', $array);
}

public function searchJournals($user,
     $status, $keyword)
{
    $this->db->where('user_id', $user);
    $this->db->where('status', $status);
    $this->db->where("(author␣LIKE␣'%
        $keyword%'␣||␣title␣LIKE␣'%
        $keyword%'␣||␣details␣LIKE␣'%
        $keyword%')");
    $this->db->order_by("date_created", "
        desc");
    $query = $this->db->get('journal');
    return $query->result();
}

public function acceptJournal($id)
{
    $array = array(
                "status" => 1
            );
    $this->db->where( 'journal_id', $id );
    $this->db->update('journal', $array);
}

public function addReminder($user, $date,
     $title, $details, $authorID, $author,
      $status, $category)
{
    $dateSub = date("Y-m-d");
    $array = array(
                "user_id" => $user,
                "author_id" => $authorID,
                "author" => $author,
                "date_time" => $date,
                "title" => $title,
                "details" => $details,
                "status" => $status,
                "date_created" => $dateSub
                    ,
                "category" => $category
            );
    $this->db->insert('reminder', $array);

    if($status == 0){
        $id = $this->db->insert_id();
        return $this->submit($user, 2, $id
            , $dateSub);
    }
    return 0;
}

public function getReminders($limit,
     $start, $user, $status, $category)
{
    $this->db->where( 'user_id', $user );
    $this->db->where( 'status', $status );
    if($category != "all")
        $this->db->where( 'category',
             $category );
    $this->db->order_by(”date_time”, ”asc”
        );
    $query = $this->db->get(’reminder’,
        $limit, $start);
    return $query->result();
}

public function getOTReminders($user)
{
    $result = array();
    $this->db->where( ’author_id’, $user )
        ;
    $this->db->order_by(”date_created”, ”
        asc”);
    $query = $this->db->get(’reminder’);
    foreach($query->result() as $row){
        $this->db->where( ’user_id’, $row
            ->user_id );
        $query2 = $this->db->get(’user’);
        $patient = $query2->row();
        $array = array(
                    ”reminder” => $row,
                    ”patient” => $patient
                );
        array_push($result, $array);
    }
    return $result;
}

public function getReminder($id)
{
    $query = $this->db->query(”SELECT␣*,␣
        DATE_FORMAT(date_time,␣’%Y-%m-%dT
        %H:%i’)␣AS␣date_time␣FROM␣
        reminder␣WHERE␣reminder_id=”.$id)
        ;
    return $query->row();
}

public function countReminders($user,
    $category)
{
    $this->db->where( ’user_id’, $user );
    $this->db->where( ’status’, 1 );
    if($category != ”all”)
        $this->db->where( ’category’,
            $category );
    $query = $this->db->get(’reminder’);
    return $query->num_rows();
}

public function deleteReminder($id)
{
    $array = array(”status” => 2);
    $this->db->where( ’reminder_id’, $id )
        ;
    $this->db->update(’reminder’, $array);
}

public function editReminder($id, $title,
    $date, $details, $category)
{
    $array = array(
                ”title” => $title,
                ”date_time” => $date,
                ”details” => $details,
                ”category” => $category
            );
    $this->db->where( ’reminder_id’, $id )
        ;
    $this->db->update(’reminder’, $array);
}

public function searchReminders($user,
    $status, $keyword)
{
    $this->db->where(’user_id’, $user);
    $this->db->where(’status’, $status);
    $this->db->where(”(author␣LIKE␣’%
        $keyword%’␣||␣title␣LIKE␣’%
        $keyword%’␣||␣details␣LIKE␣’%
        $keyword%’)”);
    $this->db->order_by(”date_time”, ”desc
        ”);
    $query = $this->db->get(’reminder’);
    return $query->result();
}

public function acceptReminder($id)
{
    $array = array(
                ”status” => 1
            );
    $this->db->where( ’reminder_id’, $id )
        ;
    $this->db->update(’reminder’, $array);
}

public function addPhoto($user, $date,
```

```
    $title, $details, $authorID, $author,
     $status, $category){
    $dateSub = date(”Y-m-d”);
    $array = array(
                ”user_id” => $user,
                ”author_id” => $authorID,
                ”author” => $author,
                ”filename” => $title,
                ”date” => $date,
                ”caption” => $details,
                ”status” => $status,
                ”date_created” => $dateSub
                    ,
                ”category” => $category
            );
    $this->db->insert(’photo’, $array);

    if($status == 0){
        $id = $this->db->insert_id();
        return $this->submit($user, 3, $id
            , $dateSub);
    }
    return 0;
}

public function getPhotos($limit, $start,
    $user, $status, $category)
{
    $this->db->where( ’user_id’, $user );
    $this->db->where( ’status’, $status );
    if($category != ”all”)
        $this->db->where( ’category’,
            $category );
    $this->db->order_by(”date_created”, ”
        desc”);
    $query = $this->db->get(’photo’,
        $limit, $start);
    return $query->result();
}

public function getUserPhotos($user)
{
    $this->db->where( ’user_id’, $user );
    $this->db->where( ’status’, 1 );
    $this->db->order_by(”date_created”, ”
        desc”);
    $query = $this->db->get(’photo’);
    return $query->result();
}

public function getPhoto($id)
{
    $this->db->where( ’photo_id’, $id );
    $query = $this->db->get(’photo’);
    return $query->row();
}

public function countPhotos($user,
    $category)
{
    $this->db->where( ’user_id’, $user );
    $this->db->where( ’status’, 1 );
    if($category != ”all”)
        $this->db->where( ’category’,
            $category );
    $query = $this->db->get(’photo’);
    return $query->num_rows();
}

public function deletePhoto($id)
{
    $this->db->where( ’photo_id’, $id );
    $query = $this->db->get(’photo’);
    $path = ”assets/photos/” . $query->row
        ()->filename;
    unlink($path);
    $this->db->where( ’photo_id’, $id );
    $this->db->delete(’photo’);
}

public function editPhoto($id, $date,
    $caption, $category)
{
    $array = array(
                ”date” => $date,
                ”caption” => $caption,
                ”category” => $category
            );
    $this->db->where( ’photo_id’, $id );
    $this->db->update(’photo’, $array);
}

public function searchPhotos($user,
    $status, $keyword)
{
    $this->db->where(’user_id’, $user);
    $this->db->where(’status’, $status);
    $this->db->where(”(author␣LIKE␣’%
        $keyword%’␣||␣caption␣LIKE␣’%
        $keyword%’)”);
    $this->db->order_by(”date_created”, ”
        desc”);
    $query = $this->db->get(’photo’);
    return $query->result();
}

public function acceptPhoto($id)
{
    $array = array(
                ”status” => 1
            );
    $this->db->where( ’photo_id’, $id );
    $this->db->update(’photo’, $array);
}

public function addQuestion($user,
    $question, $filename, $a, $b, $c, $d,
     $answer, $authorID, $author, $status
    , $type){
    $dateSub = date(”Y-m-d”);
    $array = array(
                ”user_id” => $user,
                ”author_id” => $authorID,
                ”author” => $author,
                ”question_details” =>
                    $question,
                ”filename” => $filename,
                ”choiceA” => $a,
                ”choiceB” => $b,
                ”choiceC” => $c,
                ”choiceD” => $d,
                ”answer” => $answer,
                ”status” => $status,
                ”type” => $type,
                ”date_created” => $dateSub
            );
    $this->db->insert(’question’, $array);
    $id = $this->db->insert_id();

    if($status == 0){
        return $this->submit($user, 4, $id
            , $dateSub);
    }
    return $id;
}

public function getQuestions($limit,
    $start, $user, $status)
{
    $this->db->where( ’user_id’, $user );
    $this->db->where( ’status’, $status );
    $this->db->order_by(”date_created”, ”
        desc”);
    $query = $this->db->get(’question’,
        $limit, $start);
    return $query->result();
}

public function getQuestion($id)
{
    $this->db->where( ’question_id’, $id )
        ;
    $query = $this->db->get(’question’);
    return $query->row();
}

public function getAllPersonalQuestions(
    $user, $status)
{
    $this->db->where( ’user_id’, $user );
    $this->db->where( ’type’, ’1’ );
    $this->db->where( ’status’, $status );
    $query = $this->db->get(’question’);
    return $query->result();
}

public function getAllPhotoQuestions($user
    , $status)
{
    $this->db->where( ’user_id’, $user );
    $this->db->where( ’type’, ’2’ );
    $this->db->where( ’status’, $status );
    $query = $this->db->get(’question’);
    return $query->result();
}

public function getAllGeneralQuestions(
    $user, $status)
{
    $this->db->where( ’user_id’, $user );
    $this->db->where( ’type’, ’3’ );
    $this->db->where( ’status’, $status );
    $query = $this->db->get(’question’);
    return $query->result();
}

public function getTestQuestions($items)
{
    $questions = array();
    foreach($items as $i){
        $this->db->where( ’question_id’,
            $i );
        $query = $this->db->get(’question’
            );
        array_push($questions, $query->row
            ());
    }

    return $questions;
}

public function countQuestions($user)
{
    $this->db->where( ’user_id’, $user );
    $this->db->where( ’status’, 1 );
    $query = $this->db->get(’question’);
    return $query->num_rows();
}

public function deleteQuestion($id)
{
    $this->db->where( ’question_id’, $id )
        ;
    $query = $this->db->get(’question’);
    $path = ”assets/photos/” . $query->row
        ()->filename;
    unlink($path);
    $this->db->where( ’question_id’, $id )
        ;
    $this->db->delete(’question’);
}

public function editQuestion($id,
    $question, $filename, $a, $b, $c, $d,
     $answer, $type)
{
    $array = array(
                ”question_details” =>
                    $question,
                ”filename” => $filename,
                ”choiceA” => $a,
                ”choiceB” => $b,
                ”choiceC” => $c,
                ”choiceD” => $d,
                ”answer” => $answer,
                ”type” => $type
            );
    $this->db->where( ’question_id’, $id )
        ;
    $this->db->update(’question’, $array);
}

public function searchQuestions($user,
    $status, $keyword)
{
    $this->db->where(’user_id’, $user);
    $this->db->where(’status’, $status);
    $this->db->where(”(author␣LIKE␣’%
        $keyword%’␣||␣question_details␣
        LIKE␣’%$keyword%’␣||␣choiceA␣LIKE
        ␣’%$keyword%’␣||␣choiceB␣LIKE␣’%
        $keyword%’␣||␣choiceC␣LIKE␣’%
        $keyword%’␣||␣choiceD␣LIKE␣’%
        $keyword%’)”);
    $this->db->order_by(”date_created”, ”
        desc”);
    $query = $this->db->get(’question’);
    return $query->result();
}

public function acceptQuestion($id)
{
    $array = array(
                ”status” => 1
            );
    $this->db->where( ’question_id’, $id )
        ;
    $this->db->update(’question’, $array);
}

public function movePhotoUpload(
    $input_name, $file_name )
{
    $ext = pathinfo( $_FILES[$input_name][
        ’name’], PATHINFO_EXTENSION );
    $filename = ”{$file_name}.{$ext}”;

    $destination_path = getcwd() . ”/
        assets/photos/”;
    $target_path = $destination_path .
        $filename;
    move_uploaded_file( $_FILES[
        $input_name][’tmp_name’],
        $target_path );

    return $filename;
}
```

```
 public function moveDpUpload( $input_name,
       $file_name )
 {
     $ext = pathinfo( $_FILES[$input_name][
          ’name’], PATHINFO_EXTENSION );
     $filename = ”{$file_name}.{$ext}”;

     $destination_path = getcwd() . ”/
          assets/users/”;
     $target_path = $destination_path .
          $filename;
     move_uploaded_file( $_FILES[
          $input_name][’tmp_name’],
          $target_path );

     return $filename;
 }

 public function recordTest($user, $type,
      $items, $score)
 {
     $date = date(”Y-m-d”);
     $array =
         array(
             ”user_id” => $user,
             ”test_type” => $type,
             ”date” => $date,
             ”items” => $items,
             ”score” => $score
         );
     $this->db->insert(’test’, $array);
 }

 public function getScores($user, $type,
      $start, $end){
     $this->db->where(’user_id’, $user);
     $this->db->where(’test_type’, $type);
     $this->db->where(’date >=’, $start);
     $this->db->where(’date <=’, $end);
     $query = $this->db->get(’test’);
     return $query->result();
 }

 public function getLastTest($user, $type)
 {
     $date = date(”Y-m-d”);
     $this->db->where(’user_id’, $user);
     $this->db->where(’test_type’, $type);
     $this->db->where(’date’, $date);
     $query = $this->db->get(’test’);

     return $query->num_rows();
 }

 public function dateChecker($date){
     $then = new DateTime($date);
     $now = new DateTime();

     if($then < $now) { //past
         return 0;
     }

     return 1; //future
 }

/*
     System Admin Functions
*/

 public function setAddAccountCookie(){
     $array =
         array(
             ”patientFirst” => ””,
             ”patientLast” => ””,
             ”patientSex” => ””,
             ”patientBirthday” => ””,
             ”patientEmail” => ””,
             ”patientUsername” => ””,
             ”patientPassword” => ””,
             ”guardianFirst” => ””,
             ”guardianLast” => ””,
             ”guardianSex” => ””,
             ”guardianBirthday” => ””,
             ”guardianEmail” => ””,
             ”guardianUsername” => ””,
             ”guardianPassword” => ””,
             ”ot_id” => ”4”
         );
     $this->setCookie($array, ”
          addAccountCookie”);
 }

 public function createAccount(){
     $cookie = $this->getCookie(’
          addAccountCookie’);
     $patient = $this->
          generateUsernameAndPassword(
          $cookie->patientFirst, $cookie->
```

```
          patientLast);
     $guardian = $this->
          generateUsernameAndPassword(
          $cookie->guardianFirst, $cookie->
          guardianLast);

     $cookie->patientUsername = $patient[’
          username’];
     $cookie->patientPassword = $patient[’
          password’];
     $cookie->guardianUsername = $guardian[
          ’username’];
     $cookie->guardianPassword = $guardian[
          ’password’];
     $this->AAIS_model->setCookie( (array)
          $cookie, ’addAccountCookie’ );

     $array = array(
                 ”username” => $patient[’
                      username’],
                 ”password” => $this->
                      setPassword($cookie->
                      patientFirst, $cookie
                      ->patientLast,
                      $patient[’password’])
                      ,
                 ”last_name” => $cookie->
                      patientLast,
                 ”first_name” => $cookie->
                      patientFirst,
                 ”sex” => $cookie->
                      patientSex,
                 ”birthday” => $cookie->
                      patientBirthday,
                 ”email” => $cookie->
                      patientEmail,
                 ”user_type” => 1
             );
     $this->db->insert(’user’, $array);

     $patient_id = $this->db->insert_id();

     $array = array(
                 ”username” => $guardian[’
                      username’],
                 ”password” => $this->
                      setPassword($cookie->
                      guardianFirst,
                      $cookie->guardianLast
                      , $guardian[’password
                      ’]),
                 ”last_name” => $cookie->
                      guardianLast,
                 ”first_name” => $cookie->
                      guardianFirst,
                 ”sex” => $cookie->
                      guardianSex,
                 ”birthday” => $cookie->
                      guardianBirthday,
                 ”email” => $cookie->
                      guardianEmail,
                 ”user_type” => 2
             );
     $this->db->insert(’user’, $array);

     $guardian_id = $this->db->insert_id();

     $array = array(
                 ”user_id” => $patient_id,
                 ”public_id” => $this->
                      generatePublicID(),
                 ”guardian_id” =>
                      $guardian_id,
                 ”therapist_id” => $cookie
                      ->ot_id
             );
     $this->db->insert(’patient’, $array);

     $array = array(
                 ”user_id” => $patient_id,
                 ”name” => ”Therapy”
             );
     $this->db->insert(’category’, $array);

}

public function addPublic($first, $last,
     $sex, $birthday, $email, $filename,
     $note)
{
     $cookie = $this->getCookie(’
          thePublicCookie’);
     $user = $this->
          generateUsernameAndPassword(
          $first, $last);
     $array = array(
                 ”username” => $user[’
                      username’],
                 ”password” => $this->
```

```
                        setPassword($first,
                        $last, $user['
                        password']),
                    "last_name" => $last,
                    "first_name" => $first,
                    "sex" => $sex,
                    "birthday" => $birthday,
                    "email" => $email,
                    "user_type" => 4,
                    "profile_picture" =>
                        $filename
                );
        $this->db->insert('user', $array);
        $public_id = $this->db->insert_id();

        $array = array(
                    "user_id" => $cookie->
                        user_id,
                    "public_id" => $public_id,
                    "note" => $note,
                    "status" => 0
                );
        $this->db->insert('public', $array);

    }

    private function
        generateUsernameAndPassword(
        $firstName, $lastName)
    {
        $username = "";
        $i = 0;
        while(true){
            $firstArray = explode("␣",
                $firstName);
            $first = $firstName[0];
            $last = str_replace("␣", "",
                $lastName);
            if($i==0)
                $username = strtolower($first)
                    . strtolower($last);
            else
                $username = strtolower($first)
                    . strtolower($last) . $i
                    ;
            $this->db->where( 'username',
                $username );
            $query = $this->db->get('user');
            if($query->num_rows() == 0)
                break;
            $i++;
        }
        $password = $this->
            generateRandomString(10);
        $array =
            array(
                "username" => $username,
                "password" => $password
            );
        return $array;
    }

    private function generatePublicID()
    {
        $public = '';
        while(true){
            $public = $this->
                generateRandomString(10);
            $this->db->where( 'public_id',
                $public );
            $query = $this->db->get('patient')
                ;
            if($query->num_rows() == 0)
                break;
        }
        return $public;
    }

    private function generateRandomString(
        $length)
    {
        $characters = '0123456789␣
            abcdefghijklmnopqrstuvwxyz␣
            ABCDEFGHIJKLMNOPQRSTUVWXYZ';
        $charactersLength = strlen($characters
            );
        $randomString = '';
        for ($i = 0; $i < $length; $i++) {
            $randomString .= $characters[rand
                (0, $charactersLength - 1)];
        }
        return $randomString;
    }

    public function insertOT($first, $last,
        $sex, $birthday, $email)
    {
        $ot = $this->
            generateUsernameAndPassword(
```

```
            $first, $last);
        $array = array(
                    "username" => $ot['
                        username'],
                    "password" => $this->
                        setPassword($first,
                        $last, $ot['password'
                        ]),
                    "last_name" => $last,
                    "first_name" => $first,
                    "sex" => $sex,
                    "birthday" => $birthday,
                    "email" => $email,
                    "user_type" => 3
                );
        $this->db->insert('user', $array);

        return $ot;
    }

    public function insertSysad($first, $last,
         $sex, $birthday, $email)
    {
        $sysad = $this->
            generateUsernameAndPassword(
            $first, $last);
        $array = array(
                    "username" => $sysad['
                        username'],
                    "password" => $this->
                        setPassword($first,
                        $last, $sysad['
                        password']),
                    "last_name" => $last,
                    "first_name" => $first,
                    "sex" => $sex,
                    "birthday" => $birthday,
                    "email" => $email,
                    "user_type" => 0
                );
        $this->db->insert('user', $array);

        return $sysad;
    }

    public function insertGuardian($first,
        $last, $sex, $birthday, $email,
        $patientID)
    {
        $guardian = $this->
            generateUsernameAndPassword(
            $first, $last);
        $array = array(
                    "username" => $guardian['
                        username'],
                    "password" => $this->
                        setPassword($first,
                        $last, $guardian['
                        password']),
                    "last_name" => $last,
                    "first_name" => $first,
                    "sex" => $sex,
                    "birthday" => $birthday,
                    "email" => $email,
                    "user_type" => 2
                );
        $this->db->insert('user', $array);
        $id = $this->db->insert_id();

        $data = array(
                'guardian_id' => $id
            );
        $this->db->where('user_id', $patientID
            );
        $this->db->update('patient', $data);

        return $guardian;
    }

    public function deletePatient($id)
    {
        $this->db->where( 'user_id', $id );
        $query = $this->db->get('patient');
        $row = $query->row();
        $guardian = $row->guardian_id;

        $this->db->where( 'user_id', $id );
        $query2 = $this->db->get('user');
        $patient = $query2->row();
        if($patient->profile_picture!="blank.
            png"){
            $path = "assets/users/" . $patient
                ->profile_picture;
            unlink($path);
        }
        $this->db->where( 'user_id', $id );
        $this->db->delete('user');
    $this->db->where( ’user_id’, $guardian
         );
    $query3 = $this->db->get(’user’);
    $guard = $query3->row();
    if($guard->profile_picture!=”blank.png
        ”){
        $path = ”assets/users/” . $guard->
            profile_picture;
        unlink($path);
    }
    $this->db->where( ’user_id’, $guardian
         );
    $this->db->delete(’user’);
}

public function deleteAllPatients()
{
    $this->db->where( ’user_type’, 1 );
    $this->db->delete(’user’);
    $this->db->where( ’user_type’, 2 );
    $this->db->delete(’user’);
}

public function deleteUser($id)
{
    $this->db->where( ’user_id’, $id );
    $query = $this->db->get(’user’);
    $row = $query->row();
    if($row->profile_picture!=”blank.png”)
        {
        $path = ”assets/users/” . $row->
            profile_picture;
        unlink($path);
    }
    $this->db->where( ’user_id’, $id );
    $this->db->delete(’user’);
}

public function checkOTPatients($id)
{
    $patients = 0;
    $this->db->where( ’therapist_id’, $id
         );
    $query = $this->db->get(’patient’);
    $first = $query->row();
    $result = $query->result();

    if($query->num_rows() > 0){
        $this->db->where(’user_id’, $first
            ->user_id);
        foreach($result as $row){
          $this->db->or_where(’user_id’,
              $row->user_id);
        }
        $query2 = $this->db->get(’user’);
        $patients = $query2->result();
    }

     return $patients;
}

public function updateTherapists($patients
    , $therapists)
{
    for($i=0; $i<count($patients); $i++){
         $data = array(
           ’therapist_id’ => $therapists[
               $i]
        );
        $this->db->where(’user_id’,
            $patients[$i]);
        $this->db->update(’patient’, $data
            );
    }
}

public function updateTherapist($patient,
    $therapist)
{
    $data = array(
                ’therapist_id’ =>
                    $therapist
            );
    $this->db->where(’user_id’, $patient);
    $this->db->update(’patient’, $data);
}

public function deleteOldReminders($id,
    $field){
    $this->db->where($field, $id);
    $query = $this->db->get(’reminder’);
    foreach($query->result() as $row){
        if($this->dateChecker($row->
            date_time) == 0){
            if($row->status == 0){
                $this->db->where(’
                    submission_type_id’,
                    $row->reminder_id);
                $this->db->delete(’
```

```
                    submission’);
            }
            $this->db->where(’reminder_id’
                , $row->reminder_id);
            $this->db->delete(’reminder’);
        }
    }
}

public function changeReminderStatus($id)
{
    $this->db->where(’reminder_id’, $id);
    $query = $this->db->get(’reminder’);
    $row = $query->row();
    if($row->status != 0){
        $data = array(”status” => 0);
        $this->db->where(’reminder_id’,
            $id);
        $this->db->update(’reminder’,
            $data);

        $dateSub = date(”Y-m-d”);
        $this->submit($row->user_id, 2,
            $id, $dateSub);
    }
}

public function countUserRequests($user,
    $status)
{
    $this->db->where(’user_id’, $user);
    $this->db->where(’status’, $status);
    $query = $this->db->get(’public’);
    return $query->num_rows();
}

public function getUserRequests($user,
    $limit, $start)
{
    $array = array();
    $this->db->where( ’user_id’, $user );
    $this->db->where( ’status’, 0 );
    $query = $this->db->get(’public’,
        $limit, $start);
    foreach($query->result() as $row){
        $this->db->where(’user_id’, $row->
            public_id);
        $query2 = $this->db->get(’user’);
        $user = $query2->row();
        $user->note = $row->note;
        array_push($array, $user);
    }
    return $array;
}

public function getPublicUsers($user,
    $limit, $start)
{
    $array = array();
    $this->db->where( ’user_id’, $user );
    $this->db->where( ’status’, 1 );
    $query = $this->db->get(’public’,
        $limit, $start);
    foreach($query->result() as $row){
        $this->db->where(’user_id’, $row->
            public_id);
        $query2 = $this->db->get(’user’);
        $user = $query2->row();
        array_push($array, $user);
    }
    return $array;
}

public function acceptUser($user)
{
    $data = array(”status” => 1);
    $this->db->where( ’public_id’, $user )
        ;
    $this->db->update( ’public’, $data );

    $this->db->where(’user_id’, $user);
    $query = $this->db->get(’user’);
    if($query->num_rows()>0){
        $row = $query->row();
        $html = ”<html><body>” .
            ”Hello.␣Your␣account␣has␣been␣
                approved.␣This␣your␣
                account␣information:<br><
                br>” .
            ”<b>Username:␣</b>” . $row->
                username . ”<br>” .
            ”<b>Password:␣</b>” . $this->
                getPassword($row->
                first_name, $row->
                last_name, $row->password
                ) . ”<br><br>” .
            ”Please␣delete␣this␣e-mail␣
                after␣taking␣note␣of␣your
                ␣account␣information␣for␣
                security␣purposes.␣You␣
                might␣also␣want␣to␣change
                ␣your␣password.” .
            ”</body></html>”;

        $this->load->library( ’email’ );

        $config[’protocol’]     = ’smtp’;
        $config[’smtp_host’]    = ’ssl://
            smtp.mail.yahoo.com’;
        $config[’smtp_port’]    = ’465’;
        $config[’smtp_user’]    = ’
            uppgh_aais@yahoo.com’;
        $config[’smtp_pass’]    = ’
            helloworld’;
        $config[’smtp_timeout’] = ’100’;
        $config[’charset’]      = ’utf-8’;
        $config[’newline’]      = ”\r\n”;
        $config[’mailtype’]     = ’html’;
        $config[’validation’]   = TRUE;

        $this->email->initialize( $config
            );

        $this->email->from( $config[’
            smtp_user’], ’AAIS␣Admin’ );
        $this->email->to( $row->email );

        $this->email->subject( ’Account␣
            Approved’ );
        $this->email->message( $html );

        $this->email->send();

        echo $this->email->print_debugger
            ();
    }
}

public function countUserSubmissions($user
    , $type)
{
    $this->db->where(’author_id’, $user);
    switch($type){
        case 1: $query = $this->db->get(’
            journal’);
            break;
        case 2: $query = $this->db->get(’
            reminder’);
            break;
        case 3: $query = $this->db->get(’
            photo’);
            break;
        case 4: $query = $this->db->get(’
            question’);
            break;
    }
    return $query->num_rows();
}

public function getUserSubmissions($user,
    $type, $limit, $start)
{
    $this->db->where( ’author_id’, $user )
        ;
    $this->db->order_by(”date_created”, ”
        desc”);
    switch($type){
        case 1: $query = $this->db->get(’
            journal’, $limit, $start);
            break;
        case 2: $query = $this->db->get(’
            reminder’, $limit, $start);
            break;
        case 3: $query = $this->db->get(’
            photo’, $limit, $start);
            break;
        case 4: $query = $this->db->get(’
            question’, $limit, $start);
            break;
    }
    return $query->result();
}

public function getCategories($user)
{
    $this->db->where( ’user_id’, $user );
    $this->db->order_by( ’name’, ’asc’);
    $query = $this->db->get(’category’);
    return $query->result();
}

public function addCategory($user, $name)
{
    $array = array(
                ”user_id” => $user,
                ”name” => $name
            );
    $this->db->insert(’category’, $array);
    }

    public function deleteCategory($id)
    {
        $this->db->where(’category_id’, $id);
        $query = $this->db->get(’category’);
        $row = $query->row();

        $array = array(”category” => ”all”);

        $this->db->where(’user_id’, $row->
            user_id);
        $this->db->where(’category’, $row->
            name);
        $this->db->update(’journal’, $array);

        $this->db->where(’user_id’, $row->
            user_id);
        $this->db->where(’category’, $row->
            name);
        $this->db->update(’reminder’, $array);

        $this->db->where(’user_id’, $row->
            user_id);
        $this->db->where(’category’, $row->
            name);
        $this->db->update(’photo’, $array);

        $this->db->where(’category_id’, $id);
        $this->db->delete(’category’);
    }
}
```

Listing 9: main.php

```
<!DOCTYPE html>
<html>
<!-- Make sure the <html> tag is set to the .
    full CSS class. Change the background
    image in the full.css file. -->

<head>

<title>Anterograde Amnesia Information System
    </title>

<!-- Bootstrap Core CSS -->
<link href=”<?=base_url(’assets/css/bootstrap.
    min.css’)?>” rel=”stylesheet”>

<!-- Custom CSS -->
<link href=”<?=base_url(’assets/css/app.css’)
    ?>” rel=”stylesheet”>

</head>

<body>
<center><img src=”<?=base_url(’assets/images/
    top.jpg’)?>”>
<div class=”row”>
<div class=”col-md-3”></div>
<div class=”col-md-1␣col-xs-4”><a href=”<?=
    base_url(’loginPage’)?>” class=”clear␣<?
    php␣if($content␣==␣’public/login.php’)␣
    echo␣”active”;␣?>”>Login</a></div>
<div class=”col-md-1”></div>
<div class=”col-md-2␣col-xs-4”>
<form method=”POST” id=”homeForm” action=”<?=
    base_url(’public’)?>”>
<input type=”hidden” name=”back” value=”back”>
<a onClick=”document.getElementById(’homeForm
    ’).submit();” class=”clear␣<?php␣if(
    $content␣==␣’public/main.php’)␣echo␣”
    active”;␣?>”>Home</a></div>
</form>
<div class=”col-md-1”></div>
<div class=”col-md-1␣col-xs-4”><a href=”<?=
    base_url(’request’)?>” class=”clear␣<?php
    ␣if($content␣!=␣’public/login.php’␣&&␣
    $content␣!=␣’public/main.php’)␣echo␣”
    active”;␣?>”>Register</a></div>
<div class=”col-md-3”></div>
</center>
</div>
<hr class=”grayLine”>
</center>
<?php include_once($content) ?>
<script src=”<?=base_url(’assets/js/jquery
    -1.11.3.min.js’)?>”></script>
<script src=”<?=base_url(’assets/js/bootstrap.
    min.js’)?>”></script>
</body>

<footer>
<h6 class=”text-right”><span class=”glyphicon␣
    glyphicon-copyright-mark” aria-hidden=”
    true”></span> University of the
```

```
Philippines Manila - Philippine General Hospital. All Rights Reserved 2016.</h6>
</footer>

</html>
```

Listing 10: home.php

```
<!DOCTYPE html>
<html>
<head>

<title>Anterograde Amnesia Information System</title>
<!-- Bootstrap Core CSS -->
<link href="<?=base_url('assets/css/bootstrap.min.css')?>" rel="stylesheet">

<!-- Custom CSS -->
<link href="<?=base_url('assets/css/app.css')?>" rel="stylesheet">

<!-- Custom CSS -->
<link href="<?=base_url('assets/css/sb-admin.css')?>" rel="stylesheet">
</head>

<body>
<div id="wrapper">
<!-- Navigation -->
<nav class="navbar␣navbar-inverse␣navbar-fixed-top" role="navigation">
<!-- Brand and toggle get grouped for better mobile display -->
<div class="navbar-header">
<a class="navbar-brand"><img src="<?=base_url('assets/images/uplogo.png')?>"></a>
<a class="navbar-brand" style="color:␣white;">Anterograde Amnesia Information System</a>
</div>
<!-- Top Menu Items -->
<ul class="nav␣navbar-right␣top-nav">
<?php
if($cookie->user_type==1 || $cookie->user_type==2){
?>
<form class="navbar-form␣navbar-left" role="search" name="search" method="POST" action="<?=base_url('user/search/1')?>">
<div class="form-group">
<input type="text" name="keyword" class="form-control" placeholder="Search">
</div>
<button type="submit" class="btn␣btn-default"><span class="glyphicon␣glyphicon-search" aria-hidden="true"></span></button>
</form>
<?php
}
?>
<li class="dropdown">
<a href="#" class="dropdown-toggle" data-toggle="dropdown"><i class="fa␣fa-user"></i><span class="glyphicon␣glyphicon-user" aria-hidden="true"></span> <?php echo $cookie->first_name . "␣" . $cookie->last_name; ?> <b class="caret"></b></a>
<ul class="dropdown-menu">
<?php
switch($cookie->user_type){
case 0:
?>
<li><a href="<?=base_url('sysad/editAccount')?>">Edit Account</a></li>
<li class="divider"></li>
<li><a href="javascript:{}" onclick="document.getElementById('logoutForm').submit();">Logout</a>
<form name="logoutForm" id="logoutForm" method="POST" action="<?=base_url('sysad/addUser')?>">

<?php
break;
case 1:
?>
<li><a href="<?=base_url('user/editAccount')?>">Edit Account</a></li>
<li class="divider"></li>
<li><a href="javascript:{}" onclick="document.getElementById('logoutForm').submit();">Logout</a>
<form name="logoutForm" id="logoutForm" method="POST" action="<?=base_url('patient/dashboard')?>">
<?php
break;
case 2:
?>
<li><a href="<?=base_url('user/editAccount')?>">Edit Account</a></li>
<li class="divider"></li>
<li><a href="javascript:{}" onclick="document.getElementById('logoutForm').submit();">Logout</a>
<form name="logoutForm" id="logoutForm" method="POST" action="<?=base_url('guardian/dashboard')?>">
<?php
break;
case 3:
?>
<li><a href="<?=base_url('ot/editAccount')?>">Edit Account</a></li>
<li class="divider"></li>
<li><a href="javascript:{}" onclick="document.getElementById('logoutForm').submit();">Logout</a>
<form name="logoutForm" id="logoutForm" method="POST" action="<?=base_url('ot/dashboard')?>">
<?php
break;
case 4:
?>
<li><a href="<?=base_url('publicUser/editAccount')?>">Edit Account</a></li>
<li class="divider"></li>
<li><a href="javascript:{}" onclick="document.getElementById('logoutForm').submit();">Logout</a>
<form name="logoutForm" id="logoutForm" method="POST" action="<?=base_url('publicUser/dashboard')?>">
<?php
break;
}
?>
<input type="hidden" name="logout" value="logout"></form></li>
</ul>
</li>
</ul>
<!-- Sidebar Menu Items - These collapse to the responsive navigation menu on small screens -->
<div class="collapse␣navbar-collapse␣navbar-ex1-collapse">
<ul class="nav␣navbar-nav␣side-nav">
<?php
switch($cookie->user_type){
case 0:
?>
<li class="<?php␣if($cookie->active␣==␣'dashboard')␣echo␣"active";␣?>">
<a href="<?=base_url('sysad/dashboard')?>"><span class="glyphicon␣glyphicon-th-large" aria-hidden="true"></span> Dashboard</a>
</li>

<li class="gray">
<a style="color:␣#000;"><span class="glyphicon␣glyphicon-plus" aria-hidden="true"></span> Add Users</a>
</li>
<li class="<?php␣if($cookie->active␣==␣'addUser')␣echo␣"active";␣?>">
<a href="<?=base_url('sysad/addUser')?>">&nbsp;&nbsp;&nbsp; Patient/Guardian</a>
</li>
<li class="<?php␣if($cookie->active␣==␣'addOT')␣echo␣"active";␣?>">
<a href="<?=base_url('sysad/addOT')?>">&nbsp;&nbsp;&nbsp; Therapist</a>
</li>
<li class="<?php␣if($cookie->active␣==␣'addSysad')␣echo␣"active";␣?>">
<a href="<?=base_url('sysad/addSysad')?>">&nbsp;&nbsp;&nbsp; System Admin</a>
</li>

<li class="<?php␣if($cookie->active␣==␣'assignTherapist')␣echo␣"active";␣?>">
<a href="<?=base_url('sysad/assignTherapist')?>"><span class="glyphicon␣glyphicon-pushpin" aria-hidden="true"></span> Assign Therapists</a>
</li>

<li class="gray">
<a style="color:␣#000;"><span class="glyphicon␣glyphicon-trash" aria-hidden="true"></span> Delete Users</a>
</li>
<li class="<?php␣if($cookie->active␣==␣'
      deletePatient')␣echo␣"active";␣?>">
<a href="<?=base_url('sysad/deletePatient')?>"
      >&nbsp; &nbsp; &nbsp; Patient</a>
</li>
<li class="<?php␣if($cookie->active␣==␣'
      deleteGuardian')␣echo␣"active";␣?>">
<a href="<?=base_url('sysad/deleteGuardian')?>
      ">&nbsp; &nbsp; &nbsp; Guardian</a>
</li>
<li class="<?php␣if($cookie->active␣==␣'
      deleteOT')␣echo␣"active";␣?>">
<a href="<?=base_url('sysad/deleteOT')?>">&
      nbsp; &nbsp; &nbsp; Therapist</a>
</li>
<li class="<?php␣if($cookie->active␣==␣'
      deleteSysad')␣echo␣"active";␣?>">
<a href="<?=base_url('sysad/deleteSysad')?>">&
      nbsp; &nbsp; &nbsp; System Admin</a>
</li>

<?php
break;

case 1:
?>
<li class="<?php␣if($cookie->active␣==␣'
      dashboard')␣echo␣"active";␣?>">
<a href="<?=base_url('patient/dashboard')?>"><
      span class="glyphicon␣glyphicon-th-large"
       aria-hidden="true"></span> Dashboard</a>
</li>

<li class="gray">
<a style="color:␣#000;"><span class="glyphicon
      ␣glyphicon-th-list" aria-hidden="true"></
      span> Entries</a>
</li>
<li class="<?php␣if($cookie->active␣==␣'
      journals')␣echo␣"active";␣?>">
<a href="<?=base_url('user/journals')?>">&nbsp
      ; &nbsp; &nbsp; Journal Entries</a>
</li>
<li class="<?php␣if($cookie->active␣==␣'
      reminders')␣echo␣"active";␣?>">
<a href="<?=base_url('user/reminders')?>">&
      nbsp; &nbsp; &nbsp; Activity Reminders</a
      >
</li>
<li class="<?php␣if($cookie->active␣==␣'photos
      ')␣echo␣"active";␣?>">
<a href="<?=base_url('user/photos')?>">&nbsp;
      &nbsp; &nbsp; Photos</a>
</li>

<li class="<?php␣if($cookie->active␣==␣'create
      ')␣echo␣"active";␣?>">
<a href="<?=base_url('user/create/1')?>"><span
       class="glyphicon␣glyphicon-plus" aria-
      hidden="true"></span> Create Entries</a>
</li>

<li class="gray">
<a style="color:␣#000;"><span class="glyphicon
      ␣glyphicon-education" aria-hidden="true"
      ></span> Memory Test</a>
</li>
<li class="<?php␣if($cookie->active␣==␣'
      personalTest')␣echo␣"active";␣?>">
<a href="<?=base_url('patient/personalTest')?>
      ">&nbsp; &nbsp; &nbsp; Personal Life</a>
</li>
<li class="<?php␣if($cookie->active␣==␣'
      photoRecognition')␣echo␣"active";␣?>">
<a href="<?=base_url('patient/photoRecognition
      ')?>">&nbsp; &nbsp; &nbsp; Photo
      Recognition</a>
</li>
<li class="<?php␣if($cookie->active␣==␣'
      generalKnowledge')␣echo␣"active";␣?>">
<a href="<?=base_url('patient/generalKnowledge
      ')?>">&nbsp; &nbsp; &nbsp; General
      Knowledge</a>
</li>
<li class="<?php␣if($cookie->active␣==␣'report
      ')␣echo␣"active";␣?>">
<a href="<?=base_url('user/report')?>"><span
      class="glyphicon␣glyphicon-stats" aria-
      hidden="true"></span> Report</a>
</li>
<li class="<?php␣if($cookie->active␣==␣'
      connections')␣echo␣"active";␣?>">
<a href="<?=base_url('patient/connections')?>"
      ><span class="glyphicon␣glyphicon-phone"
      aria-hidden="true"></span> Connections</a
      >
</li>
<?php
break;
```

```
case 2:
?>
<li class="<?php␣if($cookie->active␣==␣'
      dashboard')␣echo␣"active";␣?>">
<a href="<?=base_url('guardian/dashboard')?>"
      ><span class="glyphicon␣glyphicon-th-
      large" aria-hidden="true"></span>
      Dashboard</a>
</li>

<li class="gray">
<a style="color:␣#000;"><span class="glyphicon
      ␣glyphicon-th-list" aria-hidden="true"></
      span> Entries</a>
</li>
<li class="<?php␣if($cookie->active␣==␣'
      journals')␣echo␣"active";␣?>">
<a href="<?=base_url('user/journals')?>">&nbsp
      ; &nbsp; &nbsp; Journal Entries</a>
</li>
<li class="<?php␣if($cookie->active␣==␣'
      reminders')␣echo␣"active";␣?>">
<a href="<?=base_url('user/reminders')?>">&
      nbsp; &nbsp; &nbsp; Activity Reminders</a
      >
</li>
<li class="<?php␣if($cookie->active␣==␣'photos
      ')␣echo␣"active";␣?>">
<a href="<?=base_url('user/photos')?>">&nbsp;
      &nbsp; &nbsp; Photos</a>
</li>
<li class="<?php␣if($cookie->active␣==␣'
      questions')␣echo␣"active";␣?>">
<a href="<?=base_url('user/questions')?>">&
      nbsp; &nbsp; &nbsp; Test Questions</a>
</li>
<li class="<?php␣if($cookie->active␣==␣'
      categories')␣echo␣"active";␣?>">
<a href="<?=base_url('guardian/categories')?>"
      >&nbsp; &nbsp; &nbsp; Manage Categories</
      a>
</li>

<li class="<?php␣if($cookie->active␣==␣'create
      ')␣echo␣"active";␣?>">
<a href="<?=base_url('user/create/1')?>"><span
       class="glyphicon␣glyphicon-plus" aria-
      hidden="true"></span> Create Entries</a>
</li>
<li class="<?php␣if($cookie->active␣==␣'
      photoQuestion')␣echo␣"active";␣?>">
<a href="<?=base_url('guardian/photoQuestions
      ')?>"><span class="glyphicon␣glyphicon-
      picture" aria-hidden="true"></span>
      Create Photo Questions</a>
</li>

<li class="<?php␣if($cookie->active␣==␣'
      submissions')␣echo␣"active";␣?>">
<a href="<?=base_url('guardian/submissions')?>
      "><span class="glyphicon␣glyphicon-folder
      -open" aria-hidden="true"></span>
      Submissions</a>
</li>

<li class="gray">
<a style="color:␣#000;"><span class="glyphicon
      ␣glyphicon-user" aria-hidden="true"></
      span> Public Accounts</a>
</li>
<li class="<?php␣if($cookie->active␣==␣'
      userRequests')␣echo␣"active";␣?>">
<a href="<?=base_url('guardian/userRequests')
      ?>">&nbsp; &nbsp; &nbsp; Account Requests
      </a>
</li>
<li class="<?php␣if($cookie->active␣==␣'
      manageUsers')␣echo␣"active";␣?>">
<a href="<?=base_url('guardian/manageUsers')?>
      ">&nbsp; &nbsp; &nbsp; Manage Public
      Users</a>
</li>

<li class="<?php␣if($cookie->active␣==␣'report
      ')␣echo␣"active";␣?>">
<a href="<?=base_url('user/report')?>"><span
      class="glyphicon␣glyphicon-stats" aria-
      hidden="true"></span> Report</a>
</li>
<li class="<?php␣if($cookie->active␣==␣'
      connections')␣echo␣"active";␣?>">
<a href="<?=base_url('guardian/connections')?>
      "><span class="glyphicon␣glyphicon-phone"
       aria-hidden="true"></span> Connections</
      a>
</li>
<?php
break;
```

```
case 3:
?>
<li class=”<?php␣if($cookie->active␣==␣'
      dashboard')␣echo␣”active”;␣?>”>
<a href=”<?=base_url('ot/dashboard')?>”><span
      class=”glyphicon␣glyphicon-th-large” aria
      -hidden=”true”></span> Dashboard</a>
</li>
<li class=”<?php␣if($cookie->active␣==␣'
      patients')␣echo␣”active”;␣?>”>
<a href=”<?=base_url('ot/patients')?>”><span
      class=”glyphicon␣glyphicon-user” aria-
      hidden=”true”></span> Patients</a>
</li>
<li class=”<?php␣if($cookie->active␣==␣'
      reminders')␣echo␣”active”;␣?>”>
<a href=”<?=base_url('ot/reminders')?>”><span
      class=”glyphicon␣glyphicon-list-alt” aria
      -hidden=”true”></span> Reminders</a>
</li>
<li class=”gray”>
<a style=”color:␣#000;”><span class=”glyphicon
      ␣glyphicon-upload” aria-hidden=”true”></
      span> Submit Entries</a>
</li>
<li class=”<?php␣if($cookie->active␣==␣'
      create1')␣echo␣”active”;␣?>”>
<a href=”<?=base_url('ot/create/1')?>”>&nbsp;
      &nbsp; &nbsp; Journal Entries</a>
</li>
<li class=”<?php␣if($cookie->active␣==␣'
      create2')␣echo␣”active”;␣?>”>
<a href=”<?=base_url('ot/create/2')?>”>&nbsp;
      &nbsp; &nbsp; Activity Reminders</a>
</li>
<li class=”<?php␣if($cookie->active␣==␣'
      create3')␣echo␣”active”;␣?>”>
<a href=”<?=base_url('ot/create/3')?>”>&nbsp;
      &nbsp; &nbsp; Photos</a>
</li>
<li class=”<?php␣if($cookie->active␣==␣'
      create4')␣echo␣”active”;␣?>”>
<a href=”<?=base_url('ot/create/4')?>”>&nbsp;
      &nbsp; &nbsp; Memory Test Questions</a>
</li>
<li class=”<?php␣if($cookie->active␣==␣'report
      ')␣echo␣”active”;␣?>”>
<a href=”<?=base_url('ot/report')?>”><span
      class=”glyphicon␣glyphicon-stats” aria-
      hidden=”true”></span> Reports</a>
</li>
<?php
break;
case 4:
?>
<li class=”<?php␣if($cookie->active␣==␣'
      dashboard')␣echo␣”active”;␣?>”>
<a href=”<?=base_url('publicUser/dashboard')?>
      ”><span class=”glyphicon␣glyphicon-th-
      large” aria-hidden=”true”></span>
      Dashboard</a>
</li>
<li class=”gray”>
<a style=”color:␣#000;”><span class=”glyphicon
      ␣glyphicon-upload” aria-hidden=”true”></
      span> Submit Entries</a>
</li>
<li class=”<?php␣if($cookie->active␣==␣'
      create1')␣echo␣”active”;␣?>”>
<a href=”<?=base_url('publicUser/create/1')?>”
      >&nbsp; &nbsp; &nbsp; Journal Entries</a>
</li>
<li class=”<?php␣if($cookie->active␣==␣'
      create2')␣echo␣”active”;␣?>”>
<a href=”<?=base_url('publicUser/create/2')?>”
      >&nbsp; &nbsp; &nbsp; Activity Reminders
      </a>
</li>
<li class=”<?php␣if($cookie->active␣==␣'
      create3')␣echo␣”active”;␣?>”>
<a href=”<?=base_url('publicUser/create/3')?>”
      >&nbsp; &nbsp; &nbsp; Photos</a>
</li>
<li class=”<?php␣if($cookie->active␣==␣'
      create4')␣echo␣”active”;␣?>”>
<a href=”<?=base_url('publicUser/create/4')?>”
      >&nbsp; &nbsp; &nbsp; Memory Test
      Questions</a>
</li>
<?php
break;
}
?>
</ul>
</div>
<!-- /.navbar-collapse -->
</nav>

<div id=”page-wrapper”>
<div class=”container-fluid”>
<!-- Page Heading -->
<div class=”row”>
<?php include_once($content) ?>
</div>
</div>
<!-- /.container-fluid -->
</div>
<!-- /#page-wrapper -->
</div>
<!-- /#wrapper -->
<script src=”<?=base_url('assets/js/jquery
      -1.11.3.min.js')?>”></script>
<script src=”<?=base_url('assets/js/bootstrap.
      min.js')?>”></script>
</body>
</html>
```

Listing 11: public/main.php

```
<div class=”row”>
<div class=”col-md-3”></div>
<div class=”col-md-6”>
<h5>The fast-growing modern technology is
      evident in various health institutions.
      Through Health Informatics, information
      technology-based innovations for
      delivering healthcare continues to
      develop. Anterograde Amnesia Information
      System, or simply AAIS, is no different.
      AAIS is a web-based system which is
      designed to provide technological
      assistance to patients with such
      condition. With the main features
      mentioned below, this system aims to help
       patients with anterograde amnesia
      improve their coping mechanisms for the
      memories that they create and lose
      everyday.</h5>
</div>
</div>
<div class=”row”>
<div class=”col-md-3”></div>
<div class=”col-md-3␣col-xs-6”>
<div class=”blackPanel␣panel-body”><div class=
      ”col-xs-3”><img src=”<?=base_url('assets/
      images/entries.png')?>”></div>
<div class=”col-xs-9”>Patients can keep
      journal entries, photos, and reminders to
       help him cope in his daily activities.</
      div>
</div><br>
<div class=”blackPanel␣panel-body”><div class=
      ”col-xs-3”><img src=”<?=base_url('assets/
      images/test.png')?>”></div>
<div class=”col-xs-9”>Patients are able to
      take three kinds of memory tests: quiz on
       personal life events and general
      knowledge, and photo recognition. </div>
</div>
</div>
<div class=”col-md-3␣col-xs-6”>
<div class=”blackPanel␣panel-body”><div class=
      ”col-xs-3”><img src=”<?=base_url('assets/
      images/graph.png')?>”></div>
<div class=”col-xs-9”>Patients, guardians, and
       therapists can generate the graphical
      progress reports (based on the tests) of
      the patients they are connected with. </
      div>
</div><br>
<div class=”blackPanel␣panel-body”><div class=
      ”col-xs-3”><img src=”<?=base_url('assets/
      images/contribute.png')?>”></div>
<div class=”col-xs-9”>The general public can
      submit entries to patient, subject to the
       guardian's␣approval,␣to␣remotely␣help␣
      him␣keep␣track␣of␣events.</div>
</div>
</div>
</div>
```

Listing 12: public.php

```
<?php
if( !$this->AAIS_model->hasCookie('
      thePublicCookie') ){
$array = array( ”isLoggedIn” => 0 );
$this->AAIS_model->setCookie($array, '
      thePublicCookie');
$cookie = json_decode(json_encode($array)); //
       cookie is initialized in the controller
}
if( $_SERVER['REQUEST_METHOD'] == 'POST' &&
      $cookie->isLoggedIn == 0 ){
```

```
$patientID = $_POST['patientID'];
$here = 0;
foreach($patients as $patient){
if($patient->public_id == $patientID){
$name = $patient->first_name . "␣" . $patient
    ->last_name;
$array =
array(
"isLoggedIn" => 1,
"user_id" => $patient->user_id,
"name" => $patient->first_name . "␣" .
    $patient->last_name,
"step" => 1,
"pageType" => 1,
"error" => 0
);

$this->AAIS_model->setCookie($array, '
    thePublicCookie');
redirect( base_url('public') );
}
}
if($here==0){
$array = array( "error" => 2 );
$this->AAIS_model->setCookie($array, '
    thePublicCookie');
$cookie = json_decode(json_encode($array));
redirect(base_url());
}

}
if ( !!$cookie->isLoggedIn )
include_once('requestAccount.php');
else{
$this->publicCookie = $this->AAIS_model->
    deleteCookie('thePublicCookie');
redirect(base_url());
}
```

Listing 13: login.php

```
<br><br>
<div class="row">
<div class="col-md-4␣col-xs-4"></div>
<div class="col-md-4␣col-xs-4">
<div>
<form method="POST" action="<?=base_url('login
    ')?>">
<div class="form-group">
<label for="username">Username</label>
<input name="username" type="text" class="form
    -control" id="username" placeholder="
    Username">
</div>
<div class="form-group">
<label for="password">Password</label>
<input name="password" type="password" class="
    form-control" id="password" placeholder="
    Password">
</div>
<h5><a data-toggle="modal" data-target="#
    myModal" style="cursor:␣pointer;">
Forgot Password? </a></h5><button type="submit
    " class="btn␣btn-default␣pull-right">
    Login</button>
</form>
</div>
</div>
<div class="col-md-4␣col-xs-4"></div>
</div>

<!-- Modal -->
<div class="modal␣fade" id="myModal" tabindex=
    "-1" role="dialog" aria-labelledby="
    myModalLabel">
<div class="modal-dialog" role="document">
<div class="modal-content">
<div class="modal-header">
<button type="button" class="close" data-
    dismiss="modal" aria-label="Close"><span
    aria-hidden="true">&times;</span></button
    >
<h4 class="modal-title" id="myModalLabel">
    Forgot Password</h4>
</div>
<div class="modal-body">
You will receive an e-mail containing your
    password in the email you are using for
    your account.<br><br><br>
<form method="POST" action="<?=base_url('
    forgotPassword')?>">
<div class="form-inline">
<label for="username">Username</label>
<input name="username" type="text" class="form
    -control" placeholder="sampleuser05">
</div>
</div>
<div class="modal-footer">
<button type="submit" class="btn␣btn-primary">
    Submit</button>
</form>
</div>
</div>
</div>
</div>
```

Listing 14: request.php

```
<br><center><h4 class="title">Request for an
    account</h4></center><br>
<div class="row">
<div class="col-md-4␣col-xs-4"></div>
<div class="col-md-4␣col-xs-4">
<div>
<form method="POST" action="<?=base_url('
    public')?>">
<div class="form-group">
<label for="patientID">Patient ID</label>
<input name="patientID" type="text" id="
    patientID" class="form-control"
    placeholder="Public␣ID">
</div>
<button type="submit" class="btn␣btn-default␣
    pull-right">Submit</button>
</form>
</div>
</div>
<div class="col-md-4␣col-xs-4"></div>
</div>
```

Listing 15: requestAccount.php

```
<br>
<div class="pad">
<div class="row">
<div class="col-md-3"></div>
<div class="col-md-6">
<h4 class="title">Patient Name: <?php echo
    $cookie->name?></h4>
<h6><i>Request for a new account. If approved,
     you will be able to submit entries for
    the patient.</i></h6>
<h6 style="color:red;"><i>All fields are
    required except the note.</i></h6>
<div class="panel␣panel-default␣panel-body">
<?php
if($cookie->error==1){
?>
<div class="alert␣alert-danger" role="alert">
<span class="glyphicon␣glyphicon-exclamation-
    sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Please
    check your input. All fields, except the
    note, are required.
</div>
<?php
$publicCookie = $this->AAIS_model->getCookie('
    thePublicCookie');
$publicCookie->error = 0;
$this->AAIS_model->setCookie( (array)
    $publicCookie, 'thePublicCookie' );
}
else if($cookie->error==2){
?>
<div class="alert␣alert-danger" role="alert">
<span class="glyphicon␣glyphicon-exclamation-
    sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Invalid
    birthdate.
</div>
<?php
$publicCookie = $this->AAIS_model->getCookie('
    thePublicCookie');
$publicCookie->error = 0;
$this->AAIS_model->setCookie( (array)
    $publicCookie, 'thePublicCookie' );
}
if($cookie->error!=3){
?>
<form method="POST" action="<?=base_url('
    public/submitAccount')?>" enctype="
    multipart/form-data">
<table class="add">
<col width="150">
<col width="500">
<tr>
<td>First Name</td>
<td><input type="text" name="firstName" id="
    firstName" class="form-control"></td>
</tr>
<tr>
<td>Last Name</td>
<td><input type="text" name="lastName" id="
     lastName" class="form-control"></td>
</tr>
<tr>
<td>Sex</td>
<td><select name="sex" id="sex" class="form-
     control">
<option value="M" selected='selected'>Male</
     option>
<option value="F">Female</option>
</select>
</td>
</tr>
<tr>
<td>Birthday</td>
<td><input type="date" name="birthday" id="
     birthday" class="form-control"></td>
</tr>
<tr>
<td>Email Address</td>
<td><input type="text" name="email" id="email"
      class="form-control"></td>
</tr>
<tr>
<td>Profile Picture</td>
<td><input type="file" name="picture" id="
     picture" class="form-control" ng-required
     ="true"></td>
</tr>
<tr>
<td>Note to guardian</td>
<td><textarea name="note" id="note" class="
     form-control" rows="5" maxlength="250"></
     textarea></td>
</tr>
</table>
<button type="submit" class="btn␣btn-primary␣
     pull-right">Submit</button>
</form>
<?php
}
else if($cookie->error==3){
$publicCookie = $this->AAIS_model->getCookie('
     thePublicCookie');
$publicCookie->error = 0;
$this->AAIS_model->setCookie( (array)
     $publicCookie, 'thePublicCookie' );
?>
<h4 class="text-center">Your account has been
     successfully requested. An e-mail will be
      sent to you when your account is
     confirmed.</h4>
<?php
}
?>
</div>
<br><br>
</div>
</div>
</div>
```

Listing 16: sysad/dashboard.php

```
<h1 class="page-header">Dashboard <small>Users
      Overview</small></h1>


<h4 class="line"><span>System Administrators
     (<?php echo count($admins); ?>)</span></
     h4>
<div class="blah">
<div class="row">
<div class="col-md-3">
<div class="panel␣panel-default">
<table style="font-size:␣14px;␣border:␣solid␣2
     px␣black;">
<col width="100">
<col width="10">
<col width="300">
<tr>
<td rowspan='2'><img src="<?=base_url('assets/
     users/'.$cookie->profile_picture)?>"
     class="smallPic"></td>
<td></td>
<td><?php echo $cookie->first_name . "␣" .
     $cookie->last_name; ?></td>
</tr>
<tr>
<td></td>
<td><?php echo $cookie->username; ?></td>
</tr>
</table>
</div>
</div>

<?php
foreach($admins as $a){
if($a->user_id != $cookie->user_id){
?>
<div class="col-md-3">
<div class="panel␣panel-default">
<table style="font-size:␣14px;">
<col width="100">
<col width="10">
<col width="300">
<tr>
<td rowspan='2'><img src="<?=base_url('assets/
     users/'.$a->profile_picture)?>" class="
     smallPic"></td>
<td></td>
<td><?php echo $a->first_name . "␣" . $a->
     last_name; ?></td>
</tr>
<tr>
<td></td>
<td><?php echo $a->username; ?></td>
</tr>
</table>
</div>
</div>
<?php
}
}
?>
</div>

<h4 class="line"><span>Therapists (<?php echo
     count($therapists); ?>)</span></h4>
<div class="blah">
<div class="row">
<?php
foreach($therapists as $t){
?>
<div class="col-md-3">
<div class="panel␣panel-default">
<table style="font-size:␣14px;">
<col width="100">
<col width="10">
<col width="300">
<tr>
<td rowspan='2'><img src="<?=base_url('assets/
     users/'.$t->profile_picture)?>" class="
     smallPic"></td>
<td></td>
<td><?php echo $t->first_name . "␣" . $t->
     last_name; ?></td>
</tr>
<tr>
<td></td>
<td><?php echo $t->username; ?></td>
</tr>
</table>
</div>
</div>
<?php
}
if(count($therapists)==0){
?>
<div class="col-md-12">
<h4 class="text-center">No registered
     therapist.</h4>
</div>
<?php
}
?>
</div>

<h4 class="line"><span>Patients/Guardians (<?
     php echo count($connections); ?> pairs)</
     span></h4>
<div class="row">
<?php
if(count($connections)==0){
?>
<div class="col-md-12">
<h4 class="text-center">No registered patients
     .</h4>
</div>
<?php
}
else{
?>
<center>
<div class="col-md-3">Patients</div>
<div class="col-md-3">Guardians</div>
<div class="col-md-3">Patients</div>
<div class="col-md-3">Guardians</div>
</center>
<?php
}
?>
</div>

<div class="blah">
<div class="row">
<?php
```

```
$i=0;
foreach($connections as $c){
$i++;
?>
<div class="col-md-3">
<div class="panel␣panel-default">
<table style="font-size:␣14px;">
<col width="100">
<col width="10">
<col width="300">
<tr>
<td rowspan='2'><img src="<?=base_url('assets/
     users/'.$c['patient']->profile_picture)?>
     " class="smallPic"></td>
<td></td>
<td><?php echo $c['patient']->first_name . "␣"
      . $c['patient']->last_name; ?></td>
</tr>
<tr>
<td></td>
<td><?php echo $c['patient']->username; ?></td
     >
</tr>
</table>
</div>
</div>
<?php
if($i%2 == 1){
?>
<div class="col-md-3" style="border-right:␣
     solid␣2px␣black;">
<?php
}
else{
?>
<div class="col-md-3">
<?php
}
?>
<div class="panel␣panel-default">
<table style="font-size:␣14px;">
<col width="100">
<col width="10">
<col width="300">
<tr>
<td rowspan='2'><img src="<?=base_url('assets/
     users/'.$c['guardian']->profile_picture)
     ?>" class="smallPic"></td>
<td></td>
<td><?php echo $c['guardian']->first_name . "␣
     " . $c['guardian']->last_name; ?></td>
</tr>
<tr>
<td></td>
<td><?php echo $c['guardian']->username; ?></
     td>
</tr>
</table>
</div>
</div>

<?php
}
?>
</div>
</div>
```

Listing 17: sysad/editAccount.php

```
<div class="pad">
<h1 class="page-header">Edit Account <small>
     System Administrator</small></h1>
<?php
if($cookie->error==1){
$cookie->error = 0;
$this->AAIS_model->setCookie( (array) $cookie,
      'theUserCookie');
?>
<div class="alert␣alert-danger" role="alert">
<span class="glyphicon␣glyphicon-exclamation-
     sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Please
     check your input. All fields are required
     .
</div>
<?php
}

else if($cookie->error==2){
$cookie->error = 0;
$this->AAIS_model->setCookie( (array) $cookie,
      'theUserCookie');
?>
<div class="alert␣alert-success" role="alert">
<span class="glyphicon␣glyphicon-ok-circle"
     aria-hidden="true"></span>
<span class="sr-only">Success! </span> You
     have successfully edited your account.
</div>
<?php
}
?>

<form method="POST" action="<?=base_url('sysad
     /editAccount/stepTwo')?>" enctype="
     multipart/form-data">
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-6">
<h3 class="title">A C C O U N T &nbsp; I N F O
      R M A T I O N</h3>
</div>
</div>
<div class="col-md-3">
</div>
<div class="col-md-6">
<div class="panel␣panel-default">
<div class="panel-body">
<table>
<col width="200">
<col width="500">
<tr>
<td><img src="<?=base_url('assets/users/'.
     $cookie->profile_picture)?>" class="dp"
     ></td>
<td><input type="file" name="dp" id="dp" class
     ="form-control" ng-required="true"></td>
</tr>
</table>
<br><hr><br>
<table class="add">
<col width="200">
<col width="500">
<tr>
<td>First Name</td>
<td><input type="text" name="firstName" id="
     firstName" class="form-control" value="<?
     php␣echo␣$cookie->first_name␣?>"></td>
</tr>
<tr>
<td>Last Name</td>
<td><input type="text" name="lastName" id="
     lastName" class="form-control" value="<?
     php␣echo␣$cookie->last_name␣?>"></td>
</tr>
<tr>
<td>Sex</td>
<td><select name="sex" id="sex" class="form-
     control">
<?php
if($cookie->sex == 'F'){
?>
<option value="M">Male</option>
<option value="F" selected='selected'>Female</
     option>
<?php
}
else{
?>
<option value="M" selected='selected'>Male</
     option>
<option value="F">Female</option>
<?php
}
?>
</select>
</td>
</tr>
<tr>
<td>Birthday</td>
<td><input type="date" name="birthday" id="
     birthday" class="form-control" value="<?
     php␣echo␣$cookie->birthday␣?>"></td>
</tr>
<tr>
<td>Email Address</td>
<td><input type="text" name="email" id="email"
      class="form-control" value="<?php␣echo␣
     $cookie->email␣?>"></td>
</tr>
<tr>
<td>Username</td>
<td><input type="text" name="username" id="
     username" class="form-control" value="<?
     php␣echo␣$cookie->username␣?>"></td>
</tr>
<tr>
<td>Password</td>
<td><input type="password" name="password" id=
     "password" class="form-control" value="<?
     php␣echo␣$cookie->password␣?>"></td>
</tr>
</table>
</div>
</div>
```

```
</div>

<div class="row">
<div class="col-md-8">
</div>
<div class="col-md-1">
<button class="btn␣btn-primary" type="submit">
    Submit</button>
</div>
</div>
</form>
</div>
```

Listing 18: addUser/main.php

```
<div class="pad">
<h1 class="page-header">Add New Account <small
    >Patient/Guardian</small></h1>
<?php
switch($cookie->step){
case 1: include_once('addPatient.php');
break;
case 2: include_once('addGuardian.php');
break;
case 3: include_once('selectOT.php');
break;
case 4: include_once('checkNewAccount.php');
break;
case 5: include_once('generate.php');
break;
default: break;
}

?>

</div>
```

Listing 19: addUser/addPatient.php

```
<div class="progress">
<div class="progress-bar␣progress-bar-striped"
     role="progressbar" style="width:␣20%;">
Step 1: Input Patient Information
</div>
</div>

<?php
if($cookie->error==1){
$cookie->error = 0;
$this->AAIS_model->setCookie( (array) $cookie,
     'theUserCookie');
?>
<div class="alert␣alert-danger" role="alert">
<span class="glyphicon␣glyphicon-exclamation-
    sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Please
    check your input. All fields are required
    . Email address and birthday should be
    valid.
</div>
<?php
}
?>

<form method="POST" action="<?=base_url('sysad
    /addUser/stepTwo')?>">
<div class="row">
<div class="col-md-2">
</div>
<div class="col-md-6">
<h3 class="title"><p align='center'>P A T I E
    N T &nbsp; I N F O R M A T I O N</p></h3>
</div>
<div class="col-md-1">
<br>
<button class="pull-right␣clear" type="submit"
    ><span class="glyphicon␣glyphicon-arrow-
    right␣title" aria-hidden="true"></span>
    </button>
</div>
</div>
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-6">
<div class="panel␣panel-default">
<div class="panel-body">

<table class="add">
<col width="150">
<col width="500">
<tr>
<td>First Name</td>
<td><input type="text" name="firstName" id="
    firstName" class="form-control" value="<?
    php␣echo␣$addCookie->patientFirst␣?>"></
    td>
</tr>
<tr>
<td>Last Name</td>
<td><input type="text" name="lastName" id="
    lastName" class="form-control" value="<?
    php␣echo␣$addCookie->patientLast␣?>"></td
    >
</tr>
<tr>
<td>Sex</td>
<td><select name="sex" id="sex" class="form-
    control">
<?php
if($addCookie->patientSex == 'F'){
?>
<option value="M">Male</option>
<option value="F" selected='selected'>Female</
    option>
<?php
}
else{
?>
<option value="M" selected='selected'>Male</
    option>
<option value="F">Female</option>
<?php
}
?>
</select>
</td>
</tr>
<tr>
<td>Birthday</td>
<td><input type="date" name="birthday" id="
    birthday" class="form-control" value="<?
    php␣echo␣$addCookie->patientBirthday␣?>"
    ></td>
</tr>
<tr>
<td>Email Address</td>
<td><input type="text" name="email" id="email"
     class="form-control" value="<?php␣echo␣
    $addCookie->patientEmail␣?>"></td>
</tr>
</table>
</div>
</div>
</div>
</div>
</form>
```

Listing 20: addUser/addGuardian.php

```
<div class="progress">
<div class="progress-bar␣progress-bar-striped"
     role="progressbar" style="width:␣40%;">
Step 2: Input Guardian Information
</div>
</div>

<?php
if($cookie->error==1){
$cookie->error = 0;
$this->AAIS_model->setCookie( (array) $cookie,
     'theUserCookie');
?>
<div class="alert␣alert-danger" role="alert">
<span class="glyphicon␣glyphicon-exclamation-
    sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Please
    check your input. All fields are required
    . Email address and birthday should be
    valid.
</div>
<?php
}
?>

<form method="POST" action="<?=base_url('sysad
    /addUser/stepThree')?>">
<div class="row">
<div class="col-md-2">
</div>
<div class="col-md-6">
<h3 class="title"><p align='center'>G U A R D
    I A N &nbsp; I N F O R M A T I O N</p></
    h3>
</div>
<div class="col-md-1">
<br>
<button class="pull-right␣clear" type="submit"
    ><span class="glyphicon␣glyphicon-arrow-
    right␣title" aria-hidden="true"></span></
    button>
<a href="<?=base_url('sysad/addUser')?>" class
```

```
      =”pull-right”><span class=”glyphicon␣
      glyphicon-arrow-left␣title” aria-hidden=”
      true”></span> </a>
</div>
</div>
<div class=”col-md-3”>
</div>
<div class=”col-md-6”>
<div class=”panel␣panel-default”>
<div class=”panel-body”>

<table class=”add”>
<col width=”150”>
<col width=”500”>
<tr>
<td>First Name</td>
<td><input type=”text” name=”firstName” id=”
      firstName” class=”form-control” value=”<?
      php␣echo␣$addCookie->guardianFirst␣?>”></
      td>
</tr>
<tr>
<td>Last Name</td>
<td><input type=”text” name=”lastName” id=”
      lastName” class=”form-control” value=”<?
      php␣echo␣$addCookie->guardianLast␣?>”></
      td>
</tr>
<tr>
<td>Sex</td>
<td><select name=”sex” id=”sex” class=”form-
      control”>
<?php
if($addCookie->guardianSex == ’F’){
?>
<option value=”M”>Male</option>
<option value=”F” selected=’selected’>Female</
      option>
<?php
}
else{
?>
<option value=”M” selected=’selected’>Male</
      option>
<option value=”F”>Female</option>
<?php
}
?>
</select>
</td>
</tr>
<tr>
<td>Birthday</td>
<td><input type=”date” name=”birthday” id=”
      birthday” class=”form-control” value=”<?
      php␣echo␣$addCookie->guardianBirthday␣?>”
      ></td>
</tr>
<tr>
<td>Email Address</td>
<td><input type=”text” name=”email” id=”email”
        class=”form-control” value=”<?php␣echo␣
      $addCookie->guardianEmail␣?>”></td>
</tr>
</table>
</div>
</div>
</div>
</form>
```

Listing 21: addUser/selectOT.php

```
<div class=”progress”>
<div class=”progress-bar␣progress-bar-striped”
        role=”progressbar” style=”width:␣60%;”>
Step 3: Assign a Therapist
</div>
</div>

<form method=”POST” action=”<?=base_url(’sysad
      /addUser/stepFour’)?>”>
<div class=”row”>
<div class=”col-md-2”>
</div>
<div class=”col-md-6”>
<h3 class=”title”><p align=’center’>S E L E C
      T &nbsp; T H E R A P I S T</p></h3>
</div>
<div class=”col-md-1”>
<br>
<button class=”pull-right␣clear” type=”submit”
      ><span class=”glyphicon␣glyphicon-arrow-
      right␣title” aria-hidden=”true”></span></
      button>
<a href=”<?=base_url(’sysad/addUser/stepTwo’)
      ?>” class=”pull-right”><span class=”
      glyphicon␣glyphicon-arrow-left␣title”
      aria-hidden=”true”></span></a>
</div>
</div>
<div class=”row”>
<div class=”col-md-3”>
</div>
<div class=”col-md-6”>
<div class=”panel␣panel-default”>
<div class=”panel-body”>
<div class=”pad”>
<select name=”therapist” id=”therapist” class=
      ”form-control”>
<?php
foreach($therapists as $therapist){
if($therapist->user_id == $addCookie->ot_id){
echo ”<option␣value=’”.$therapist->user_id.”’␣
      selected=’selected’>”.
$therapist->first_name . ”␣” . $therapist->
      last_name . ”</option>”;
}
else{
echo ”<option␣value=’”.$therapist->user_id.”’>
      ”.
$therapist->first_name . ”␣” . $therapist->
      last_name . ”</option>”;
}
}
?>
</select>
</div>
</div>
</div>
</div>
</div>
</form>
```

Listing 22: addUser/checkNewAccount.php

```
<div class=”progress”>
<div class=”progress-bar␣progress-bar-striped”
        role=”progressbar” style=”width:␣80%;”>
Step 4: Verify Details
</div>
</div>

<form method=”POST” action=”<?=base_url(’sysad
      /addUser/stepFive’)?>”>
<div class=”row”>
<div class=”col-md-2”>
</div>
<div class=”col-md-6”>
<h3 class=”title”><p align=’center’>V E R I F
      Y &nbsp; D E T A I L S</p></h3><br>
</div>
<div class=”col-md-1”>
<br>
<button class=”pull-right␣clear” type=”submit”
      ><span class=”glyphicon␣glyphicon-arrow-
      right␣title” aria-hidden=”true”></span></
      button>
<a href=”<?=base_url(’sysad/addUser/stepThree
      ’)?>” class=”pull-right”><span class=”
      glyphicon␣glyphicon-arrow-left␣title”
      aria-hidden=”true”></span></a>
</div>
</div>
<div class=”row”>
<div class=”col-md-3”>
</div>
<div class=”col-md-6”>
<h5 class=”error”>Please double check your
      input. Click next to create the accounts
      .</h5><br>
</div>
</div>
<div class=”row”>
<div class=”col-md-3”>
</div>
<div class=”col-md-6”>
<h4>P A T I E N T</h4>
<div class=”panel␣panel-info2”>
<div class=”panel-body”>
<table class=”add”>
<col width=”150”>
<col width=”500”>
<tr>
<td>First Name</td>
<td><?php echo $addCookie->patientFirst; ?></
      td>
</tr>
<tr>
<td>Last Name</td>
<td><?php echo $addCookie->patientLast; ?></td
      >
</tr>
```

```
<tr>
<td>Email Address</td>
<td><?php echo $addCookie->patientEmail; ?></
    td>
</tr>
</table>
</div>
</div>
</div>
</div>
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-6">
<h4>G U A R D I A N</h4>
<div class="panel␣panel-info2">
<div class="panel-body">
<table class="add">
<col width="150">
<col width="500">
<tr>
<td>First Name</td>
<td><?php echo $addCookie->guardianFirst; ?></
    td>
</tr>
<tr>
<td>Last Name</td>
<td><?php echo $addCookie->guardianLast; ?></
    td>
</tr>
<tr>
<td>Email Address</td>
<td><?php echo $addCookie->guardianEmail; ?></
    td>
</tr>
</table>
</div>
</div>
</div>
</div>
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-6">
<h4>T H E R A P I S T</h4>
<div class="panel␣panel-info2">
<div class="panel-body">
<table class="add">
<col width="150">
<col width="500">
<tr>
<td>Therapist</td>
<td><?php echo $therapist->first_name . "␣" .
    $therapist->last_name; ?></td>
</tr>
</table>
</div>
</div>
</div>
</div>
</form>
```

Listing 23: addUser/generate.php

```
<div class="progress">
<div class="progress-bar␣progress-bar-striped"
     role="progressbar" style="width:␣100%;">
Step 5: Usernames and Passwords
</div>
</div>
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-8">
<h3 class="title">U S E R N A M E &nbsp; & &
    nbsp; P A S S W O R D</h3><br>
</div>
</div>
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-8">
<h5 class="error">Please take note of your
    initial account information.
You can change your username and password when
     you login.</h5><br>
</div>
</div>
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-6">
<h4>P A T I E N T</h4>
<div class="panel␣panel-info2">
<div class="panel-body">
<table class="add">
<col width="150">
<col width="500">
<tr>
<td>Username</td>
<td><?php echo $addCookie->patientUsername;
    ?></td>
</tr>
<tr>
<td>Password</td>
<td><?php echo $addCookie->patientPassword;
    ?></td>
</tr>
</table>
</div>
</div>
</div>
</div>
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-6">
<h4>G U A R D I A N</h4>
<div class="panel␣panel-info2">
<div class="panel-body">
<table class="add">
<col width="150">
<col width="500">
<tr>
<td>Username</td>
<td><?php echo $addCookie->guardianUsername;
    ?></td>
</tr>
<tr>
<td>Password</td>
<td><?php echo $addCookie->guardianPassword;
    ?></td>
</tr>
</table>
</div>
</div>
</div>
</div>
<center>
<a href="<?=base_url('sysad/addUser')?>">
    Create another account</a>
</center>
```

Listing 24: addOT/main.php

```
<div class="pad">
<h1 class="page-header">Add New Account <small
    >Therapist</small></h1>
<div class="progress">
<div class="progress-bar␣progress-bar-striped"
     role="progressbar" style="width:␣50%;">
Step 1: Input Therapist Information
</div>
</div>

<?php
if($cookie->error==1){
$cookie->error = 0;
$this->AAIS_model->setCookie( (array) $cookie,
     'theUserCookie');
?>
<div class="alert␣alert-danger" role="alert">
<span class="glyphicon␣glyphicon-exclamation-
    sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Please
    check your input. All fields are required
    . Email address and birthday should be
    valid.
</div>
<?php
}
?>

<form method="POST" action="<?=base_url('sysad
    /addOT/stepTwo')?>">
<div class="row">
<div class="col-md-2">
</div>
<div class="col-md-6">
<h3 class="title"><p align="center">T H E R A
    P I S T &nbsp; I N F O R M A T I O N</p
    ></h3>
</div>
<div class="col-md-1">
<br>
<button class="pull-right␣clear" type="submit"
    ><span class="glyphicon␣glyphicon-arrow-
    right␣title" aria-hidden="true"></span></
    button>
</div>
</div>
<div class="row">
<div class="col-md-3">
</div>
```

```
<div class="col-md-6">
<div class="panel_panel-default">
<div class="panel-body">

<table class="add">
<col width="150">
<col width="500">
<tr>
<td>First Name</td>
<td><input type="text" name="firstName" id="
     firstName" class="form-control"></td>
</tr>
<tr>
<td>Last Name</td>
<td><input type="text" name="lastName" id="
     lastName" class="form-control"></td>
</tr>
<tr>
<td>Sex</td>
<td><select name="sex" id="sex" class="form-
     control">
<option value="M">Male</option>
<option value="F">Female</option>
</select>
</td>
</tr>
<tr>
<td>Birthday</td>
<td><input type="date" name="birthday" id="
     birthday" class="form-control"></td>
</tr>
<tr>
<td>Email Address</td>
<td><input type="text" name="email" id="email"
      class="form-control"></td>
</tr>
</table>
</div>
</div>
</div>
</div>
</form>
</div>
```

Listing 25: addOT/generate.php

```
<div class="pad">
<h3>Add New Account</h3>
<div class="progress">
<div class="progress-bar_progress-bar-striped"
      role="progressbar" style="width:_100%;">
Step 2: Record Username and Password
</div>
</div>
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-8">
<h3 class="title">U S E R N A M E &nbsp; & &
     nbsp; P A S S W O R D</h3><br>
</div>
</div>
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-8">
<h5 class="error">Please take note of your
     initial account information.
You can change your username and password when
      you login.</h5><br>
</div>
</div>
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-6">
<h4>T H E R A P I S T</h4>
<div class="panel_panel-info2">
<div class="panel-body">
<table class="add">
<col width="150">
<col width="500">
<tr>
<td>Username</td>
<td><?php echo $details['username']; ?></td>
</tr>
<tr>
<td>Password</td>
<td><?php echo $details['password'] ?></td>
</tr>
</table>
</div>
</div>
</div>
</div>
<center>
<a href="<?=base_url('sysad/addOT')?>">Create
     another account</a>
</center>
</div>
```

Listing 26: addSysad/main.php

```
<div class="pad">
<h1 class="page-header">Add New Account <small
     >System Administrator</small></h1>
<div class="progress">
<div class="progress-bar_progress-bar-striped"
      role="progressbar" style="width:_50%;">
Step 1: Input System Admin Information
</div>
</div>

<?php
if($cookie->error==1){
$cookie->error = 0;
$this->AAIS_model->setCookie( (array) $cookie,
      'theUserCookie');
?>
<div class="alert_alert-danger" role="alert">
<span class="glyphicon_glyphicon-exclamation-
     sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Please
     check your input. All fields are required
     . Email address and birthday should be
     valid.
</div>
<?php
}
?>

<form method="POST" action="<?=base_url('sysad
     /addSysad/stepTwo')?>">
<div class="row">
<div class="col-md-2">
</div>
<div class="col-md-6">
<h3 class="title"><p align="center">A D M I N
     &nbsp; I N F O R M A T I O N</p></h3>
</div>
<div class="col-md-1">
<br>
<button class="pull-right_clear" type="submit"
     ><span class="glyphicon_glyphicon-arrow-
     right_title" aria-hidden="true"></span></
     button>
</div>
</div>
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-6">
<div class="panel_panel-default">
<div class="panel-body">

<table class="add">
<col width="150">
<col width="500">
<tr>
<td>First Name</td>
<td><input type="text" name="firstName" id="
     firstName" class="form-control"></td>
</tr>
<tr>
<td>Last Name</td>
<td><input type="text" name="lastName" id="
     lastName" class="form-control"></td>
</tr>
<tr>
<td>Sex</td>
<td><select name="sex" id="sex" class="form-
     control">
<option value="M">Male</option>
<option value="F">Female</option>
</select>
</td>
</tr>
<tr>
<td>Birthday</td>
<td><input type="date" name="birthday" id="
     birthday" class="form-control"></td>
</tr>
<tr>
<td>Email Address</td>
<td><input type="text" name="email" id="email"
      class="form-control"></td>
</tr>
</table>
</div>
</div>
</div>
</div>
</form>
</div>
```

Listing 27: addSysad/generate.php

```
<div class="pad">
<h3>Add New Account</h3>
<div class="progress">
<div class="progress-bar progress-bar-striped"
      role="progressbar" style="width: 100%;">
Step 2: Record Username and Password
</div>
</div>
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-8">
<h3 class="title">U S E R N A M E &nbsp; & &
     nbsp; P A S S W O R D</h3><br>
</div>
</div>
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-8">
<h5 class="error">Please take note of your
     initial account information.
You can change your username and password when
      you login.</h5><br>
</div>
</div>
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-6">
<h4>A D M I N</h4>
<div class="panel panel-info2">
<div class="panel-body">
<table class="add">
<col width="150">
<col width="500">
<tr>
<td>Username</td>
<td><?php echo $details['username']; ?></td>
</tr>
<tr>
<td>Password</td>
<td><?php echo $details['password'] ?></td>
</tr>
</table>
</div>
</div>
</div>
</div>
<center>
<a href="<?=base_url('sysad/addSysad')?>">
     Create another account</a>
</center>
</div>
```

Listing 28: edit/main.php

```
<div class="pad">
<?php
switch($cookie->step){
case 1: include_once("editPublicID.php");
break;
case 2: include_once("assignTherapist.php");
break;
default: break;
}
?>
</div>
```

Listing 29: edit/assignTherapist.php

```
<h1 class="page-header">Edit Users <small>
     Assign Therapists</small></h1>

<div class="row">
<div class="col-md-4">
<div class="panel panel-info2 panel-body">
In this module, you can re-assign occupational
      therapists to patients. All you have to
     do is select a therapist from the list
     and click the Assign button to re-assign
     a therapist for that specific patient.
</div>
</div>
<div class="col-md-7">
<?php
if($cookie->error==2){
$cookie->error = 0;
$this->AAIS_model->setCookie( (array) $cookie,
      'theUserCookie');
?>
<div class="alert alert-success" role="alert">
<span class="glyphicon glyphicon-ok-circle"
     aria-hidden="true"></span>
<span class="sr-only">Success!</span> You have
      re-assigned a new therapist for that
     user.
</div>
<?php
}
?>
<table>
<col width="500">
<col width="300">
<col width="100">
<?php
foreach ($patients as $p) {

?>
<form method="POST" action="<?=base_url('sysad
     /assignNewTherapist')?>">
<input type="hidden" name="patient" value="<?
     php echo $p->user_id; ?>">
<tr>
<td><?php echo $p->first_name . " " . $p->
     last_name; ?></td>
<td><select name="therapist" id="therapist"
     class="form-control">
<?php
foreach($therapists as $t){
if($t->user_id == $p->therapist_id){
echo "<option value='".$t->user_id."' selected
     ='selected'>".
$t->first_name . " " . $t->last_name . "</
     option>";
}
else{
echo "<option value='".$t->user_id."'>".
$t->first_name . " " . $t->last_name . "</
     option>";
}
}
?>
</td>
<td>&nbsp; <button class="btn btn-primary"
     type="submit">Assign</button></td>
</tr>
</form>

<?php
}
echo "</table>";
if(count($patients) == 0)
echo "<center><h4>No registered patients.</h4
     ></center>";
?>
</div>
</div>
```

Listing 30: delete/main.php

```
<div class="pad">
<?php
switch($cookie->step){
case 1: include_once('deletePatient.php');
break;
case 2: include_once('deleteGuardian.php');
break;
case 3: include_once('deleteOT.php');
break;
case 4: include_once('deleteSysad.php');
break;
default: break;
}

?>

</div>
```

Listing 31: delete/deletePatient.php

```
<h1 class="page-header">Delete User <small>
     Patient</small></h1>
<div class="row">
<div class="col-md-2">
</div>
<div class="col-md-9">
<center><h3 class="title">P A T I E N T &nbsp;
      L I S T</h3>
<h5 class="error">Note: If you delete a
     patient's account, his/her guardian's
     account will also be deleted</h5>
</center>
</div>
</div>
<div class="row">
<div class="col-md-2">
</div>
<div class="col-md-9">
<div class="panel panel-default">
```

```
<div class="panel-body">
<table class="add">
<col width="300">
<col width="700">

<tr>
<td>
<form method="POST" action="<?=base_url('sysad
     /deletePatient/search')?>">
<div class="input-group">
<input type="text" name="search" size="15"
     class="form-control" placeholder="Search
     ...">
<span class="input-group-btn">
<button class="btn␣btn-default" type="submit"
     ><span class="glyphicon␣glyphicon-search"
      aria-hidden="true"></span></button>
</span>
</div>
</form>
</td>
<?php
$i=0;
foreach($patients as $row){
$i++;
break;
}
if($i>0){
?>
<td>
<form method="POST" action="<?=base_url('sysad
     /deletePatient/all')?>" onsubmit="return␣
     confirm('Are␣you␣sure␣you␣want␣to␣delete␣
     all␣patients␣and␣their␣guardians?');">
<button class="btn␣btn-danger␣pull-right" type
     ="submit"> <span class="glyphicon␣
     glyphicon-trash" aria-hidden="true"></
     span>&nbsp; Delete All</button>
</form>
</td>
<?php
}
else
echo "<td></td>"
?>
</tr>
<tr>
<td>
<br>
<form method="POST" action="<?=base_url('sysad
     /deletePatient')?>">
<button class="btn␣btn-primary" type="submit">
     Clear Search</button>
</form>
</td>
<td></td>
</tr>

<?php
if(count($patients) == 0){
?>
<tr>
<td></td>
<td>
<center><h4>No search result found.</h4></
     center>
</td>
</tr>
<?php
}
foreach($patients as $row){
?>

<tr>
<td></td>
<td>
<form method="POST" action="<?=base_url('sysad
     /deletePatient/stepTwo')?>" onsubmit="
     return␣confirm('Are␣you␣sure␣you␣want␣to␣
     delete␣this␣patient␣and␣his/her␣guardian
     ?');">
<input type="hidden" name="user_id" id="
     user_id" class="form-control" value="<?
     php␣echo␣$row->user_id;␣?>">
<button class="btn␣btn-default" type="submit">
      <span class="glyphicon␣glyphicon-trash"
     aria-hidden="true"></span></button>
<?php
echo $row->first_name . "␣" . $row->last_name
     . "␣(" . $row->username . ")";
?>
</form>
</td>
</tr>

<?php
}
?>
</table>
</div>
</div>
</div>
</div>
```

Listing 32: delete/deleteGuardian.php

```
<h1 class="page-header">Delete User <small>
     Guardian</small></h1>
<div class="row">
<div class="col-md-2">
</div>
<div class="col-md-9">
<center><h3 class="title">G U A R D I A N&
     nbsp; L I S T</h3>
<h5 class="error">Note: If you delete a
     guardian's␣account,␣you␣will␣have␣to␣
     create␣a␣new␣guardian␣account␣for␣the␣
     patient␣linked␣to␣the␣deleted␣guardian.</
     h5>
</center>
</div>
</div>
<div␣class="row">
<div␣class="col-md-2">
</div>
<div␣class="col-md-9">
<div␣class="panel␣panel-default">
<div␣class="panel-body">
<table␣class="add">
<col␣width="300">
<col␣width="700">

<tr>
<td>
<form␣method="POST"␣action="<?=base_url('sysad
     /deleteGuardian/search')?>">
<div␣class="input-group">
<input␣type="text"␣name="search"␣size="15"␣
     class="form-control"␣placeholder="Search
     ...">
<span␣class="input-group-btn">
<button␣class="btn␣btn-default"␣type="submit
     "><span␣class="glyphicon␣glyphicon-search
     "␣aria-hidden="true"></span></button>
</span>
</div>
</form>
</td>
<td></td>
</tr>
<tr>
<td>
<br>
<form␣method="POST"␣action="<?=base_url('sysad
     /deleteGuardian')?>">
<button␣class="btn␣btn-primary"␣type="submit">
     Clear␣Search</button>
</form>
</td>
<td></td>
</tr>
<?php
if(count($guardians)␣==␣0){
?>
<tr>
<td></td>
<td>
<center><h4>No␣search␣result␣found.</h4></
     center>
</td>
</tr>
<?php
}
foreach($guardians␣as␣$row){
?>

<tr>
<td></td>
<td>
<form␣method="POST"␣action="<?=base_url('sysad
     /deleteGuardian/stepTwo')?>"␣onsubmit="
     return␣confirm('Are you sure you want to
     delete this guardian?');">
<input␣type="hidden"␣name="user_id"␣id="
     user_id"␣class="form-control"␣value="<?
     php␣echo␣$row->user_id;␣?>">
<button␣class="btn␣btn-default"␣type="submit">
     ␣<span␣class="glyphicon␣glyphicon-trash"␣
     aria-hidden="true"></span></button>
<?php
echo␣$row->first_name␣.␣"␣"␣.␣$row->last_name␣
     .␣"␣("␣.␣$row->username␣.␣")";
?>
</form>
</td>
</tr>
<?php
}
?>
</table>
</div>
</div>
</div>
</div>
```

Listing 33: delete/newGuardian.php

```
<div class="pad">
<h1 class="page-header">Delete User <small>
     Guardian</small></h1>
<h3>Create New Guardian</h3>
<?php
if($cookie->error==1){
$cookie->error = 0;
$this->AAIS_model->setCookie( (array) $cookie,
     'theUserCookie');
?>
<div class="alert␣alert-danger" role="alert">
<span class="glyphicon␣glyphicon-exclamation-
     sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Please
     check your input. All fields are required
     . Email Address should be valid.
</div>
<?php
}
?>

<form method="POST" action="<?=base_url('sysad
     /deleteGuardian/newStepTwo')?>">
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-6">
<center><h3 class="title">A D D &nbsp; G U A R
     D I A N</h3>
<h4>For <?php echo $patient->first_name . "␣"
     . $patient->last_name; ?></h4>
</center>
</div>
</div>

<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-6">
<div class="panel␣panel-default">
<div class="panel-body">

<table class="add">
<col width="150">
<col width="500">
<tr>
<td>First Name</td>
<td><input type="text" name="firstName" id="
     firstName" class="form-control"></td>
</tr>
<tr>
<td>Last Name</td>
<td><input type="text" name="lastName" id="
     lastName" class="form-control"></td>
</tr>
<tr>
<td>Sex</td>
<td><select name="sex" id="sex" class="form-
     control">
<option value="M">Male</option>
<option value="F">Female</option>
</select>
</td>
</tr>
<tr>
<td>Birthday</td>
<td><input type="date" name="birthday" id="
     birthday" class="form-control"></td>
</tr>
<tr>
<td>Email Address</td>
<td><input type="text" name="email" id="email"
     class="form-control"></td>
</tr>
</table>
</div>
</div>
</div>
</div>

<div class="row">
<div class="col-md-8">
</div>
<div class="col-md-1">
<button class="btn␣btn-primary" type="submit">
     Submit</button>
</div>
</div>

</form>

</div>
```

Listing 34: delete/generateNewGuardian.php

```
<div class="pad">
<h1 class="page-header">Delete User <small>
     Guardian</small></h1>
<h3>New Account</h3>
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-8">
<h3 class="title">U S E R N A M E &nbsp; & &
     nbsp; P A S S W O R D</h3><br>
</div>
</div>
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-8">
<h5 class="error">Please take note of your
     initial account information.
You can change your username and password when
     you login.</h5><br>
</div>
</div>
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-6">
<h4>Guardian of <?php echo $patient->
     first_name . "␣" . $patient->last_name;
     ?></h4>
<div class="panel␣panel-info2">
<div class="panel-body">
<table class="add">
<col width="150">
<col width="500">
<tr>
<td>Username</td>
<td><?php echo $details['username']; ?></td>
</tr>
<tr>
<td>Password</td>
<td><?php echo $details['password'] ?></td>
</tr>
</table>
</div>
</div>
</div>
</div>
<center>
<a href="<?=base_url('sysad/deleteGuardian')?>
     ">Delete another guardian</a>
</center>
</div>
```

Listing 35: delete/deleteOT.php

```
<h1 class="page-header">Delete User <small>
     Therapist</small></h1>
<div class="row">
<div class="col-md-2">
</div>
<div class="col-md-9">
<center><h3 class="title">T H E R A P I S T &
     nbsp; L I S T</h3>
<h5 class="error">Note: If you delete a
     therapist's␣account,␣you␣will␣have␣to␣re-
     assign␣another␣therapist␣to␣each␣patient␣
     linked␣to␣the␣deleted␣therapist.</h5>
</center>
</div>
</div>
<div␣class="row">
<div␣class="col-md-2">
</div>
<div␣class="col-md-9">
<div␣class="panel␣panel-default">
<div␣class="panel-body">
<table␣class="add">
<col␣width="300">
<col␣width="700">

<tr>
<td>
<form␣method="POST"␣action="<?=base_url('sysad
     /deleteOT/search')?>">
```

```
<div␣class="input-group">
<input␣type="text"␣name="search"␣size="15"␣
      class="form-control"␣placeholder="Search
      ..." >
<span␣class="input-group-btn">
<button␣class="btn␣btn-default"␣type="submit
      "><span␣class="glyphicon␣glyphicon-search
      "␣aria-hidden="true"></span></button>
</span>
</div>
</form>
</td>
<td></td>
</tr>
<tr>
<td>
<br>
<form␣method="POST"␣action="<?=base_url('sysad
      /deleteOT')?>">
<button␣class="btn␣btn-primary"␣type="submit">
      Clear␣Search</button>
</form>
</td>
<td></td>
</tr>

<?php
$i=0;
foreach($therapists␣as␣$row){
$i++;
}
if(count($therapists)␣==␣0){
?>
<tr>
<td></td>
<td>
<center><h4>No␣search␣result␣found.</h4></
      center>
</td>
</tr>
<?php
}
foreach($therapists␣as␣$row){
?>

<tr>
<td></td>
<td>
<form␣method="POST"␣action="<?=base_url('sysad
      /deleteOT/stepTwo')?>"␣onsubmit="return␣
      confirm('Are you sure you want to delete
      this therapist?');">
<input␣type="hidden"␣name="user_id"␣id="
      user_id"␣class="form-control"␣value="<?
      php␣echo␣$row->user_id;␣?>">
<?php
if($i>1␣||␣$search==1){
?>
<button␣class="btn␣btn-default"␣type="submit">
      ␣<span␣class="glyphicon␣glyphicon-trash"␣
      aria-hidden="true"></span></button>
<?php
}
echo␣$row->first_name␣.␣"␣"␣.␣$row->last_name␣
      .␣"␣("␣.␣$row->username␣.␣")";
?>
</form>
</td>
</tr>

<?php
}
?>
</table>
</div>
</div>
</div>
</div>
```

Listing 36: delete/newOT.php

```
<div class="pad">
<h1 class="page-header">Delete User <small>
      Therapist</small></h1>
<h3>Assign Therapists</h3>

<form method="POST" action="<?=base_url('sysad
      /deleteOT/new')?>">
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-6">
<center><h3 class="title">A S S I G N</h3></
      center>
</div>
</div>
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-6">
<div class="panel␣panel-default">
<div class="panel-body">

<table class="add">
<col width="150">
<col width="500">
<?php
foreach($patients as $row){
?>
<tr>
<td><?php echo $row->first_name . "␣" . $row->
      last_name;?></td>
<td>
<select name="therapists[]" id="therapist"
      class="form-control">
<?php
foreach($therapists as $therapist){
if($therapist->user_id != $current){
echo "<option␣value='".$therapist->user_id."'>
      ".
$therapist->first_name . "␣" . $therapist->
      last_name . "</option>";
}
}
?>
</select>
</td>
</tr>
<input type="hidden" name="patients[]" value="
      <?php␣echo␣$row->user_id␣?>">
<?php
}
?>
<input type="hidden" name="current" value="<?
      php␣echo␣$current␣?>">
</table>
</div>
</div>
</div>
</div>

<div class="row">
<div class="col-md-8">
</div>
<div class="col-md-1">
<button class="btn␣btn-primary" type="submit">
      Submit</button>
</div>
</div>

</form>

</div>
```

Listing 37: delete/generateNewOT.php

```
<div class="pad">
<h1 class="page-header">Delete User <small>
      Therapist</small></h1>
<h3>New Therapists</h3>
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-6">
<center><h3 class="title">N E W &nbsp; &nbsp;
      A S S I G N M E N T S</h3></center>
</div>
</div>

<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-6">
<div class="panel␣panel-info2">
<div class="panel-body">

<table class="add">
<col width="200">
<col width="300">
<tr>
<td><u>Patient</u></td>
<td><u>Therapist</u></td>
</tr>
<?php
for($i=0; $i<count($patients); $i++){
?>
<tr>
<td><?php echo $patients[$i]->first_name . "␣"
      . $patients[$i]->last_name;?></td>
<td><?php echo $therapists[$i]->first_name . "
      ␣" . $therapists[$i]->last_name;?></td>
</tr>
<?php
}
?>
</table>
</div>
</div>
</div>
</div>

<center>
<a href="<?=base_url('sysad/deleteOT')?>">
     Delete another therapist</a>
</center>

</div>
```

Listing 38: delete/deleteSysad.php

```
<h1 class="page-header">Delete User <small>
     System Administrator</small></h1>
<div class="row">
<div class="col-md-2">
</div>
<div class="col-md-9">
<center><h3 class="title">A D M I N &nbsp; L I
      S T</h3>
</center>
</div>
</div>
<div class="row">
<div class="col-md-2">
</div>
<div class="col-md-9">
<div class="panel␣panel-default">
<div class="panel-body">
<table class="add">
<col width="300">
<col width="700">

<tr>
<td>
<form method="POST" action="<?=base_url('sysad
     /deleteSysad/search')?>">
<div class="input-group">
<input type="text" name="search" size="15"
     class="form-control" placeholder="Search
     ...">
<span class="input-group-btn">
<button class="btn␣btn-default" type="submit"
     ><span class="glyphicon␣glyphicon-search"
      aria-hidden="true"></span></button>
</span>
</div>
</form>
</td>
<td></td>
</tr>
<tr>
<td>
<br>
<form method="POST" action="<?=base_url('sysad
     /deleteSysad')?>">
<button class="btn␣btn-primary" type="submit">
     Clear Search</button>
</form>
</td>
<td></td>
</tr>
<?php
if(count($admins) == 0){
?>
<tr>
<td></td>
<td>
<center><h4>No search result found.</h4></
     center>
</td>
</tr>
<?php
}
foreach($admins as $row){
if($row->user_id != $cookie->user_id){
?>

<tr>
<td></td>
<td>
<form method="POST" action="<?=base_url('sysad
     /deleteSysad/stepTwo')?>" onsubmit="
     return␣confirm('Are␣you␣sure␣you␣want␣to␣
     delete␣this␣admin?');">
<input type="hidden" name="user_id" id="
     user_id" class="form-control" value="<?
     php␣echo␣$row->user_id;␣?>">
<button class="btn␣btn-default" type="submit">
      <span class="glyphicon␣glyphicon-trash"
     aria-hidden="true"></span></button>
<?php
echo $row->first_name . "␣" . $row->last_name
     . "␣(" . $row->username . ")";
?>
</form>
</td>
</tr>

<?php
}
}
?>
</table>
</div>
</div>
</div>
</div>
```

Listing 39: user/editAccount.php

```
<div class="pad">
<h1 class="page-header">Edit Account
<small>
<?php
if($cookie->user_type==1)
echo "Patient";
else
echo "Guardian";
?>
</small></h1>
<?php
if($cookie->error==1){
$cookie->error = 0;
$this->AAIS_model->setCookie( (array) $cookie,
      'theUserCookie');
?>
<div class="alert␣alert-danger" role="alert">
<span class="glyphicon␣glyphicon-exclamation-
     sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Please
     check your input. All fields are required
     .
</div>
<?php
}

else if($cookie->error==2){
$cookie->error = 0;
$this->AAIS_model->setCookie( (array) $cookie,
      'theUserCookie');
?>
<div class="alert␣alert-success" role="alert">
<span class="glyphicon␣glyphicon-ok-circle"
     aria-hidden="true"></span>
<span class="sr-only">Success! </span> You
     have successfully edited your account.
</div>
<?php
}
else if($cookie->error==3){
$cookie->error = 0;
$this->AAIS_model->setCookie( (array) $cookie,
      'theUserCookie');
?>
<div class="alert␣alert-success" role="alert">
<span class="glyphicon␣glyphicon-ok-circle"
     aria-hidden="true"></span>
<span class="sr-only">Success! </span> You
     have successfully requested for a new
     public ID for the patient.
</div>
<?php
}
?>

<form method="POST" action="<?=base_url('user/
     editAccount/stepTwo')?>" enctype="
     multipart/form-data">
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-6">
<h3 class="title">A C C O U N T &nbsp; I N F O
      R M A T I O N</h3>
</div>
</div>
<div class="col-md-3">
</div>
<div class="col-md-6">
<div class="panel␣panel-default">
<div class="panel-body">
<table>
<col width="200">
<col width="500">
<tr>
<td><img src="<?=base_url('assets/users/'.
     $cookie->profile_picture)?>" class="dp"
     ></td>
```

```
<td><input type="file" name="dp" id="dp" class
     ="form-control" ng-required="true"></td>
</tr>
</table>
<br><hr><br>
<table class="add">
<col width="200">
<col width="500">
<tr>
<td>First Name</td>
<td><input type="text" name="firstName" id="
     firstName" class="form-control" value="<?
     php echo $cookie->first_name ?>"></td>
</tr>
<tr>
<td>Last Name</td>
<td><input type="text" name="lastName" id="
     lastName" class="form-control" value="<?
     php echo $cookie->last_name ?>"></td>
</tr>
<tr>
<td>Sex</td>
<td><select name="sex" id="sex" class="form-
     control">
<?php
if($cookie->sex == 'F'){
?>
<option value="M">Male</option>
<option value="F" selected='selected'>Female</
     option>
<?php
}
else{
?>
<option value="M" selected='selected'>Male</
     option>
<option value="F">Female</option>
<?php
}
?>
</select>
</td>
</tr>
<tr>
<td>Birthday</td>
<td><input type="date" name="birthday" id="
     birthday" class="form-control" value="<?
     php echo $cookie->birthday ?>"></td>
</tr>
<tr>
<td>Email Address</td>
<td><input type="text" name="email" id="email"
      class="form-control" value="<?php echo 
     $cookie->email ?>"></td>
</tr>
<tr>
<td>Username</td>
<td><input type="text" name="username" id="
     username" class="form-control" value="<?
     php echo $cookie->username ?>"></td>
</tr>
<tr>
<td>Password</td>
<td><input type="password" name="password" id=
     "password" class="form-control" value="<?
     php echo $cookie->password ?>"></td>
</tr>
<tr>
<td>Patient's Public ID</td>
<td><?php echo $cookie->public_id ; ?>
</td>
</tr>
</table>
</div>
</div>
</div>

<div class="row">
<div class="col-md-8">
</div>
<div class="col-md-1">
<button class="btn btn-primary" type="submit">
     Submit</button>
</div>
</div>
</form>
</div>
```

Listing 40: create/main.php

```
<div class="pad">
<h1 class="page-header">Create Entries <small>
     Add journal, reminders, photos
<?php
if($cookie->user_type == 2)
echo ", questions";
?></small></h1>
<ul class="nav nav-tabs">
<li role="presentation" class="<?php if($entry
     ->pageType == 1) echo "active"; ?>"><a
     href="<?=base_url("user/create/1")?>">
<span class="glyphicon glyphicon-pencil" aria-
     hidden="true"></span> Journal</a></li>
<li role="presentation" class="<?php if($entry
     ->pageType == 2) echo "active"; ?>"><a
     href="<?=base_url("user/create/2")?>">
<span class="glyphicon glyphicon-list-alt"
     aria-hidden="true"></span> Reminder</a></
     li>
<li role="presentation" class="<?php if($entry
     ->pageType == 3) echo "active"; ?>"><a
     href="<?=base_url("user/create/3")?>">
<span class="glyphicon glyphicon-picture" aria
     -hidden="true"></span> Photo</a></li>
<?php
if($cookie->user_type == 2){
?>
<li role="presentation" class="<?php if($entry
     ->pageType == 4) echo "active"; ?>"><a
     href="<?=base_url("user/create/4")?>">
<span class="glyphicon glyphicon-education"
     aria-hidden="true"></span> Memory Test</a
     ></li>
<?php
}
?>
</ul>
<br>
<div class="row">
<div class="col-md-4">
<?php
switch($entry->pageType){
case 1: echo "Journal entries are accounts of 
     recent events that are relevant to the 
     patient. When submitting an entry, try to
      make the title as informative as 
     possible. Also, try to make the details 
     detailed but not too much to avoid 
     confusing the patient.";
break;
case 2: echo "Activity reminders are very 
     helpful for patients to remember their 
     appointments and/or activities to be done
      in the coming days/weeks/months. When 
     submitting a reminder, put all the 
     relevant details including the 4 Ws (who,
      what, when, where) as much as possible."
     ;
break;
case 3: echo "Photos are very important for 
     patients. Visual representations and 
     evidences for the existence of a memory 
     can help patients remember more of the 
     things that they have to.";
break;
case 4: echo "Memory Test Questions can be of 
     two types: (1) Personal, which are 
     questions on the personal level of the 
     patient, and (2) General Knowledge, which
      are questions known by the general 
     public such as the name of the current 
     president or the national fruit of the 
     Philippines.";
break;
}
?>
</div>

<div class="col-md-8">
<div class="panel panel-default">
<div class="panel-body">
<?php
if($entry->error==1){
?>
<div class="alert alert-danger" role="alert">
<span class="glyphicon glyphicon-exclamation-
     sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Please
     check your input. All fields are required
     .
</div>
<?php
$entry->error = 0;
$this->AAIS_model->setCookie( (array) $entry,
     'theSubmissionCookie' );
}

else if($entry->error==2){
?>
<div class="alert alert-success" role="alert">
<span class="glyphicon glyphicon-ok-circle"
     aria-hidden="true"></span>
<span class="sr-only">Success! </span> You
     have successfully submitted an entry.
</div>
<?php
$entry->error = 0;
$this->AAIS_model->setCookie( (array) $entry ,
    'theSubmissionCookie' );
}

else if($entry->error==3){
?>
<div class="alert␣alert-danger" role="alert">
<span class="glyphicon␣glyphicon-exclamation-
    sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Invalid
    date!
</div>
<?php
$entry->error = 0;
$this->AAIS_model->setCookie( (array) $entry ,
    'theSubmissionCookie' );
}

switch($entry->pageType){
case 1: include_once("journal.php");
break;
case 2: include_once("reminder.php");
break;
case 3: include_once("photo.php");
break;
case 4: include_once("question.php");
default: break;
}
?>
</div>
</div>
</div>
</div>

</div>
```

Listing 41: create/journal.php

```
<form method="POST" action="<?=base_url('user/
    submit/1')?>">
<div class="form-group">
<label for="date">Event Date</label>
<input type="date" name="date" id="date" class
    ="form-control">
</div>
<div class="form-group">
<label for="title">Title</label>
<input type="text" name="title" id="title"
    class="form-control">
</div>
<div class="form-group">
<label for="details">Details</label>
<textarea name="details" id="details" class="
    form-control" rows="8"></textarea>
</div>
<div class="form-group">
<label for="category">Category</label>
<select name="category" id="category" class="
    form-control">
<option value="all">-</option>
<?php
foreach($categories as $c){
?>
<option value="<?php␣echo␣$c->name␣?>"><?php
    echo $c->name; ?></option>
<?php
}
?>
</select>
</div>
<button type="submit" class="btn␣pull-right␣
    btn-primary">Submit</button>
</form>
<br><br>
```

Listing 42: create/photo.php

```
<form method="POST" action="<?=base_url('user/
    submit/3')?>" enctype="multipart/form-
    data">
<div class="form-group">
<label for="date">Date Taken</label>
<input type="date" name="date" id="date" class
    ="form-control">
</div>
<div class="form-group">
<label for="title">Upload Photo (2MB max file
    size)</label>
<input type="file" name="title" id="title"
    class="form-control" ng-required="true">
</div>
<div class="form-group">
<label for="details">Caption (250 characters
    max)</label>
<textarea name="details" id="details" class="
    form-control" rows="4" maxlength="250"></
    textarea>
</div>
<div class="form-group">
<label for="category">Category</label>
<select name="category" id="category" class="
    form-control">
<option value="all">-</option>
<?php
foreach($categories as $c){
?>
<option value="<?php␣echo␣$c->name␣?>"><?php
    echo $c->name; ?></option>
<?php
}
?>
</select>
</div>
<button type="submit" class="btn␣pull-right␣
    btn-primary">Submit</button>
</form>
```

Listing 43: create/question.php

```
<form method="POST" action="<?=base_url('user/
    submit/4')?>" enctype="multipart/form-
    data">
<div class="form-group">
<label for="question">Question</label>
<input type="text" name="question" id="
    question" class="form-control">
</div>
<div class="form-group">
<label for="type">Question Type</label>
<select name="type" id="type" class="form-
    control">
<option value="1">Personal Question</option>
<option value="3">General Knowledge</option>
</select>
</div>
<div class="form-group">
<label for="title">Upload Photo <i>(optional ,
     2MB max file size)</i></label>
<input type="file" name="filename" id="
    filename" class="form-control" ng-
    required="true">
</div>
<div class="form-group">
<label for="choiceA">Choice A</label>
<input type="text" name="choiceA" id="choiceA"
     class="form-control">


<label for="choiceB">Choice B</label>
<input type="text" name="choiceB" id="choiceB"
     class="form-control">

<label for="choiceC">Choice C</label>
<input type="text" name="choiceC" id="choiceC"
     class="form-control">

<label for="choiceD">Choice D</label>
<input type="text" name="choiceD" id="choiceD"
     class="form-control">
</div>
<div class="form-group">
<label for="answer">Correct Answer</label>
<select name="answer" id="answer" class="form-
    control">
<option value="A">A</option>
<option value="B">B</option>
<option value="C">C</option>
<option value="D">D</option>
</select>
</div>
<button type="submit" class="btn␣pull-right␣
    btn-primary">Submit</button>
</form>
<br><br>
```

Listing 44: create/reminder.php

```
<form method="POST" action="<?=base_url('user/
    submit/2')?>">
<div class="form-group">
<label for="date">Date and Time</label>
<input type="datetime-local" name="date" id="
    date" class="form-control">
</div>
<div class="form-group">
<label for="title">Title</label>
<input type="text" name="title" id="title"
    class="form-control">
</div>
```

```
<div class="form-group">
<label for="details">Details</label>
<textarea name="details" id="details" class="
     form-control" rows="4"></textarea>
</div>
<div class="form-group">
<label for="category">Category</label>
<select name="category" id="category" class="
     form-control">
<option value="all">-</option>
<?php
foreach($categories as $c){
?>
<option value="<?php␣echo␣$c->name␣?>"><?php
     echo $c->name; ?></option>
<?php
}
?>
</select>
</div>
<button type="submit" class="btn␣pull-right␣
     btn-primary">Submit</button>
</form>
```

Listing 45: create/success.php

```
<div class="col-md-2">
</div>
<center>
<div class="panel␣panel-info2">
<div class="panel-body">
<h3>You have successfully submitted an entry
     .</h3>
<a href="<?=base_url("user/create/".$type)?>">
     Submit another entry.</a>
</div>
</div>
</center>

<div class="col-md-2">
</div>
```

Listing 46: journals/main.php

```
<div class="pad">
<h1 class="page-header">Journal Entries <small
     >View, edit, delete journal entries</
     small></h1>
<div class="row">
<div class="col-md-4">
<form method="POST" action="<?=base_url('user/
     filterJournals')?>">
<div class="form-group">
<label for="category"><span class="glyphicon␣
     glyphicon-tag" aria-hidden="true"></span>
      Category</label>
<select name="category" id="category" class="
     form-control">
<option value="all">All</option>
<?php
foreach($categories as $c){
?>
<option value="<?php␣echo␣$c->name␣?>"><?php
     echo $c->name; ?></option>
<?php
}
?>
</select>
</div>
<button type="submit" class="btn␣pull-right␣
     btn-primary">Filter</button>
</form>
<br><br>
<div class="panel␣panel-info2">
<div class="panel-body">
Journal entries are accounts of recent events
     that are relevant. You can edit journal
     entries to add or edit information about
     the entry by clicking on the pen button
     below the one you wish to edit. You can
     also delete journa entries by clicking on
      the trash button below the one you wish
     to delete.
<br>Please be reminded that this is a
     collection of entries that were created/
     submitted either by the patient, his
     guardian, his therapist, and the general
     public that were approved by the guardian
     .
</div>
</div>
</div>

<div class="col-md-8">
<h4>Filter: <?php echo $cookie->category; ?></
     h4>
<div class="panel␣panel-default">
<div class="panel-body">
<?php
for ($i = 0; $i < count($journals); ++$i) {
echo "<h3>" . $journals[$i]->title . "</h3>" .
"<h6>By:␣" . $journals[$i]->author . ",␣" .
     $journals[$i]->date_created . "</h6>" .
"<h4>Event␣Date:␣" . $journals[$i]->date . "</
     h4>" .
"<p>␣" . $journals[$i]->details . "</p>";
?>
<h5><span class="glyphicon␣glyphicon-tag" aria
     -hidden="true"></span> <?php if($journals
     [$i]->category != "all") echo $journals[
     $i]->category ?></h5>
<form method="POST" action="<?=base_url('user/
     deleteJournal')?>" onsubmit="return␣
     confirm('Are␣you␣sure␣you␣want␣to␣delete␣
     this␣journal␣entry?');">
<input type="hidden" name="delete" value="<?
     php␣echo␣$journals[$i]->journal_id␣?>">
<button class="pull-right" type="submit"><span
      class="glyphicon␣glyphicon-trash" aria-
     hidden="true"></span></button>
</form>
<form method="POST" action="<?=base_url('user/
     editJournal')?>">
<input type="hidden" name="edit" value="<?php␣
     echo␣$journals[$i]->journal_id␣?>">
<button class="pull-right" type="submit"><span
      class="glyphicon␣glyphicon-edit" aria-
     hidden="true"></span></button>
</form>
<br><br><hr>
<?php
}
if(count($journals) == 0)
echo "<center><h4>No␣journal␣entries.</h4></
     center>";
?>
<div class="row">
<div class="col-md-12␣text-right">
<?php echo $pagination; ?>
</div>
</div>
</div>
</div>
</div>
</div>
</div>
```

Listing 47: journals/edit.php

```
<div class="pad">
<h1 class="page-header">Journal Entries <small
     >View, edit, delete journal entries</
     small></h1>

<form method="POST" action="<?=base_url('user/
     editJournal/stepTwo')?>">
<div class="row">
<div class="col-md-12">
<ol class="breadcrumb">
<?php
if($cookie->user_type == 1)
$type = 'patient';
else if($cookie->user_type == 2)
$type = 'guardian';
?>
<li><a href="<?=base_url($type.'/dashboard')?>
     "><span class="glyphicon␣glyphicon-home"
     aria-hidden="true"></span> Home</a></li>
<?php
if($this->AAIS_model->hasCookie('
     theSearchCookie')){
?>
<li><a href="<?=base_url('user/search/1')?>"><
     span class="glyphicon␣glyphicon-search"
     aria-hidden="true"></span> Search</a></li
     >
<?php
}
else{
?>
<li><a href="<?=base_url('user/journals')?>"><
     span class="glyphicon␣glyphicon-pencil"
     aria-hidden="true"></span> Journal</a></
     li>
<?php
}
?>
<li class="active"><span class="glyphicon␣
     glyphicon-edit" aria-hidden="true"></span
     > Edit</li>
</ol>
</div>
</div>
```

```
<?php
if($journal->error==1){
$journal->error = 0;
$this->AAIS_model->setCookie( (array) $journal
    , 'theEntryCookie');
?>
<div class="alert␣alert-danger" role="alert">
<span class="glyphicon␣glyphicon-exclamation-
    sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Please
    check your input. All fields are required
    .
</div>
<?php
}

else if($journal->error==2){
$journal->error = 0;
$this->AAIS_model->setCookie( (array) $journal
    , 'theEntryCookie');
?>
<div class="alert␣alert-success" role="alert">
<span class="glyphicon␣glyphicon-ok-circle"
    aria-hidden="true"></span>
<span class="sr-only">Success! </span> You
    have successfully edited this entry.
</div>
<?php
}

else if($journal->error==3){
$journal->error = 0;
$this->AAIS_model->setCookie( (array) $journal
    , 'theEntryCookie');
?>
<div class="alert␣alert-danger" role="alert">
<span class="glyphicon␣glyphicon-exclamation-
    sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Invalid
    date!
</div>
<?php
}
?>
<div class="row">
<div class="col-md-12">
<h3 class="title"><center>J O U R N A L &nbsp;
     I N F O R M A T I O N</center></h3>
</div>
</div>
<div class="row">
<div class="col-md-2">
</div>
<div class="col-md-8">
<div class="panel␣panel-default">
<div class="panel-body">

<table class="add">
<col width="150">
<col width="600">
<tr>
<td>Title</td>
<td><input type="text" name="title" id="title"
     class="form-control" value="<?php␣echo␣
    $journal->title?>"></td>
</tr>
<tr>
<td>Event Date</td>
<td><input type="date" name="date" id="date"
    class="form-control" value="<?php␣echo␣
    $journal->date?>"></td>
</tr>
<tr>
<td >Details</td>
<td><textarea name="details" id="details"
    class="form-control" rows="15"><?php echo
     $journal->details; ?></textarea></td>
</tr>
<tr>
<td>Category</td>
<td><select name="category" id="category"
    class="form-control">
<?php if($journal->category=="all") { ?><
    option value="all" selected='selected'
    >-</option>
<?php } else{ ?><option value="all">-</option>
<?php
}
foreach($categories as $c){
if($journal->category==$c->name){
?>
<option value="<?php␣echo␣$c->name␣?>"
    selected="selected"><?php echo $c->name;
    ?></option>
<?php
}
else{
?>
<option value="<?php␣echo␣$c->name␣?>"><?php
    echo $c->name; ?></option>
<?php
}
}
?>
</select></td>
</tr>
<input type="hidden" name="id" value="<?php␣
    echo␣$journal->journal_id?>">
</table>
</div>
</div>
</div>
</div>

<div class="row">
<div class="col-md-8">
</div>
<div class="col-md-2␣text-right">
<button class="btn␣btn-primary" type="submit">
    Submit</button>
<?php
if($this->AAIS_model->hasCookie('
    theSearchCookie')){
?>
<a href="<?=base_url('user/search/1')?>" class
    ="btn␣btn-primary">Back</a>
<?php
}
else{
?>
<a href="<?=base_url('user/journals')?>" class
    ="btn␣btn-primary">Back</a>
<?php
}
?>
</div>
</div>
</form>
</div>
```

Listing 48: photos/main.php

```
<div class="pad">
<h1 class="page-header">Photos <small>View,
    edit, delete journal photos</small></h1>
<div class="row">
<div class="col-md-4">
<form method="POST" action="<?=base_url('user/
    filterPhotos')?>">
<div class="form-group">
<label for="category"><span class="glyphicon␣
    glyphicon-tag" aria-hidden="true"></span>
     Category</label>
<select name="category" id="category" class="
    form-control">
<option value="all">All</option>
<?php
foreach($categories as $c){
?>
<option value="<?php␣echo␣$c->name␣?>"><?php
    echo $c->name; ?></option>
<?php
}
?>
</select>
</div>
<button type="submit" class="btn␣pull-right␣
    btn-primary">Filter</button>
</form>
<br><br>
<div class="panel␣panel-info2">
<div class="panel-body">
Photos are very important to visually
    represent the existence of memories that
    can help patients remember more of the
    things that they have to. You can edit
    photos to add or edit information about
    the photo by clicking on the pen button
    below the one you wish to edit. You can
    also delete photos by clicking on the
    trash button below the one you wish to
    delete.
<br>Please be reminded that this is a
    collection of entries that were created/
    submitted either by the patient, his
    guardian, his therapist, and the general
    public that were approved by the guardian
    .
</div>
</div>
</div>

<div class="col-md-8">
<h4>Filter: <?php echo $cookie->category; ?></
    h4>
```

```
<div class="panel panel-default">
<div class="panel-body">
<?php
for ($i = 0; $i < count($photos); ++$i) {
$url = "assets/photos/" . $photos[$i]->
    filename;
echo "<h4>Date Taken: " . $photos[$i]->date .
    "</h4>" .
"<h6>By: " . $photos[$i]->author . ", " .
    $photos[$i]->date_created . "</h6>" .
"<center><img src='" . base_url($url) . "' class='
    pic'>" .
"<p> " . $photos[$i]->caption . "</p></center>
    ";
?>
<h5><span class="glyphicon glyphicon-tag" aria
    -hidden="true"></span> <?php if($photos[
    $i]->category != "all") echo $photos[$i
    ]->category ?></h5>
<form method="POST" action="<?=base_url('user/
    deletePhoto')?>" onsubmit="return confirm
    ('Are you sure you want to delete this 
    photo?');">
<input type="hidden" name="delete" value="<?
    php echo $photos[$i]->photo_id ?>">
<input type="hidden" name="filename" value="<?
    php echo $photos[$i]->filename ?>">
<button class="pull-right" type="submit"><span
     class="glyphicon glyphicon-trash" aria-
    hidden="true"></span></button>
</form>
<form method="POST" action="<?=base_url('user/
    editPhoto')?>">
<input type="hidden" name="edit" value="<?php 
    echo $photos[$i]->photo_id ?>">
<button class="pull-right" type="submit"><span
     class="glyphicon glyphicon-edit" aria-
    hidden="true"></span></button>
</form>
<br><br><hr>
<?php
}
if(count($photos) == 0)
echo "<center><h4>No photos.</h4></center>";
?>
<div class="row">
<div class="col-md-12 text-right">
<?php echo $pagination; ?>
</div>
</div>
</div>
</div>
</div>
</div>
</div>
```

Listing 49: photos/edit.php

```
<div class="pad">
<h1 class="page-header">Photos <small>View,
    edit, delete journal photos</small></h1>
<form method="POST" action="<?=base_url('user/
    editPhoto/stepTwo')?>">
<div class="row">
<div class="col-md-12">
<ol class="breadcrumb">
<?php
if($cookie->user_type == 1)
$type = 'patient';
else if($cookie->user_type == 2)
$type = 'guardian';
?>
<li><a href="<?=base_url($type.'/dashboard')?>
    "><span class="glyphicon glyphicon-home"
    aria-hidden="true"></span> Home</a></li>
<?php
if($this->AAIS_model->hasCookie('
    theSearchCookie')){
?>
<li><a href="<?=base_url('user/search/3')?>"><
    span class="glyphicon glyphicon-search"
    aria-hidden="true"></span> Search</a></li
    >
<?php
}
else{
?>
<li><a href="<?=base_url('user/photos')?>"><
    span class="glyphicon glyphicon-picture"
    aria-hidden="true"></span> Photo</a></li>
<?php
}
?>
<li class="active"><span class="glyphicon 
    glyphicon-edit" aria-hidden="true"></span
    > Edit</li>
</ol>
</div>
</div>
<?php
if($photo->error==1){
$photo->error = 0;
$this->AAIS_model->setCookie( (array) $photo,
    'theEntryCookie');
?>
<div class="alert alert-danger" role="alert">
<span class="glyphicon glyphicon-exclamation-
    sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Please
    check your input. All fields are required
    .
</div>
<?php
}

else if($photo->error==2){
$photo->error = 0;
$this->AAIS_model->setCookie( (array) $photo,
    'theEntryCookie');
?>
<div class="alert alert-success" role="alert">
<span class="glyphicon glyphicon-ok-circle"
    aria-hidden="true"></span>
<span class="sr-only">Success! </span> You
    have successfully edited this entry.
</div>
<?php
}

else if($photo->error==3){
$photo->error = 0;
$this->AAIS_model->setCookie( (array) $photo,
    'theEntryCookie');
?>
<div class="alert alert-danger" role="alert">
<span class="glyphicon glyphicon-exclamation-
    sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Invalid
    date!
</div>
<?php
}
?>
<div class="row">
<div class="col-md-12">
<h3 class="title"><center>P H O T O &nbsp; I N
     F O R M A T I O N</center></h3>
</div>
</div>
<div class="row">
<div class="col-md-2">
</div>
<div class="col-md-8">
<div class="panel panel-default">
<div class="panel-body">
<center>
<img src="<?php echo $photo->path ?>" class="
    pic">
</center>
<br>
<table class="add">
<col width="150">
<col width="600">
<tr>
<td>Date Taken</td>
<td><input type="date" name="date" id="date"
    class="form-control" value="<?php echo 
    $photo->date?>"></td>
</tr>
<tr>
<td>Caption (250 characters max)</td>
<td><textarea name="caption" id="details"
    class="form-control" rows="5" maxlength="
    250"><?php echo $photo->caption; ?></
    textarea></td>
</tr>
<tr>
<td>Category</td>
<td><select name="category" id="category"
    class="form-control">
<?php if($photo->category=="all") { ?><option
    value="all" selected='selected'>-</option
    >
<?php } else{ ?><option value="all">-</option>
<?php
}
foreach($categories as $c){
if($photo->category==$c->name){
?>
<option value="<?php echo $c->name ?>"
    selected="selected"><?php echo $c->name;
    ?></option>
<?php
}
else{
?>
<option value=”<?php␣echo␣$c->name␣?>”><?php
     echo $c->name; ?></option>
<?php
}
}
?>
</select></td>
</tr>
<input type=”hidden” name=”id” value=”<?php␣
     echo␣$photo->photo_id?>”>
</table>
</div>
</div>
</div>
</div>

<div class=”row”>
<div class=”col-md-8”>
</div>
<div class=”col-md-2␣text-right”>
<button class=”btn␣btn-primary” type=”submit”>
     Submit</button>
<?php
if($this->AAIS_model->hasCookie(’
     theSearchCookie’)){
?>
<a href=”<?=base_url(’user/search/3’)?>” class
     =”btn␣btn-primary”>Back</a>
<?php
}
else{
?>
<a href=”<?=base_url(’user/photos’)?>” class=”
     btn␣btn-primary”>Back</a>
<?php
}
?>
</div>
</div>
</form>
</div>
```

Listing 50: questions/main.php

```
<div class=”pad”>
<h1 class=”page-header”>Memory Test Questions
     <small>View, edit, delete questions</
     small></h1>
<div class=”row”>
<div class=”col-md-4”>
<div class=”panel␣panel-info2”>
<div class=”panel-body”>
Memory Test Questions can be of two types: (1)
      Personal, which are questions on the
     personal level of the patient, and (2)
     General Knowledge, which are questions
     known by the general public such as the
     name of the current president or the
     national fruit of the Philippines. This
     page allows you to view all test
     questions that may appear on the memory
     tests being taken by the patient. You can
      edit test question to add or edit
     information about the question by
     clicking on the pen button below the one
     you wish to edit. You can also delete
     questions by clicking on the trash button
      below the one you wish to delete.
<br>Please be reminded that this is a
     collection of entries that were created/
     submitted either by the patient, his
     guardian, his therapist, and the general
     public that were approved by the guardian
     .
</div>
</div>
</div>

<div class=”col-md-8”>
<div class=”panel␣panel-default”>
<div class=”panel-body”>
<?php
for ($i = 0; $i < count($questions); ++$i) {
if($questions[$i]->filename != 0){
$url = ”assets/photos/” . $questions[$i]->
     filename;
echo ”<center><img␣src=’”.base_url($url).”’␣
     class=’pic’></center>”;
}
if($questions[$i]->type == 3)
echo ”<h4>(General␣Knowledge)</h4>”;
else
echo ”<h4>(Personal)</h4>”;
echo ”<h3>” . $questions[$i]->question_details
     . ”</h3>” .
”<h6>By:␣” . $questions[$i]->author . ”,␣” .
     $questions[$i]->date_created . ”</h6>” .
”<p>␣A.␣” . $questions[$i]->choiceA . ”<br>” .
”B.␣” . $questions[$i]->choiceB . ”<br>” .
”C.␣” . $questions[$i]->choiceC . ”<br>” .
”D.␣” . $questions[$i]->choiceD . ”<br>” .
”<b>ANSWER:␣” . $questions[$i]->answer . ”</b
     ><br>” .
”</p>”;
?>
<form method=”POST” action=”<?=base_url(’user/
     deleteQuestion’)?>” onsubmit=”return␣
     confirm(’Are␣you␣sure␣you␣want␣to␣delete␣
     this␣question?’);”>
<input type=”hidden” name=”delete” value=”<?
     php␣echo␣$questions[$i]->question_id␣?>”>
<button class=”pull-right” type=”submit”><span
      class=”glyphicon␣glyphicon-trash” aria-
     hidden=”true”></span></button>
</form>
<form method=”POST” action=”<?=base_url(’user/
     editQuestion’)?>”>
<input type=”hidden” name=”edit” value=”<?php␣
     echo␣$questions[$i]->question_id␣?>”>
<button class=”pull-right” type=”submit”><span
      class=”glyphicon␣glyphicon-edit” aria-
     hidden=”true”></span></button>
</form>
<br><br><hr>
<?php
}
if(count($questions) == 0)
echo ”<center><h4>No␣questions.</h4></center>”
     ;
?>
<div class=”row”>
<div class=”col-md-12␣text-right”>
<?php echo $pagination; ?>
</div>
</div>
</div>
</div>
</div>
</div>
</div>
```

Listing 51: questions/edit.php

```
<div class=”pad”>
<h1 class=”page-header”>Memory Test Questions
     <small>View, edit, delete questions</
     small></h1>
<form method=”POST” action=”<?=base_url(’user/
     editQuestion/stepTwo’)?>” enctype=”
     multipart/form-data”>
<div class=”row”>
<div class=”col-md-12”>
<ol class=”breadcrumb”>
<li><a href=”<?=base_url(’guardian/dashboard’)
     ?>”><span class=”glyphicon␣glyphicon-home
     ” aria-hidden=”true”></span> Home</a></li
     >
<?php
if($this->AAIS_model->hasCookie(’
     theSearchCookie’)){
?>
<li><a href=”<?=base_url(’user/search/4’)?>”><
     span class=”glyphicon␣glyphicon-search”
     aria-hidden=”true”></span> Search</a></li
     >
<?php
}
else{
?>
<li><a href=”<?=base_url(’user/questions’)?>”
     ><span class=”glyphicon␣glyphicon-
     education” aria-hidden=”true”></span>
     Question</a></li>
<?php
}
?>
<li class=”active”><span class=”glyphicon␣
     glyphicon-edit” aria-hidden=”true”></span
     > Edit</li>
</ol>
</div>
</div>
<?php
if($question->error==1){
$question->error = 0;
$this->AAIS_model->setCookie( (array)
     $question, ’theEntryCookie’);
?>
<div class=”alert␣alert-danger” role=”alert”>
<span class=”glyphicon␣glyphicon-exclamation-
     sign” aria-hidden=”true”></span>
<span class=”sr-only”>Error:</span> Please
     check your input. All fields are required
     .
</div>
<?php
}

else if($question->error==2){
$question->error = 0;
$this->AAIS_model->setCookie( (array)
     $question, 'theEntryCookie');
?>
<div class="alert_alert-success" role="alert">
<span class="glyphicon_glyphicon-ok-circle"
     aria-hidden="true"></span>
<span class="sr-only">Success! </span> You
     have successfully edited this entry.
</div>
<?php
}
?>
<div class="row">
<div class="col-md-12">
<h3 class="title"><center>Q U E S T I O N &
     nbsp; I N F O R M A T I O N</center></h3>
</div>
</div>
<div class="row">
<div class="col-md-2">
</div>
<div class="col-md-8">
<div class="panel_panel-default">
<div class="panel-body">

<table class="add">
<col width="200">
<col width="500">
<?php
if($question->filename != 0){
$url = "assets/photos/" . $question->filename;
echo "<center><img_src='".base_url($url)."'_
     class='pic'></center>";
}
?>
<br>
<tr>
<td>Upload/Change Photo <i>(optional, 2MB max
     file size)</i></td>
<td><input type="file" name="filename" id="
     filename" class="form-control" ng-
     required="true"></td>
</tr>
<tr>
<td>Question</td>
<td><input type="text" name="question" id="
     question" class="form-control" value="<?
     php_echo_$question->question_details?>"
     ></td>
</tr>
<tr>
<td>Question Type</td>
<td><select name="type" id="type" class="form-
     control">
<?php
if($question->type == 1 || $question->type ==
     2)
echo "<option_selected='selected'_value='1'>
     Personal_Question</option>";
else
echo "<option_value='1'>Personal_Question</
     option>";
if($question->type == 3)
echo "<option_selected='selected'_value='3'>
     General_Knowledge</option>";
else
echo "<option_value='3'>General_Knowledge</
     option>";
?>
</select></td>
</tr>
<tr>
<td>Choice A</td>
<td><input type="text" name="choiceA" id="
     choiceA" class="form-control" value="<?
     php_echo_$question->choiceA?>"></td>
</tr>
<tr>
<td>Choice B</td>
<td><input type="text" name="choiceB" id="
     choiceB" class="form-control" value="<?
     php_echo_$question->choiceB?>"></td>
</tr>
<tr>
<td>Choice C</td>
<td><input type="text" name="choiceC" id="
     choiceC" class="form-control" value="<?
     php_echo_$question->choiceC?>"></td>
</tr>
<tr>
<td>Choice D</td>
<td><input type="text" name="choiceD" id="
     choiceD" class="form-control" value="<?
     php_echo_$question->choiceD?>"></td>
</tr>
<tr>
<td>Answer</td>
<td>
<select name="answer" id="answer" class="form-
     control">
<?php

if($question->answer == "A")
echo "<option_selected='selected'>A</option>";
else
echo "<option>A</option>";
if($question->answer == "B")
echo "<option_selected='selected'>B</option>";
else
echo "<option>B</option>";
if($question->answer == "C")
echo "<option_selected='selected'>C</option>";
else
echo "<option>C</option>";
if($question->answer == "D")
echo "<option_selected='selected'>D</option>";
else
echo "<option>D</option>";
?>
</select>
</td>
</tr>
<input type="hidden" name="id" value="<?php_
     echo_$question->question_id?>">
</table>
</div>
</div>
</div>
</div>

<div class="row">
<div class="col-md-8">
</div>
<div class="col-md-2_text-right">
<button class="btn_btn-primary" type="submit">
     Submit</button>
<?php
if($this->AAIS_model->hasCookie('
     theSearchCookie')){
?>
<a href="<?=base_url('user/search/4')?>" class
     ="btn_btn-primary">Back</a>
<?php
}
else{
?>
<a href="<?=base_url('user/questions')?>"
     class="btn_btn-primary">Back</a>
<?php
}
?>
</div>
</div>
</form>
</div>
```

Listing 52: reminders/main.php

```
<div class="pad">
<h1 class="page-header">Activity Reminders <
     small>View, edit, delete reminders</small
     ></h1>
<div class="row">
<div class="col-md-4">
<form method="POST" action="<?=base_url('user/
     filterReminders')?>">
<div class="form-group">
<label for="category"><span class="glyphicon_
     glyphicon-tag" aria-hidden="true"></span>
      Category</label>
<select name="category" id="category" class="
     form-control">
<option value="all">All</option>
<?php
foreach($categories as $c){
?>
<option value="<?php_echo_$c->name_?>"><?php
     echo $c->name; ?></option>
<?php
}
?>
</select>
</div>
<button type="submit" class="btn_pull-right_
     btn-primary">Filter</button>
</form>
<br><br>
<div class="panel_panel-info2">
<div class="panel-body">
 Activity reminders are very helpful for you to
 remember appointments and/or activities
   to be done in the coming days/weeks/
   months. Upcoming events are always
   displayed in the home page to remind you
   better. You can edit activity reminders
   to add or edit information about the
   schedule by clicking on the pen button
   below the one you wish to edit. You can
   also delete activity reminder by clicking
    on the trash button below the one you
   wish to delete.
<br>Please be reminded that this is a
   collection of entries that were created/
   submitted either by the patient, his
   guardian, his therapist, and the general
   public that were approved by the guardian
   .
</div>
</div>
</div>

<div class="col-md-8">
<h4>Filter: <?php echo $cookie->category; ?></
   h4>
<div class="panel␣panel-default">
<div class="panel-body">
<?php
for ($i = 0; $i < count($reminders); ++$i) {
echo "<h3>" . $reminders[$i]->title . "</h3>"
   .
"<h6>By:␣" . $reminders[$i]->author . ",␣" .
   $reminders[$i]->date_created . "</h6>" .
"<h4>Activity␣Date␣and␣Time:␣" . $reminders[$i
   ]->date_time . "</h4>" .
"<p>␣" . $reminders[$i]->details . "</p>";
?>
<h5><span class="glyphicon␣glyphicon-tag" aria
   -hidden="true"></span> <?php if(
   $reminders[$i]->category != "all") echo
   $reminders[$i]->category ?></h5>
<form method="POST" action="<?=base_url('user/
   deleteReminder')?>" onsubmit="return␣
   confirm('Are␣you␣sure␣you␣want␣to␣delete␣
   this␣reminder?');">
<input type="hidden" name="delete" value="<?
   php␣echo␣$reminders[$i]->reminder_id␣?>">
<button class="pull-right" type="submit"><span
    class="glyphicon␣glyphicon-trash" aria-
   hidden="true"></span></button>
</form>
<form method="POST" action="<?=base_url('user/
   editReminder')?>">
<input type="hidden" name="edit" value="<?php␣
   echo␣$reminders[$i]->reminder_id␣?>">
<button class="pull-right" type="submit"><span
    class="glyphicon␣glyphicon-edit" aria-
   hidden="true"></span></button>
</form>
<br><br><hr>
<?php
}
if(count($reminders) == 0)
echo "<center><h4>No␣activity␣reminders.</h4
   ></center>";
?>
<div class="row">
<div class="col-md-12␣text-right">
<?php echo $pagination; ?>
</div>
</div>
</div>
</div>
</div>
</div>
</div>
```

Listing 53: reminders/edit.php

```
<div class="pad">
<h1 class="page-header">Activity Reminders <
   small>View, edit, delete reminders</small
   ></h1>
<form method="POST" action="<?=base_url('user/
   editReminder/stepTwo')?>">
<div class="row">
<div class="col-md-12">
<ol class="breadcrumb">
<?php
if($cookie->user_type == 1)
$type = 'patient';
else if($cookie->user_type == 2)
$type = 'guardian';
?>
<li><a href="<?=base_url($type.'/dashboard')?>
   "><span class="glyphicon␣glyphicon-home"
   aria-hidden="true"></span> Home</a></li>
<?php
if($this->AAIS_model->hasCookie('
   theSearchCookie')){
?>
<li><a href="<?=base_url('user/search/2')?>"><
   span class="glyphicon␣glyphicon-search"
   aria-hidden="true"></span> Search</a></li
   >
<?php
}
else{
?>
<li><a href="<?=base_url('user/reminders')?>"
   ><span class="glyphicon␣glyphicon-list-
   alt" aria-hidden="true"></span> Reminder
   </a></li>
<?php
}
?>
<li class="active"><span class="glyphicon␣
   glyphicon-edit" aria-hidden="true"></span
   > Edit</li>
</ol>
</div>
</div>
<?php
if($reminder->error==1){
$reminder->error = 0;
$this->AAIS_model->setCookie( (array)
   $reminder, 'theEntryCookie');
?>
<div class="alert␣alert-danger" role="alert">
<span class="glyphicon␣glyphicon-exclamation-
   sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Please
   check your input. All fields are required
   .
</div>
<?php
}

else if($reminder->error==2){
$reminder->error = 0;
$this->AAIS_model->setCookie( (array)
   $reminder, 'theEntryCookie');
?>
<div class="alert␣alert-success" role="alert">
<span class="glyphicon␣glyphicon-ok-circle"
   aria-hidden="true"></span>
<span class="sr-only">Success! </span> You
   have successfully edited this entry.
</div>
<?php
}

else if($reminder->error==3){
$reminder->error = 0;
$this->AAIS_model->setCookie( (array)
   $reminder, 'theEntryCookie');
?>
<div class="alert␣alert-danger" role="alert">
<span class="glyphicon␣glyphicon-exclamation-
   sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Invalid
   date!
</div>
<?php
}
?>
<div class="row">
<div class="col-md-12">
<h3 class="title"><center>R E M I N D E R &
   nbsp; I N F O R M A T I O N</center></h3>
</div>
</div>
<div class="row">
<div class="col-md-2">
</div>
<div class="col-md-8">
<div class="panel␣panel-default">
<div class="panel-body">

<table class="add">
<col width="150">
<col width="600">
<tr>
<td>Title</td>
<td><input type="text" name="title" id="title"
    class="form-control" value="<?php␣echo␣
   $reminder->title?>"></td>
</tr>
<tr>
<td>Date/Time</td>
<td><input type="datetime-local" name="
   date_time" id="date" class="form-control"
    value="<?php␣echo␣$reminder->date_time?>
   "></td>
</tr>
<tr>
<td >Details</td>
```

```
<td><textarea name="details" id="details"
      class="form-control" rows="15"><?php echo
       $reminder->details; ?></textarea></td>
</tr>
<tr>
<td>Category</td>
<td><select name="category" id="category"
      class="form-control">
<?php if($reminder->category=="all") { ?><
      option value="all" selected='selected'
      >-</option>
<?php } else{ ?><option value="all">-</option>
<?php
}
foreach($categories as $c){
if($reminder->category==$c->name){
?>
<option value="<?php␣echo␣$c->name␣?>"
      selected="selected"><?php echo $c->name;
      ?></option>
<?php
}
else{
?>
<option value="<?php␣echo␣$c->name␣?>"><?php
      echo $c->name; ?></option>
<?php
}
}
?>
</select></td>
</tr>
<input type="hidden" name="id" value="<?php␣
      echo␣$reminder->reminder_id?>">
</table>
</div>
</div>
</div>
</div>

<div class="row">
<div class="col-md-8">
</div>
<div class="col-md-2␣text-right">
<button class="btn␣btn-primary" type="submit">
      Submit</button>
<?php
if($this->AAIS_model->hasCookie('
      theSearchCookie')){
?>
<a href="<?=base_url('user/search/2')?>" class
      ="btn␣btn-primary">Back</a>
<?php
}
else{
?>
<a href="<?=base_url('user/reminders')?>"
      class="btn␣btn-primary">Back</a>
<?php
}
?>
</div>
</div>
</form>
</div>
```

Listing 54: report/main.php

```
<h1 class="page-header">Reports <small>Patient
       Progress Report</small></h1>
<div class="row">
<div class="col-md-2"></div>
<div class="col-md-8">
<center>Select date range<br>
<form method="POST" action="<?=base_url('user/
      generateReport')?>">
<div class="form-inline">
<input type="date" name="start" id="start"
      class="form-control"> &nbsp; to &nbsp;
<input type="date" name="end" id="end" class="
      form-control">
</div><br>
<button type="submit" class="btn␣btn-primary">
      Generate Report</button>
</form>
<br><br>
<?php
if($cookie->step==2)
include_once('graph.php');
?>
</center>
</div>
<div class="col-md-2"></div>
</div>
```

Listing 55: report/graph.php

```
<script type="text/javascript" src="https://
      www.gstatic.com/charts/loader.js"></
      script>

<script type="text/javascript">
google.charts.load('current', {'packages':['
      corechart']});
google.charts.setOnLoadCallback(drawChart);

function drawChart() {
var data = new google.visualization.DataTable
      ();
data.addColumn('date', 'Date');
data.addColumn('number', 'Test␣Scores');

<?php
foreach($personal as $p){
echo "data.addRows([␣[new␣Date('".$p->date."')
      ,␣".$p->score."]␣]);";
}
?>

var options = {
title: 'Performance␣on␣Personal␣Life␣Tests',
curveType: 'function',
legend: { position: 'bottom' }
};

//var chart = new google.visualization.
      LineChart(document.getElementById('
      curve_chart1'));

var chart_div = document.getElementById('
      curve_chart1');
var chart = new google.visualization.LineChart
      (chart_div);

google.visualization.events.addListener(chart,
       'ready', function () {
chart_div.innerHTML = '<img␣src="' + chart.
      getImageURI() + '">';
console.log(chart_div.innerHTML);
});

chart.draw(data, options);

var data = new google.visualization.DataTable
      ();
data.addColumn('date', 'Date');
data.addColumn('number', 'Test␣Scores');

<?php
foreach($photo as $p){
echo "data.addRows([␣[new␣Date('".$p->date."')
      ,␣".$p->score."]␣]);";
}
?>

var options = {
title: 'Performance␣on␣Photo␣Recognition␣Tests
      ',
curveType: 'function',
legend: { position: 'bottom' }
};

//var chart = new google.visualization.
      LineChart(document.getElementById('
      curve_chart2'));

var chart_div = document.getElementById('
      curve_chart2');
var chart = new google.visualization.LineChart
      (chart_div);

google.visualization.events.addListener(chart,
       'ready', function () {
chart_div.innerHTML = '<img␣src="' + chart.
      getImageURI() + '">';
console.log(chart_div.innerHTML);
});

chart.draw(data, options);

var data = new google.visualization.DataTable
      ();
data.addColumn('date', 'Date');
data.addColumn('number', 'Test␣Scores');

<?php
foreach($general as $p){
echo "data.addRows([␣[new␣Date('".$p->date."')
      ,␣".$p->score."]␣]);";
}
?>

var options = {
title: 'Performance␣on␣General␣Knowledge␣Tests
      ',
curveType: 'function',
legend: { position: 'bottom' }
};

//var chart = new google.visualization.
     LineChart(document.getElementById('
     curve_chart2'));

var chart_div = document.getElementById('
     curve_chart3');
var chart = new google.visualization.LineChart
     (chart_div);

google.visualization.events.addListener(chart,
      'ready', function () {
chart_div.innerHTML = '<img_src="' + chart.
     getImageURI() + '">';
console.log(chart_div.innerHTML);
});

chart.draw(data, options);
}
</script>

<div id="curve_chart1" style="width:_100%;_
     height:_500px"></div><br>
<p> This graph represents the performance of
     the patient in the memory tests on
     personal life through his scores (
     vertical axis) over the given time period
      (horizontal axis).
</p>

<div id="curve_chart2" style="width:_100%;_
     height:_500px"></div><br>
<p> This graph represents the performance of
     the patient in the memory tests on photo
     recognition through his scores (vertical
     axis) over the given time period (
     horizontal axis).
</p>

<div id="curve_chart3" style="width:_100%;_
     height:_700px"></div><br>
<p> This graph represents the performance of
     the patient in the memory tests on
     general knowledge through his scores (
     vertical axis) over the given time period
      (horizontal axis).
</p>
```

Listing 56: search/main.php

```
<h1 class="page-header">Search Results <small>
     Journal, reminders, photos
<?php
if($cookie->user_type == 2)
echo ",_questions";
?></small></h1>

<div class="pad">
Search results for "<?php_echo_$searchCookie->
     keyword;_?>"
<div class="row">
<div class="col-md-4">
<div class="panel-body">
<ul class="nav_nav-pills_nav-stacked">
<li role="presentation" class="<?php_if(
     $searchCookie->pageType_==_1)_echo_"
     active";_?>"><a href="<?=base_url("user/
     search/1")?>">
<span class="glyphicon_glyphicon-pencil" aria-
     hidden="true"></span> Journal</a></li>
<li role="presentation" class="<?php_if(
     $searchCookie->pageType_==_2)_echo_"
     active";_?>"><a href="<?=base_url("user/
     search/2")?>">
<span class="glyphicon_glyphicon-list-alt"
     aria-hidden="true"></span> Reminder</a></
     li>
<li role="presentation" class="<?php_if(
     $searchCookie->pageType_==_3)_echo_"
     active";_?>"><a href="<?=base_url("user/
     search/3")?>">
<span class="glyphicon_glyphicon-picture" aria
     -hidden="true"></span> Photo</a></li>

<?php
if($cookie->user_type == 2){
?>
<li role="presentation" class="<?php_if(
     $searchCookie->pageType_==_4)_echo_"
     active";_?>"><a href="<?=base_url("user/
     search/4")?>">
<span class="glyphicon_glyphicon-education"
     aria-hidden="true"></span> Memory Test</a
     ></li>
<?php
}
?>
</ul>
</div>
</div>

<div class="col-md-8">
<div class="panel_panel-default">
<div class="panel-body">
<?php
switch($searchCookie->pageType){
case 1: include_once("journal.php");
break;
case 2: include_once("reminder.php");
break;
case 3: include_once("photo.php");
break;
case 4: include_once("question.php");
default: break;
}
?>
</div>
</div>
</div>
</div>

</div>
```

Listing 57: search/journal.php

```
<?php
foreach ($entries as $journal) {
$details = substr($journal->details, 0, 250);
echo "<h3>" . $journal->title . "</h3>" .
"<h6>By:_" . $journal->author . ",_" .
     $journal->date_created . "</h6>" .
"<h4>Event_Date:_" . $journal->date . "</h4>";
if(strlen($journal->details)>250 && $cookie->
     active!="view"){
echo "<p>_" . $details . "...</p>";
?>
<form method="POST" action="<?=base_url('user/
     viewJournal')?>">
<input type="hidden" name="view" value="<?php_
     echo_$journal->journal_id_?>">
<button class="clear" type="submit"><u class='
     title'>Continue reading...</u></button>
</form>
<?php
}
else
echo $journal->details;
echo "</p>";

?>
<h5><span class="glyphicon_glyphicon-tag" aria
     -hidden="true"></span> <?php if($journal
     ->category != "all") echo $journal->
     category ?></h5>
<form method="POST" action="<?=base_url('user/
     deleteJournal')?>" onsubmit="return_
     confirm('Are_you_sure_you_want_to_delete_
     this_journal_entry?');">
<input type="hidden" name="delete" value="<?
     php_echo_$journal->journal_id_?>">
<button class="pull-right" type="submit"><span
      class="glyphicon_glyphicon-trash" aria-
     hidden="true"></span></button>
</form>
<form method="POST" action="<?=base_url('user/
     editJournal')?>">
<input type="hidden" name="edit" value="<?php_
     echo_$journal->journal_id_?>">
<button class="pull-right" type="submit"><span
      class="glyphicon_glyphicon-edit" aria-
     hidden="true"></span></button>
</form>
<br><br><hr>
<?php
}
if(count($entries) == 0)
echo "<center><h4>No_journal_entries_found.</
     h4></center>";
?>
```

Listing 58: search/photo.php

```
<?php
foreach ($entries as $photo) {
$url = "assets/photos/" . $photo->filename;
echo "<h4>Date_Taken:_" . $photo->date . "</h4
     >" .
"<h6>By:_" . $photo->author . ",_" . $photo->
     date_created . "</h6>" .
"<center><img_src='" . base_url($url) . "'_class='
     pic'>" .
"<p>␣" . $photo->caption . "</p></center>";
?>
<h5><span class="glyphicon␣glyphicon-tag" aria
    -hidden="true"></span> <?php if($photo->
    category != "all") echo $photo->category
    ?></h5>
<form method="POST" action="<?=base_url('user/
    deletePhoto')?>" onsubmit="return␣confirm
    ('Are␣you␣sure␣you␣want␣to␣delete␣this␣
    photo?');">
<input type="hidden" name="delete" value="<?
    php␣echo␣$photo->photo_id␣?>">
<button class="pull-right" type="submit"><span
     class="glyphicon␣glyphicon-trash" aria-
    hidden="true"></span></button>
</form>
<form method="POST" action="<?=base_url('user/
    editPhoto')?>">
<input type="hidden" name="edit" value="<?php␣
    echo␣$photo->photo_id␣?>">
<button class="pull-right" type="submit"><span
     class="glyphicon␣glyphicon-edit" aria-
    hidden="true"></span></button>
</form>
<br><br><hr>
<?php
}
if(count($entries) == 0)
echo "<center><h4>No␣photos␣found.</h4></
    center>";
?>
```

Listing 59: search/question.php

```
<?php
foreach ($entries as $question) {
if($question->filename != 0){
$url = "assets/photos/" . $question->filename;
echo "<center><img␣src='".base_url($url)."'␣
    class='pic'></center>";
}
echo "<h3>" . $question->question_details . "
    </h3>" .
"<h6>By:␣" . $question->author . ",␣" .
    $question->date_created . "</h6>" .
"<p>␣A.␣" . $question->choiceA . "<br>" .
"B.␣" . $question->choiceB . "<br>" .
"C.␣" . $question->choiceC . "<br>" .
"D.␣" . $question->choiceD . "<br>" .
"<b>ANSWER:␣" . $question->answer . "</b><br>"
    .
"</p>";
?>

<form method="POST" action="<?=base_url('user/
    deleteQuestion')?>" onsubmit="return␣
    confirm('Are␣you␣sure␣you␣want␣to␣delete␣
    this␣question?');">
<input type="hidden" name="delete" value="<?
    php␣echo␣$question->question_id␣?>">
<button class="pull-right" type="submit"><span
     class="glyphicon␣glyphicon-trash" aria-
    hidden="true"></span></button>
</form>
<form method="POST" action="<?=base_url('user/
    editQuestion')?>">
<input type="hidden" name="edit" value="<?php␣
    echo␣$question->question_id␣?>">
<button class="pull-right" type="submit"><span
     class="glyphicon␣glyphicon-edit" aria-
    hidden="true"></span></button>
</form>
<br><br><hr>
<?php
}
if(count($entries) == 0)
echo "<center><h4>No␣questions␣found.</h4></
    center>";
?>
```

Listing 60: search/reminder.php

```
<?php
foreach ($entries as $reminder) {
$details = substr($reminder->details, 0, 250);
echo "<h3>" . $reminder->title . "</h3>" .
"<h6>By:␣" . $reminder->author . ",␣" .
    $reminder->date_created . "</h6>" .
"<h4>Activity␣Date␣and␣Time:␣" . $reminder->
    date_time . "</h4>";
if(strlen($reminder->details)>250 && $cookie->
    active!="view"){
echo "<p>␣" . $details . "...</p>";
?>
<form method="POST" action="<?=base_url('user/
    viewReminder')?>">
<input type="hidden" name="view" value="<?php␣
    echo␣$reminder->reminder_id␣?>">
<button class="clear" type="submit"><u class='
    title'>Continue reading...</u></button>
</form>
<?php
}
else
echo $reminder->details;
echo "</p>";
?>
<h5><span class="glyphicon␣glyphicon-tag" aria
    -hidden="true"></span> <?php if($reminder
    ->category != "all") echo $reminder->
    category ?></h5>
<form method="POST" action="<?=base_url('user/
    deleteReminder')?>" onsubmit="return␣
    confirm('Are␣you␣sure␣you␣want␣to␣delete␣
    this␣reminder␣entry?');">
<input type="hidden" name="delete" value="<?
    php␣echo␣$reminder->reminder_id␣?>">
<button class="pull-right" type="submit"><span
     class="glyphicon␣glyphicon-trash" aria-
    hidden="true"></span></button>
</form>
<form method="POST" action="<?=base_url('user/
    editReminder')?>">
<input type="hidden" name="edit" value="<?php␣
    echo␣$reminder->reminder_id␣?>">
<button class="pull-right" type="submit"><span
     class="glyphicon␣glyphicon-edit" aria-
    hidden="true"></span></button>
</form>
<br><br><hr>
<?php
}
if(count($entries) == 0)
echo "<center><h4>No␣activity␣reminders␣found
    .</h4></center>";
?>
```

Listing 61: search/view.php

```
<h1 class="page-header">Search Results <small>
    Journal, reminders, photos
<?php
if($cookie->user_type == 2)
echo ",␣questions";
?></small></h1>

<div class="pad">
<div class="row">
<div class="col-md-12">
<ol class="breadcrumb">
<?php
if($cookie->user_type == 1)
$userType = 'patient';
else if($cookie->user_type == 2)
$userType = 'guardian';
?>
<li><a href="<?=base_url($userType.'/dashboard
    ')?>"><span class="glyphicon␣glyphicon-
    home" aria-hidden="true"></span> Home</a
    ></li>
<li><a href="<?=base_url('user/search/'.$type)
    ?>"><span class="glyphicon␣glyphicon-
    search" aria-hidden="true"></span> Search
    </a></li>
<li class="active"><span class="glyphicon␣
    glyphicon-eye-open" aria-hidden="true"></
    span> View</li>
</ol>
</div>
</div>
<div class="row">
<div class="col-md-2">
</div>

<div class="col-md-8">
<div class="panel␣panel-default">
<div class="panel-body">
<?php
switch($type){
case 1: include_once("journal.php");
break;
case 2: include_once("reminder.php");
break;
default: break;
}
?>
</div>
</div>
</div>
</div>

</div>
```

Listing 62: patient/dashboard.php

```
<h1 class="page-header">Dashboard <small>
    Overview</small></h1>
<div class="row">
<div class="col-md-8">
<h1>Welcome, <?php echo $cookie->first_name .
    "␣" . $cookie->last_name; ?>!</h1>
<p>
AAIS is created for the benefit of helping
    people like you to cope with your
    condition. Aside from being the direct
    beneficiary of this system, you as a
    patient also plays an important role in
    this system to further make your
    experience here more efficient. Your
    nearest appointments and schedules are
    listed on the right side to remind you
    better. You can click the view all button
     to see the others. To better guide you
    in navigating the system, instructions
    were placed around the system. Try to
    explore and navigate now!
</p>
</div>
<div class="col-md-4">
<div class="panel␣panel-primary">
<div class="panel-heading">ACTIVITY REMINDERS
    </div>
<div class="panel-body">
<?php
foreach($reminders as $r){
?>
<h5><?php echo $r->date_time; ?>:
<?php echo $r->title; ?> </h5>

<?php
$details = substr($r->details, 0, 255);
echo "<h5␣class='gray'>&nbsp;␣&nbsp;" .
    $details . "...</h5>";
?>

<?php
}
if(count($reminders)==0){
echo "<h5><center>No␣activity␣reminders.</
    center></h5>";
}
else{
?>
<a href="<?=base_url('user/reminders')?>"
    class="btn␣btn-primary␣pull-right" role="
    button">View All</a>
<?php
}
?>
</div>
</div>
</div>
</div>
```

Listing 63: patient/connections.php

```
<h1 class="page-header">Connections <small>
    Guardian and Therapist</small></h1>
<div class="pad">

<div class="row">
<div class="col-md-1"></div>
<div class="col-md-5">
<center><h3 class="title">G U A R D I A N</h3
    ></center>
<div class="panel␣panel-default">
<div class="panel-body">
<table class="connect">
<col width="150">
<col width="300">
<tr>
<td rowspan='5'><img src="<?=base_url('assets/
    users/'.$guardian->profile_picture)?>"
    class="dp"></td>
<td><h3><?php echo $guardian->first_name . "␣"
     . $guardian->last_name; ?></h3></td>
</tr>
<tr>
<td><?php echo $guardian->username; ?></td>
</tr>
<tr>
<td><?php echo $guardian->email; ?></td>
</tr>
</table>
</div>
</div>
</div>

<div class="col-md-5">
<center><h3 class="title">T H E R A P I S T</
    h3></center>
<div class="panel␣panel-default">
<div class="panel-body">
<table class="connect">
<col width="150">
<col width="300">
<tr>
<td rowspan='5'><img src="<?=base_url('assets/
    users/'.$therapist->profile_picture)?>"
    class="dp"></td>
<td><h3><?php echo $therapist->first_name . "␣
    " . $therapist->last_name; ?></h3></td>
</tr>
<tr>
<td><?php echo $therapist->username; ?></td>
</tr>
<tr>
<td><?php echo $therapist->email; ?></td>
</tr>
</table>
</div>
</div>
</div>

</div>

</div>
```

Listing 64: generalKnowledge.php

```
<h1 class="page-header">Memory Test <small>
    General Knowledge</small></h1>
<p>
Unlike the other two kinds of memory tests,
    this kind tests your awareness of general
     knowledge and/or facts. The questions
    aren't␣personal,␣think␣of␣this␣as␣
    something␣that␣many␣people␣can␣answer.␣
    Example␣of␣the␣questions␣that␣you␣may␣
    encounter␣are␣"Who␣is␣the␣current␣
    president␣of␣our␣country?",␣"What␣is␣our␣
    national␣fruit?",␣and␣"What␣do␣you␣call␣a
    ␣female␣deer?".␣Despite␣of␣this␣test␣not␣
    being␣on␣your␣personal␣level,␣remember␣
    that␣questions␣were␣still␣submitted␣and/
    or␣created␣by␣the␣people␣who␣know␣you.␣
    You␣don't have to feel pressured in
    answering the questions, just answer what
     you think and feel is right. All 10
    items are of multiple choice type of test
    . Choose the best answer. Your scores in
    the tests will be the basis of the
    progress report that will be generated in
     the reports section. Click "Take␣Test"
    to start your memory test now.
<br><br><b>Note:</b> You are allowed to take
    only one test per category per day. If
    the "Take␣Test" button is disabled, that
    means that you already took the test
    earlier today. You can always come back
    tomorrow to take another one.
</p>

<a href="<?=base_url('patient/
    generalKnowledgeProper')?>" class="<?php␣
    if($cookie->error␣!=␣3)␣echo␣"btn btn-
    primary btn-lg";␣else␣echo␣"btn btn-
    primary btn-lg disabled";␣?>" role="
    button">Take Test</a>
```

Listing 65: generalKnowledge-Proper.php

```
<h1 class="page-header">Memory Test <small>
    General Knowledge</small></h1>
<div class="pad">
<h3 class="title␣text-center">Test Proper</h3>
<div class="row">
<div class="col-md-2">
</div>

<div class="col-md-8">
<div class="panel␣panel-default">
<div class="panel-body">
<?php
$array = array();
$count=count($questions);
if($count==0){
echo "Sorry,␣there␣are␣no␣available␣test␣
    questions␣for␣you.";
}
else{
?>
<form name="test" method="POST" action="<?=
    base_url('patient/submitGeneralKnowledge
    ')?>">
<?php
$i=0;
if($count>10){
while(count($array)<10){
$j = rand(0, $count-1);
if(!in_array($j, $array)){
$num = $i+1;
$url = "assets/photos/" . $questions[$j]->
      filename;
if($questions[$j]->filename != 0)
echo "<center><img␣src='".base_url($url)."'␣
      class='pic'></center>";
echo "<h3>" . $num . ".␣" . $questions[$j]->
      question_details . "</h3><p>" .
"<input␣type='radio'␣name='answer".$i."'␣value
      ='A'␣checked='checked'>A.␣" . $questions[
      $j]->choiceA . "<br>" .
"<input␣type='radio'␣name='answer".$i."'␣value
      ='B'>B.␣" . $questions[$j]->choiceB . "<
      br>" .
"<input␣type='radio'␣name='answer".$i."'␣value
      ='C'>C.␣" . $questions[$j]->choiceC . "<
      br>" .
"<input␣type='radio'␣name='answer".$i."'␣value
      ='D'>D.␣" . $questions[$j]->choiceD . "<
      br>" .
"<input␣type='hidden'␣name='correct[]'␣value='
      ".$questions[$j]->answer."'>" .
"<input␣type='hidden'␣name='items[]'␣value='".
      $questions[$j]->question_id."'>" .
"</p><br><hr>";
array_push($array, $j);
$i++;
}
}
}
else{
while($i<$count){
$j = rand(0, $count-1);
if(!in_array($j, $array)){
$num = $i+1;
$url = "assets/photos/" . $questions[$j]->
      filename;
if($questions[$j]->filename != 0)
echo "<center><img␣src='".base_url($url)."'␣
      class='pic'></center>";
echo "<h3>" . $num . ".␣" . $questions[$j]->
      question_details . "</h3><p>" .
"<input␣type='radio'␣name='answer".$i."'␣value
      ='A'␣checked='checked'>A.␣" . $questions[
      $j]->choiceA . "<br>" .
"<input␣type='radio'␣name='answer".$i."'␣value
      ='B'>B.␣" . $questions[$j]->choiceB . "<
      br>" .
"<input␣type='radio'␣name='answer".$i."'␣value
      ='C'>C.␣" . $questions[$j]->choiceC . "<
      br>" .
"<input␣type='radio'␣name='answer".$i."'␣value
      ='D'>D.␣" . $questions[$j]->choiceD . "<
      br>" .
"<input␣type='hidden'␣name='correct[]'␣value='
      ".$questions[$j]->answer."'>" .
"<input␣type='hidden'␣name='items[]'␣value='".
      $questions[$j]->question_id."'>" .
"</p><br><hr>";
array_push($array, $j);
$i++;
}
}
}
?>
<button class="btn␣btn-primary␣pull-right"
      type="submit">Submit</button>
</form>
<?php
}
?>
</div>
</div>
</div>
</div>
</div>
```

Listing 66: generalKnowledgeAnswers.php

```
<h1 class="page-header">Memory Test <small>
      General Knowledge</small></h1>
<div class="pad">
<h3 class="title␣text-center">Review Answers</
      h3>
<div class="row">
<div class="col-md-2">
</div>

<div class="col-md-8">
<div class="panel␣panel-default">
<div class="panel-body">
<center><h3>You got a score of <?php echo
      $score; ?>!</h3></center>
<?php
$num = 1;
for($i=0; $i<count($questions); $i++){
$url = "assets/photos/" . $questions[$i]->
      filename;
if($questions[$i]->filename != 0)
echo "<center><img␣src='".base_url($url)."'␣
      class='pic'></center>";
echo "<h3>" . $num . ".␣" . $questions[$i]->
      question_details . "</h3><p>";
if($questions[$i]->answer == $answers[$i]){
$glyph = "glyphicon␣glyphicon-ok-circle";
$style = "color:green;";
}
else{
$glyph = "glyphicon␣glyphicon-remove-circle";
$style = "color:red;";
}
echo "<table>" .
"<col␣width='20'>" .
"<col␣width='500'>";
echo "<tr>";
if($answers[$i] == 'A')
echo "<td><span␣class='".$glyph."'␣style='".
      $style."'␣aria-hidden='true'></span></td
      ><td>A.␣".$questions[$i]->choiceA."</td>"
      ;
else
echo "<td></td><td>A.␣".$questions[$i]->
      choiceA."</td>";
echo "</tr>";
echo "<tr>";
if($answers[$i] == 'B')
echo "<td><span␣class='".$glyph."'␣style='".
      $style."'␣aria-hidden='true'></span></td
      ><td>B.␣".$questions[$i]->choiceB."</td>"
      ;
else
echo "<td></td><td>B.␣".$questions[$i]->
      choiceB."</td>";
echo "</tr>";
echo "<tr>";
if($answers[$i] == 'C')
echo "<td><span␣class='".$glyph."'␣style='".
      $style."'␣aria-hidden='true'></span></td
      ><td>C.␣".$questions[$i]->choiceC."</td>"
      ;
else
echo "<td></td><td>C.␣".$questions[$i]->
      choiceC."</td>";
echo "</tr>";
echo "<tr>";
if($answers[$i] == 'D')
echo "<td><span␣class='".$glyph."'␣style='".
      $style."'␣aria-hidden='true'></span></td
      ><td>D.␣".$questions[$i]->choiceD."</td>"
      ;
else
echo "<td></td><td>D.␣".$questions[$i]->
      choiceD."</td>";
echo "</tr>";
echo "</table>";
echo "<br>Correct␣Answer:␣". $questions[$i]->
      answer.
"<br><hr>";

$num++;
}
?>
</div>
</div>
</div>
</div>
</div>
```

Listing 67: personalTest.php

```
<h1 class="page-header">Memory Test <small>
      Personal Test</small></h1>
<p>
As you know, memory tests are very helpful for
       patients like you. Tests are more
      helpful when they touch you on the
      personal level. Personal test is a test
      of how much you know about the events and
       experiences that you had in your life so
       far. Questions have a wide range of
      variation. It can go from naming a person
       being described in the question to a
      date when an event happened. Remember
      that these questions are submitted and/or
       created by the people who really know
      you. You don't␣have␣to␣feel␣pressured␣in␣
      answering␣the␣questions,␣just␣answer␣what
      ␣you␣think␣and␣feel␣is␣right.␣All␣10␣
      items␣are␣of␣multiple␣choice␣type␣of␣test
      .␣Choose␣the␣best␣answer.␣Your␣scores␣in␣
      the␣tests␣will␣be␣the␣basis␣of␣the␣
      progress␣report␣that␣will␣be␣generated␣in
      ␣the␣reports␣section.␣Click␣"Take␣Test"␣
      to␣start␣your␣memory␣test␣now.
<br><br><b>Note:</b>␣You␣are␣allowed␣to␣take␣
      only␣one␣test␣per␣category␣per␣day.␣If␣
      the␣"Take␣Test"␣button␣is␣disabled,␣that␣
      means␣that␣you␣already␣took␣the␣test␣
      earlier␣today.␣You␣can␣always␣come␣back␣
      tomorrow␣to␣take␣another␣one.
</p>

<a␣href="<?=base_url('patient/
      personalTestProper')?>"␣class="<?php␣if(
      $cookie->error␣!=␣1)␣echo␣"btn␣btn-
      primary␣btn-lg";␣else␣echo␣"btn␣btn-
      primary␣btn-lg␣disabled";␣?>"␣role="
      button">Take␣Test</a>
```

Listing 68: personalTestProper.php

```
<h1 class="page-header">Memory Test <small>
      Personal Test</small></h1>
<div class="pad">
<h3 class="title␣text-center">Test Proper</h3>
<div class="row">
<div class="col-md-2">
</div>

<div class="col-md-8">
<div class="panel␣panel-default">
<div class="panel-body">
<?php
$array = array();
$count=count($questions);
if($count==0){
echo "Sorry,␣there␣are␣no␣available␣test␣
      questions␣for␣you.";
}
else{
?>
<form name="test" method="POST" action="<?=
      base_url('patient/submitPersonalTest')?>"
      >
<?php
$i=0;
if($count>10){
while(count($array)<10){
$j = rand(0, $count-1);
if(!in_array($j, $array)){
$num = $i+1;
echo "<h3>" . $num . ".␣" . $questions[$j]->
      question_details . "</h3><p>" .
"<input␣type='radio'␣name='answer".$i."'␣value
      ='A'␣checked='checked'>A.␣" . $questions[
      $j]->choiceA . "<br>" .
"<input␣type='radio'␣name='answer".$i."'␣value
      ='B'>B.␣" . $questions[$j]->choiceB . "<
      br>" .
"<input␣type='radio'␣name='answer".$i."'␣value
      ='C'>C.␣" . $questions[$j]->choiceC . "<
      br>" .
"<input␣type='radio'␣name='answer".$i."'␣value
      ='D'>D.␣" . $questions[$j]->choiceD . "<
      br>" .
"<input␣type='hidden'␣name='correct[]'␣value='
      ".$questions[$j]->answer."'>" .
"<input␣type='hidden'␣name='items[]'␣value='".
      $questions[$j]->question_id."'>" .
"</p><br><hr>";
array_push($array, $j);
$i++;
}
}
}
else{
while($i<$count){
$j = rand(0, $count-1);
if(!in_array($j, $array)){
$num = $i+1;
echo "<h3>" . $num . ".␣" . $questions[$j]->
      question_details . "</h3><p>" .
"<input␣type='radio'␣name='answer".$i."'␣value
      ='A'␣checked='checked'>A.␣" . $questions[
      $j]->choiceA . "<br>" .
"<input␣type='radio'␣name='answer".$i."'␣value
      ='B'>B.␣" . $questions[$j]->choiceB . "<
      br>" .
"<input␣type='radio'␣name='answer".$i."'␣value
      ='C'>C.␣" . $questions[$j]->choiceC . "<
      br>" .
"<input␣type='radio'␣name='answer".$i."'␣value
      ='D'>D.␣" . $questions[$j]->choiceD . "<
      br>" .
"<input␣type='hidden'␣name='correct[]'␣value='
      ".$questions[$j]->answer."'>" .
"<input␣type='hidden'␣name='items[]'␣value='".
      $questions[$j]->question_id."'>" .
"</p><br><hr>";
array_push($array, $j);
$i++;
}
}
}
?>
<button class="btn␣btn-primary␣pull-right"
      type="submit">Submit</button>
</form>
<?php
}
?>
</div>
</div>
</div>
</div>
</div>
```

Listing 69: personalTestAnswers.php

```
<h1 class="page-header">Memory Test <small>
      Personal Test</small></h1>
<div class="pad">
<h3 class="title␣text-center">Review Answers</
      h3>
<div class="row">
<div class="col-md-2">
</div>

<div class="col-md-8">
<div class="panel␣panel-default">
<div class="panel-body">
<center><h3>You got a score of <?php echo
      $score; ?>!</h3></center>
<?php
$num = 1;
for($i=0; $i<count($questions); $i++){
echo "<h3>" . $num . ".␣" . $questions[$i]->
      question_details . "</h3><p>";
if($questions[$i]->answer == $answers[$i]){
$glyph = "glyphicon␣glyphicon-ok-circle";
$style = "color:green;";
}
else{
$glyph = "glyphicon␣glyphicon-remove-circle";
$style = "color:red;";
}
echo "<table>" .
"<col␣width='20'>" .
"<col␣width='500'>";
echo "<tr>";
if($answers[$i] == 'A')
echo "<td><span␣class='".$glyph."'␣style='".
      $style."'␣aria-hidden='true'></span></td
      ><td>A.␣".$questions[$i]->choiceA."</td>"
      ;
else
echo "<td></td><td>A.␣".$questions[$i]->
      choiceA."</td>";
echo "</tr>";
echo "<tr>";
if($answers[$i] == 'B')
echo "<td><span␣class='".$glyph."'␣style='".
      $style."'␣aria-hidden='true'></span></td
      ><td>B.␣".$questions[$i]->choiceB."</td>"
      ;
else
echo "<td></td><td>B.␣".$questions[$i]->
      choiceB."</td>";
echo "</tr>";
echo "<tr>";
if($answers[$i] == 'C')
echo "<td><span␣class='".$glyph."'␣style='".
      $style."'␣aria-hidden='true'></span></td
      ><td>C.␣".$questions[$i]->choiceC."</td>"
      ;
else
echo "<td></td><td>C.␣".$questions[$i]->
      choiceC."</td>";
echo "</tr>";
echo "<tr>";
if($answers[$i] == 'D')
echo "<td><span␣class='".$glyph."'␣style='".
      $style."'␣aria-hidden='true'></span></td
      ><td>D.␣".$questions[$i]->choiceD."</td>"
      ;
else
echo "<td></td><td>D.␣".$questions[$i]->
      choiceD."</td>";
echo "</tr>";
echo "</table>";
echo ”<br>Correct␣Answer:␣”. $questions[$i]->
     answer.
”<br><hr>”;

$num++;
}
?>
</div>
</div>
</div>
</div>
</div>
```

Listing 70: photoRecognition.php

```
<h1 class=”page-header”>Memory Test <small>
     Photo Recognition</small></h1>
<p>
Photos are important to visually represent
     your memories for you. Photo recognition
     is a fun memory test where you have to
     answer questions based on the given photo
     . This test is also on your personal
     level meaning that the questions are
     based on the events and experiences that
     you had in your life. Questions can go
     from naming the person in the photo to
     remembering the date when the photo was
     taken. Remember that all of these
     questions are created and/or submitted by
      the people who really know you. You don’
     t␣have␣to␣feel␣pressured␣in␣answering␣the
     ␣questions,␣just␣answer␣what␣you␣think␣
     and␣feel␣is␣right.␣All␣10␣items␣are␣of␣
     multiple␣choice␣type␣of␣test.␣Choose␣the␣
     best␣answer.␣Your␣scores␣in␣the␣tests␣
     will␣be␣the␣basis␣of␣the␣progress␣report␣
     that␣will␣be␣generated␣in␣the␣reports␣
     section.␣Click␣”Take␣Test”␣to␣start␣your␣
     memory␣test␣now.
<br><br><b>Note:</b>␣You␣are␣allowed␣to␣take␣
     only␣one␣test␣per␣category␣per␣day.␣If␣
     the␣”Take␣Test”␣button␣is␣disabled,␣that␣
     means␣that␣you␣already␣took␣the␣test␣
     earlier␣today.␣You␣can␣always␣come␣back␣
     tomorrow␣to␣take␣another␣one.
</p>

<a␣href=”<?=base␣url(’patient/
     photoRecognitionProper’)?>”␣class=”<?php␣
     if($cookie->error␣!=␣2)␣echo␣”btn␣btn-
     primary␣btn-lg”;␣else␣echo␣”btn␣btn-
     primary␣btn-lg␣disabled”;␣?>”␣role=”
     button”>Take␣Test</a>
```

Listing 71: photoRecognitionProper.php

```
<h1 class=”page-header”>Memory Test <small>
     Photo Recognition</small></h1>
<div class=”pad”>
<h3 class=”title␣text-center”>Test Proper</h3>
<div class=”row”>
<div class=”col-md-2”>
</div>

<div class=”col-md-8”>
<div class=”panel␣panel-default”>
<div class=”panel-body”>
<?php
$array = array();
$count=count($questions);
if($count==0){
echo ”Sorry,␣there␣are␣no␣available␣test␣
     questions␣for␣you.”;
}
else{
?>
<form name=”test” method=”POST” action=”<?=
     base_url(’patient/submitPhotoRecognition
     ’)?>”>
<?php
$i=0;
if($count>10){
while(count($array)<10){
$j = rand(0, $count-1);
if(!in_array($j, $array)){
$num = $i+1;
$url = ”assets/photos/” . $questions[$j]->
     filename;
echo ”<center><img␣src=’”.base_url($url).”’␣
     class=’pic’></center>”;
echo ”<h3>” . $num . ”.␣” . $questions[$j]->
     question_details . ”</h3><p>” .
”<input␣type=’radio’␣name=’answer”.$i.”’␣value
     =’A’␣checked=’checked’>A.␣” . $questions[
     $j]->choiceA . ”<br>” .
”<input␣type=’radio’␣name=’answer”.$i.”’␣value
     =’B’>B.␣” . $questions[$j]->choiceB . ”<
     br>” .
”<input␣type=’radio’␣name=’answer”.$i.”’␣value
     =’C’>C.␣” . $questions[$j]->choiceC . ”<
     br>” .
”<input␣type=’radio’␣name=’answer”.$i.”’␣value
     =’D’>D.␣” . $questions[$j]->choiceD . ”<
     br>” .
”<input␣type=’hidden’␣name=’correct[]’␣value=’
     ”.$questions[$j]->answer.”’>” .
”<input␣type=’hidden’␣name=’items[]’␣value=’”.
     $questions[$j]->question_id.”’>” .
”</p><br><hr>”;
array_push($array, $j);
$i++;
}
}
}
else{
while($i<$count){
$j = rand(0, $count-1);
if(!in_array($j, $array)){
$num = $i+1;
$url = ”assets/photos/” . $questions[$j]->
     filename;
echo ”<center><img␣src=’”.base_url($url).”’␣
     class=’pic’></center>”;
echo ”<h3>” . $num . ”.␣” . $questions[$j]->
     question_details . ”</h3><p>” .
”<input␣type=’radio’␣name=’answer”.$i.”’␣value
     =’A’␣checked=’checked’>A.␣” . $questions[
     $j]->choiceA . ”<br>” .
”<input␣type=’radio’␣name=’answer”.$i.”’␣value
     =’B’>B.␣” . $questions[$j]->choiceB . ”<
     br>” .
”<input␣type=’radio’␣name=’answer”.$i.”’␣value
     =’C’>C.␣” . $questions[$j]->choiceC . ”<
     br>” .
”<input␣type=’radio’␣name=’answer”.$i.”’␣value
     =’D’>D.␣” . $questions[$j]->choiceD . ”<
     br>” .
”<input␣type=’hidden’␣name=’correct[]’␣value=’
     ”.$questions[$j]->answer.”’>” .
”<input␣type=’hidden’␣name=’items[]’␣value=’”.
     $questions[$j]->question_id.”’>” .
”</p><br><hr>”;
array_push($array, $j);
$i++;
}
}
}
?>
<button class=”btn␣btn-primary␣pull-right”
     type=”submit”>Submit</button>
</form>
<?php
}
?>
</div>
</div>
</div>
</div>
</div>
```

Listing 72: photoRecognitionAnswers.php

```
<h1 class=”page-header”>Memory Test <small>
     Photo Recognition</small></h1>
<div class=”pad”>
<h3 class=”title␣text-center”>Review Answers</
     h3>
<div class=”row”>
<div class=”col-md-2”>
</div>

<div class=”col-md-8”>
<div class=”panel␣panel-default”>
<div class=”panel-body”>
<center><h3>You got a score of <?php echo
     $score; ?>!</h3></center>
<?php
$num = 1;
for($i=0; $i<count($questions); $i++){
$url = ”assets/photos/” . $questions[$i]->
     filename;
echo ”<center><img␣src=’”.base_url($url).”’␣
     class=’pic’></center>”;
echo ”<h3>” . $num . ”.␣” . $questions[$i]->
     question_details . ”</h3><p>”;
if($questions[$i]->answer == $answers[$i]){
$glyph = ”glyphicon␣glyphicon-ok-circle”;
$style = "color:green;";
}
else{
$glyph = "glyphicon␣glyphicon-remove-circle";
$style = "color:red;";
}
echo "<table>" .
"<col␣width='20'>" .
"<col␣width='500'>";
echo "<tr>";
if($answers[$i] == 'A')
echo "<td><span␣class='".$glyph."'␣style='".
     $style."'␣aria-hidden='true'></span></td
     ><td>A.␣".$questions[$i]->choiceA."</td>"
     ;
else
echo "<td></td><td>A.␣".$questions[$i]->
     choiceA."</td>";
echo "</tr>";
echo "<tr>";
if($answers[$i] == 'B')
echo "<td><span␣class='".$glyph."'␣style='".
     $style."'␣aria-hidden='true'></span></td
     ><td>B.␣".$questions[$i]->choiceB."</td>"
     ;
else
echo "<td></td><td>B.␣".$questions[$i]->
     choiceB."</td>";
echo "</tr>";
echo "<tr>";
if($answers[$i] == 'C')
echo "<td><span␣class='".$glyph."'␣style='".
     $style."'␣aria-hidden='true'></span></td
     ><td>C.␣".$questions[$i]->choiceC."</td>"
     ;
else
echo "<td></td><td>C.␣".$questions[$i]->
     choiceC."</td>";
echo "</tr>";
echo "<tr>";
if($answers[$i] == 'D')
echo "<td><span␣class='".$glyph."'␣style='".
     $style."'␣aria-hidden='true'></span></td
     ><td>D.␣".$questions[$i]->choiceD."</td>"
     ;
else
echo "<td></td><td>D.␣".$questions[$i]->
     choiceD."</td>";
echo "</tr>";
echo "</table>";
echo "<br>Correct␣Answer:␣". $questions[$i]->
     answer.
"<br><hr>";
$num++;
}
?>
</div>
</div>
</div>
</div>
</div>
```

Listing 73: guardian/dashboard.php

```
<h1 class="page-header">Dashboard <small>
     Overview</small></h1>
<div class="row">
<div class="col-md-8">
<h1>Welcome, <?php echo $cookie->first_name .
     "␣" . $cookie->last_name; ?>!</h1>
<p>
AAIS is created for the benefit of helping
     patients with anterograde amnesia cope
     with their condition. You, as a guardian,
      plays an important role in this system
     to further make the experience of the
     patient here more efficient. The nearest
     appointments and schedules involving the
     patient are listed on the right side to
     remind you better. You can click the view
      all button to see the others. To better
     guide you in navigating the system,
     instructions were placed around the
     system. Try to explore and navigate now!
</p>
</div>
<div class="col-md-4">
<div class="panel␣panel-primary">
<div class="panel-heading">ACTIVITY REMINDERS
     </div>
<div class="panel-body">
<?php
foreach($reminders as $r){
?>
<h5><?php echo $r->date_time; ?>:
<?php echo $r->title; ?> </h5>
<?php
$details = substr($r->details, 0, 255);
echo "<h5␣class='gray'>&nbsp;␣&nbsp;" .
     $details . "...</h5>";
?>

<?php
}
if(count($reminders)==0){
echo "<h5><center>No␣activity␣reminders.</
     center></h5>";
}
else{
?>
<a href="<?=base_url('user/reminders')?>"
     class="btn␣btn-primary␣pull-right" role="
     button">View All</a>
<?php
}
?>
</div>
</div>
</div>
</div>
```

Listing 74: guardian/connections.php

```
<h1 class="page-header">Connections <small>
     Patient and Therapist</small></h1>
<div class="pad">

<div class="row">
<div class="col-md-1"></div>
<div class="col-md-5">
<center><h3 class="title">P A T I E N T</h3></
     center>
<div class="panel␣panel-default">
<div class="panel-body">
<table class="connect">
<col width="150">
<col width="300">
<tr>
<td rowspan='5'><img src="<?=base_url('assets/
     users/'.$patient->profile_picture)?>"
     class="dp"></td>
<td><h3><?php echo $patient->first_name . "␣"
     . $patient->last_name; ?></h3></td>
</tr>
<tr>
<td><?php echo $patient->username; ?></td>
</tr>
<tr>
<td><?php echo $patient->email; ?></td>
</tr>
<tr>
<td>Public ID: <?php echo $cookie->public_id;
     ?></td>
</tr>
</table>
</div>
</div>
</div>

<div class="col-md-5">
<center><h3 class="title">T H E R A P I S T</
     h3></center>
<div class="panel␣panel-default">
<div class="panel-body">
<table class="connect">
<col width="150">
<col width="300">
<tr>
<td rowspan='5'><img src="<?=base_url('assets/
     users/'.$therapist->profile_picture)?>"
     class="dp"></td>
<td><h3><?php echo $therapist->first_name . "␣
     " . $therapist->last_name; ?></h3></td>
</tr>
<tr>
<td><?php echo $therapist->username; ?></td>
</tr>
<tr>
<td><?php echo $therapist->email; ?></td>
</tr>
<tr>
<td>&nbsp;</td>
</tr>
</table>
</div>
</div>
</div>

</div>

</div>
```

Listing 75: guardian/categories.php

```
<h1 class=”page-header”>Categories <small>
      Manage entry categories </small></h1>

<div class=”pad”>
<div class=”row”>
<div class=”col-md-3”></div>
<div class=”col-md-6”>
<div class=”panel␣panel-default␣panel-body”>
<table>
<col width=”600”>
<col width=”200”>
<col width=”50”>
<tr>
<form method=”POST” action=”<?=base␣url(’
      guardian/addCategory’)?>”>
<td><input type=”text” name=”category” id=”
      category” class=”form-control”
      placeholder=”Add␣new␣category...”></td>
<td></td>
<td><button class=”clear” type=”submit”><span
      class=”glyphicon␣glyphicon-plus-sign”
      aria-hidden=”true” style=”color:␣#337ab7;
      ”></span></button></td>
</form>
</tr>
<tr>
<td style=”padding-top:␣10px;”>Therapy</td>
<td></td>
<td></td>
</tr>
<?php
foreach($categories as $c){
if($c->name!=”Therapy”){
?>
<tr>
<form method=”POST” action=”<?=base␣url(’
      guardian/deleteCategory’)?>” onsubmit=”
      return␣confirm(’Are␣you␣sure␣you␣want␣to␣
      delete␣this␣category?’);”>
<td style=”padding-top:␣10px;”><?php echo $c->
      name; ?></td>
<td><input type=”hidden” name=”category␣id” id
      =”category␣id” value=”<?php␣echo␣$c->
      category␣id␣?>”></td>
<td style=”padding-top:␣10px;”><button class=”
      clear” type=”submit”><span class=”
      glyphicon␣glyphicon-remove-sign” aria-
      hidden=”true” style=”color:␣red;”></span
      ></button></td>
</form>
</tr>
<?php
}
}
?>
</table>
</div>
</div>
<div class=”col-md-3”></div>
</div>
</div>
```

Listing 76: guardian/manageUsers.php

```
<h1 class=”page-header”>Manage Users <small>
      View, delete users</small></h1>


<h4 class=”line”><span>Public (<?php echo
      count($public); ?>)</span></h4>
<div class=”blah”>
<div class=”row”>
<?php
foreach($public as $user){
$url = ”assets/users/” . $user->
      profile␣picture;
?>
<div class=”col-md-3”>
<div class=”panel␣panel-default”>
<form method=”POST” action=”<?=base␣url(’
      guardian/deleteUser’)?>” onsubmit=”return
      ␣confirm(’Are␣you␣sure␣you␣want␣to␣delete
      ␣this␣user?’);”>
<input type=”hidden” name=”user␣id” value=”<?
      php␣echo␣$user->user␣id␣?>”>
<button class=”pull-right␣clear2” type=”submit
      ”><span class=”glyphicon␣glyphicon-remove
      -circle” aria-hidden=”true” style=”color:
      ␣red;␣font-size:␣24px;”></span></button>
</form>
<br>
<div class=”panel-body”>
<center><img src=”<?php␣echo␣base␣url($url);␣
      ?>” class=”dp”></center><br>
<h5>
<?php
echo ”Name:␣” . $user->first␣name . ”␣” .
      $user->last␣name . ”<br>” .
”Username:␣” . $user->username . ”<br>” .
”Sex:␣” . $user->sex .  ”<br>” .
”Birthday:␣” . $user->birthday .  ”<br>” .
”Email:␣” . $user->email . ”<br>”;
?>
</h5>
</div>
</div>
</div>
<?php
}
?>
</div>
<div class=”row”>
<div class=”col-md-12␣text-right”>
<?php echo $pagination; ?>
</div>
</div>
```

Listing 77: guardian/userRequests.php

```
<h1 class=”page-header”>Account Requests <
      small>Accept/Reject users</small></h1>
<div class=”pad”>
<div class=”row”>
<div class=”col-md-4”></div>
<div class=”col-md-4”>
<div class=”panel␣panel-default␣panel-body”>
<?php
foreach($users as $user){
$url = ”assets/users/” . $user->
      profile␣picture;
?>
<center><img src=”<?php␣echo␣base␣url($url);␣
      ?>” class=”dp”></center><br>
<h5>
<?php
echo ”Name:␣” . $user->first␣name . ”␣” .
      $user->last␣name . ”<br>” .
”Auto-generated␣username:␣” . $user->username
      . ”<br>” .
”Sex:␣” . $user->sex .  ”<br>” .
”Birthday:␣” . $user->birthday .  ”<br>” .
”Email:␣” . $user->email . ”<br>” .
”Message:␣” . $user->note . ”<br>”;
?>
</h5>
<form method=”POST” action=”<?=base␣url(’
      guardian/rejectUser’)?>” onsubmit=”return
      ␣confirm(’Are␣you␣sure␣you␣want␣to␣reject
      ␣this␣user?’);”>
<input type=”hidden” name=”user␣id” value=”<?
      php␣echo␣$user->user␣id␣?>”>
<button class=”pull-right␣clear2” type=”submit
      ”><h4 style=”color:␣red;”><span class=”
      glyphicon␣glyphicon-remove-circle” aria-
      hidden=”true”></span> Reject</h4></button
      >
</form>
<form method=”POST” action=”<?=base␣url(’
      guardian/acceptUser’)?>” onsubmit=”return
      ␣confirm(’Are␣you␣sure␣you␣want␣to␣accept
      ␣this␣user?’);”>
<input type=”hidden” name=”user␣id” value=”<?
      php␣echo␣$user->user␣id␣?>”>
<button class=”pull-right␣clear2” type=”submit
      ”><h4 style=”color:␣green;”><span class=”
      glyphicon␣glyphicon-ok-circle” aria-
      hidden=”true”></span> Accept</h4></button
      >
</form>
<br><br><hr><br>
<?php
}
if(count($users)==0){
echo ”<h4␣class=’title␣text-center’>No␣pending
      ␣account␣requests.</h4>”;
}
?>
</div>
</div>
<div class=”col-md-4”></div>
</div>
<div class=”row”>
<div class=”col-md-12␣text-center”>
<?php echo $pagination; ?>
</div>
</div>
</div>
```

Listing 78: guardian/submissions.php

```
<h1 class="page-header">Submissions <small>
     Accept/Reject submissions</small></h1>
<div class="pad">
<div class="row">
<div class="col-md-4">
<div class="panel␣panel-info2">
<div class="panel-body">
These entries are submitted either by the
     patient's␣therapist␣or␣anyone␣from␣the␣
     public␣who␣knows␣the␣patient's public ID.
      Please be careful on accepting and
     rejecting entries. Make sure to accept
     only those legit and relevant entries.
     Otherwise, reject it to avoid bombarding
     the patient with too much entries.
</div>
</div>
</div>

<div class="col-md-8">
<div class="panel␣panel-default">
<div class="panel-body">
<?php
foreach ($entries as $e) {
switch($e["submission_type"]){
case '1':
echo "<h3>" . $e["object"]->title . "</h3>" .
"<h6>By:␣" . $e["object"]->author . ",␣" . $e[
     "object"]->date_created . "</h6>" .
"<h4>Event␣Date:␣" . $e["object"]->date . "</
     h4>" .
"<p>␣" . $e["object"]->details . "</p>";
echo "<h5><span␣class='glyphicon␣glyphicon-tag
     '␣aria-hidden='true'></span>";
if($e["object"]->category != "all")
echo $e["object"]->category ."</h5>";
else
echo "</h5>";
break;
case '2':
echo "<h3>" . $e["object"]->title . "</h3>" .
"<h6>By:␣" . $e["object"]->author . ",␣" . $e[
     "object"]->date_created . "</h6>" .
"<h4>Activity␣Date␣and␣Time:␣" . $e["object"
     ]->date_time . "</h4>" .
"<p>␣" . $e["object"]->details . "</p>";
echo "<h5><span␣class='glyphicon␣glyphicon-tag
     '␣aria-hidden='true'></span>";
if($e["object"]->category != "all")
echo $e["object"]->category ."</h5>";
else
echo "</h5>";
break;
case '3':
$url = "assets/photos/" . $e["object"]->
     filename;
echo "<h4>Date␣Taken:␣" . $e["object"]->date .
      "</h4>" .
"<h6>By:␣" . $e["object"]->author . ",␣" . $e[
     "object"]->date_created . "</h6>" .
"<center><img␣src='".base_url($url)."'␣class='
     pic'>" .
"<p>␣" . $e["object"]->caption . "</p></center
     >";
echo "<h5><span␣class='glyphicon␣glyphicon-tag
     '␣aria-hidden='true'></span>";
if($e["object"]->category != "all")
echo $e["object"]->category ."</h5>";
else
echo "</h5>";
break;
case '4':
if($e["object"]->filename != 0){
$url = "assets/photos/" . $e["object"]->
     filename;
echo "<center><img␣src='".base_url($url)."'␣
     class='pic'></center>";
}
if($e["object"]->type == 3)
echo "<h4>(General␣Knowledge)</h4>";
else
echo "<h4>(Personal)</h4>";
echo "<h3>" . $e["object"]->question_details .
      "</h3>" .
"<h6>By:␣" . $e["object"]->author . ",␣" . $e[
     "object"]->date_created . "</h6>" .
"<p>␣A.␣" . $e["object"]->choiceA . "<br>" .
"B.␣" . $e["object"]->choiceB . "<br>" .
"C.␣" . $e["object"]->choiceC . "<br>" .
"D.␣" . $e["object"]->choiceD . "<br>" .
"<b>ANSWER:␣" . $e["object"]->answer . "</b><
     br>" .
"</p>";

default: break;
}
?>
<form method="POST" action="<?=base_url('
     guardian/reject')?>" onsubmit="return␣
     confirm('Are␣you␣sure␣you␣want␣to␣reject␣
     this␣entry?');">
<input type="hidden" name="submission_id"
     value="<?php␣echo␣$e['submission_id']␣?>"
     >
<input type="hidden" name="submission_type"
     value="<?php␣echo␣$e['submission_type']␣
     ?>">
<input type="hidden" name="submission_type_id"
      value="<?php␣echo␣$e['submission_type_id
     ']␣?>">
<button class="pull-right␣clear2" type="submit
     "><h4 style="color:␣red;"><span class="
     glyphicon␣glyphicon-remove-circle" aria-
     hidden="true"></span> Reject</h4></button
     >
</form>
<form method="POST" action="<?=base_url('
     guardian/accept')?>">
<input type="hidden" name="submission_id"
     value="<?php␣echo␣$e['submission_id']␣?>"
     >
<input type="hidden" name="submission_type"
     value="<?php␣echo␣$e['submission_type']␣
     ?>">
<input type="hidden" name="submission_type_id"
      value="<?php␣echo␣$e['submission_type_id
     ']␣?>">
<button class="pull-right␣clear2" type="submit
     "><h4 style="color:␣green;"><span class="
     glyphicon␣glyphicon-ok-circle" aria-
     hidden="true"></span> Accept</h4></button
     >
</form>
<br><br><hr>
<?php
}
if(count($entries) == 0)
echo "<center><h4>No␣new␣submissions.</h4></
     center>";
?>
<div class="row">
<div class="col-md-12␣text-right">
<?php echo $pagination; ?>
</div>
</div>
</div>
</div>
</div>
</div>
</div>
```

Listing 79: guardian/photoQuestions.php

```
<h1 class="page-header">Photo Questions <small
     >Use photos for memory test</small></h1>
<div class="pad">
<?php
if($cookie->error==1){
?>
<div class="alert␣alert-danger" role="alert">
<span class="glyphicon␣glyphicon-exclamation-
     sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Please
     check your input. All fields are required
     .
</div>
<?php
$publicCookie = $this->AAIS_model->getCookie('
     theUserCookie');
$publicCookie->error = 0;
$this->AAIS_model->setCookie( (array)
     $publicCookie, 'theUserCookie' );
}
?>
</div>
<div class="row">
<div class="col-md-1"></div>
<div class="col-md-10">
<div class="panel␣panel-default">
<div class="panel-body">
<table class="add">
<form method="POST" action="<?=base_url('
     guardian/processPhotoQuestion')?>">
<col width="200">
<col width="900">
<tr>
<td valign='top'><h4 class="title">Step 1:</h4
     > Choose a photo.</td>
<td>
<div class="form-group">
<?php
$i = 0;
foreach($photos as $p){
?>
<div class="choosePhoto">
<img src="<?=base_url('assets/photos/'.$p->
     filename)?>">
<br>
<center>
<?php if($i==0) { ?>
<input type="radio" name="photo" value='<?php␣
     echo␣$p->filename;␣?>' checked="checked">
<?php } else { ?>
<input type="radio" name="photo" value='<?php␣
     echo␣$p->filename;␣?>'>
<?php } ?>
</center>
</div>
<?php
$i++;
}
?>
</div>
<br><hr><br><br>
</td>
</tr>
<tr>
<td valign='top'><h4 class="title">Step 2:</h4
     > Select type of question.</td>
<td>
<div class="form-group">
<label for="type">Question Type</label>
<select name="type" id="type" class="form-
     control">
<option value="2">Personal Question</option>
<option value="3">General Knowledge</option>
</select>
</div>
<br><hr><br><br>
</td>
</tr>
<tr>
<td valign='top'><h4 class="title">Step 3:</h4
     > Formulate question.</td>
<td>
<div class="form-group">
<label for="question">Question</label>
<input type="text" name="question" id="
     question" class="form-control"
     placeholder="ex.␣Who␣is␣the␣girl␣in␣the␣
     photo?">
</div>
<br><hr><br><br>
</td>
</tr>
<tr>
<td valign='top'><h4 class="title">Step 4:</h4
     > Input the choices.</td>
<td>
<div class="form-group">
<label for="choiceA">Choice A</label>
<input type="text" name="choiceA" id="choiceA"
      class="form-control" placeholder="ex.␣
     Krizia">


<label for="choiceB">Choice B</label>
<input type="text" name="choiceB" id="choiceB"
      class="form-control" placeholder="ex.␣
     Christine">

<label for="choiceC">Choice C</label>
<input type="text" name="choiceC" id="choiceC"
      class="form-control" placeholder="ex.␣
     Andrea">

<label for="choiceD">Choice D</label>
<input type="text" name="choiceD" id="choiceD"
      class="form-control" placeholder="ex.␣
     Isabella">
</div>
<br><hr><br><br>
</td>
</tr>
<tr>
<td valign='top'><h4 class="title">Step 5:</h4
     > Pick the correct answer.</td>
<td>
<div class="form-group">
<label for="answer">Correct Answer</label>
<select name="answer" id="answer" class="form-
     control">
<option value="A">A</option>
<option value="B">B</option>
<option value="C">C</option>
<option value="D">D</option>
</select>
</div>
<br><hr><br><br>
</td>
</tr>
<tr>
<td valign='top'><h4 class="title">Step 6:</h4
     > Submit input.</td>
<td>
<center><button type="submit" class="btn␣btn-
     primary" style="font-size:␣20px;">Create
     Test Question</button></center>
</td>
</tr>
</form>
</table>
</div>
</div>
</div>
<div class="col-md-1"></div>
</div>
```

Listing 80: guardian/photoQuestionPreview.php

```
<h1 class="page-header">Photo Questions <small
     >Use photos for memory test</small></h1>
<div class="pad">
<div class="alert␣alert-success" role="alert">
<span class="glyphicon␣glyphicon-ok-circle"
     aria-hidden="true"></span>
<span class="sr-only">Success! </span> You
     have successfully created a photo
     question.
</div>
</div>

<center><h3 class="title">P R E V I E W</h3></
     center>
<div class="row">
<div class="col-md-2"></div>
<div class="col-md-8">
<div class="panel␣panel-default">
<div class="panel-body">
<?php
$url = "assets/photos/" . $question->filename;
echo "<center><img␣src='".base_url($url)."'␣
     class='pic'></center>";
echo "<h3>" . $question->question_details . "
     </h3>" .
"<h6>By:␣" . $question->author . ",␣" .
     $question->date_created . "</h6>" .
"<p>␣A.␣" . $question->choiceA . "<br>" .
"B.␣" . $question->choiceB . "<br>" .
"C.␣" . $question->choiceC . "<br>" .
"D.␣" . $question->choiceD . "<br>" .
"<b>ANSWER:␣" . $question->answer . "</b><br>"
      .
"</p>";
?>
<center><a href="<?=base_url('guardian/
     photoQuestions')?>">Create another photo
     question.</center>
</div>
</div>
</div>
</div>
```

Listing 81: ot/dashboard.php

```
<h1 class="page-header">Dashboard <small>
     Overview</small></h1>
<div class="row">
<div class="col-md-8">
<h1>Welcome, <?php echo $cookie->first_name .
     "␣" . $cookie->last_name; ?>!</h1>
<p>
AAIS is created for the benefit of helping
     patients with anterograde amnesia cope
     with their condition. You, as a therapist
     , plays an important role in this system
     to further make the experience of the
     patients here more efficient. The nearest
      appointments and schedules you have with
      your patients are listed on the right
     side to remind you better. You can click
     the view all button to see the others. To
      better guide you in navigating the
     system, instructions were placed around
     the system. Try to explore and navigate
     now!
</p>
</div>
<div class="col-md-4">
<div class="panel␣panel-primary">
<div class="panel-heading">ACTIVITY REMINDERS
     </div>
<div class="panel-body">
<?php
$i = 0;
foreach($reminders as $r){
```

```
?>
<h5><?php echo $r['reminder']->date_time; ?>:
<?php echo $r['reminder']->title . "</h5><h5␣
    class='gray'>&nbsp;␣&nbsp;" . $r['patient
    ']->first_name . "␣" . $r['patient']->
    last_name . "␣-␣" ;?>
<?php
$details = substr($r['reminder']->details, 0,
    255);
echo $details . "...</h5>";
?>

<?php
$i++;
if($i==3)
break;
}
if(count($reminders)==0){
echo "<h5><center>No␣activity␣reminders.</
    center></h5>";
}
else{
?>
<a href="<?=base_url('ot/reminders')?>" class=
    "btn␣btn-default␣pull-right" role="button
    ">View All</a>
<?php
}
?>
</div>
</div>
</div>
</div>
```

Listing 82: ot/editAccount.php

```
<div class="pad">
<h1 class="page-header">Edit Account <small>
    Therapist</small></h1>
<?php
if($cookie->error==1){
$cookie->error = 0;
$this->AAIS_model->setCookie( (array) $cookie,
     'theUserCookie');
?>
<div class="alert␣alert-danger" role="alert">
<span class="glyphicon␣glyphicon-exclamation-
    sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Please
    check your input. All fields are required
    .
</div>
<?php
}

else if($cookie->error==2){
$cookie->error = 0;
$this->AAIS_model->setCookie( (array) $cookie,
     'theUserCookie');
?>
<div class="alert␣alert-success" role="alert">
<span class="glyphicon␣glyphicon-ok-circle"
    aria-hidden="true"></span>
<span class="sr-only">Success! </span> You
    have successfully edited your account.
</div>
<?php
}
?>

<form method="POST" action="<?=base_url('ot/
    editAccount/stepTwo')?>" enctype="
    multipart/form-data">
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-6">
<h3 class="title">A C C O U N T &nbsp; I N F O
     R M A T I O N</h3>
</div>
</div>
<div class="col-md-3">
</div>
<div class="col-md-6">
<div class="panel␣panel-default">
<div class="panel-body">
<table class>
<col width="200">
<col width="500">
<tr>
<td><img src="<?=base_url('assets/users/'.
    $cookie->profile_picture)?>" class="dp"
    ></td>
<td><input type="file" name="dp" id="dp" class
    ="form-control" ng-required="true"></td>
</tr>
</table>
<br><hr><br>
<table class="add">
<col width="200">
<col width="500">
<tr>
<td>First Name</td>
<td><input type="text" name="firstName" id="
    firstName" class="form-control" value="<?
    php␣echo␣$cookie->first_name␣?>"></td>
</tr>
<tr>
<td>Last Name</td>
<td><input type="text" name="lastName" id="
    lastName" class="form-control" value="<?
    php␣echo␣$cookie->last_name␣?>"></td>
</tr>
<tr>
<td>Sex</td>
<td><select name="sex" id="sex" class="form-
    control">
<?php
if($cookie->sex == 'F'){
?>
<option value="M">Male</option>
<option value="F" selected='selected'>Female</
    option>
<?php
}
else{
?>
<option value="M" selected='selected'>Male</
    option>
<option value="F">Female</option>
<?php
}
?>
</select>
</td>
</tr>
<tr>
<td>Birthday</td>
<td><input type="date" name="birthday" id="
    birthday" class="form-control" value="<?
    php␣echo␣$cookie->birthday␣?>"></td>
</tr>
<tr>
<td>Email Address</td>
<td><input type="text" name="email" id="email"
     class="form-control" value="<?php␣echo␣
    $cookie->email␣?>"></td>
</tr>
<tr>
<td>Username</td>
<td><input type="text" name="username" id="
    username" class="form-control" value="<?
    php␣echo␣$cookie->username␣?>"></td>
</tr>
<tr>
<td>Password</td>
<td><input type="password" name="password" id=
    "password" class="form-control" value="<?
    php␣echo␣$cookie->password␣?>"></td>
</tr>
</table>
</div>
</div>
</div>

<div class="row">
<div class="col-md-8">
</div>
<div class="col-md-1">
<button class="btn␣btn-primary" type="submit">
    Submit</button>
</div>
</div>
</form>
</div>
```

Listing 83: ot/patients.php

```
<div class="pad">
<h1 class="page-header">Patients <small>
    Overview</small></h1>
<h4 class="line"><span>Patients (<?php echo
    count($connections); ?>)</span></h4>
<div class="blah">
<div class="row">
<center>
<div class="col-md-2"></div>
<div class="col-md-4"><h4 class="title">
    Patients</h4></div>
<div class="col-md-4"><h4 class="title">
    Guardians</h4></div>
<div class="col-md-2"></div>
</center>
</div>
```

```
<?php
foreach($connections as $con){
?>

<div class="row">
<div class="col-md-2"></div>
<div class="col-md-4">
<div class="panel␣panel-default">
<table style="font-size:␣12px;">
<col width="100">
<col width="20">
<col width="200">
<tr>
<td rowspan='3'><img src="<?=base_url('assets/
     users/'.$con['patient']->profile_picture)
     ?>" class="smallPic"></td>
<td></td>
<td><?php echo $con['patient']->first_name . "
     ␣" . $con['patient']->last_name; ?><br>
<?php echo $con['patient']->username; ?>
</td>
</tr>
<tr>
<td></td>
<td><?php if($con['patient']->sex=='M') echo "
     Male"; else echo "Female"; ?><br>
<?php echo $con['patient']->birthday; ?>
</td>
</tr>
<tr>
<td></td>
<td><?php echo $con['patient']->email; ?></td>
</tr>
</table>
</div>
</div>

<div class="col-md-4">
<div class="panel␣panel-default">
<table style="font-size:␣12px;">
<col width="100">
<col width="20">
<col width="200">
<tr>
<td rowspan='3'><img src="<?=base_url('assets/
     users/'.$con['guardian']->profile_picture
     )?>" class="smallPic"></td>
<td></td>
<td><?php echo $con['guardian']->first_name .
     "␣" . $con['guardian']->last_name; ?><br>
<?php echo $con['guardian']->username; ?>
</td>
</tr>
<tr>
<td></td>
<td><?php if($con['guardian']->sex=='M') echo
     "Male"; else echo "Female"; ?><br>
<?php echo $con['guardian']->birthday; ?>
</td>
</tr>
<tr>
<td></td>
<td><?php echo $con['guardian']->email; ?></td
     >
</tr>
</table>
</div>
</div>
<div class="col-md-2"></div>
</div>

<?php
}
?>
</div>
</div>
</div>
```

Listing 84: ot/create/main.php

```
<div class="pad">
<h1 class="page-header">Submit Entries
<small>
<?php
switch($entry->pageType){
case 1: echo "Journal␣Entries";
break;
case 2: echo "Activity␣Reminders";
break;
case 3: echo "Photos";
break;
case 4: echo "Memory␣Test␣Questions";
break;
}
?>
</small></h1>
<div class="row">
<div class="col-md-3">
<?php
switch($entry->pageType){
case 1: echo "Journal␣entries␣are␣accounts␣of␣
     recent␣events␣that␣are␣relevant␣to␣the␣
     patient.␣When␣submitting␣an␣entry,␣try␣to
     ␣make␣the␣title␣as␣informative␣as␣
     possible.␣Also,␣try␣to␣make␣the␣details␣
     detailed␣but␣not␣too␣much␣to␣avoid␣
     confusing␣the␣patient.";
break;
case 2: echo "Activity␣reminders␣are␣very␣
     helpful␣for␣patients␣to␣remember␣their␣
     appointments␣and/or␣activities␣to␣be␣done
     ␣in␣the␣coming␣days/weeks/months.␣When␣
     submitting␣a␣reminder,␣put␣all␣the␣
     relevant␣details␣including␣the␣4␣Ws␣(who,
     ␣what,␣when,␣where)␣as␣much␣as␣possible."
     ;
break;
case 3: echo "Photos␣are␣very␣important␣for␣
     patients.␣Visual␣representations␣and␣
     evidences␣for␣the␣existence␣of␣a␣memory␣
     can␣help␣patients␣remember␣more␣of␣the␣
     things␣that␣they␣have␣to.";
break;
case 4: echo "Memory␣Test␣Questions␣can␣be␣of␣
     two␣types:␣(1)␣Personal,␣which␣are␣
     questions␣on␣the␣personal␣level␣of␣the␣
     patient,␣and␣(2)␣General␣Knowledge,␣which
     ␣are␣questions␣known␣by␣the␣general␣
     public␣such␣as␣the␣name␣of␣the␣current␣
     president␣or␣the␣national␣fruit␣of␣the␣
     Philippines.";
break;
}
?>
</div>

<div class="col-md-9">
<div class="panel␣panel-default">
<div class="panel-body">
<?php
if($entry->error==1){
?>
<div class="alert␣alert-danger" role="alert">
<span class="glyphicon␣glyphicon-exclamation-
     sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Please
     check your input. All fields are required
     .
</div>
<?php
$entry->error = 0;
$this->AAIS_model->setCookie( (array) $entry,
     'theSubmissionCookie' );
}

else if($entry->error==2){
?>
<div class="alert␣alert-success" role="alert">
<span class="glyphicon␣glyphicon-ok-circle"
     aria-hidden="true"></span>
<span class="sr-only">Success! </span> You
     have successfully submitted an entry.
</div>
<?php
$entry->error = 0;
$this->AAIS_model->setCookie( (array) $entry,
     'theSubmissionCookie' );
}

else if($entry->error==3){
?>
<div class="alert␣alert-danger" role="alert">
<span class="glyphicon␣glyphicon-exclamation-
     sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Invalid
     date!
</div>
<?php
$entry->error = 0;
$this->AAIS_model->setCookie( (array) $entry,
     'theSubmissionCookie' );
}
switch($entry->pageType){
case 1: include_once("journal.php");
break;
case 2: include_once("reminder.php");
break;
case 3: include_once("photo.php");
break;
case 4: include_once("question.php");
default: break;
}
?>
</div>
</div>
</div>
```

```
</div>

</div>
```

Listing 85: ot/create/journal.php

```
<form method="POST" action="<?=base_url('ot/
      submit/1')?>">
<div class="form-group">
<label for="patient">Submit Entry for</label>
<select name="patient" id="patient" class="
      form-control">
<?php
foreach($patient_list as $patient)
echo "<option␣value='".$patient->user_id."'>".
      $patient->first_name . "␣" . $patient->
      last_name ."</option>";
?>
</select>
</div>
<div class="form-group">
<label for="date">Event Date</label>
<input type="date" name="date" id="date" class
      ="form-control">
</div>
<div class="form-group">
<label for="title">Title</label>
<input type="text" name="title" id="title"
      class="form-control">
</div>
<div class="form-group">
<label for="details">Details</label>
<textarea name="details" id="details" class="
      form-control" rows="8"></textarea>
</div>
<button type="submit" class="btn␣pull-right␣
      btn-primary">Submit</button>
</form>
<br><br>
```

Listing 86: ot/create/photo.php

```
<form method="POST" action="<?=base_url('ot/
      submit/3')?>" enctype="multipart/form-
      data">
<div class="form-group">
<label for="patient">Submit Entry for</label>
<select name="patient" id="patient" class="
      form-control">
<?php
foreach($patient_list as $patient)
echo "<option␣value='".$patient->user_id."'>".
      $patient->first_name . "␣" . $patient->
      last_name ."</option>";
?>
</select>
</div>
<div class="form-group">
<label for="date">Date Taken</label>
<input type="date" name="date" id="date" class
      ="form-control">
</div>
<div class="form-group">
<label for="title">Upload Photo (2MB max file
      size)</label>
<input type="file" name="title" id="title"
      class="form-control" ng-required="true">
</div>
<div class="form-group">
<label for="details">Caption</label>
<textarea name="details" id="details" class="
      form-control" rows="4"></textarea>
</div>
<button type="submit" class="btn␣pull-right␣
      btn-primary">Submit</button>
</form>
```

Listing 87: ot/create/question.php

```
<form method="POST" action="<?=base_url('ot/
      submit/4')?>" enctype="multipart/form-
      data">
<div class="form-group">
<label for="patient">Submit Entry for</label>
<select name="patient" id="patient" class="
      form-control">
<?php
foreach($patient_list as $patient)
echo "<option␣value='".$patient->user_id."'>".
      $patient->first_name . "␣" . $patient->
      last_name ."</option>";
?>
</select>
</div>
<div class="form-group">
<label for="question">Question</label>
<input type="text" name="question" id="
      question" class="form-control">
</div>
<div class="form-group">
<label for="type">Question Type</label>
<select name="type" id="type" class="form-
      control">
<option value="1">Personal Question</option>
<option value="3">General Knowledge</option>
</select>
</div>
<div class="form-group">
<label for="title">Upload Photo <i>(optional,
      2MB max file size)</i></label>
<input type="file" name="filename" id="
      filename" class="form-control" ng-
      required="true">
</div>
<div class="form-group">
<label for="choiceA">Choice A</label>
<input type="text" name="choiceA" id="choiceA"
       class="form-control">


<label for="choiceB">Choice B</label>
<input type="text" name="choiceB" id="choiceB"
       class="form-control">

<label for="choiceC">Choice C</label>
<input type="text" name="choiceC" id="choiceC"
       class="form-control">

<label for="choiceD">Choice D</label>
<input type="text" name="choiceD" id="choiceD"
       class="form-control">
</div>
<div class="form-group">
<label for="answer">Correct Answer</label>
<select name="answer" id="answer" class="form-
      control">
<option value="A">A</option>
<option value="B">B</option>
<option value="C">C</option>
<option value="D">D</option>
</select>
</div>
<button type="submit" class="btn␣pull-right␣
      btn-primary">Submit</button>
</form>
<br><br>
```

Listing 88: ot/create/reminder.php

```
<form method="POST" action="<?=base_url('ot/
      submit/2')?>">
<div class="form-group">
<label for="patient">Submit Entry for</label>
<select name="patient" id="patient" class="
      form-control">
<?php
foreach($patient_list as $patient)
echo "<option␣value='".$patient->user_id."'>".
      $patient->first_name . "␣" . $patient->
      last_name ."</option>";
?>
</select>
</div>
<div class="form-group">
<label for="date">Date and Time</label>
<input type="datetime-local" name="date" id="
      date" class="form-control">
</div>
<div class="form-group">
<label for="title">Title</label>
<input type="text" name="title" id="title"
      class="form-control">
</div>
<div class="form-group">
<label for="details">Details</label>
<textarea name="details" id="details" class="
      form-control" rows="4"></textarea>
</div>
<button type="submit" class="btn␣pull-right␣
      btn-primary">Submit</button>
</form>
```

Listing 89: ot/report/main.php

```
<h1 class="page-header">Reports <small>Patient
       Progress Report</small></h1>
<div class="row">
<div class="col-md-2"></div>
```

```
<div class="col-md-8">
<center>
<form method="POST" action="<?=base_url('ot/
     generateReport')?>">
<div class="form-inline">
<label for="patient">Patient: </label>
<select name="patient" id="patient" class="
     form-control">
<?php
foreach($patient_list as $patient)
echo "<option␣value='".$patient->user_id."'>".
     $patient->first_name . "␣" . $patient->
     last_name ."</option>";
?>
</select>
</div><br>
Select date range<br>
<div class="form-inline">
<input type="date" name="start" id="start"
     class="form-control"> &nbsp; to &nbsp;
<input type="date" name="end" id="end" class="
     form-control">
</div><br>
<button type="submit" class="btn␣btn-primary">
     Generate Report</button>
</form>
<br><br>
<?php
if($cookie->step==2)
include_once('graph.php');
?>
</center>
</div>
<div class="col-md-2"></div>
</div>
```

Listing 90: ot/report/graph.php

```
<script type="text/javascript" src="https://
     www.gstatic.com/charts/loader.js"></
     script>

<script type="text/javascript">
google.charts.load('current', {'packages':['
     corechart']});
google.charts.setOnLoadCallback(drawChart);

function drawChart() {
var data = new google.visualization.DataTable
     ();
data.addColumn('date', 'Date');
data.addColumn('number', 'Test␣Scores');

<?php
foreach($personal as $p){
echo "data.addRows([␣[new␣Date('".$p->date."')
     ,␣".$p->score."]␣]);";
}
?>

var options = {
title: 'Performance␣on␣Personal␣Life␣Tests',
curveType: 'function',
legend: { position: 'bottom' }
};

//var chart = new google.visualization.
     LineChart(document.getElementById('
     curve_chart1'));
var chart_div = document.getElementById('
     curve_chart1');
var chart = new google.visualization.LineChart
     (chart_div);

google.visualization.events.addListener(chart,
      'ready', function () {
chart_div.innerHTML = '<img␣src="' + chart.
     getImageURI() + '">';
console.log(chart_div.innerHTML);
});

chart.draw(data, options);

var data = new google.visualization.DataTable
     ();
data.addColumn('date', 'Date');
data.addColumn('number', 'Test␣Scores');

<?php
foreach($photo as $p){
echo "data.addRows([␣[new␣Date('".$p->date."')
     ,␣".$p->score."]␣]);";
}
?>

var options = {
title: 'Performance␣on␣Photo␣Recognition␣Tests
     ',
curveType: 'function',
legend: { position: 'bottom' }
};

// var chart = new google.visualization.
     LineChart(document.getElementById('
     curve_chart2'));

var chart_div = document.getElementById('
     curve_chart2');
var chart = new google.visualization.LineChart
     (chart_div);

google.visualization.events.addListener(chart,
      'ready', function () {
chart_div.innerHTML = '<img␣src="' + chart.
     getImageURI() + '">';
console.log(chart_div.innerHTML);
});

chart.draw(data, options);

var data = new google.visualization.DataTable
     ();
data.addColumn('date', 'Date');
data.addColumn('number', 'Test␣Scores');

<?php
foreach($general as $p){
echo "data.addRows([␣[new␣Date('".$p->date."')
     ,␣".$p->score."]␣]);";
}
?>

var options = {
title: 'Performance␣on␣General␣Knowledge␣Tests
     ',
curveType: 'function',
legend: { position: 'bottom' }
};

//var chart = new google.visualization.
     LineChart(document.getElementById('
     curve_chart2'));

var chart_div = document.getElementById('
     curve_chart3');
var chart = new google.visualization.LineChart
     (chart_div);

google.visualization.events.addListener(chart,
      'ready', function () {
chart_div.innerHTML = '<img␣src="' + chart.
     getImageURI() + '">';
console.log(chart_div.innerHTML);
});

chart.draw(data, options);
}
</script>

<h3>Patient: <?php echo $name->first_name . "␣
     " . $name->last_name; ?></h3>

<div id="curve_chart1" style="width:␣100%;␣
     height:␣500px"></div><br>
<p> This graph represents the performance of
     the patient in the memory tests on
     personal life through his scores (
     vertical axis) over the given time period
      (horizontal axis).
</p>

<div id="curve_chart2" style="width:␣100%;␣
     height:␣500px"></div><br>
<p> This graph represents the performance of
     the patient in the memory tests on photo
     recognition through his scores (vertical
     axis) over the given time period (
     horizontal axis).
</p>

<div id="curve_chart3" style="width:␣100%;␣
     height:␣700px"></div><br>
<p> This graph represents the performance of
     the patient in the memory tests on
     general knowledge through his scores (
     vertical axis) over the given time period
      (horizontal axis).
</p>
```

Listing 91: ot/reminders/main.php

```
<h1 class="page-header">Activity Reminders <
     small>Patient Appointments</small></h1>
<div class="row">
```

```
<div class="col-md-2"></div>
<div class="col-md-8">
<h3 class="title">A C T I V I T Y &nbsp; R E M I N D E R S</h3>
<div class="panel panel-default">
<div class="panel-body">
<?php
foreach($reminders as $r){
$name = $r['patient']->first_name . " " . $r['patient']->last_name;
if($r['reminder']->status == 1)
echo "<button class='btn btn-success pull-right disabled' style='opacity: 1; cursor: default;'>Confirmed</button>";
else if($r['reminder']->status == 0)
echo "<button class='btn btn-danger pull-right disabled' style='opacity: 1; cursor: default;'>Pending</button>";
else
echo "<button class='btn btn-warning pull-right disabled' style='opacity: 1; cursor: default;'>Cancelled</button>";
echo "<h3>" . $r['reminder']->title . "</h3>";
echo "Patient: " . $name . "<br>" .
"<h4>Activity Date and Time: " . $r['reminder']->date_time . "</h4>" .
"<p> " . $r['reminder']->details . "</p>";
?>
<form method="POST" action="<?=base_url('ot/deleteReminder')?>" onsubmit="return confirm('Are you sure you want to delete this reminder?');">
<input type="hidden" name="delete" value="<?php echo $r['reminder']->reminder_id ?>">
<button class="pull-right" type="submit"><span class="glyphicon glyphicon-trash" aria-hidden="true"></span></button>
</form>
<form method="POST" action="<?=base_url('ot/editReminder')?>">
<input type="hidden" name="edit" value="<?php echo $r['reminder']->reminder_id ?>">
<input type="hidden" name="name" value="<?php echo $name ?>">
<button class="pull-right" type="submit"><span class="glyphicon glyphicon-edit" aria-hidden="true"></span></button>
</form>
<br><br><hr><br>
<?php
}
if(count($reminders)==0){
echo "<center>No activity reminders.</center>";
}
?>
</div>
</div>
</div>
</div>
```

Listing 92: ot/reminders/edit.php

```
<div class="pad">
<h1 class="page-header">Activity Reminders <small>Patient Appointments</small></h1>
<?php
if($reminder->error==1){
$reminder->error = 0;
$this->AAIS_model->setCookie( (array) $reminder, 'theEntryCookie');
?>
<div class="alert alert-danger" role="alert">
<span class="glyphicon glyphicon-exclamation-sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Please check your input. All fields are required.
</div>
<?php
}

else if($reminder->error==2){
$reminder->error = 0;
$this->AAIS_model->setCookie( (array) $reminder, 'theEntryCookie');
?>
<div class="alert alert-success" role="alert">
<span class="glyphicon glyphicon-ok-circle" aria-hidden="true"></span>
<span class="sr-only">Success! </span> You have successfully edited this entry.
</div>
<?php
}
else if($reminder->error==3){
$reminder->error = 0;
$this->AAIS_model->setCookie( (array) $reminder, 'theEntryCookie');
?>
<div class="alert alert-danger" role="alert">
<span class="glyphicon glyphicon-exclamation-sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Invalid date!
</div>
<?php
}

?>

<form method="POST" action="<?=base_url('ot/editReminder/stepTwo')?>">
<div class="row">
<div class="col-md-3"></div>
<div class="col-md-7">
<h3 class="title">R E M I N D E R &nbsp; I N F O R M A T I O N</h3>
</div>
</div>
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-7">
<div class="panel panel-default">
<div class="panel-body">
<h5 class="error">Note: When you edit a confirmed activity, the status will change back to pending. The reason for this is to allow the patient's guardian to be informed first with the changes in the activity details or schedule. </h5>
<table class="add">
<col width="150">
<col width="600">
<tr>
<td>Patient</td>
<td><?php echo $reminder->patient_name; ?></td>
</tr>
<tr>
<td>Title</td>
<td><input type="text" name="title" id="title" class="form-control" value="<?php echo $reminder->title?>"></td>
</tr>
<tr>
<td>Date/Time</td>
<td><input type="datetime-local" name="date_time" id="date" class="form-control" value="<?php echo $reminder->date_time?>"></td>
</tr>
<tr>
<td >Details</td>
<td><textarea name="details" id="details" class="form-control" rows="15"><?php echo $reminder->details; ?></textarea></td>
</tr>
<input type="hidden" name="id" value="<?php echo $reminder->reminder_id?>">
</table>
</div>
</div>
</div>
</div>

<div class="row">
<div class="col-md-8">
</div>
<div class="col-md-2 text-right">
<button class="btn btn-primary" type="submit">Submit</button>
<a href="<?=base_url('ot/reminders')?>" class="btn btn-primary">Back</a>
</div>
</div>
</form>
</div>
```

Listing 93: publicUser/dashboard.php

```
<h1 class="page-header">Dashboard <small>Submissions Overview </small></h1>

<div class="pad">
<div class="row">
<div class="col-md-4">
<div class="panel-body">
<ul class="nav nav-pills nav-stacked">
<li role="presentation" class="<?php if($cookie->step == 1) echo "active"; ?>"><a href="<?=base_url("publicUser/journal")?>">
```

```
<span class="glyphicon␣glyphicon-pencil" aria-
     hidden="true"></span> Journal</a></li>
<li role="presentation" class="<?php␣if(
     $cookie->step␣==␣2)␣echo␣"active";␣?>"><a
      href="<?=base_url("publicUser/reminder")
     ?>">
<span class="glyphicon␣glyphicon-list-alt"
     aria-hidden="true"></span> Reminder</a></
     li>
<li role="presentation" class="<?php␣if(
     $cookie->step␣==␣3)␣echo␣"active";␣?>"><a
      href="<?=base_url("publicUser/photo")?>"
     >
<span class="glyphicon␣glyphicon-picture" aria
     -hidden="true"></span> Photo</a></li>
<li role="presentation" class="<?php␣if(
     $cookie->step␣==␣4)␣echo␣"active";␣?>"><a
      href="<?=base_url("publicUser/question")
     ?>">
<span class="glyphicon␣glyphicon-education"
     aria-hidden="true"></span> Memory Test</a
     ></li>
</ul>
</div>
</div>

<div class="col-md-8">
<div class="panel␣panel-default">
<div class="panel-body">
<?php
switch($cookie->step){
case 1: include_once("journal.php");
break;
case 2: include_once("reminder.php");
break;
case 3: include_once("photo.php");
break;
case 4: include_once("question.php");
default: break;
}
?>
</div>
</div>
</div>
</div>

</div>
```

Listing 94: publicUser/editAccount.php

```
<div class="pad">
<h1 class="page-header">Edit Account <small>
     Public</small></h1>
<?php
if($cookie->error==1){
$cookie->error = 0;
$this->AAIS_model->setCookie( (array) $cookie,
      'theUserCookie');
?>
<div class="alert␣alert-danger" role="alert">
<span class="glyphicon␣glyphicon-exclamation-
     sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Please
     check your input. All fields are required
     .
</div>
<?php
}

else if($cookie->error==2){
$cookie->error = 0;
$this->AAIS_model->setCookie( (array) $cookie,
      'theUserCookie');
?>
<div class="alert␣alert-success" role="alert">
<span class="glyphicon␣glyphicon-ok-circle"
     aria-hidden="true"></span>
<span class="sr-only">Success! </span> You
     have successfully edited your account.
</div>
<?php
}
?>

<form method="POST" action="<?=base_url('
     publicUser/editAccount/stepTwo')?>"
     enctype="multipart/form-data">
<div class="row">
<div class="col-md-3">
</div>
<div class="col-md-6">
<h3 class="title">A C C O U N T &nbsp; I N F O
      R M A T I O N</h3>
</div>
</div>
<div class="col-md-3">
</div>
<div class="col-md-6">
<div class="panel␣panel-default">
<div class="panel-body">
<table class>
<col width="200">
<col width="500">
<tr>
<td><img src="<?=base_url('assets/users/'.
     $cookie->profile_picture)?>" class="dp"
     ></td>
<td><input type="file" name="dp" id="dp" class
     ="form-control" ng-required="true"></td>
</tr>
</table>
<br><hr><br>
<table class="add">
<col width="200">
<col width="500">
<tr>
<td>First Name</td>
<td><input type="text" name="firstName" id="
     firstName" class="form-control" value="<?
     php␣echo␣$cookie->first_name␣?>"></td>
</tr>
<tr>
<td>Last Name</td>
<td><input type="text" name="lastName" id="
     lastName" class="form-control" value="<?
     php␣echo␣$cookie->last_name␣?>"></td>
</tr>
<tr>
<td>Sex</td>
<td><select name="sex" id="sex" class="form-
     control">
<?php
if($cookie->sex == 'F'){
?>
<option value="M">Male</option>
<option value="F" selected='selected'>Female</
     option>
<?php
}
else{
?>
<option value="M" selected='selected'>Male</
     option>
<option value="F">Female</option>
<?php
}
?>
</select>
</td>
</tr>
<tr>
<td>Birthday</td>
<td><input type="date" name="birthday" id="
     birthday" class="form-control" value="<?
     php␣echo␣$cookie->birthday␣?>"></td>
</tr>
<tr>
<td>Email Address</td>
<td><input type="text" name="email" id="email"
      class="form-control" value="<?php␣echo␣
     $cookie->email␣?>"></td>
</tr>
<tr>
<td>Username</td>
<td><input type="text" name="username" id="
     username" class="form-control" value="<?
     php␣echo␣$cookie->username␣?>"></td>
</tr>
<tr>
<td>Password</td>
<td><input type="password" name="password" id=
     "password" class="form-control" value="<?
     php␣echo␣$cookie->password␣?>"></td>
</tr>
</table>
</div>
</div>
</div>

<div class="row">
<div class="col-md-8">
</div>
<div class="col-md-1">
<button class="btn␣btn-primary" type="submit">
     Submit</button>
</div>
</div>
</form>
</div>
```

Listing 95: publicUser/journal.php

```
<?php
foreach ($entries as $journal) {
```

```
if($journal->status == 1)
echo "<button␣class='btn␣btn-success␣pull-
      right␣disabled'␣style='opacity:␣1;␣cursor
      :␣default;'>Approved</button>";
else
echo "<button␣class='btn␣btn-danger␣pull-right
      ␣disabled'␣style='opacity:␣1;␣cursor:␣
      default;'>Pending</button>";
echo "<h3>" . $journal->title . "</h3>" .
"<h6>By:␣" . $journal->author . ",␣" .
      $journal->date_created . "</h6>" .
"<h4>Event␣Date:␣" . $journal->date . "</h4>"
      .
"<p>␣" . $journal->details . "</p>";
echo "<h5><span␣class='glyphicon␣glyphicon-tag
      '␣aria-hidden='true'></span>";
if($journal->category != "all")
echo $journal->category ."</h5>";
else
echo "</h5>";
?>
<br><hr>
<?php
}
if(count($entries) == 0)
echo "<center><h4>No␣journal␣entries␣found.</
      h4></center>";
?>
```

Listing 96: publicUser/photo.php

```
<?php
foreach ($entries as $photo) {
if($photo->status == 1)
echo "<button␣class='btn␣btn-success␣pull-
      right␣disabled'␣style='opacity:␣1;␣cursor
      :␣default;'>Approved</button>";
else
echo "<button␣class='btn␣btn-danger␣pull-right
      ␣disabled'␣style='opacity:␣1;␣cursor:␣
      default;'>Pending</button>";
$url = "assets/photos/" . $photo->filename;
echo "<h4>Date␣Taken:␣" . $photo->date . "</h4
      >" .
"<h6>By:␣" . $photo->author . ",␣" . $photo->
      date_created . "</h6>" .
"<center><img␣src='" . base_url($url) . "'␣class='
      pic'>" .
"<p>␣" . $photo->caption . "</p></center>";
echo "<h5><span␣class='glyphicon␣glyphicon-tag
      '␣aria-hidden='true'></span>";
if($photo->category != "all")
echo $photo->category ."</h5>";
else
echo "</h5>";
?>
<br><hr>
<?php
}
if(count($entries) == 0)
echo "<center><h4>No␣photos␣found.</h4></
      center>";
?>
```

Listing 97: publicUser/question.php

```
<?php
foreach ($entries as $question) {
if($question->status == 1)
echo "<button␣class='btn␣btn-success␣pull-
      right␣disabled'␣style='opacity:␣1;␣cursor
      :␣default;'>Approved</button>";
else
echo "<button␣class='btn␣btn-danger␣pull-right
      ␣disabled'␣style='opacity:␣1;␣cursor:␣
      default;'>Pending</button>";
if($question->filename != 0){
$url = "assets/photos/" . $question->filename;
echo "<center><img␣src='" . base_url($url) . "'␣
      class='pic'></center>";
}
echo "<h3>" . $question->question_details . "
      </h3>" .
"<h6>By:␣" . $question->author . ",␣" .
      $question->date_created . "</h6>" .
"<p>␣A.␣" . $question->choiceA . "<br>" .
"B.␣" . $question->choiceB . "<br>" .
"C.␣" . $question->choiceC . "<br>" .
"D.␣" . $question->choiceD . "<br>" .
"<b>ANSWER:␣" . $question->answer . "</b><br>"
      .
"</p>";
?>
<br><hr>
<?php
}
if(count($entries) == 0)
echo "<center><h4>No␣questions␣found.</h4></
      center>";
?>
```

Listing 98: publicUser/reminder.php

```
<?php
foreach ($entries as $reminder) {
if($reminder->status == 1)
echo "<button␣class='btn␣btn-success␣pull-
      right␣disabled'␣style='opacity:␣1;␣cursor
      :␣default;'>Approved</button>";
else if($reminder->status == 0)
echo "<button␣class='btn␣btn-danger␣pull-right
      ␣disabled'␣style='opacity:␣1;␣cursor:␣
      default;'>Pending</button>";
else
echo "<button␣class='btn␣btn-warning␣pull-
      right␣disabled'␣style='opacity:␣1;␣cursor
      :␣default;'>Cancelled</button>";
echo "<h3>" . $reminder->title . "</h3>" .
"<h6>By:␣" . $reminder->author . ",␣" .
      $reminder->date_created . "</h6>" .
"<h4>Activity␣Date␣and␣Time:␣" . $reminder->
      date_time . "</h4>" .
"<p>␣" . $reminder->details . "</p>";
echo "<h5><span␣class='glyphicon␣glyphicon-tag
      '␣aria-hidden='true'></span>";
if($reminder->category != "all")
echo $reminder->category ."</h5>";
else
echo "</h5>";
?>
<br><hr>
<?php
}
if(count($entries) == 0)
echo "<center><h4>No␣activity␣reminders␣found
      .</h4></center>";
?>
```

Listing 99: publicUser/create/main.php

```
<div class="pad">
<h1 class="page-header">Submit Entries
<small>
<?php
switch($entry->pageType){
case 1: echo "Journal␣Entries";
break;
case 2: echo "Activity␣Reminders";
break;
case 3: echo "Photos";
break;
case 4: echo "Memory␣Test␣Questions";
break;
}
?>
</small></h1>
<div class="row">
<div class="col-md-3">
<?php
switch($entry->pageType){
case 1: echo "Journal␣entries␣are␣accounts␣of␣
      recent␣events␣that␣are␣relevant␣to␣the␣
      patient.␣When␣submitting␣an␣entry,␣try␣to
      ␣make␣the␣title␣as␣informative␣as␣
      possible.␣Also,␣try␣to␣make␣the␣details␣
      detailed␣but␣not␣too␣much␣to␣avoid␣
      confusing␣the␣patient.";
break;
case 2: echo "Activity␣reminders␣are␣very␣
      helpful␣for␣patients␣to␣remember␣their␣
      appointments␣and/or␣activities␣to␣be␣done
      ␣in␣the␣coming␣days/weeks/months.␣When␣
      submitting␣a␣reminder,␣put␣all␣the␣
      relevant␣details␣including␣the␣4␣Ws␣(who,
      ␣what,␣when,␣where)␣as␣much␣as␣possible."
      ;
break;
case 3: echo "Photos␣are␣very␣important␣for␣
      patients.␣Visual␣representations␣and␣
      evidences␣for␣the␣existence␣of␣a␣memory␣
      can␣help␣patients␣remember␣more␣of␣the␣
      things␣that␣they␣have␣to.";
break;
case 4: echo "Memory␣Test␣Questions␣can␣be␣of␣
      two␣types:␣(1)␣Personal,␣which␣are␣
      questions␣on␣the␣personal␣level␣of␣the␣
      patient,␣and␣(2)␣General␣Knowledge,␣which
      ␣are␣questions␣known␣by␣the␣general␣
      public␣such␣as␣the␣name␣of␣the␣current␣
      president␣or␣the␣national␣fruit␣of␣the␣
      Philippines.";
break;
}
?>
</div>

<div class="col-md-9">
<div class="panel␣panel-default">
<div class="panel-body">
<?php
if($entry->error==1){
?>
<div class="alert␣alert-danger" role="alert">
<span class="glyphicon␣glyphicon-exclamation-
     sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Please
     check your input. All fields are required
     .
</div>
<?php
$entry->error = 0;
$this->AAIS_model->setCookie( (array) $entry,
     'theSubmissionCookie' );
}

else if($entry->error==2){
?>
<div class="alert␣alert-success" role="alert">
<span class="glyphicon␣glyphicon-ok-circle"
     aria-hidden="true"></span>
<span class="sr-only">Success! </span> You
     have successfully submitted an entry.
</div>
<?php
$entry->error = 0;
$this->AAIS_model->setCookie( (array) $entry,
     'theSubmissionCookie' );
}

else if($entry->error==3){
?>
<div class="alert␣alert-danger" role="alert">
<span class="glyphicon␣glyphicon-exclamation-
     sign" aria-hidden="true"></span>
<span class="sr-only">Error:</span> Invalid
     date!
</div>
<?php
$entry->error = 0;
$this->AAIS_model->setCookie( (array) $entry,
     'theSubmissionCookie' );
}
switch($entry->pageType){
case 1: include_once("journal.php");
break;
case 2: include_once("reminder.php");
break;
case 3: include_once("photo.php");
break;
case 4: include_once("question.php");
default: break;
}
?>
</div>
</div>
</div>
</div>

</div>
```

Listing 100: publicUser/create/journal.php

```
<form method="POST" action="<?=base_url('
     publicUser/submit/1')?>">
<div class="form-group">
<label for="date">Event Date</label>
<input type="date" name="date" id="date" class
     ="form-control">
</div>
<div class="form-group">
<label for="title">Title</label>
<input type="text" name="title" id="title"
     class="form-control">
</div>
<div class="form-group">
<label for="details">Details</label>
<textarea name="details" id="details" class="
     form-control" rows="8"></textarea>
</div>
<div class="form-group">
<label for="category">Category</label>
<select name="category" id="category" class="
     form-control">
<option value="all">-</option>
<?php
foreach($categories as $c){
?>
<option value="<?php␣echo␣$c->name␣?>"><?php
     echo $c->name; ?></option>
<?php
}
?>
</select>
</div>
<button type="submit" class="btn␣pull-right␣
     btn-primary">Submit</button>
</form>
<br><br>
```

Listing 101: publicUser/create/photo.php

```
<form method="POST" action="<?=base_url('
     publicUser/submit/3')?>" enctype="
     multipart/form-data">
<div class="form-group">
<label for="date">Date Taken</label>
<input type="date" name="date" id="date" class
     ="form-control">
</div>
<div class="form-group">
<label for="title">Upload Photo (2MB max file
     size)</label>
<input type="file" name="title" id="title"
     class="form-control" ng-required="true">
</div>
<div class="form-group">
<label for="details">Caption</label>
<textarea name="details" id="details" class="
     form-control" rows="4"></textarea>
</div>
<div class="form-group">
<label for="category">Category</label>
<select name="category" id="category" class="
     form-control">
<option value="all">-</option>
<?php
foreach($categories as $c){
?>
<option value="<?php␣echo␣$c->name␣?>"><?php
     echo $c->name; ?></option>
<?php
}
?>
</select>
</div>
<button type="submit" class="btn␣pull-right␣
     btn-primary">Submit</button>
</form>
```

Listing 102: publicUser/create/question.php

```
<form method="POST" action="<?=base_url('
     publicUser/submit/4')?>" enctype="
     multipart/form-data">
<div class="form-group">
<label for="question">Question</label>
<input type="text" name="question" id="
     question" class="form-control">
</div>
<div class="form-group">
<label for="type">Question Type</label>
<select name="type" id="type" class="form-
     control">
<option value="1">Personal Question</option>
<option value="3">General Knowledge</option>
</select>
</div>
<div class="form-group">
<label for="title">Upload Photo <i>(optional,
     2MB max file size)</i></label>
<input type="file" name="filename" id="
     filename" class="form-control" ng-
     required="true">
</div>
<div class="form-group">
<label for="choiceA">Choice A</label>
<input type="text" name="choiceA" id="choiceA"
      class="form-control">


<label for="choiceB">Choice B</label>
<input type="text" name="choiceB" id="choiceB"
      class="form-control">

<label for="choiceC">Choice C</label>
<input type="text" name="choiceC" id="choiceC"
      class="form-control">
```

```
<label for="choiceD">Choice D</label>
<input type="text" name="choiceD" id="choiceD"
     class="form-control">
</div>
<div class="form-group">
<label for="answer">Correct Answer</label>
<select name="answer" id="answer" class="form-
     control">
<option value="A">A</option>
<option value="B">B</option>
<option value="C">C</option>
<option value="D">D</option>
</select>
</div>
<button type="submit" class="btn_pull-right_
     btn-primary">Submit</button>
</form>
<br><br>
```

Listing 103: publicUser/create/reminder.php

```
<form method="POST" action="<?=base_url('
     publicUser/submit/2')?>">
<div class="form-group">
<label for="date">Date and Time</label>
<input type="datetime-local" name="date" id="
     date" class="form-control">
</div>
<div class="form-group">
<label for="title">Title</label>
<input type="text" name="title" id="title"
     class="form-control">
</div>
<div class="form-group">
<label for="details">Details</label>
<textarea name="details" id="details" class="
     form-control" rows="4"></textarea>
</div>
<div class="form-group">
<label for="category">Category</label>
<select name="category" id="category" class="
     form-control">
<option value="all">-</option>
<?php
foreach($categories as $c){
?>
<option value="<?php_echo_$c->name_?>"><?php
     echo $c->name; ?></option>
<?php
}
?>
</select>
</div>
<button type="submit" class="btn_pull-right_
     btn-primary">Submit</button>
</form>
```

Listing 104: routes.php

```
<?php
defined('BASEPATH') OR exit('No_direct_script_
     access_allowed');


$route['default_controller'] = '
     Public_Controller'; /* MODIFIED */
$route['404_override'] = '';
$route['translate_uri_dashes'] = FALSE;

/*
        General Routes
*/
$route['login'] = 'Public_Controller/login';
$route['logout'] = 'Public_Controller/logout';

/*
        Public Routes
*/
$route['public'] = 'Public_Controller/
     publicPanel';
        $route['public/submitAccount'] = '
             Public_Controller/submitAccount';
$route['forgotPassword'] = 'Public_Controller/
     forgotPassword';
$route['loginPage'] = 'Public_Controller/
     loginPage';
$route['request'] = 'Public_Controller/request
     ';


/*
        System Admin Routes
*/
$route['sysad/dashboard'] = '
     SystemAdmin_Controller/dashboard';
$route['sysad/editAccount'] = '
     SystemAdmin_Controller/editAccount';
        $route['sysad/editAccount/stepTwo'] =
             'SystemAdmin_Controller/
             editAccountStepTwo';
$route['sysad/addUser'] = '
     SystemAdmin_Controller/addUser';
        $route['sysad/addUserPanel'] = '
             SystemAdmin_Controller/
             addUserPanel';
        $route['sysad/addUser/stepTwo'] = '
             SystemAdmin_Controller/
             addUserStepTwo';
        $route['sysad/addUser/stepThree'] = '
             SystemAdmin_Controller/
             addUserStepThree';
        $route['sysad/addUser/stepFour'] = '
             SystemAdmin_Controller/
             addUserStepFour';
        $route['sysad/addUser/stepFive'] = '
             SystemAdmin_Controller/
             addUserStepFive';
$route['sysad/addOT'] = '
     SystemAdmin_Controller/addOT';
        $route['sysad/addOT/stepTwo'] = '
             SystemAdmin_Controller/
             addOTStepTwo';
$route['sysad/addSysad'] = '
     SystemAdmin_Controller/addSysad';
        $route['sysad/addSysad/stepTwo'] = '
             SystemAdmin_Controller/
             addSysadStepTwo';
$route['sysad/editPublicID'] = '
     SystemAdmin_Controller/editPublicID';
        $route['sysad/generateNewPublicID'] =
             'SystemAdmin_Controller/
             generateNewPublicID';
        $route['sysad/cancelPublicID'] = '
             SystemAdmin_Controller/
             cancelPublicID';
$route['sysad/assignTherapist'] = '
     SystemAdmin_Controller/assignTherapist';
        $route['sysad/assignNewTherapist'] = '
             SystemAdmin_Controller/
             assignNewTherapist';
$route['sysad/deletePatient'] = '
     SystemAdmin_Controller/deletePatient';
        $route['sysad/deletePatient/stepTwo']
             = 'SystemAdmin_Controller/
             deletePatientStepTwo';
        $route['sysad/deletePatient/all'] = '
             SystemAdmin_Controller/
             deletePatientAll';
        $route['sysad/deletePatient/search'] =
              'SystemAdmin_Controller/
             deletePatientSearch';
$route['sysad/deleteGuardian'] = '
     SystemAdmin_Controller/deleteGuardian';
        $route['sysad/deleteGuardian/stepTwo']
              = 'SystemAdmin_Controller/
             deleteGuardianStepTwo';
        $route['sysad/deleteGuardian/new'] = '
             SystemAdmin_Controller/
             deleteGuardianNew';
        $route['sysad/deleteGuardian/
             newStepTwo'] = '
             SystemAdmin_Controller/
             deleteGuardianNewStepTwo';
        $route['sysad/deleteGuardian/search']
             = 'SystemAdmin_Controller/
             deleteGuardianSearch';
$route['sysad/deleteOT'] = '
     SystemAdmin_Controller/deleteOT';
        $route['sysad/deleteOT/stepTwo'] = '
             SystemAdmin_Controller/
             deleteOTStepTwo';
        $route['sysad/deleteOT/new'] = '
             SystemAdmin_Controller/
             deleteOTNew';
        $route['sysad/deleteOT/search'] = '
             SystemAdmin_Controller/
             deleteOTSearch';
$route['sysad/deleteSysad'] = '
     SystemAdmin_Controller/deleteSysad';
        $route['sysad/deleteSysad/stepTwo'] =
             'SystemAdmin_Controller/
             deleteSysadStepTwo';
        $route['sysad/deleteSysad/search'] = '
             SystemAdmin_Controller/
             deleteSysadSearch';


/*
        User Routes
*/
$route['user/editAccount'] = 'User_Controller/
     editAccount';
```

```
          $route['user/editAccount/stepTwo'] = '
                User_Controller/
                editAccountStepTwo';
          $route['user/requestPublicID'] = '
                User_Controller/requestPublicID';
$route['user/journals'] = 'User_Controller/
      journals';
          $route['user/deleteJournal'] = '
                User_Controller/deleteJournal';
          $route['user/editJournal'] = '
                User_Controller/editJournal';
                     $route['user/editJournal/
                           stepTwo'] = '
                           User_Controller/
                           editJournalStepTwo';
          $route['user/filterJournals'] = '
                User_Controller/filter/1';
$route['user/reminders'] = 'User_Controller/
      reminders';
          $route['user/deleteReminder'] = '
                User_Controller/deleteReminder';
          $route['user/editReminder'] = '
                User_Controller/editReminder';
                     $route['user/editReminder/
                           stepTwo'] = '
                           User_Controller/
                           editReminderStepTwo';
          $route['user/filterReminders'] = '
                User_Controller/filter/2';
$route['user/photos'] = 'User_Controller/
      photos';
          $route['user/deletePhoto'] = '
                User_Controller/deletePhoto';
          $route['user/editPhoto'] = '
                User_Controller/editPhoto';
                     $route['user/editPhoto/stepTwo
                           '] = 'User_Controller/
                           editPhotoStepTwo';
          $route['user/filterPhotos'] = '
                User_Controller/filter/3';
$route['user/questions'] = 'User_Controller/
      questions';
          $route['user/deleteQuestion'] = '
                User_Controller/deleteQuestion';
          $route['user/editQuestion'] = '
                User_Controller/editQuestion';
                     $route['user/editQuestion/
                           stepTwo'] = '
                           User_Controller/
                           editQuestionStepTwo';
$route['user/create/1'] = 'User_Controller/
      create/1';
          $route['user/submit/1'] = '
                User_Controller/submit/1';
$route['user/create/2'] = 'User_Controller/
      create/2';
          $route['user/submit/2'] = '
                User_Controller/submit/2';
$route['user/create/3'] = 'User_Controller/
      create/3';
          $route['user/submit/3'] = '
                User_Controller/submit/3';
$route['user/create/4'] = 'User_Controller/
      create/4';
          $route['user/submit/4'] = '
                User_Controller/submit/4';
$route['user/search/1'] = 'User_Controller/
      search/1';
          $route['user/viewJournal'] = '
                User_Controller/view/1';
$route['user/search/2'] = 'User_Controller/
      search/2';
          $route['user/viewReminder'] = '
                User_Controller/view/2';
$route['user/search/3'] = 'User_Controller/
      search/3';
$route['user/search/4'] = 'User_Controller/
      search/4';
$route['user/report'] = 'User_Controller/
      report/1';
          $route['user/generateReport'] = '
                User_Controller/report/2';

/*
          Guardian Routes
*/
$route['guardian/dashboard'] = '
      Guardian_Controller/dashboard';
$route['guardian/userRequests'] = '
      Guardian_Controller/userRequests';
          $route['guardian/acceptUser'] = '
                Guardian_Controller/acceptUser';
          $route['guardian/rejectUser'] = '
                Guardian_Controller/rejectUser';
$route['guardian/submissions'] = '
      Guardian_Controller/submissions';
          $route['guardian/accept'] = '
                Guardian_Controller/accept';
          $route['guardian/reject'] = '
                Guardian_Controller/reject';
$route['guardian/connections'] = '
      Guardian_Controller/connections';
$route['guardian/photoQuestions'] = '
      Guardian_Controller/photoQuestions';
$route['guardian/processPhotoQuestion'] = '
      Guardian_Controller/processPhotoQuestion'
      ;
$route['guardian/categories'] = '
      Guardian_Controller/categories';
          $route['guardian/addCategory'] = '
                Guardian_Controller/addCategory';
          $route['guardian/deleteCategory'] = '
                Guardian_Controller/
                deleteCategory';
$route['guardian/manageUsers'] = '
      Guardian_Controller/manageUsers';
          $route['guardian/deleteUser'] = '
                Guardian_Controller/deleteUser';

/*
          OT Routes
*/
$route['ot/dashboard'] = 'OT_Controller/
      dashboard';
$route['ot/editAccount'] = 'OT_Controller/
      editAccount';
          $route['ot/editAccount/stepTwo'] = '
                OT_Controller/editAccountStepTwo'
                ;
$route['ot/create/1'] = 'OT_Controller/create
      /1';
          $route['ot/submit/1'] = 'OT_Controller
                /submit/1';
$route['ot/create/2'] = 'OT_Controller/create
      /2';
          $route['ot/submit/2'] = 'OT_Controller
                /submit/2';
$route['ot/create/3'] = 'OT_Controller/create
      /3';
          $route['ot/submit/3'] = 'OT_Controller
                /submit/3';
$route['ot/create/4'] = 'OT_Controller/create
      /4';
          $route['ot/submit/4'] = 'OT_Controller
                /submit/4';
$route['ot/patients'] = 'OT_Controller/
      patients';
$route['ot/reminders'] = 'OT_Controller/
      reminders';
          $route['ot/deleteReminder'] = '
                OT_Controller/deleteReminder';
          $route['ot/editReminder'] = '
                OT_Controller/editReminder';
          $route['ot/editReminder/stepTwo'] = '
                OT_Controller/editReminderStepTwo
                ';
$route['ot/report'] = 'OT_Controller/report/1'
      ;
          $route['ot/generateReport'] = '
                OT_Controller/report/2';

/*
          Patient Routes
*/
$route['patient/dashboard'] = '
      Patient_Controller/dashboard';
$route['patient/connections'] = '
      Patient_Controller/connections';
$route['patient/personalTest'] = '
      Patient_Controller/personalTest';
          $route['patient/personalTestProper'] =
                  'Patient_Controller/
                personalTestProper';
          $route['patient/submitPersonalTest'] =
                  'Patient_Controller/
                submitPersonalTest';
$route['patient/photoRecognition'] = '
      Patient_Controller/photoRecognition';
          $route['patient/photoRecognitionProper
                '] = 'Patient_Controller/
                photoRecognitionProper';
          $route['patient/submitPhotoRecognition
                '] = 'Patient_Controller/
                submitPhotoRecognition';
$route['patient/generalKnowledge'] = '
      Patient_Controller/generalKnowledge';
          $route['patient/generalKnowledgeProper
                '] = 'Patient_Controller/
                generalKnowledgeProper';
          $route['patient/submitGeneralKnowledge
                '] = 'Patient_Controller/
                submitGeneralKnowledge';


/*
          Public User Routes
*/
$route['publicUser/dashboard'] = '
```

```
     PublicUser_Controller/dashboard';
$route['publicUser/editAccount'] = '
     PublicUser_Controller/editAccount';
          $route['publicUser/editAccount/stepTwo
               '] = 'PublicUser_Controller/
               editAccountStepTwo';
$route['publicUser/create/1'] = '
     PublicUser_Controller/create/1';
          $route['publicUser/submit/1'] = '
               PublicUser_Controller/submit/1';
$route['publicUser/create/2'] = '
     PublicUser_Controller/create/2';
          $route['publicUser/submit/2'] = '
               PublicUser_Controller/submit/2';
$route['publicUser/create/3'] = '
     PublicUser_Controller/create/3';
          $route['publicUser/submit/3'] = '
               PublicUser_Controller/submit/3';
$route['publicUser/create/4'] = '
     PublicUser_Controller/create/4';
          $route['publicUser/submit/4'] = '
               PublicUser_Controller/submit/4';
$route['publicUser/journal'] = '
     PublicUser_Controller/setCookie/1';
$route['publicUser/reminder'] = '
     PublicUser_Controller/setCookie/2';
$route['publicUser/photo'] = '
     PublicUser_Controller/setCookie/3';
$route['publicUser/question'] = '
     PublicUser_Controller/setCookie/4';
```

Listing 105: app.css

```
body {
    margin-top: 50px;
    font-size: 12pt;
}

footer {
    margin: 1rem 0 0;
    padding: 1rem;
    position: fixed;
    bottom: 0;
    width: 100% !important;
    background-color: #333;
    color: white;
}
    footer *{
        margin: 0;
    }

.panel-info2{
    background-color: #eee;
    opacity: 0.8;
}

.panel-body{
    padding: 20px;
}

.title{
    color: #337ab7;
}

.pad{
    margin-left: 20px;
    margin-right: 20px;
}

.nav-tabs > li > a {
    color: #337ab7;
    background-color: #eee;
}

.clear{
    background-color: Transparent;
    background-repeat:no-repeat;
    border: none;
    cursor:pointer;
    overflow: hidden;
    outline:none;
    color: #000000;
}

.clear2{
    background-color: Transparent;
    background-repeat:no-repeat;
    border: none;
    cursor:pointer;
    overflow: hidden;
    outline:none;
    color: #FFFFFF;
}

table.add td + td {
    border-left: 2px solid black;
    padding-left: 30px;
    padding-bottom: 10px;
}

hr {
width: auto;
height: 8px;
margin-left: auto;
margin-right: auto;
background-color:#5bc0de;
border: 0 none;
margin-top: 5px;
margin-bottom:5px;
}

.pic{
    max-width:60%;
    max-height:auto;
}

.dp{
    height: 120px;
    width: 120px;
}

.choosePhoto{
    height: auto;
    width: 200px;
    display: inline-block;
    margin-right: 5px;
    margin-bottom: 10px;
}

div.choosePhoto > img{
    display: block;
    width: auto;
    height: auto;
    max-width:100%;
    max-height:100%;
}

.bottom{
    margin-bottom: 0px;
}

.blue{
    width: 100%;
    background-color: #337ab7;
    border-radius: 10px;
    padding-left: 15px;
    padding-right: 15px;
    color: white;
    border: solid 1px #337ab7;
}

.gray{
    color: #999;
}

.smallPic{
    max-height: 100%;
    max-width: 100%;
}

h4.line { width:100%; border-bottom: 1px solid
     #000; line-height:0.1em; margin:10px 0
     20px; }
h4.line span { background:#fff; padding:0 10px
     ; }

.blah > .row > .col-md-3:nth-child(4n+1) {
    clear: both;
}

.panel-hover:hover{
    border: solid 1px #337ab7;
}

a.active{
    text-decoration: underline;
    font-weight: bold;
}
```

XI. Acknowledgement

“AYOKO NA.”

How many times have I uttered those words in the last four years? Moreover, how many times have I uttered those words in the last 7 months (proposal to defense period)? I lost count of the times when I was on the verge of giving up and just throw it all away. There were times when I just wanted to walk away from everything and forget the world but well, I never did. I am too blessed with a lot of supportive people around me. So for the next paragraphs, allow me to thank the people who made this possible and also, let me use my native tongue in expressing myself para mas feel!

To my family. Thank you so so so much sa lahat lahat ng ginawa niyo for me. Thank you sa pag-intindi sakin lalo na sa mga times na ang cranky ko na and di niyo na ko makausap sa sobrang busy. Thank you kasi never niyo kong iniwan. And to my kuya, thank you sa lahat ng suporta mo especially sa funds. Nung bumigay na yung netbook ko, you didnt even have a second thought na ibili ako ng bagong laptop for school. Hayaan mo kuya, babawi ako sayo. Cheers to our dreams! I love you guys.

To my adviser. You have no idea how thankful I am na ikaw yung adviser ko (both a SP and sa life). I cant find the words that will be enough to express how much I appreciate everything that you did for me. No words, grabe. There were times when I myself stopped believing that I can do it but you never got tired of pushing me to continue. You’re the other half of this SP, I couldn’t have finished this without your guidance kahit lagi mo kong inaasar and binubully hahaha. Maraming salamat.

To my professors. Tough love wow!! Hahaha. Now I understand why you had to be very strict to us sometimes to the point that I am cursing you deep inside already. I know you were just trying to teach us lessons, both academically and in life, to make us better. So to every one of my professor from freshman year, from the bottom of my heart, maraming salamat po.

To block 12. GUYS!!!!!!!!!!! We did it omg huhuhu. You know what? I am SO proud of our block. I saw how much effort we all gave in to this. I remember the times when it was 4am and almost everyone was still up doing acads. We never ceased to support each other, nandyan yung mga random messages from each other to motivate and inspire. I love you guys so much. Iba kayo, iba.

To all my friends. Thank you for always being there for me especially to TBL. Thank you for always being my one call away friends na puputahan and ilalabas ako pag sobrang kailangan kong mag-relax and mag-escape muna from reality kahit for a few hours lang. You guys are the best! Bond soon!!!

To Miguel and kuya Luis. Yup, I told you I would save a space for you guys! You were my life savers. Thank you Miguel for referring kuya Luis to me and thank you kuya Luis for allowing me to inerview you FOUR days before my defense. I hope I can make it up to you guys soon!

To my pretty, adorable, and still fresh self. Girl sobrang proud ako sayo!!! WE DID IT, WE FREAKING DID IT.

And finally, to You. None of these would be possible without You. Thank you so much Lord, the best ka talaga.

P.S. Shoutout din sa Kopiko 78, alam mo na.