

ISAY - UPV GUIDANCE AND COUNSELING SYSTEM

A Special Problem
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Abstract

This research collates results from myriad studies which tackled mental health awareness, issues, and mitigations among students. Numerous studies have concluded that proper mental health consultations must be done to mitigate and address psychological issues experienced by most students during the pandemic and online learning setup. In the University of the Philippines Visayas, the counseling appointments are scheduled through multiple social media sites, and the communication modalities between the counselors and students are thru video/phone call, chat, or text. These online platforms are outside the range of the university's ownership as personal social media accounts are being used for meetings that might be vulnerable to cyber threats and/or risks. Communicating with the counselors enabled researchers to identify what should be the main features of the system website that would be implemented. In this paper, the researchers are dedicated to creating a website for guidance and counseling system that is inclusive for the University of the Philippines Visayas. The implementation of the website would be a step closer to the goal of awareness and mitigation of mental health problems in the community as well as strengthening the community bond.

Keywords: Guidance and Counseling System, Mental health, Mental health awareness, website

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Chapter 1

Introduction

Mental health problems have been prevalent among young adults (Hunt, Justin, Eisenberg, & Daniel, 2010). But, due to COVID-19 and the infamous remote learning setup, a major increase in the population of students who are in their postgraduate education experiences depression and anxiety has increased (Qiu et al., 2020). Mental health awareness is being strengthened in schools (Hoven et al., 2008). However, some research has suggested that there are help-seeking barriers – negative attitudes toward seeking help, limited access to treatment, confidentiality, and self-reliance – that prevent students from seeking help (Rickwood, Deane, Wilson, & Ciarrochi, 2005). The study aimed to understand the need for a proper online modality to access counseling services for better mental health awareness. The study examined prevalent mental health problems among students and the advantages of online counseling to both students and counselors in schools.

1.1 Overview of the Current State of Technology

The COVID-19 situation in the Philippines still prohibits face-to-face classes, therefore, causing a lot of implications on students' mental health. Throughout these times, students from the University of the Philippines-Miagao (UPV-M) have been more prone to mental health problems such as depression and anxiety. The University has its own intervention program for mental health - The Guidance and Counseling Services (UPV-GCS) Unit is available online through social media platforms in catering to students during remote learning setup.

The use of social media platforms offers convenience and ease of access. However, providing mental health services in any of the platforms like Facebook, Twit-

ter, and Instagram hinders the quality of services because of threats such as user profiling and unstable server issues. Also, school e-mail is used to promote mental health services. The scope is the wide range of students who have access to their school e-mail accounts. But nowadays, e-mail is ignored due to messaging applications, thus, results in low participation of students.

On the Guidance and Counseling Services (UPV-GCS) Facebook page, a student can view posts regarding available services as well as programs from other institutions that offer other counseling services and, a student can inquire and book an appointment through Facebook messenger. To book an appointment, (1) The student shall visit the Facebook page and click on the “Book Now” button on its homepage, (2) A Request Date and Time window will popup displaying the available dates and corresponding time which the student can choose from, (3) Automatically, an Additional Information window will be asked for the student’s phone number and appointment notes which are optional only, and (4) The student can click on “Request Appointment” button which will then generate an approval form of some sort into the Messenger chat panel between the Facebook page and the student. If approved, the student is given the choices for modalities to be used. This information is passed to the counselor who will accommodate the appointment of the student, and the online counseling will be taken care of by the counselor in their personal account.

1.2 Problem Statement

- Mental health awareness
 - During these trying times, UPV students tend to experience anxiety, stress, time pressure, mental exhaustion, and negativity which can be too much to handle and cause a greater mental health problem. Thus, UPV students should be able to check on their mental health by talking with experienced mental health providers.
- No site for counseling
 - One of the UP benefits is having free consultation from the Guidance Office. However, due to the remote learning setup, this benefit is hard to avail since there is no official site where students can go and schedule an appointment, or a guidance counselor to post counseling offers to students.

1.3 Research Objectives

1.3.1 General Objective

The objectives of the study is to design a secure online platform where the UPV-GCS guidance counselors and students connect with each other and to avail counseling services that may help students to have an accessible mental health service platform.

1.3.2 Specific Objectives

During this study, a system-website is to be created according to the needs of a guidance counselor to make their services available online, and to the needs of students to avail counseling services in an easy way.

UPV Guidance Counseling System

This system-website may include features such as:

- Messaging on this site
 - This feature is direct messaging within the site between students and guidance counselors.
- Select services
 - This feature is a great help to showcase the services available for UPV students.
 - * Counseling Services
 - * Psychological Assessment and Evaluation
 - * Referral Service
 - * Peer Psychosocial Support: The Buddy System
- Schedule an appointment
 - The feature on the website will ask for the preferred schedule for an appointment while displaying the availability hours of the guidance counselor.

1.4 Scope and Limitations of the Research

The study is limited only to the University of the Philippines Visayas-Miagao (UPV-M) students who are officially enrolled and to the UPV-GCS guidance counselors who are officially hired. The website will accommodate students who seek help for their mental health in these trying times by being able to inquire about services and book an appointment to avail themselves of a service. The system will be for online guidance and counsel, and record-keeping such that UPV-GCS will be able to accept counseling appointments scheduled by the students and generate a report according to important demographic details.

1.5 Significance of the Research

The completion of this study will help the researchers to build a formal system-website where counselors can post their service offerings, store and access confidential data about their clients, and keep reports for analysis purposes, and students can ask and book an appointment of the desired service, as well as direct message their preferred counselor.

This would be a significant help to campaign mental health awareness. Students will have a venue where they can access mental health services without external help-seeking barriers. Guidance counselors will be able to distinguish essential mental health needs of students and improve their services accordingly. Thus, this research is not only to promote mental health awareness but also to improve the status of mental health in the university.

Chapter 2

Review of Related Literature

2.1 Mental Health Awareness

Mental health awareness is the general plan to recognize and understand mental health problems to plan on their mitigation (Kolappa et al., 2013; Srivastava et al., 2016). Recognizing and understanding problems to one's mental health is to be knowledgeable enough of mental health (Jorm, 2000) which they can do with their peers and other nonprofessional external strategies (Rebello et al., 2014). On the other hand, preventing the effects of a mental health problem might take a whole nation to be successful. Involvement of conventional media, government programs, educational system, industry, the Internet, social media, and cellphones, and crowdsourcing might help diminish both the problem itself and its effects (Srivastava et al., 2016). Therefore, making a website for guidance counselors and psychologically distressed students at the University of the Philippines Visayas-Miagao (UPV-M) would be a step closer to the goal of awareness and mitigation of mental health problems in the community.

2.2 Mental health of Students

According to Brackney and Karabenick (1995), the mental health of college students in the university greatly affects academic performance, and interpersonal and intrapersonal skills. Students who experienced test anxiety, decline academic help, have low environment study maintenance, and difficulty persistence are significantly related to having high psychological distress. It was, also, determined that students' information processing skills can also weaken, too (Kitzrow, 2003).

Students who have a negative interpersonal relationship with other people, may it be teachers, other students, and/or family members; and experienced loneliness within themselves, are both causes and effects of mental health problems (American Psychiatric Association et al., 1980). Thus, having a website where UPV-M students can communicate with guidance counselors through direct messaging can lessen the damage and the degree of their mental health problem can cause and get.

2.3 Guidance Counseling in Universities

The purpose of guidance and counseling service in school provide general education where it aims to assist students in fulfilling their basic physiological needs, understanding themselves and accepting others, developing associations with peers, balancing between permissiveness and controls in the educational setting, realizing successful achievement, and providing opportunities to gain independence (Heyden, 2011). Guidance and counseling services prepare students to assume increasing responsibility for their decisions and grow in their ability to understand and accept the results of their choices (Gibson & Mitchell, 2008). According to the Philippines (1982), every student has the right to school guidance and counseling services, thus universities and schools must offer these services. In the UPV, the Guidance and Counseling offer services such as counseling, psychological testing, Career and Guidance, Graduate Placement and Follow-up, Human Development Services, and Peer Facilitating programs.

2.4 Online Counseling

Due to COVID-19, online platforms are used daily by many. The use of online platforms in counseling shows no significant difference compared to face-to-face (Zeren et al., 2020). The University of the Philippines Visayas conducts its own online counseling and guidance services using social media platforms (e.g., Facebook) and through this, there are various modalities of communication that enable counselees to choose. However, the use of social media as a platform for school activity may harm the personal privacy of the students. Thus, creating a system for school guidance and counseling services may help in securing students' data and privacy.

2.5 Appointment Booking

Appointment booking is very important in medical offices and clinics or even in business transactions since these manage the flow of patients or clients. By doing it manually, there are possibilities that you can miss someone's transactions when you are dealing with hundreds of clients or patients (Idowu et al., 2014). Patients line up outside the hospitals or institutions, waiting for their turn without any assurance of what time will they be assisted. This kind of situation always happens when appointments and schedules are not present or are not being utilized well. As the world also developing, shifting this kind of management flow in the hands of the internet, or even on LANs, having a good database for these appointments is beneficial for the company or clinic. Having a good management flow for the patients gives a huge benefit not just to the businesses or clinics, but for the patients themselves. The assurance of the correct schedule and appointments helps in gaining improvement in providing good healthcare for society.

2.6 Mailing Verification

The use of protocols and systems is one of the methods used for e-mail verification (Abadi & Glew, 2002). Protocols cover main security issues, but not all. These main security issues are secrecy, and receipt and proofs are mostly the responsibility of the verifier. Secrecy is when the verifier can automatically prove that the process preserved the secrecy of the sent message, and the receipt is the proof that the receiver did really receive the message which can be seen realistically (Abadi & Blanchet, 2005). More so, e-mail verification using the system or trusted third party is together with the same protocols aforementioned above. The method proves by actuality: (1) Receiver must receive the message sent by the sender for the sender to have a receipt before the receiver can read the message, and (2) For sender to have a receipt that receiver read the sent message, the receiver must read first the sent message. Protocol, in this method, also protects confidentiality (Abadi & Glew, 2002). This concludes that the use of protocols and systems for e-mail verification are both the same in logical concepts due to protocols. Accordingly, the use of the school's domain e-mail, protected with Google Protocol RPC (*Google Protocol RPC Library*, n.d.), by students and guidance counselors when using the website system will ensure data security and account safety which will prevent malicious conduct from external applications.

2.7 Record keeping to healthcare

Recordkeeping is a primary aspect in analyzing, improving, and providing quality healthcare to patients (Rigby et al., 1998; Pirkle et al., 2012). In UK’s primary care, there are six models of storage and management of records, these are records in general practice, records based in community trusts, “virtual” integrated records, management by the third party, the patient held records, and formalized use of messaging (Rigby et al., 1998). In the Philippines, the EMR or electronic medical records is used to store, access, and process sensitive medical data of patients for the use of the attending physicians and other extended healthcare professionals (Ebardo & Celis, 2019). The EMR is a combination of records based in community trusts and “virtual” integrated records in the UK. This is because “general practitioners have real-time terminals to the system when using records based in community trusts”, but “other healthcare professionals can still access as long as they are in the same organizations which are more likely to happen in the “virtual” integrated record” (Rigby et al., 1998). Having to know these, the sole purpose of recordkeeping is storage, accessibility, and analysis of patient’s data to be used for improvement and administration of the best healthcare possible by the collaboration of different healthcare professionals (Rigby et al., 1998; Ebardo & Celis, 2019). Hence, for guidance counselors of UPV-M to have a system where they can store and access, as well as summarize records will help to enhance their campaign in mental health awareness.

2.8 Reference Technologies

The guidance and counseling system is inspired by these working apps and websites:

- NowServing website (*NowServing*, 2020)
 - NowServing is a working website and app from the Philippines for finding specialized doctors near the user and can be used for an online appointment for general healthcare with the doctor.
- Better Help (*betterhelp*, 2021)
 - BetterHelp is known to be the world’s largest therapy platform. It is a website for addressing mental health and offers various therapists that can help patients.
- Others

- Other apps may be included after working on the prototype.

Chapter 3

Research Methodology

This chapter lists and discusses the specific steps and activities that will be performed to accomplish the project. The discussion covers the activities from pre-proposal to Final SP Writing.

3.1 Development Process/Design of Study

ISay is a system website to be prototyped according to the needs of the UPV guidance counselors which is to make their services available online and to the needs of UPV students which is to avail guidance and counseling services with ease of access. This system website will include functions for the administrators and clients.

- For registered UPV guidance counselors, see 3.1
- For registered UPV student users, see 3.2

According to Kumar et al (2012), the use of agile methodologies has an advantage to productivity and quality. As it has different types such as Extreme Programming, Scrum, Feature Driven Development (FDD), and Crystal Method. For this study, there will be no specific type of agile methodology to be used. Instead, backend and frontend programming will be done alongside testing to ensure the development quality. The product will be shown to the UPV Guidance and Counseling if all the aforementioned functions are done at the end of the school year.

Table 3.1: For registered UPV guidance counselors:

Functions	Descriptions
Create an Account	For UPV guidance counselors, to create an ISay account is to enable them to be able to do the other functions intended for them.
Login to Account	To login into the system as guidance counselors and administrator.
Manage Pending Appointments for Approval	UPV guidance counselors will be able to view pending appointments for approval and manage them properly.
Direct Message a Registered User (Student)	UPV guidance counselors will be able to contact registered users (students) within ISay.
Summarize Records	UPV guidance counselors will be able to summarize records kept after each appointment according to demographic details for a week, a month, or a year.

Table 3.2: For registered UPV student users:

Functions	Descriptions
Create an Account	For UPV students, to create an ISay account is to enable them to inquire about services, book appointments, and direct message a guidance counselor.
Login to Account	To login into the system as a registered user.
Select Services	UPV students will be able to view available services on the homepage of the ISay.
Direct Message a Guidance Counselor	UPV students will be able to contact registered guidance counselors within ISay to ask for additional inquiries without leaving the website.
Schedule an Appointment	UPV students will be able to book an appointment for the service they would like to avail of according to their preferred available time, date, and mode of communication.

3.2 Persons Involved

The following are the persons involved in the development of ISay:

- UPV Guidance and Counseling Unit Resource Person. The resource person is contacted before the planning started to pitch-in the idea of the system website. This is because the programmers and researchers would like to know comments and suggestions of how the service unit will use the system website if a system website will be made.
- Adviser. The adviser will be the person who will help both the programmers and researchers during the development of the system website.
- Programmers. The programmers are students who have knowledge in back-end and frontend programming that will be used in order to develop the system website.
- Researchers. The researchers are students who will be responsible for the activities that include inquiry, research, brainstorming, consultation, and documentation.

3.3 Tools/Technical and Software Specification

The following are the tools that will be used in order to develop ISay:

- Django. This high-level Python web framework is used if developers want to rapidly develop a clean and pragmatic design. This is free and open source.
- HTML. This is a markup language that shapes the structure of web content. This is consists of elements, which are used to enclose or wrap the different parts of web content to make it appear or act in a specific manner.
- Windows Operating System.
- TexStudio and Microsoft Word (documentation)
- Dia (diagrams)
- Zoom (consultations and meetings with the adviser and resource person)
- GitHub

3.4 User Specifications

- **UPV students.** They are primary users who will be called clients. Clients will have their own account to enable functions such as inquiring, scheduling of appointments, and direct messaging a guidance counselor within the website.
- **Guidance Counselors.** They are the other primary users and can, also, be called administrators since they will be the ones managing appointments and summarizing records.
- **Adviser.** The adviser is the one who will supervise the development of the ISay, thus he is one of the people that will probably use ISay.
- **Programmers.** They will be the one making ISay, and to use ISay is to test its quality every incremental development.

3.5 Assumptions and Dependencies

ISay is dependent on the guidance counselors, as well as the services they provide. Thus, without guidance counselors/administrators, there will be no services supplied which in turn no UPV students will sign up to ISay.

3.6 Apportioning of Requirements

If the development of ISay comes to a delay, major requirements should be prioritized.

3.7 System Specifications

3.7.1 Activity Diagrams

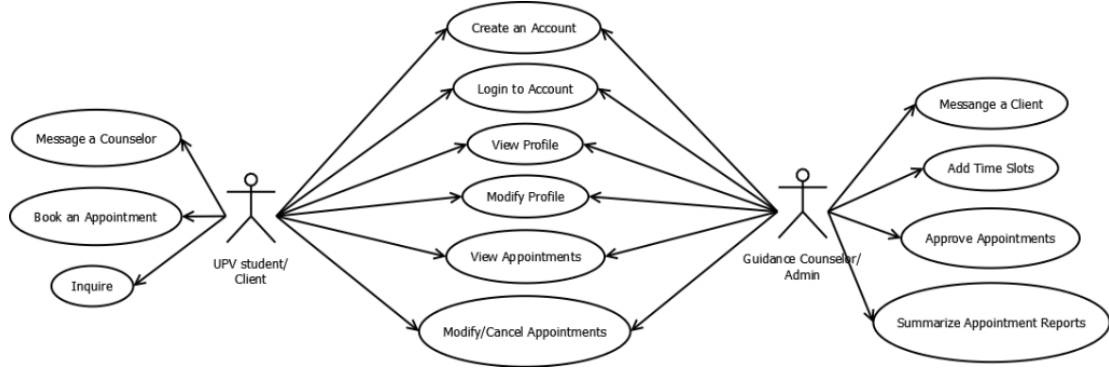


Figure 3.1: Activity Diagram

3.7.2 Functional Requirements

1. User Specifications

- REQ1. The system website should enable Clients and Admins to create an account.
- REQ2. The system website should enable Clients and Admins to log in to their accounts.
- REQ3. The system website should enable Clients and Admins to view their profile account.
- REQ4. The system website should enable Clients and Admins to modify their profile account.
- REQ5. The system website should enable Clients to message a guidance counselor/admin.
- REQ6. The system website should enable Admins to message a UPV student/client.
- REQ7. The system website should enable Clients to inquire about services.
- REQ8. The system website should enable Admins to add timeslots.
- REQ9. The system website should enable Clients to book an appointment.
- REQ10. The system website should enable Admins to approve appointments.

- REQ11. The system website should enable Clients and Admins to view their scheduled appointments.
- REQ12. The system website should enable Clients and Admins to modify or cancel appointments.
- REQ13. The system website should enable Admins to summarize appointment reports.
- REQ14. The system website should enable Clients and Admins to log out of their accounts.

2. System Requirements

- The system website should enable Clients and Admins to create an account.
 - They shall provide their email address given by the school, full name, desired username, and create their password.
 - Check if the credentials given are valid:
 - * The username is still available.
 - * The password is not empty.
 - * The password is the same as the confirm password.
 - * The email address has not been used.
 - If credentials are valid, save and add them to the database.
- The system website should enable Clients and Admins to login to their account.
 - They shall provide their username and password.
 - Check if credentials saved are the same as the ones provided.
 - Access shall be granted or denied.
- The system website should enable Clients and Admins to view their profile account.
 - The information saved should be displayed accordingly.
- The system website should enable Clients and Admins to modify their profile account.
 - They shall provide their new information.
 - The old information will be replaced by the new one in the database.
- The system website should enable Clients to message a guidance counselor/admin.
 - The system website shall require a message content from the client to send a message to the guidance counselor/admin.

- The system website should enable Admins to message a UPV student/client.
 - The system website shall require message content from the guidance counselor/admin to send a message to the client.
- The system website should enable Clients to inquire services.
 - The system website shall display service description.
- The system website should enable Admins to add timeslots.
 - The guidance counselor or administrator will provide the time he or she will be available.
 - The information will be saved to the database.
- The system website should enable Clients to book an appointment.
 - The system website shall check if the client is logged in or not.
 - The patient shall select the college and department he or she is enrolled in or hired.
 - The system website shall display the assigned guidance counselor(s) for that specific department, alongside his or her available time.
 - The system website shall generate a unique booking number for each appointment.
 - The system website shall send a notification email stating that approval from the guidance counselor is a must to confirm the appointment.
- The system website should enable Admins to approve appointments.
 - The system website shall display appointments waiting for approval.
 - If the guidance counselor has no prior unstated appointment, he or she shall approve the appointment.
 - The system website shall send a confirmation email to the client that the appointment is booked successfully.
- The system website should enable Clients and Admins to view their scheduled appointments.
 - The system website shall display the scheduled appointments of the clients and guidance counselors according to date.
- The system website should enable Clients and Admins to modify or cancel appointments.
 - The system website shall allow confirmed appointments to be modified without asking for the patient's information.
 - The system website shall only ask for the unique booking number.

- The system website shall make necessary updates after the client’s or guidance counselor’s changes have been made.
- The system website should enable Admins to summarize appointment reports.
 - The system shall allow admins to manage and access database information accordingly.
- The system website should enable Clients and Admins to logout of their account.
 - Logout client or admin out of the system website when they click logout.

3.7.3 Non-Functional Requirements

1. Performance

- The system website must have a good response time.
- The system website must run error while operating with a huge data set.

2. Reliability

- The system website should be available when requested for service by clients and admins.

3. Safety

- The system website should maintain a good backup.

4. Security

- External communications between the system website’s data servers, clients and admins must be encrypted.

5. Supportability

- The system website should be able to be transferred from one environment to another.
- The system website should be easy to maintain.
- The system website should be able to deal with additional international conventions such as number formats, etc.
- The system should be able to be used on multiple platforms.

6. Usability

- The system website should have informative error messages.
- The system website should be user-friendly.

3.7.4 Sequence Diagrams

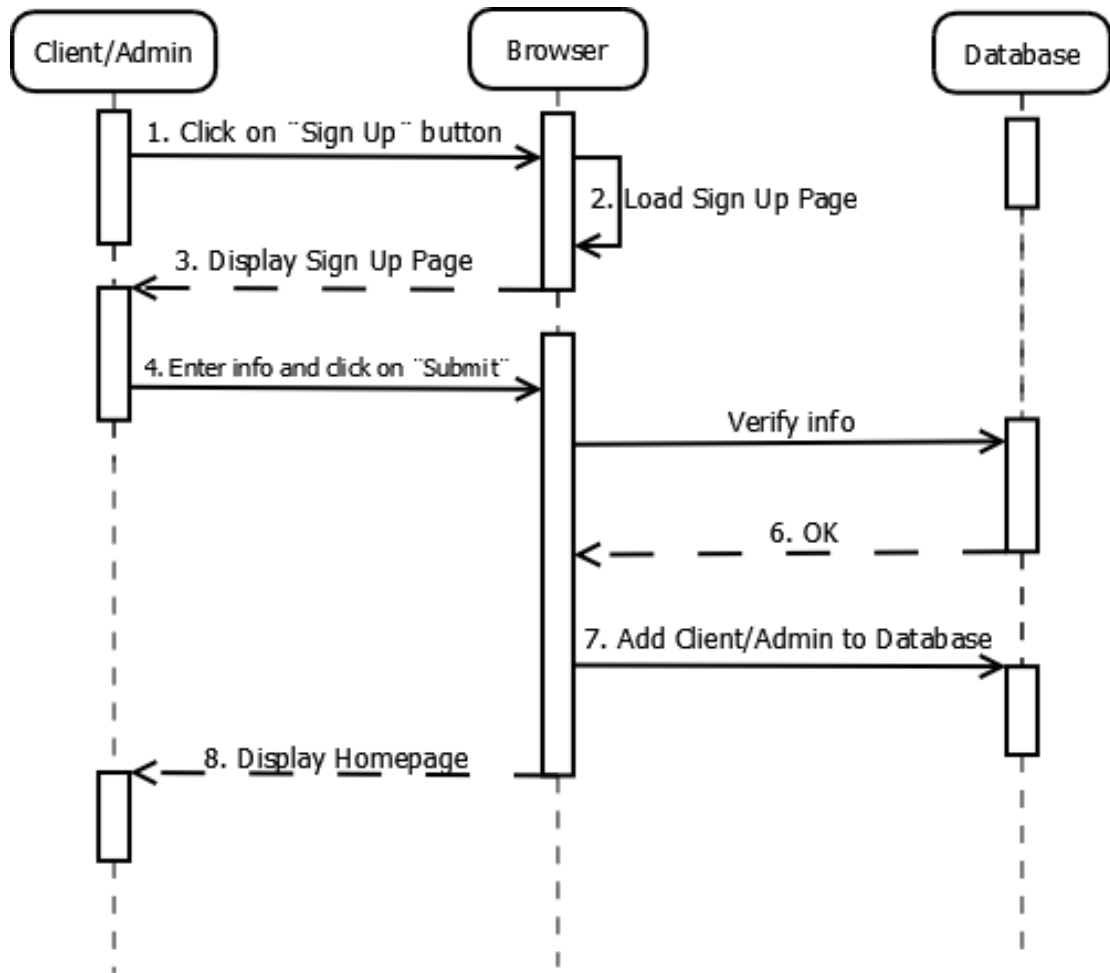


Figure 3.2: Sequence diagram on Creating an Account

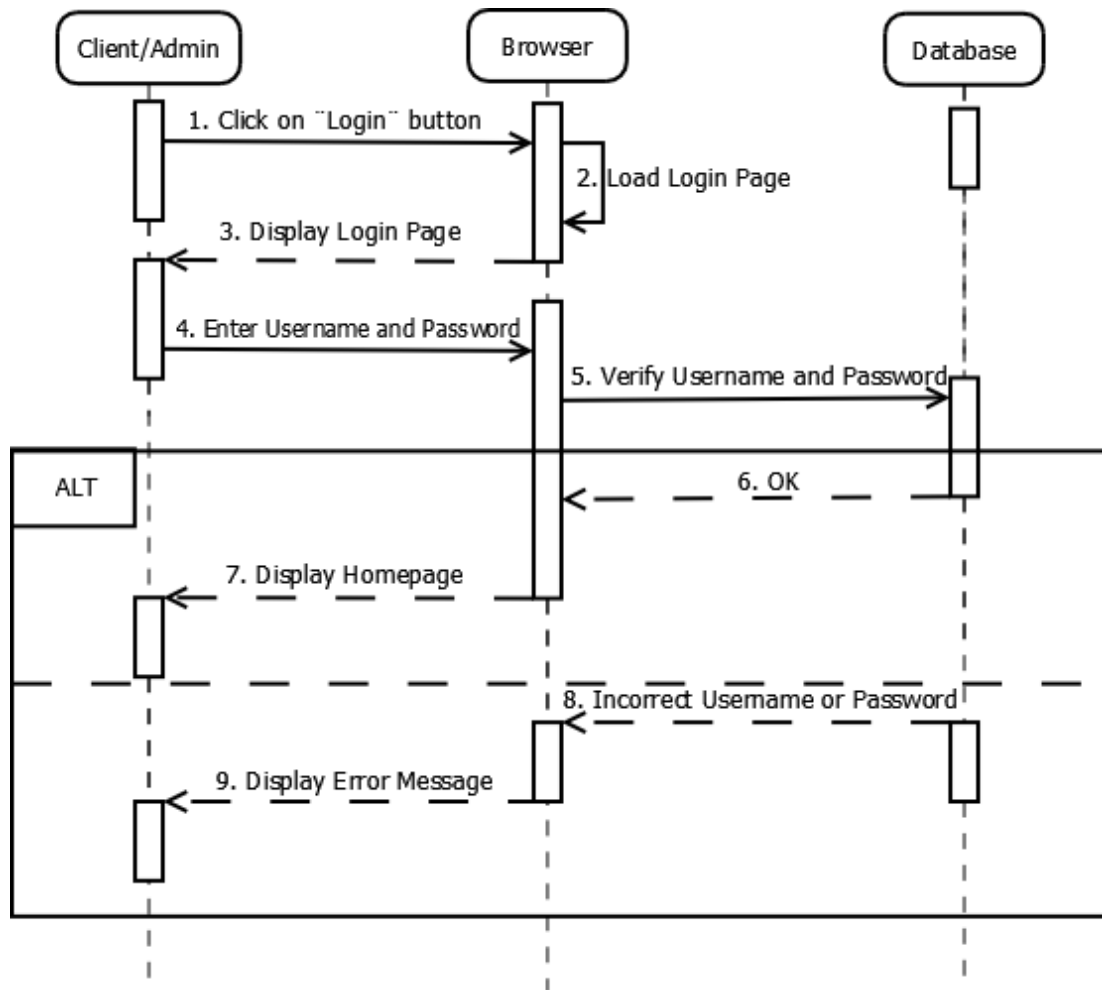


Figure 3.3: Sequence diagram on Login

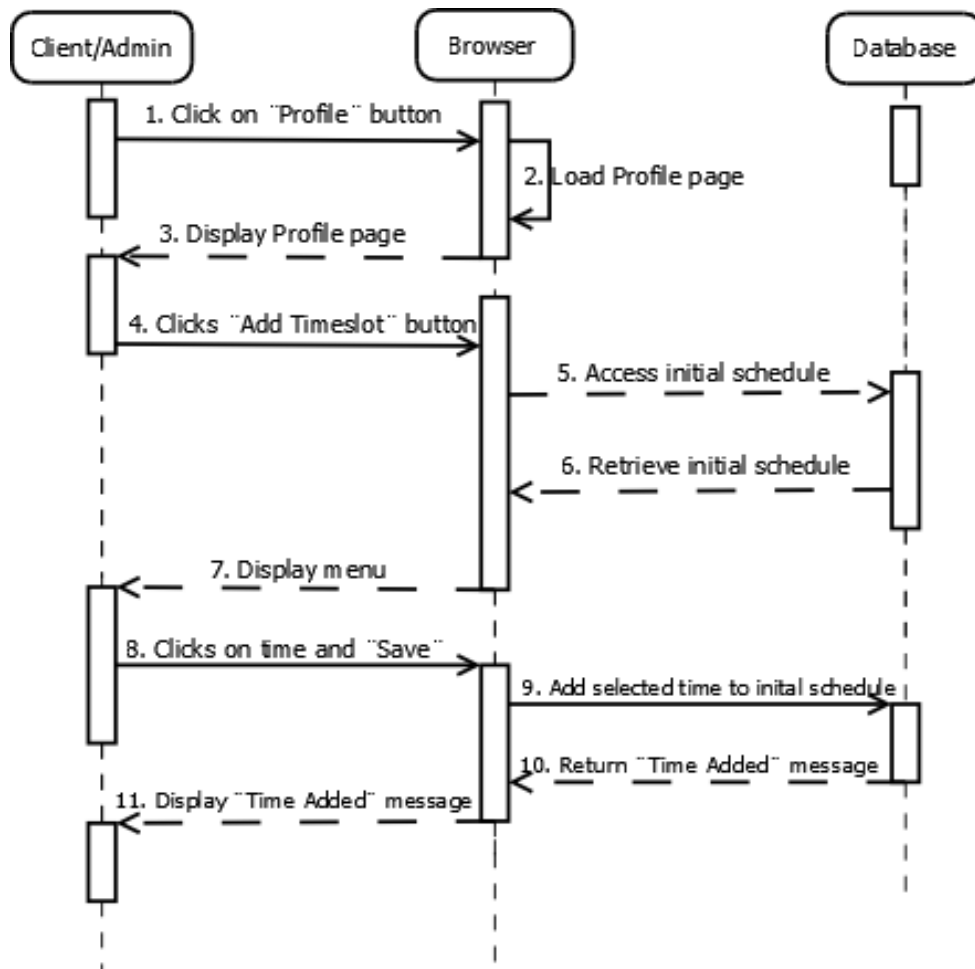


Figure 3.4: Sequence diagram on Add Timeslot

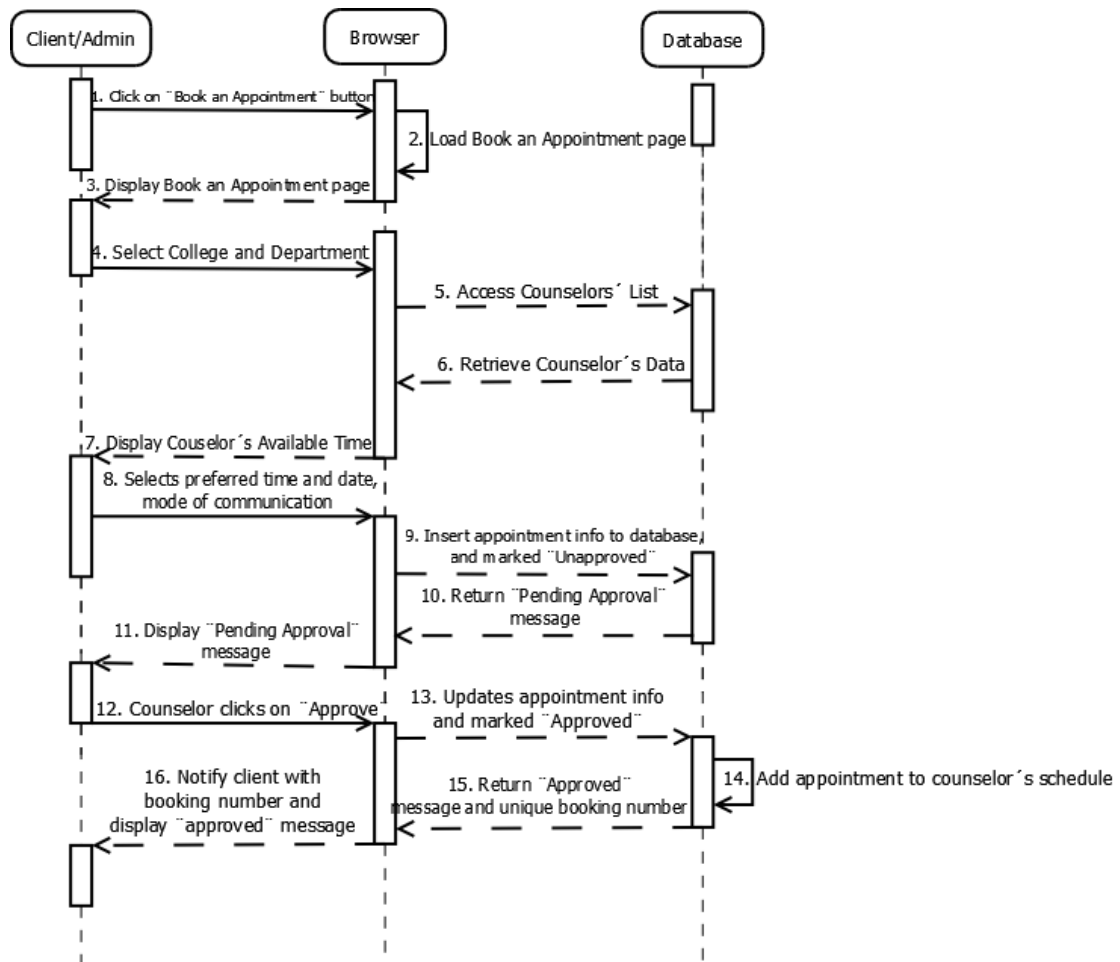


Figure 3.5: Sequence diagram on Booking an Appointment

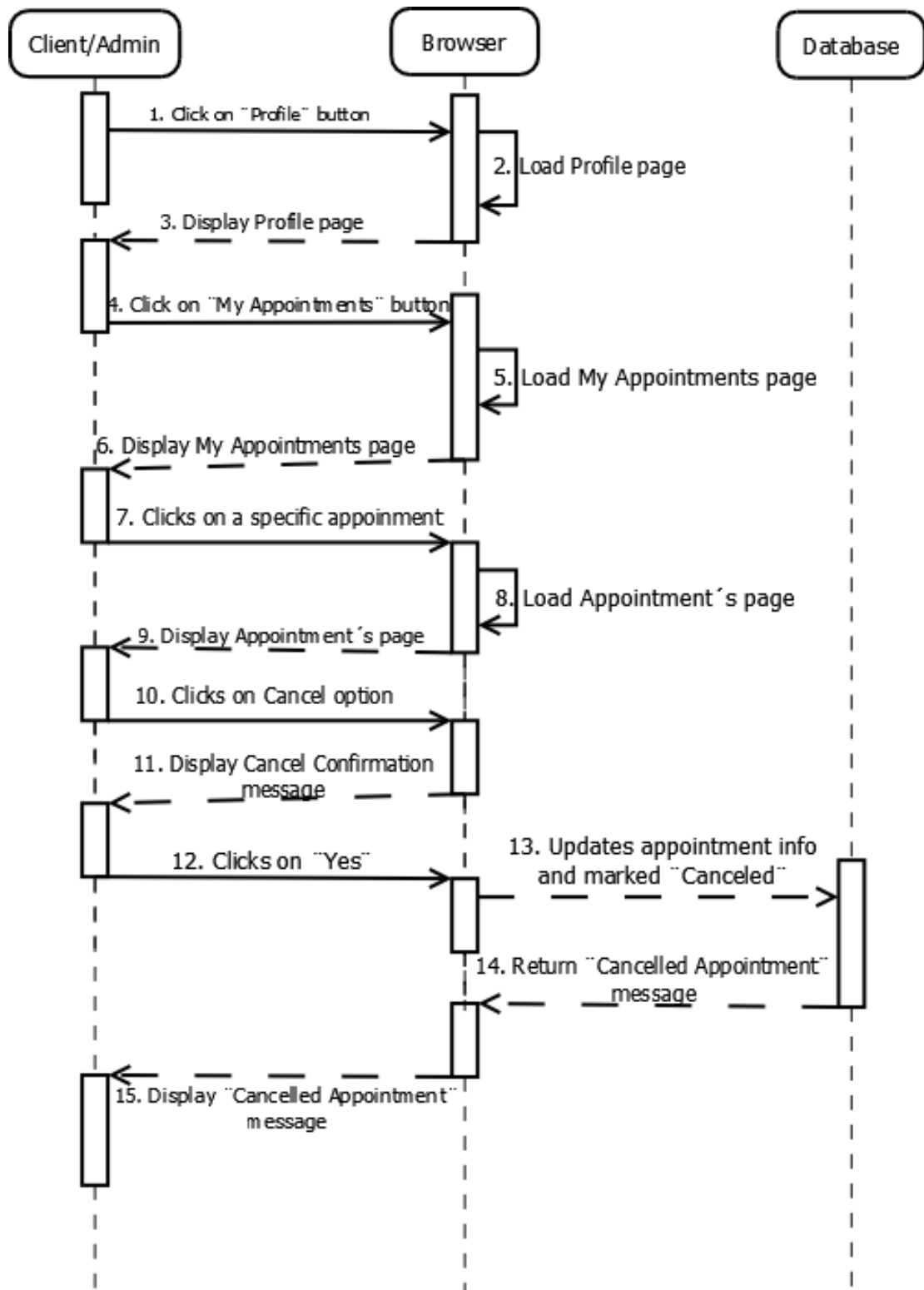


Figure 3.6: Sequence diagram on Cancelling Appointment

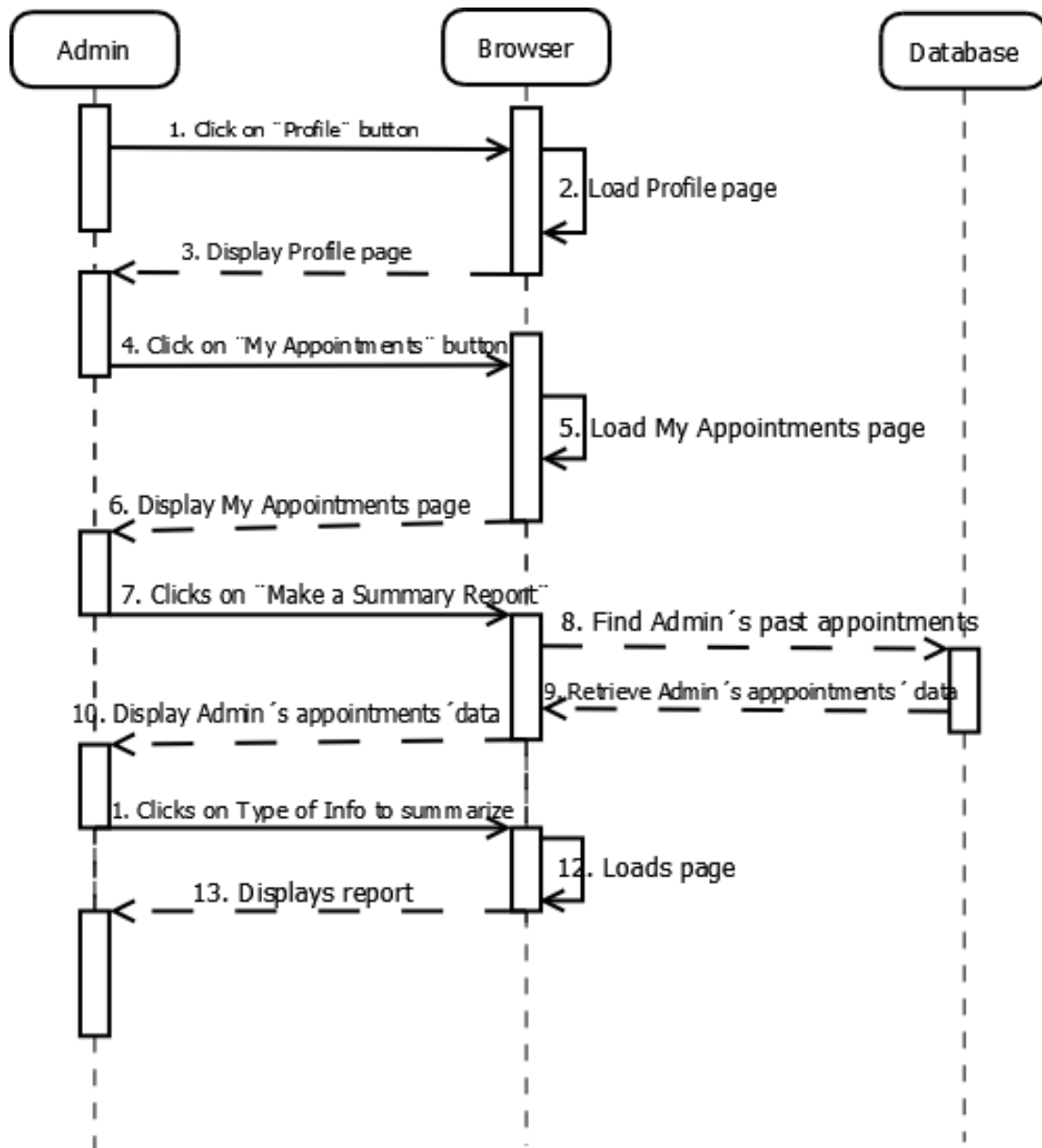


Figure 3.7: Sequence Diagram on Summarizing Reports

3.8 Procedures

3.8.1 Hardware Interface

- Any mobile device
 - Requirements:
 - * The mobile device should be charged enough to be able to connect to the Internet and finish an activity.
 - * The mobile device should be connected to the Internet through a wired or wireless connection.
 - Risks:
 - * If the device has insufficient charge and power interruption happens, unfinished activity might be expected.
- Internet Provider Devices
 - Requirements:
 - * The Internet Provider device should be plugged into an electric provider for the device to function and connect to the Internet.
 - * Data should be available to be able to connect to the Internet.
 - Risks:
 - * If the device is connected to a public network and has no anti-virus software, the risk of being hacked has a higher probability.
 - * Since most of the Internet Provider devices are power-dependent, the unavailability of electricity might result in unfinished activity.

3.8.2 Testing (Procedure)

This section will show the procedure that the programmers will be conducting every unit testing.

Table 3.3: Test Case 1. Create an Account

Test Case ID	TestCase-01
Test Case Name	Create an Account
Pass/Fail Criteria	The test passes if the client/admin provides information like school email address, full name, username, password, and confirm password.
Input Data	Alphanumeric and characters key code
Test Procedure	Expected Outcome
Step 1. Empty fields in the form.	An error message is displayed under the input fields.
Step 2. Fill in all input fields.	Check if password and confirm password are similar. If similar, email address string is checked if there's a string "@up.edu.ph". If email has the string and is not used by another client/admin, a new client/admin is created and added to the database.
Step 3. Type unsimilar passwords in input fields, password and confirm password.	An error message is displayed under the input fields.
Step 4. Type similar passwords in input fields, password and confirm password.	If similar, email address string is checked if there's a string "@up.edu.ph". If email has the string and is not used by another client/admin, a new client/admin is created and added to the database.

Table 3.4: Test Case 2. Login to Account

Test Case ID	TestCase-02
Test Case Name	Login to Account
Pass/Fail Criteria	The test passes if the client/admin provides correct information like school email address/username, password.
Input Data	Alphanumeric and characters key code
Test Procedure	Expected Outcome
Step 1. Type an incorrect email address/username or password.	An error message is displayed under the input fields.
Step 2. Type a correct email address/username or password.	Client/admin is redirected to the homepage.

Table 3.5: Test Case 3. Homepage

Test Case ID	TestCase-03
Test Case Name	Homepage
Pass/Fail Criteria	The test passes if the website opens. This is the default page of the system website.
Input Data	Enter the system website's URL into the browser with an Internet connection.
Test Procedure	Expected Outcome
Step 1. Click on any page links present on the page.	Redirects the client/admin to the page linked to that page link present on the homepage.
Step 2. Click on the system website logo.	Directs to the homepage.

Table 3.6: Test Case 4. Book an Appointment

Test Case ID	TestCase-04
Test Case Name	Book an Appointment
Pass/Fail Criteria	The test passes if the client got to book an appointment.
Input Data	Button clicks to select college, department, time, and mode of communication.
Test Procedure	Expected Outcome
Step 1. No chosen options for dropdown menus.	An error message is displayed under the input fields.
Step 2. Selects an unavailable time.	An error message is displayed under the input fields.
Step 3. Selects an available time.	System website record appointment. A successful message is displayed.
Step 4. Book an appointment without logging in.	The client will be directed to the login page.

Table 3.7: Test Case 5. Profile

Test Case ID	TestCase-05
Test Case Name	Profile
Pass/Fail Criteria	The test passes if the client/admin clicks on “Profile” and enters “Profile” page.
Input Data	Click on “Profile”.
Test Procedure	Expected Outcome
Step 1. Edit Profile Information.	Client/admin can view and edit information in his/her profile. After editing, changes are saved and updated in the database.
Step 2. View Appointments	Appointment information is displayed.
Step 3. Cancel Appointment	Opens a page where all information about the appointment. If “Cancel” is clicked on, a confirmation window pops up. If yes is clicked, a cancellation message is displayed, and the appointment is marked “Cancelled” in the database.
Step 4. Logout	When clicked on, the client/admin is logged out and redirected to the more general homepage.

Table 3.8: Test Case 6. Appointment

Test Case ID	TestCase-06
Test Case Name	Appointment
Pass/Fail Criteria	The test passes if admin clicks on “Approved”.
Input Data	Click on “My Appointments” in “Profile”.
Test Procedure	Expected Outcome
Step 1. Clicks on “No”.	System website displays a confirmation message with a field for ”Reason”. In the database, an appointment is marked “Unapproved” and notifies the client about it.
Step 2. Clicks on “Yes”.	The system website displays a confirmation message. In the database, an appointment is marked “Approved” and notifies the client about it.

Table 3.9: Test Case 7. Direct message

Test Case ID	TestCase-07
Test Case Name	Direct message a client/admin
Pass/Fail Criteria	When already logged in, click on “Message” on the homepage, alphanumeric and characters key code
Test Procedure	Expected Outcome
Step 1. Send an empty message.	System website displays an error message.
Step 2. Sends a message.	From the sender’s view, the system website displays a conversation window where his/her message is sent. From the receiver’s view, the system website updates the message icon to have a badge meaning a message is received in his/her system website inbox.

Table 3.10: Test Case 8. Summary report

Test Case ID	TestCase-08
Test Case Name	Summary report
Pass/Fail Criteria	The test passes if a summary report is displayed.
Input Data	Admin is logged in. In the “Profile”, clicks on “Summary”. In the “Summary” page, clicks on the detail the admin wants to make report with.
Test Procedure	Expected Outcome
Step 1. Clicks on an info that cannot be summarized.	System website displays an error message.
Step 2. Clicks on an info that can be summarized.	The system website shows a report.

3.9 Calendar of Activities

Table 3.11 shows a Gantt chart of the activities. Each bullet represents approximately one week worth of activity.

Table 3.11: Timetable of Activities

Activities (2021)	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Study on Prerequisite Knowledge	●●●							
Identification of Existing Studies and Website	●●●	●●●●	●●●					
Review of Existing Literature		●●●●	●●●					
Identification and Testing of Existing Website				●●	●●●●	●●●		
Development Process of the Website					●●●	●●	●	
Analysis and Interpretation of the Results						●●●●	●●●●	●●
Documentation	●●●●	●●●●	●●●●	●●●●	●●●●	●●●●	●●●●	●●●●

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