

U-Near Me: HEIs in Central Luzon Mobile Application with 2D Mapping

A Capstone Project

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by

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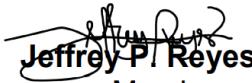
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DEDICATION

This thesis is dedicated to my family, who believed in me and supported me all the way through. They are my reason to keep going.

Jeo Miguel T. Dela Rosa

This thesis is dedicated to my family, who taught me to complete all of life's tasks to the best of my ability and without complaint, no matter how big or small they were.

Princess C. Jaramillo

I dedicate this work to my family and friends, especially to my parents who is my inspiration for not giving up and for always pushing and encouraging me to keep going. For my siblings who always there and support me in anything I do.

Abe Zairon M. Layon

I want to dedicate this study, first, to the Almighty God who gave me the strength, knowledge, and courage. Second, to my beloved parents and family for understanding, helping me financially, inspiring, and motivating me. Third, to my dearest friends who helped me in the process of completing the project. Also, to our Thesis Adviser, Ms. Cherry Collera, for giving me enough knowledge and consulting and checking the paper. Lastly, to all the Researchers and Authors of our references and sources. This study was fulfilled because of the people who have been with us and who gave their support and motivation throughout the process of making this thesis. I would like to hand my deepest gratitude to these people who inspires me and became a part of my success.

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ABSTRACT

The U-Near Me: HEIs in Central Luzon Mobile Application with 2D Mapping is a mobile app for searching and locating colleges and universities in Central Luzon. It is responsible of data management for Central Luzon's colleges and institutions. The system is designed to list all of the colleges and universities in Central Luzon. Incoming college students, returning students, master's students, and continuing students can all register and log in using the app. The user may utilize the mobile app to filter down the list of schools and institutions that are a good fit for their needs. In the 2D mapping, users may drag a circle with an adjustable radius to see the schools within it. There is also information about the school, such as entrance requirements, tuition costs, the school's website, and the several courses available. College applicants can see where the university is located. There is also a career path assessment. It contains an 85-item career path examination to help college students determine which career path is best for them. It also contains a feedback section for the school as well as a mobile app for comments and recommendations that may be used to improve the system. The application requires an android device running version 4.0 (Jellybean) or higher for compatibility. The U-Near Me: A Proposed HEI in Central Luzon Mobile Application with 2D Mapping was evaluated and tested with a score of 4.53 in terms of functional sustainability, performance efficiency, compatibility, usability, reliability, security, maintainability, and portability.

TABLE CONTENTS

PRELIMINARIES	Page
Title Page	i
Approval	ii
Dedication	iii
Acknowledgement	v
Abstract	vi
Table Contents	vii
List of Table	ix
List of Figure	x

Chapter 1 – INTRODUCTION

Background of the Study	1
Objective of the Study	3
Scope of the Limitations of the Study	5

Chapter 2 – CONCEPTUAL FRAMEWORK

Review of Related Literature and Studies	7
Conceptual Model of the Study	21
Operational Definitions of Terms	23

Chapter 3 – METHODOLOGY

Project Design	25
Project Development	35
Operation and Testing Procedure	41
Evaluation Procedure	44

Chapter 4 – RESULTS AND DISCUSSION

Project Description	46
Project Structure	46
Project Capabilities and Limitations	55

Chapter 5 – SUMMARY OF FINDINGS CONCLUTIONS AND RECOMMENDATION

Summary Findings	66
Conclusions	67
Recommendations	69

Bibliography

Appendices	79
Researchers Profile	140

LIST OF TABLES

Table No.	Title	Page
1	Student Table	32
2	School_Admin Table	33
3	School Table	34
4	Test Script Form	44
5	Likert's Scale	45
6	User Login Test Script	57
7	Filter Search Test Script	59
8	Compare Test Script	61

LIST OF FIGURES

Table No.	Title	Page
1	Conceptual Model of the Study	22
2	Use Case Diagram	26
3	Activity Diagram (School Admin)	28
4	Activity Diagram (College Applicants)	29
5	Entity-Relationship Model	31
6	Waterfall Model	36
7	Gantt chart	40
8	Login and Register	47
9	Filter Search	48
10	Compare School Module	49
11	School Module	50
12	2D Map Module	51
13	User Feedback Module	52
14	Virtual Tour Module	53
15	User Feedback Module	54
16	Edit School Mobile	55

CHAPTER 1

INTRODUCTION

Background of the Study

The age of information technology is known as the twenty-first century. IT has advanced dramatically in recent decades, transforming the way people learn and interact. Information technology is responsible for everything from computers and the internet to e-commerce and cellphones. Sharing information and gathering knowledge has become much easier, faster, and more enjoyable. It has improved the quality of life around the world.

Technology plays an important role in today's world, in both industry and people's lives. Students are one of the areas where technology is most beneficial. College applicants are having a difficult time deciding where to study and which university they should attend. This is one of the most important decisions they make in their lives. The factors that the student applicant mostly considers when selecting a school are the tuition cost, location, and in particular, the educational quality it provides. College applicants can use information technology to view school information and requirements. Furthermore, Information Technology developed a way of life, including how college applicants thrive in the new technological world. To ensure that college applicants find the right university faster, with the added benefit of reducing stress over transportation costs and selecting the best fit for them.

One of the most important decisions that college applicants make after high school is to choose which college or university to attend. Their college choice had a long-term impact on both of their personal and professional life. When looking for colleges, they want to consider a variety of factors, including location, size, cost, academic quality, campus safety, major options, and other factors that are important to them personally, such as a program that is tailored to their specific interests.

College applicants get ready to apply to colleges and take charge of their futures. They may discover their best college matches, as well as scholarship and financial aid options, allowing them to broaden their educational horizons. Mobile applications assist them in taking the first step toward their future goals.

College applicants used different mobile applications in finding college or university. They might use social platforms and search for colleges. They can also use mobile applications like google map to locate the college or universities they are interested in. Many mobile applications can help them in finding college but not all of them are convenient and can help them to choose the right college for them.

Finduniversity.ph is a website in the Philippines which was introduced in 2010 that assists students in finding colleges based on their field of study, location, degree level, and school type. It includes a list of 20,000 courses offered by 900 colleges and universities in Luzon, Visayas, Mindanao. Also, users may be able

to look up university rankings. It is run by edukasyon.ph, which is part of the Engadin Corporation, which is a leader in educational technology and services.

The main problem of the study was to develop and implement a mobile application that assisted college applicants in finding college or university within Central Luzon. The study sought answers on how the college applicants can access the system, how the system assisted the college or university in promoting their school, how a college applicant assisted in finding a college or university that matched his preferences, how a college applicant assisted him in choosing the right track/course, how a college applicant finds or locates his preferred college, how a college applicant provided an efficient way to view the various facilities in school.

U-Near Me: HEIs in Central Luzon Mobile Application with 2D Mapping is a mobile application that manage the data of Central Luzon's colleges and universities. It includes information on the university's location as well as a career path examination.

Objectives of the Study

The main objective of the study is to develop and implement U-Near Me: HEI in Central Luzon Mobile Application with 2D Mapping that is capable of listing all colleges and universities within the area of Central Luzon. It helped the college applicant to look for college and university that matches his preference.

Specifically, the study aims to:

- o Design a mobile application that is capable of:
 - a. Allowing college applicants to register and login to the system through registration and login form;
 - b. Allowing a college applicant to find college or universities based on cost, program, and location;
 - c. Providing information about school, and links to official university websites school page;
 - d. Allowing college applicants to locate different colleges and universities through the use of 2D mapping;
 - e. Providing 360° images of the facilities in schools to efficiently tour the college applicants;
 - f. Allowing college applicants to compare two colleges based on type, cost, location;
 - g. Providing a career path exam to help college applicants in selecting their course;
 - h. Allowing college applicants to give their comments and suggestions through user's feedback module; and
 - i. Managing the school's information through database system.
- o Create the system using as Android Studio, Firebase, Windows 10 as a software requirement and hardware such as PC or Laptop with a minimum Processor of i3 and RAM of 4GB;

- o Test and improve the developed system in terms of usability, security, maintainability, and functional suitability; and
- Evaluate the performance of the developed system based on functional suitability, performance efficiency, compatibility, usability, reliability, security, maintainability and portability.

Scope and Delimitation of the Study

The system focuses on listing all the colleges and universities within the area of Central Luzon. The college applicants can use this to find college or university. They can register and login to the app. They can also see information about the school such as admission requirements, tuition fee, school website, and different courses to be offered. Student applicants can also filter their search to match with their preference. The developed system also provides a Career Path exam to help college applicants in choosing their course. Provide 360² images that allow users to take a virtual tour of universities because they are unable to visit universities in person due to the pandemic.

This mobile application is only limited for college applicants, returning students, and masters students, and focuses only on colleges and universities within the area of Central Luzon. U-Near Me can only be used for searching or finding school, college applicants cannot apply for admission in their preferred college within the app. Changes in information and courses in schools also cannot be updated automatically, the system admin or school admin still need to update

it manually. The list of courses can be viewed in the mobile app but the availability of the slot per courses cannot be shown.

This mobile application is evaluated based on ISO25010 criteria: functional suitability, performance efficiency, compatibility, usability, reliability, security, maintainability and portability. The proponents have interviewed ten (50) individuals as respondents. The target respondents are composed of college applicants, returning students, masters students and school admin.

In the development of this mobile application, the proponents decided to use software such as Android Studio and Java Development Kit as its programming language. For the Operating System the proponents used Windows 10 and Firebase for storing and managing data in the database. At the same time, we need a PC or Laptop that has a minimum requirement to run the software that is used in the development of the application.

Chapter 2

CONCEPTUAL FRAMEWORK

This chapter provides background information on the subject that would aid the researchers in their research. All information gathered from books, journals, and electronic sources, as well as findings in theses and dissertations, is referred to as research.

Review of Related Literature and Studies

Higher Education Institution

According to the study of Rodriguez (2018), it is imperative for Philippine higher education institutions to embrace change to remain relevant and responsive to the demands and challenges of the fast-paced world. This study proves that coming up with new ways to improve HEI's in the Philippines is necessary and needed.

To support that claim, the study of Junio-Sabio (2021) also stated there is a need to recognize and validate different institutional models, and learn about the new features that make education in the Philippines effective. It is said that finding new ways to improve and assure quality education is necessary that can adapt to different circumstances.

Lastly, the study conducted by Hernandez (2017) stated that freshmen students have high self-esteem and a high level of adjustment to college if they

are confident with the course and the school that they are getting themselves into. This is possible if there is an app or guide that can tell them which path to go.

To sum it all up higher education institutions would be used in the study to support college applicants in their preferred schools by offering more options.

Higher Education Institution in Central Luzon

Wikipedia.org (2021) stated that Central Luzon designated as Region III is one of the largest region in the Philippines located in the central part of Luzon. Central Luzon covers seven (7) provinces which is, Aurora, Bataan Bulacan, Nueva Ecija, Pampanga, Tarlac, and Zambales.

As presented by FindUniversity.com (2020) there are 8 Colleges and Universities in the province of Aurora, Bataan has 15 Colleges and Universities ,while in Bulacan there are 70 Colleges and University which have the highest count in Central Luzon, Nueva Ecija has 46 Colleges and Universities, Pampanga has 49 Colleges and Universities, 36 in Tarlac, and lastly Zambales with 35 Colleges and Universities.

According to UniRank (2021) the most popular College and Universities in Central Luzon are Central Luzon State University, Angeles University Foundation, Nueva Ecija University of Science and Technology, Holy Angel University Tarlac State University, Bulacan State University, University of the Assumption, President Ramon Magsaysay State University, Tarlac Agricultural University, Baliuag University, Bataan Peninsula State University, Wesleyan University-

Philippines, Meycauayan College, Aurora State College of Technology, La Consolacion University Philippines, Bulacan Agricultural State College, Republic Central Colleges, Guagua National College, and Don Honorio Ventura Technological State University

As can be seen, the Higher Education Institution in Central Luzon that is used in the study to help the proponents in listing all the Colleges and Universities only within the area of Central Luzon.

Mobile Application

Mroczkowska (2021) pointed out that mobile application (also known as a mobile app) is a type of software that runs on a mobile device, such as a smartphone or tablet computer. Although apps are typically small software units, they offer users excellent services and experience with limited functionality.

In addition, Ahmad, et al. (2018) indicated that mobile application development for smartphones has advanced dramatically in recent years. Over the last few years, this growing interest has attracted the interest of mobile app developers. Users around the world are currently downloading and using millions of mobile applications. Users can download free and paid mobile applications from various mobile app stores (e.g., Google Play Store, Apple App Store, and Windows Phone Store).

Lastly, Techopedia (2021) stated that mobile applications are a shift from the traditional integrated software systems found on PCs. Instead, each app offers

a single, limited feature, such as a game, calculator, or mobile web browsing. While the limited hardware resources of early mobile devices prevented applications from multitasking, they are now unique, because it enables consumers to choose what their devices can and cannot do.

Generally speaking, a mobile application is used in the system's development. It helped to increase efficiency and data security in the system in terms of the information of colleges and universities.

Higher Education Institution Mobile Application

Oliveira et al. (2017) clarified that in higher education, mobile applications are used in three ways: to enhance or supplement classes, to provide access to knowledge and resources, and to promote engagement, connectivity, and access to courses and jobs. Due to the significant increase in academic use of mobile devices and applications, HEIs have made efforts to promote initiatives to academics to interact with mobile technology.

Jain (2016) assured that mobile applications that support students and faculty are becoming more common at colleges and universities. Not only does it boost the student experience, but it also assists higher education institutions in recruiting more students. Even before they enroll, mobile innovation improves prospect participation.

HigherEd direct (2017) added that higher education institutions are no longer discussing whether or not to create their own mobile platforms. Instead,

mobile apps for students who are increasingly reliant on their smartphones. Apps that tend toward recruitment strive to provide prospectus-style information, while apps geared toward interaction aim to improve the value of a student's experience.

To summarize, mobile application in Higher Education Institutions was used to assist schools to reach more students.

Java Programming

According to Mercer (2021), for science applications, such as natural language processing, Java is frequently the default option. The main reason for this is that it is more safe, compact, and easy to manage than C++ or any other programming language. It also has better high-level concurrency tools than C++ or any other language. Java leads you down a variety of career paths. Java is capable of running in a variety of environments, including sports, mobile apps, desktop applications, and web applications.

Similarly, Leahy (2019) stated that Java is a programming language for computers. It allows programmers to use English-based commands instead of numeric codes to write machine instructions. It's referred to as a high-level language because it's simple for humans to read and write. Java, has a set of rules that regulate how commands are written, similar to English. Its syntax is made up of these guidelines. The program's high-level instructions are then decoded into numeric codes that machines can understand and execute.

Lastly, Prakash (2016) stated that Java is actually more common than C++, Python, C#, PHP, and JavaScript, which are all commonly used programming languages. The vast popularity and importance of Java in today's world is demonstrated by usage statistics posted on numerous websites. Java is a programming language for a wide range of applications. Some developers tend to use Java to create desktop GUI apps, while others use Java to create a wide range of web applications. Simultaneously, Java is commonly used for creating mobile applications and games for Android – the most widely used mobile platform. There are many other explanations why Java continues to be relevant in the future.

In summary, Java programming is used in the developed system. This serve as the main programming language to create the mobile application of the developed system U-Near Me: HEIs in Central Luzon Mobile Application with 2D Mapping.

Database Management System

According to Raza, M. (2018), the technology solution used to optimize and control the storage and retrieval of data from databases is known as a database management system (DBMS). A database management system (DBMS) provides a systematic approach to handling databases through a user interface, as well as workloads that access databases through apps.

In addition, the study conducted by Luthor, J. (2019) Database management systems are important to the activity of numerous companies

because they aid in the management of a company's various databases. These systems allow users to quickly retrieve, update, and manage data related to a company's operations. This kind of information management system is an interface that makes it easier for users to connect to a database and organizes and makes data stored in that database more accessible. They are also used by a variety of companies.

Lastly, the study conducted by Admin (2017) Database management systems are essential in companies and organizations because they provide a fast and efficient way to handle a variety of data types. Employee records, student documents, payroll, accounting, project management, and inventory are some of the data that can be easily handled with this type of system. These systems have been designed to be highly adaptable.

All in all, a database management system is used to store data in the developed system, and helped the proponents in managing the user and school data in the system.

2D Mapping

Autodesk (2017) cited that 2D Maps are two-dimensional images that are usually projected onto the surfaces of geometric structures or used as environment maps to construct a scene's context. Bitmaps are the simplest 2D maps; other types of 2D maps are created through a procedural method.

Correspondingly, Crescent Flight Operations (2019) indicated that 2D maps, also known as orthomosaics, are created when a drone takes hundreds or even thousands of photos that are stitched together and processed to create a high-resolution image. It is a standard map with building labels and legend. This helped users to navigate and view huge places in high resolution and realistic pictures.

Lastly, Mapsmiths Geographx (2017) assured that a 2D Map is used in the majority of large-scale print maps. On this type of map, every point is viewed from directly overhead. The spectator looks vertically down the Z axis along parallel projection lines since the perspective is at infinity.

To sum up, 2D mapping is used in the developed system to help the college applicants in locating their preferred schools.

Android Technology

Chen (2021) identified that Google (GOOGLE) produced Android, a mobile operating system designed for touchscreen computers, cell phones, and tablets. Its design allows users to manipulate mobile devices intuitively, using finger movements that mimic common gestures like pinching, swiping, and tapping. Android software can also be found in televisions, automobiles, and wristwatches, each with its own user interface.

Encyclopedia Britannica (2020) stated that Google's Android is a smartphone and tablet operating system. In 2004, the project was renamed to

become a mobile operating system. Google Inc. acquired Android Inc., an American search engine corporation, in 2005. The Android team at Google chose Linux, an open source personal computer operating system, as the project's base.

Christensson (2016) pointed out that Google's Android is a smartphone operating system. Several smartphones and tablets use it. Since Android is open source, developers can change and customize the operating system for each phone. Different Android-based phones often have varying graphical user interfaces (GUIs).

In conclusion, Android Technology is used to develop the U-near me mobile application.

ISO 25010

Iso.org (2017) explained that ISO 25010 uses a model which is made up of five characteristics that contribute to the outcome of interaction when a product is used in a specific context. This system model applies to all aspects of human-machine system, including all computer systems and software products. Eight characteristics apply to static software and dynamic computer system properties in the product quality model. Eight characteristics apply to static software and dynamic computer system properties in the product quality model. They also have a collection of quality characteristics that can be compared to specified quality specifications.

Codacy (2021) stated ISO 25010 is an excellent addition for corporate tech teams looking for a structure for defining software. Developers are able to identify measurement software that makes sense for their project by breaking quality features into sub features. There is a lack of detailed and systematic software measurement mapping of sub-characteristics. This is because each situation varies greatly: code quality is a matter of one thing in the sense of an online news site. There are completely different implications for code quality for the automated high speed software, and code quality for embedded aircraft software literally can make the difference between death and life.

Peters and Aggrey (2020) added that ISO 25010 is an international standard for evaluating the consistency of software and systems. This norm has undergone three significant updates: in 2007, 2011, and 2017. The SQuaRE (Systems and Software Quality Requirements and Evaluation) model is another name for this standard. It describes the quality of software products as well as the quality of use. The previous model (ISO 9126) has six (6) factors and twenty-one (21) sub-factors, according to them. By a simple comparison of the two versions, “security” and “compatibility” were the only two factors integrated into the ISO 25010, along with their sub-factors. The quality attributes in this model are presented in descending order, beginning with the top factors and working down to the sub-factors. On the top level, there are eight variables, which are further subdivided into thirty one (31) subfactors on the lower level. ISO 25010, a derivation of the ISO 9126 model, specifies thirty-one (31) characteristics that every high-quality software product must have.

In conclusion, ISO 25010 is used in evaluating the software quality of the system which considers functional sustainability, performance efficiency, compatibility, usability, reliability, security, maintainability and portability.

The College Selector App

Nevonprojects.com (2019) stated that the existing system is an application where students can find and enroll for different colleges that they want. This system is developed for students looking out for admission in best colleges. Also, it helped colleges to get more students being enrolled into the institute.

Both systems can search colleges or universities based on users' preferences. The existing system offers an admission exam and can send it to its respective colleges. While in the developed system college applicants cannot apply or take an admission exam through the mobile app.

The College Fair

Thecollegefair.com (2016) defined the existing system as a mobile application that can be used to explore and compare different colleges and universities in the United States. The existing system can be filtered by 1,000 majors, 900 careers and other factors in nearly 4,000 colleges in the US which are relevant to the user's search. It helps students to search colleges by major, location, interest and even discover careers related to their strengths.

Both systems can compare two (2) different colleges that can help users to choose what college fits her best. The existing system has a chatbot that helps the users in using the mobile app. While the developed system has a virtual tour, which can help the college applicants to view different facilities without travelling.

Peterson's

According to Petersons.com (2018) the existing system is a comprehensive online college search guide that helps students discover their best fit educational program. They also help the users who are often confused in college applications by sorting through their options and providing helpful advice.

Both systems can search for colleges and universities and help the users in choosing the right college for them. The developed system offers a Career Path Exam which can help college applicants in deciding the right track or course for them. While in the existing system career path exam is not available in their features.

Software Requirements

The software requirements include Microsoft Windows as the operating system, Android Studio, and Firebase.

Windows OS

According to edu.gcfglobal.org (2021) Windows OS is an operating system designed by Microsoft. Windows is the most popular operating system in the

world, that is why it is mostly the preloaded OS in recent computers. It is possible to finish all types of daily tasks on a computer with a Windows operating system.

The developed study used Windows Operating System to manage the hardware and software that is used in developing the system.

Android Studio

Based on TechTarget (2018) Android studio is used to develop or build applications for smartphones that run an operating system for Android. When developing an android application, Android Studio is the official IDE for developing an android application. Android Studio was announced in 2013 by Google and JetBrains, who developed Android Studio.

As a whole, Android Studio is used in the development of the overall functionalities of the developed system.

Firebase

Stevenson (2018) cited that Firebase is a toolset from Google's mobile application development platform that helps the developers build, improve, and grow their application. The services are hosted in the cloud, like analytics, authentication, databases, configuration, file storage, push messaging, and the list goes on.

To sum up, the programmers used Firebase as the database of the application. It is used for adding, updating, and modifying the tables such as Students, Schools and School Admin.

Hardware Requirements

The proponents decided to use Smartphone, PC/Laptop as a hardware requirement of the developed system.

Smartphone

According to Christensson (2010) A smartphone is a mobile phone that includes advanced functionality beyond making phone calls and sending text messages. Modern smartphones, such as the iPhone and Android-based phones, can run third-party apps, allowing them to perform a wide range of tasks. Most smartphones can view images, play videos, search and send email, and browse the Internet.

The study used a smartphone with an Android operating system for testing the mobile application

PC/Laptop

Christensson (2007) stated that PCs are what most of us use on a daily basis for work or personal use. A PC includes a system unit, monitor, keyboard, and mouse. Nowadays PCs are also having an Internet connection, as well as different ports for connecting different devices, such as external hard drives, digital cameras, speakers, scanners, printers, and other components.

The proponents used PC and Laptop in the study in the development of the overall system and to manage the documentation.

Conceptual Model of the Study

Powel (2017) stated that conceptual modelling is the process of developing a graphical representation (or model) from the real world. In the context of collaborative problem-solving it provides an easily understood representation of the system for the different stakeholders involved

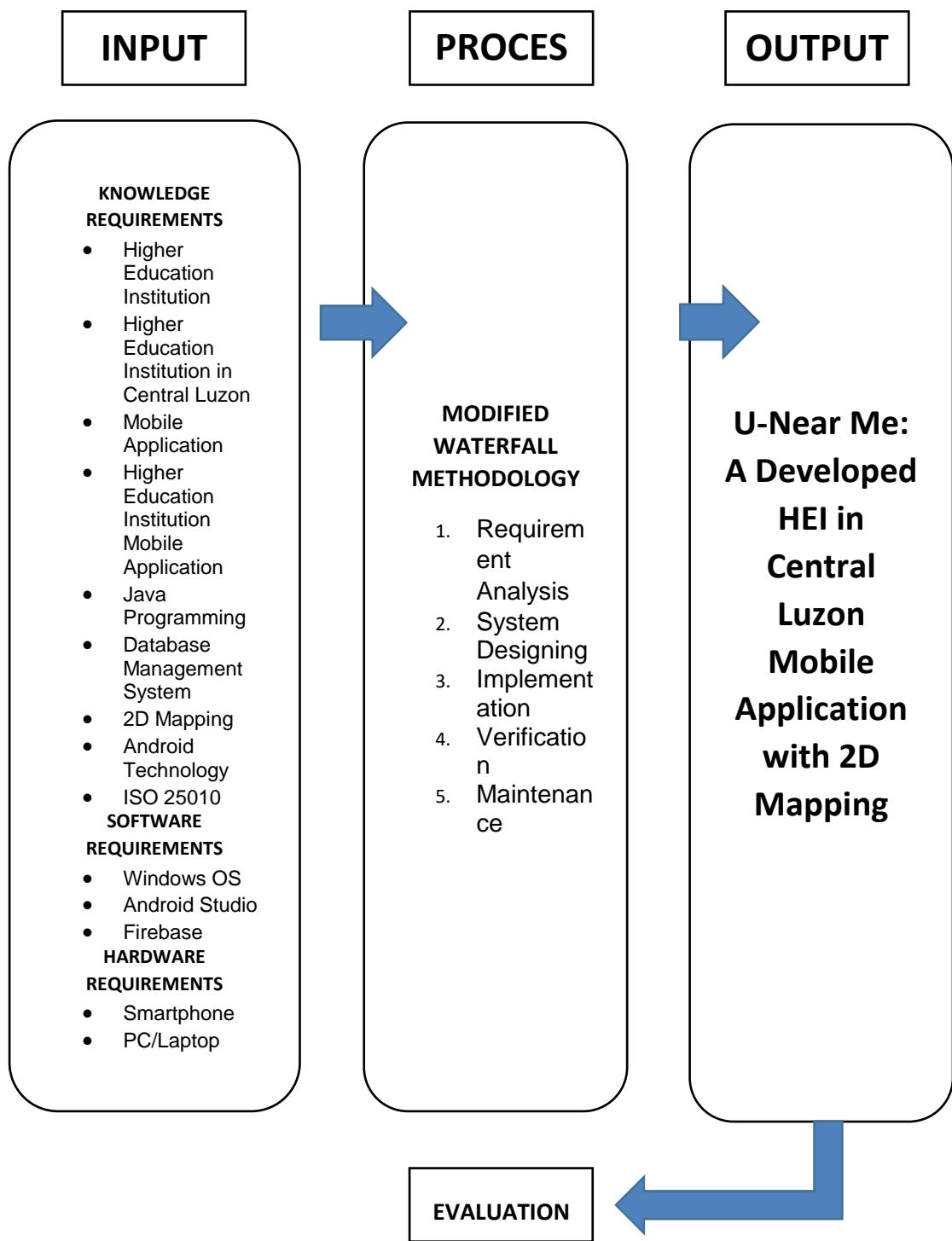


Figure 1: Conceptual Model of the Study

Figure 1 represents the conceptual model of the study which includes four phases namely Input, Process, Output and Evaluation.

The input phase contains knowledge requirements, software requirements and hardware requirements used to develop the system. The knowledge requirements consist of Higher Education Institution, Higher Education Institution in Central Luzon, Mobile Application, Higher Education Institution Mobile Application, Java Programming, Database Management System, 2D Mapping, Android Technology, ISO 25010. In addition, the software requirements are Windows OS, Android Studio, Firebase. And lastly, the hardware requirements are PC/Laptop, Smartphone and Flash drive.

The process phase shows the Modified Waterfall Methodology which the proponents had observed during the development of the system. The Modified Waterfall Method includes five (5) phases namely are Requirement Analysis, System Design, Implementation, Verification, and lastly, Maintenance.

The Output phase is the result of the input and the process phase combined which is the U-Near Me: HEI in Central Luzon Mobile Application with 2D Mapping. On the Final phase is Evaluation.

Operational Definition of Terms

The following are terms that are operationally defined for better understanding of the study:

U-Near Me: HEI in Central Luzon Mobile Application with 2D Mapping –

refers to a mobile application used to help college applicants in finding college or university that match their preference within the area of Central Luzon.

Admin – refers to the person who maintains the colleges and courses in the app.

Career Path Exam – a type of exam that can help college applicants in choosing a course.

College Applicants – refers to the beneficiary or the user of the system and can be classified of incoming first year college, returning students and transferee.

Filter Search – refers to the filtering of user search to match their preference.

Proponents – refers to the persons who are involved in the study.

CHAPTER 3

METHODOLOGY

This chapter covers project design, database design, project development, operations, and testing procedures.

Project Design

The U-Near Me: HEIs in Central Luzon Mobile Application with 2D Mapping is a system that allows college applicants to register in the system. It assists users in their search for colleges and universities in Central Luzon by providing information such as their location, tuition cost, and programs. In addition, the system provided the school information as well as links to official university websites. College applicants can also use 2D mapping to locate various colleges and universities. Due to the pandemic, they are unable to visit universities in person, so the system provides 360° images or videos of school facilities to efficiently tour college applicants. College applicants can use this system to compare the two schools based on type, cost, and location. Furthermore, a career path exam is available to assist college applicants in their course selection. Additionally, student applicants can provide feedback and suggestions via the user feedback module, and school administrators can manage the school's information via the database system.

Unified Modelling Language (UML)

According to Nishada (2021), "UML (or Unified Modelling Language) is a language rich in software solutions, applications, system behavior and business processes."

Use Case Diagram

Inflectra (2020) stated that Use Case Diagrams are diagrams that are used to illustrate more clearly the set of usage cases provided by a system's functions. The diagrams contain both the external entities that are to use the system (also called "actors") and the discreet usage cases (or objectives) to be carried out by the user.

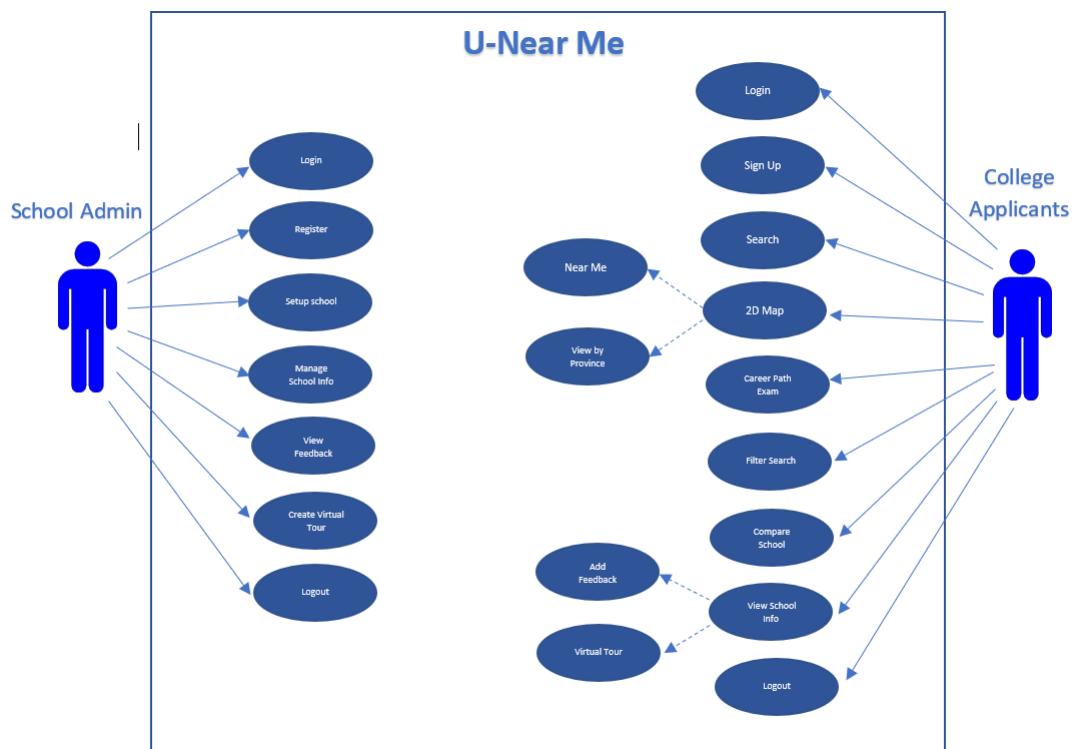


Figure 2.0. Use Case Diagram

Figure 2.0 displays the use case diagram. Upon opening the mobile application, the student applicants can login to the system. If the student applicant is new to the mobile application and doesn't have an account, they can register before they can successfully login into the system. The college applicants can search and can view colleges by province. The college applicants can also filter their search to match with their preference. The college applicants can view college info such as college type, tuition cost, program offered, location, etc. The users can locate different colleges through the use of 2D Mapping. They can also tour the colleges using Virtual tour. The college applicants can compare different colleges based on type, tuition cost, and location. The college applicants can also take a career path exam to help them in selecting their program. They can also view their account info and logout to the system. The school admin can register and login to the system. They can also register colleges to the system. School Admin can also manage info of their respected colleges.

Activity Diagram

Geeksforgeeks (2018) agreed that an activity diagram shows the control flow from start to finish indicating the different decision paths during the execution of the activity. We can show sequential workflow and simultaneous workflow processing using an activity diagram. Their main use is to represent dynamic aspects of a system in business and process modeling.

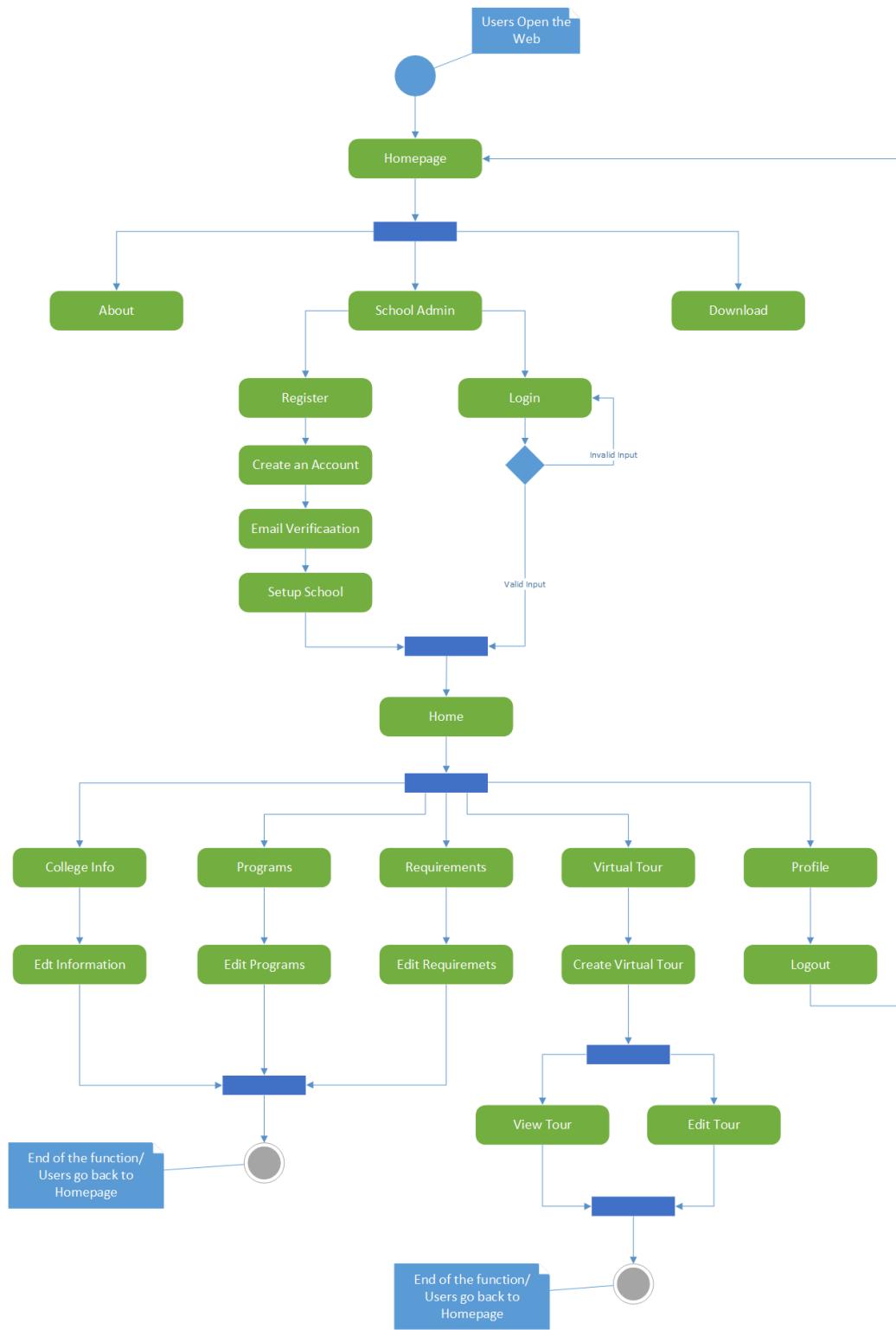


Figure 3.0. Activity Diagram (School Admin)

Figure 3.0 presents the activity diagram of the school admin. When the school admin opens the application, they see the login page. The school admin is required to login before they can enter the system. If the school admin has invalid input, it returns into the login page. Once the school admin has successfully logged in, he can be redirected into the admin homepage. The admin can edit the information of the college. He can also add or delete the programs in college. Lastly, the school admin can upload pictures or videos in the virtual tour.

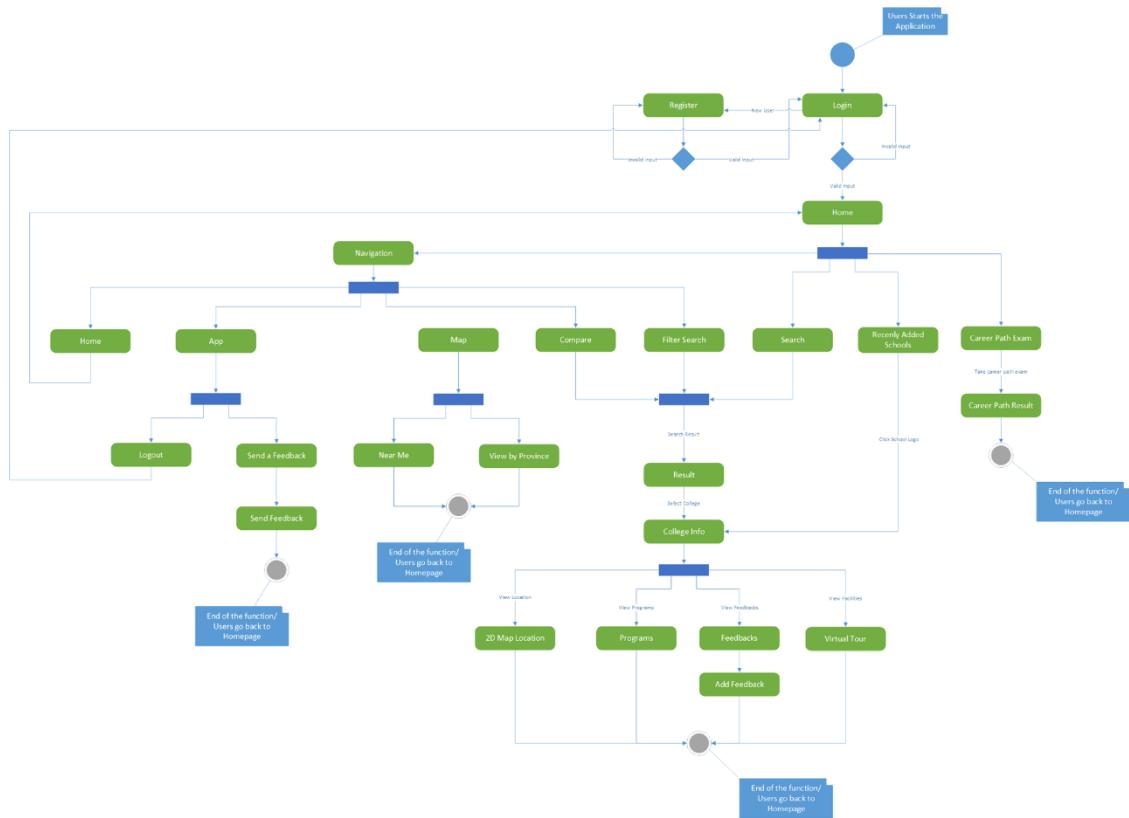


Figure 4.0. Activity Diagram (College Applicants)

Figure 4.0 shows activity diagram of the college applicants. When the users open the mobile application, the users are asked to login. If the users do not have an account in the system, they can register by filling out the registration form. If the users have an invalid input or leave a blank field they return to registration. Once the users have completed the registration, they are then be redirected to the login page. After they login to the system they are redirected into the homepage. In the Homepage, they can directly search for a specific college. Users can also filter their search and after that, the system gives a list of colleges that are qualified in the user's preferences. The users can view colleges and see the college information. Under the college info they can view the location of the school using 2D Mapping. They can also see the different programs that are offered by the college. Users can also go to Virtual Tour which they can use to view images and videos of the facilities in the school. The college applicants can compare two (2) different colleges to help them in choosing school. The college applicants can go to their profile and view their personal information. In the profile page, they can also take a career path exam. And lastly, they can exit or logout to the system.

Database Design

In this section, the database design contains entity-relationship models and data dictionary used in a developed system. The table are schools, school_admin, students, and cpe.

Entity-Relationship Model

guru99 (2017) cited that a graphical approach to database architecture is the Entity Relationship Model (ER Modeling). It's a high-level data model for a software framework that describes data elements and their relationships. Real-world objects are represented using an ER model.

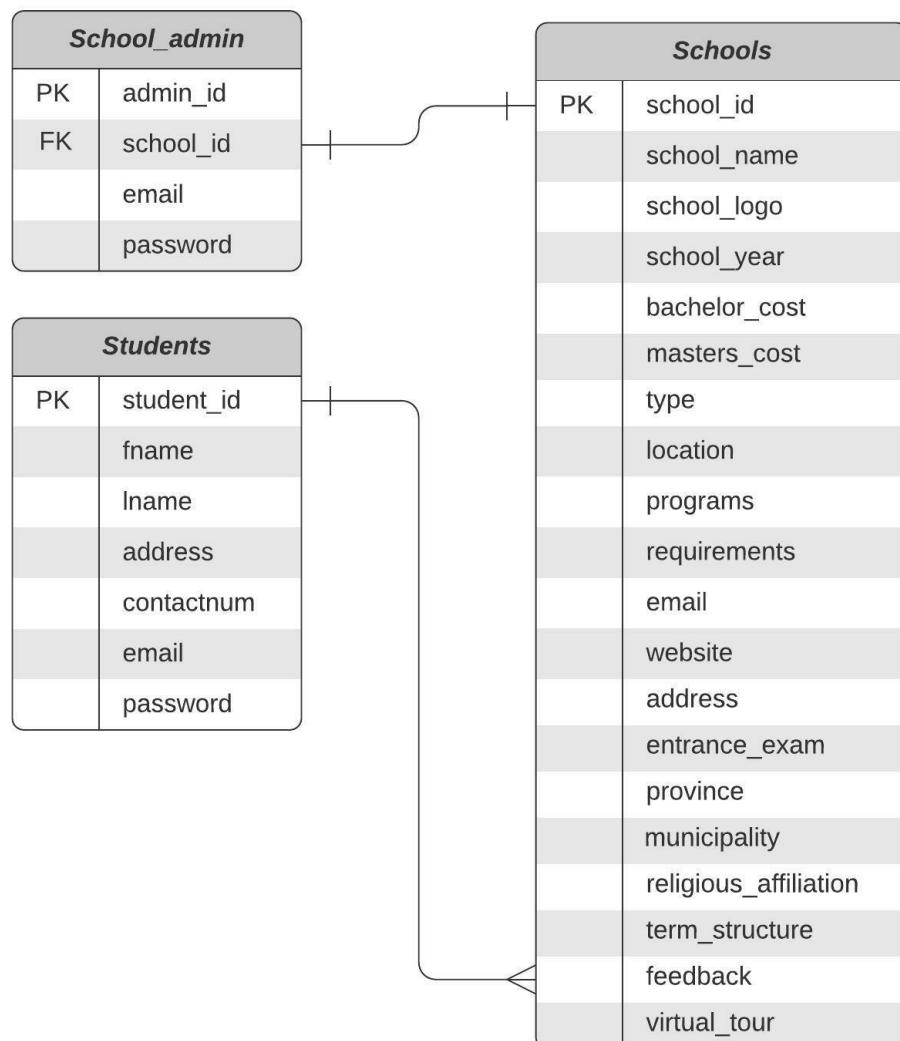


Figure 5.0. Entity-Relationship Model

Figure 5.0 above shows the entity relationship model of the U-Near Me: HEI in Central Luzon Mobile Application with 2D Mapping using Android Technology. It displays the four tables of the android's database and each table is storing different data.

The school admin table is connected to the schools table so school admin can manage the data inside the school table. The students table is connected in the schools tables so the student can give feedback to the school.

Data Dictionary

Meador (2018) pointed out that a data dictionary is a set of metadata, or information about a database. The data dictionary is crucial because it includes details such as what is in the database, who has access to it, and where the database is physically located. The data dictionary is usually not used by database users; it is only managed by database managers.

Table 1.0: Students Table

Data dictionary				
System Name: U-Near Me: HEIs in Central Luzon Mobile Application with 2D Mapping				
Subject: Student Table				
PK	FK	FIELD NAME	DATA TYPE	DESCRIPTION
Yes	No	student_id	Number	Student ID number
	No	fname	Text	First Name
	No	lname	Text	Last Name

	No	address	Text	Student Address
	No	contactnum	Number	Contact Number
	No	email	Text	Student Email
	No	password	Text	Student Password

Table 1.0 shows the Student table of the U-Near Me: HEI in Central Luzon Mobile Application with 2D Mapping using Android Technology. This table stores the information of the college applicants. This table's fields are: student_id, fname, lname, address, contactnum, email, and password.

Table 2.0: School_admin Table

Data dictionary				
System Name: U-Near Me: HEIs in Central Luzon Mobile Application with 2D Mapping				
Subject: School_admin Table				
PK	FK	FIELD NAME	DATA TYPE	DESCRIPTION
Yes	No	admin_id	Number	Admin ID number
	Yes	school_id	Number	School ID number
	No	email	Text	Admin Email
	No	password	Text	Admin Password

Table 2.0 shows the School_admin table of the U-Near Me: HEI in Central Luzon Mobile Application with 2D Mapping using Android Technology. This table stores the information of the school admin. This table's fields are: admin_id, school_id, email, and password.

Table 3.0: School Table

Data dictionary				
System Name: U-Near Me: HEIs in Central Luzon Mobile Application with 2D Mapping				
Subject: School Table				
PK	FK	FIELD NAME	DATA TYPE	DESCRIPTION
Yes	No	school_id	Number	School ID number
	No	school_name	Text	School Name
	No	school_logo	Text	School Logo
	No	school_year	Text	Start of School Year
	No	location	Geo Point	Location of the School
	No	type	Text	School Type
	No	bachelors_cost	Number	Bachelors Tuition Cost
	No	masters_cost		Masters Tuition Cost
	No	address	Text	School Address
	No	programs	Text	School Programs
	No	requirements	Text	School Requirements
	No	entrance_exam	Text	Entrance Exam
	No	website	Text	School Website
	No	term_structure	Text	Term Structure
	No	religious_affiliation	Text	Religious Affiliation
	No	province	Text	Province
	No	municipality	Text	Municipal Address
	No	feedback	Text	School Feedback
	No	virtual_tour	Text	School Virtual Tour

Table 3.0 shows the School table of the U-Near Me: HEI in Central Luzon Mobile Application with 2D Mapping using Android Technology. This table stores the information of the School. This table's fields are: school_id, school_name, school_logo, school_logo, school_year, location, type, bachelors_cost, masters_cost, address, programs, requirements, entrance_exam, website, term_structure, religious_affiliation, province, municipality, feedback, virtual_tour.

Project Development

Prashant (2021) defined that Modified Waterfall Model includes a feedback system between stages that provides information to previous phases. As a result, if a problem is discovered in one phase, improvements can be made in the previous phase. If errors or problems are detected at any stage, the feedback system assists previous stages in correcting the errors or problems.

The developed system adopts the Waterfall model because it is very easy to follow and apply. Modified Waterfall model allows each member of the team to contribute to accomplishing the phase and fix errors. Early correction of any process differences using modified waterfalls. After completing the planning, requirements analysis, and design, the researchers can move on to the implementation of the system U-Near Me: HEI in Central Luzon Mobile Application with 2D Mapping and when an error occurs, the researchers can correct it on the specific phase.

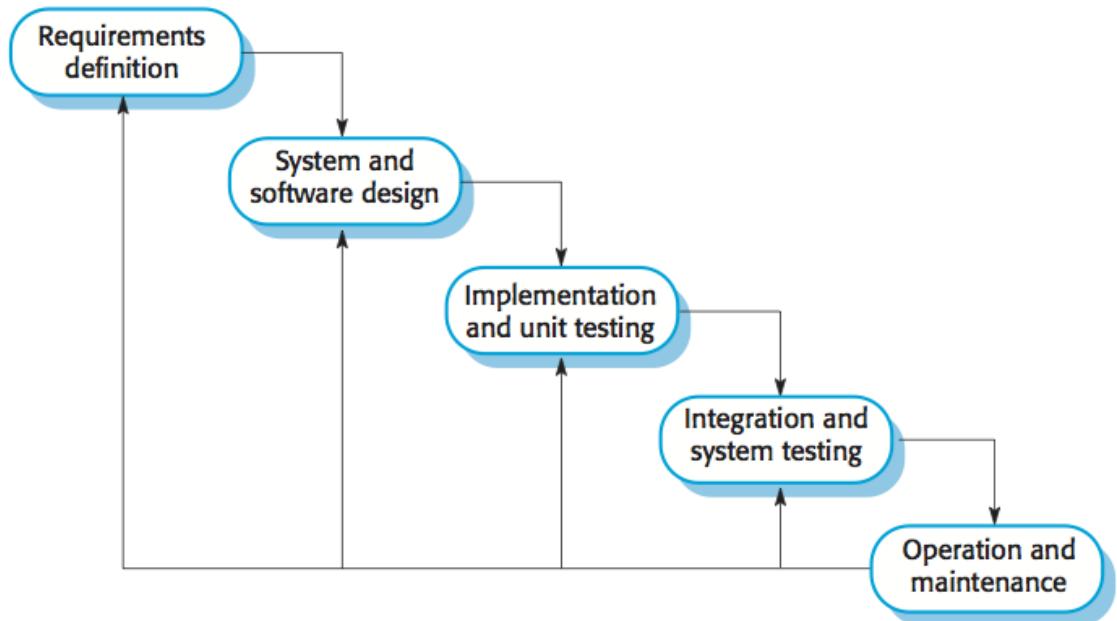


Figure 6.0. Modified Waterfall Model

Reference: <https://static.javatpoint.com/tutorial/jira/images/jira-waterfall-model.png>

Planning Phase

Project (2021) stated that the planning phase necessitates a well-thought-out strategy to keep the team on track. It guides the team's efforts to produce high-quality outputs, manage risk, gain acceptance, communicate stakeholder benefits, and manage suppliers.

In this phase, the proponents begin the brainstorming of the title to be developed. After the title U -Near me: HEIs in Central Luzon Mobile Application with 2D Mapping has been approved, the proponents start planning how to

propose a system, starting with documentation of what the user expects from the system's output.

Requirements Analysis

reQtest (2018) cited that Requirements Analysis is the process by which the user expects for an application to be constructed or modified shall be defined. It includes all the tasks to identify the requirements of the various stakeholders. Analyzing requirements means analyzing, documenting, validating and managing requirements of software or systems.

In this phase, the researchers gather information, and also the user's needs in order to develop the system. Interview with the Nueva Caceres-Bataan University Administrator and with college applicants that is conducted by the researchers. The researchers analyze the company's problem and how the site and the applications could be developed after gathering information.

Design

Ghahrai (2018) defined that the design phase involves the development of the high-level software and system to developers and technical architects to satisfy all requirements. All components to be developed, third party services, user flows and database communications are defined by the architectural design select, together with front end presentation and component behavior.

In this phase, the researchers establish the system design to meet the users' needs. The user-friendliness of the developed system is also considered at this stage.

Implementation

According to trQA.com (2017), the implementation phase is the longest phase in the software development life cycle. In this phase the programmer already receives the design documents and the coding starts. Since code is developed during this phase, it is the developer's primary goal.

In this phase, the proponents start to develop the developed system. If the button is used to achieve the goal or features of the developed system, the programmer begins to create a system database and code every function.

Verification & Validation

Pankaj (2019) defined that Verification and Validation as a phase where the proponents check if the software meets or fulfils its goals without any errors. It also checks if the developed system is the right system or the expected system.

In this phase, the proponent's test if all the functions or features of the system are working properly. If they encountered any bug in the system, the programmer is responsible for fixing it. They also check if the system is functioning as expected in the system objectives.

Operation & Maintenance

Sharma (2016) stated that when the functional testing is done, the product is released and deployed to the customers. It also involves some modification to the system to improve the system. The built software is maintained and supported on a regular basis for the customer.

In this phase, the proponents start to present the fully developed system. The developed system would be available to the target users or beneficiary. The school administrators would be responsible for maintaining the colleges that are registered in the system.

Gantt chart

Grant (2021) concluded that a Gantt chart depicts a project plan graphically. This is a type of bar chart which presents the start and end dates of a number of project elements, including resources, milestones, tasks and dependencies. The Gantt chart was designed by Henry Gantt, an American mechanical engineer.

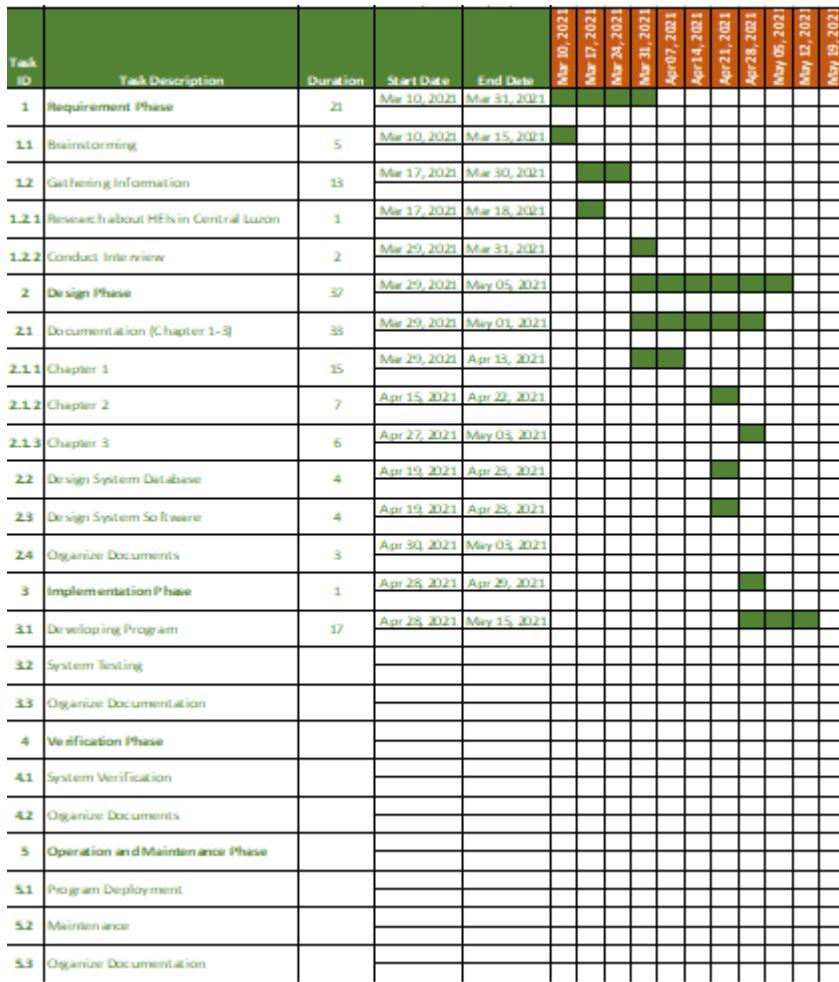


Figure 7.0. Gantt chart

Figure 7.0 shows the Gantt chart with requirements analysis, design, implementation, verification, and operation and maintenance. The system development started on April 28 2021, and presumably end in February 2022. To decide which title or topic to propose, the proponents began by brainstorming. When the title was finalized and approved, the proponents began planning the project proposal and scheduling the development process. With the letter of

intent, they started the gathering of data. The researchers begin with the development of the system after they have collected all of the necessary data.

Operation and Testing Procedure

In this section, the operation procedure and testing procedure would be discussed. The different testing procedures such as unit testing, integration testing, system testing and acceptance testing is also explained.

Operation Procedure

To create their account, the college applicant must fill out all of the information on the registration form. After completing the registration process, the college applicant would be directed to their login page. If the customer already has an account, the college applicant only needs to login.

In the home page, college applicants would see a list of provinces in Central Luzon, as well as a search button to locate a specific college or university. If a college applicant wants to look for schools in Bataan, he or she would click the Bataan button to view a list of schools in the province. Once the college applicant has viewed the list of schools, he or she would click the school she prefers to view information and the location of the school.

In the profile page, college applicants would see his or her information, a career path exam button, and a logout button. The career path exam button contains questions that would assist college applicants in selecting a school based on the results of their career path exam.

In the compare tab, College applicants can compare schools based on their type, cost, and location. It would also display the history of previously compared schools.

Testing Procedure

1. Unit Testing

Inan (2020) pointed out that it is the smallest code piece testing method known as a unit. The main objective is to verify that every software unit is working accordingly.

The researchers would test the system to determine the accuracy of each component. During the development phase, the proponents review the program unit, perform code execution tests, identify and resolve any discrepancies, ensure that the test is complete, and test the functions of the developed system.

2. Integration Testing

Choudary (2020) clarified that a software testing stage when each unit is combined and tested to check if it works as it intends when it is incorporated. Here the primary objective is to test the interface.

After the unit testing, the proponents would use this test procedure to evaluate the interdependence of each module. During the integration testing, the proponents would notice the majority of the problems as a result of the effect of each module on the entire program when it does not work properly. Integration testing would assist proponents in identifying issues when combining units.

3. System Testing

The Economic Times (2021) stated that System testing is performed within the framework of an SRS and/or Functional Requirement Specifiers (FRS). The final test is to verify that the product to be delivered meets the requirements of the document. It should study both functional and non-functional needs.

In this process, If the requirements are fulfilled, the researchers would test the integrated software. They monitor the whole framework step-by-step.

4. Performance Testing

According to Gillis (2020), Performance Testing is a type of test to measure a computer, network, software or device's speed, responsiveness and stability when it has a workload. Organizations perform performance testing to identify performance-related bottlenecks.

In this process, the proponents would test the system's performance if it meets speed, scalability, and stability requirements under expected workloads, and errors would be fixed immediately to avoid issues such as inconsistencies across different Android versions and poor usability.

These testing procedures utilize the below test script form.

Table 4.0. Test Script Form

Date			
Tested by			
Test Case Number			
Test Case Name			
Test Case Description			
Items(s) to be tested			
Procedural Steps			
Specifications			
Input	Expected Output/Result	Pass Y/N	Actual Result/Output

Evaluation Procedure

These are the following activities that the researchers perform during the evaluation.

1. The researchers have explained the concept of the system and its operation to the respondents.

2. The researchers have tested the system
3. The respondents tested the system
4. The system has been tested by the proponents based on the criteria under ISO 25010.
5. The survey form was handed out to the respondents by the proponents.
6. The researchers gathered the survey form and evaluated the data once the respondents completed it.
7. Using the weighted formula, the data was computed by the proponents.
8. The numerical range and the corresponding descriptive interpretation using Likert's scale are used to interpret the overall rating.

Table 5.0. Likert's Scale

Rank	Numerical Scale	Interpretation
5	4.51 – 5.00	Excellent
4	3.51 – 4.50	Very Good
3	2.51 – 3.50	Good
2	1.51 – 2.50	Fair
1	1.00 – 1.50	Poor

CHAPTER 4

RESULTS AND DISCUSSION

This chapter discusses the project description, which includes the project's structure, capabilities, and limitations. The test results and the project's evaluation results are also discussed in this section.

Project Description

The U- Near Me: A Proposed HEIs in Central Luzon Mobile Application with 2D Mapping is a mobile application that helps students find their preferred school. The target users are incoming college students, returning students, and master's students looking for schools near them that offer virtual tours so they don't have to go outside. The developed system can also be used to keep track of the student's information. These will aid in the reduction of physical contact in today's situation.

Project Structure

This part shows the major forms of the systems. The main capabilities include user register and login, filter search, school information, 2D mapping, virtual tour, compare colleges, cost, career path exam, user's feedback module, and managing the school's information through database system.

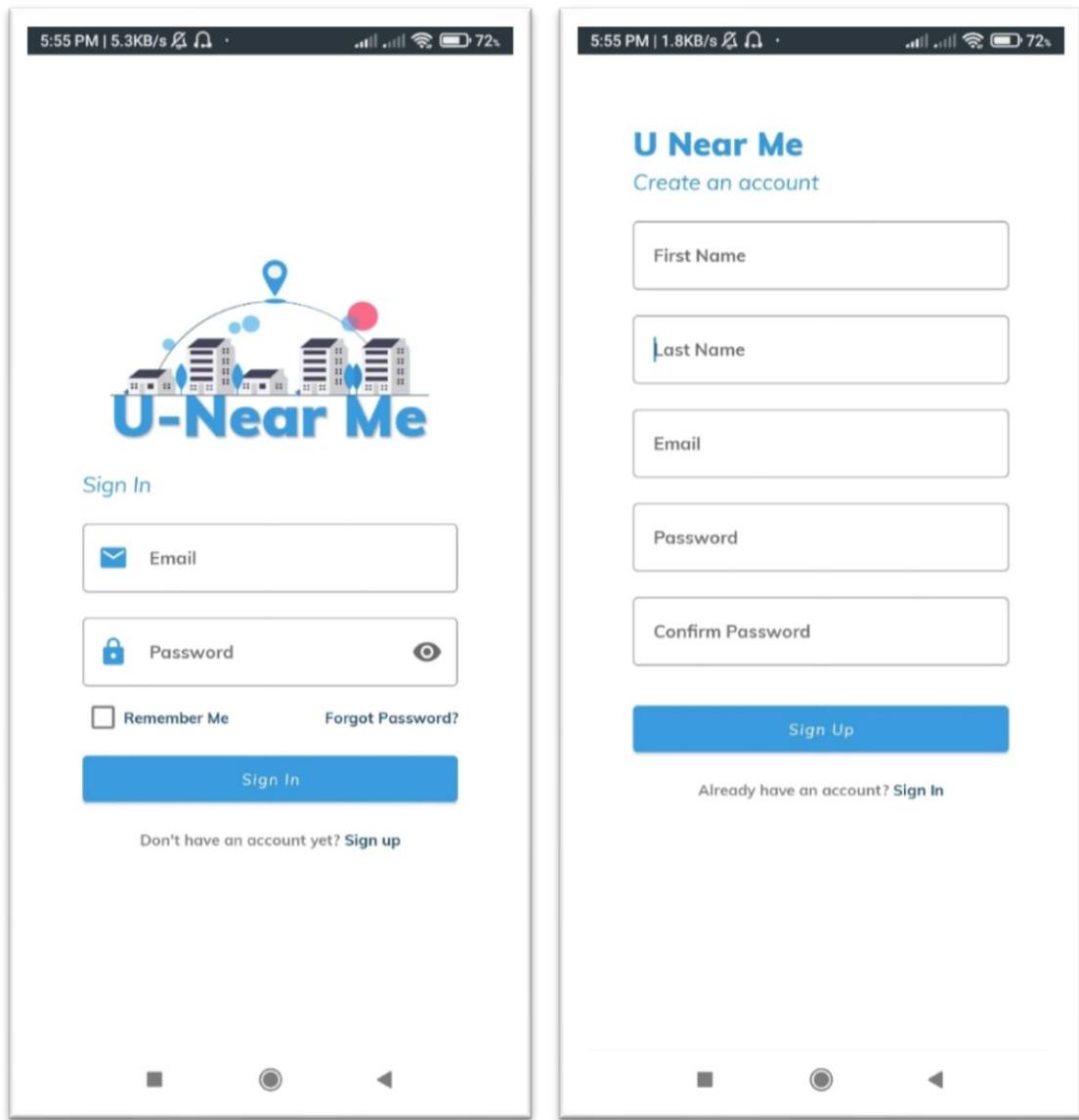


Figure 1. Login and Register Module

Figure 1 Shows the Login and Register Module where the user can access the system.

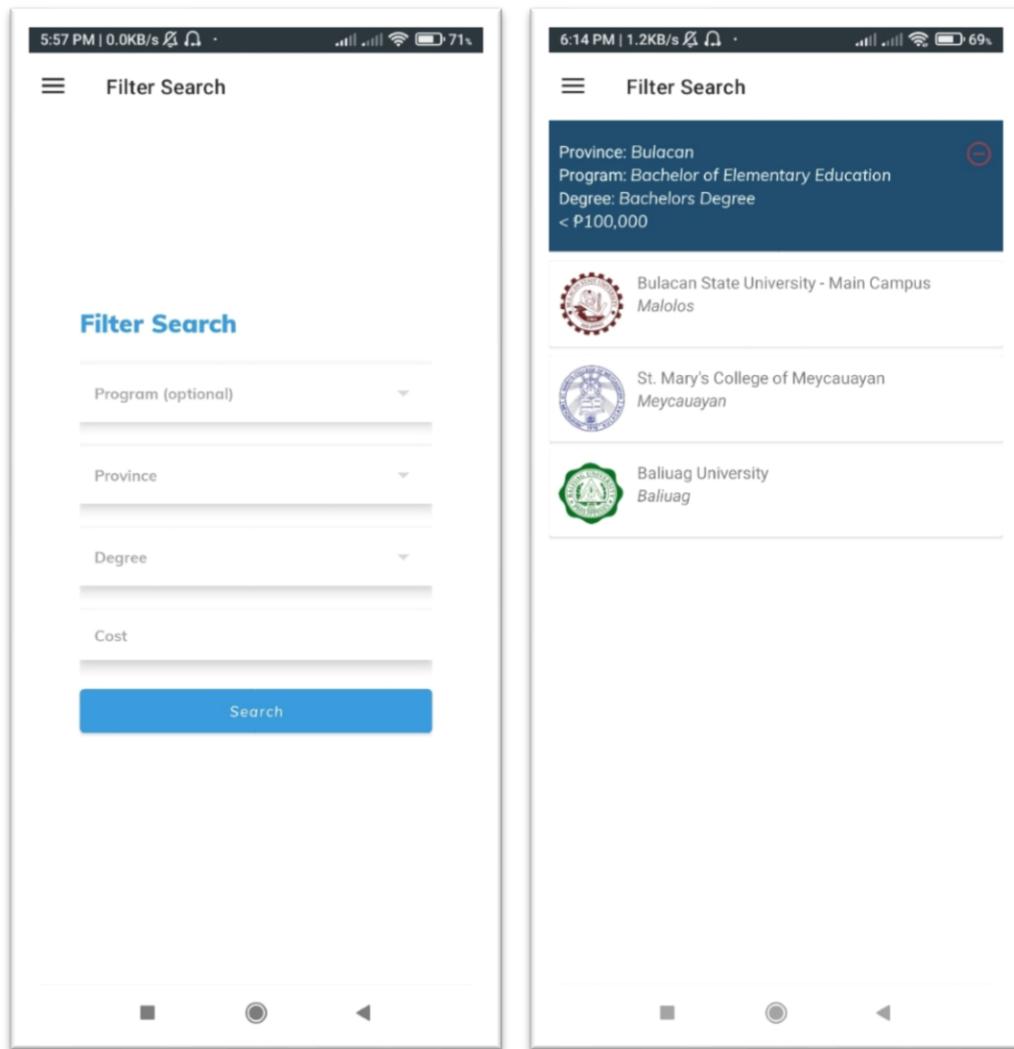


Figure 2. Filter Search Module

Figure 2 Displays Filter Search Module where the user can search colleges/ universities based on their preferences.

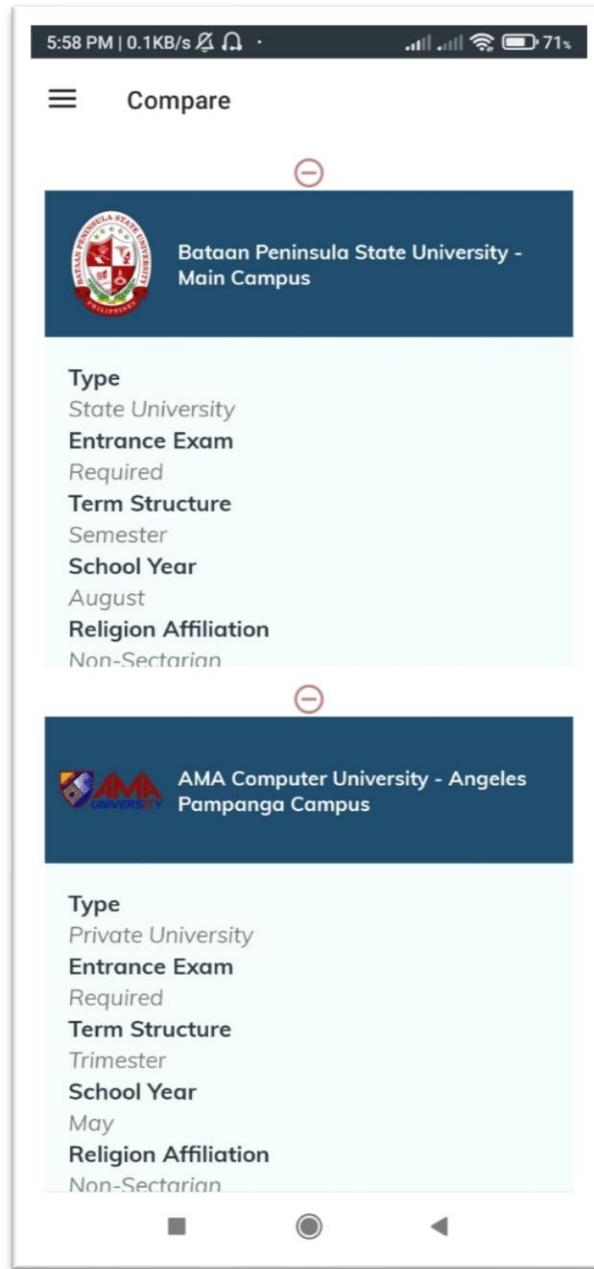


Figure 3. Compare School Module

Figure 3 Shows the Compare School Module where the user can compare two colleges/ universities.

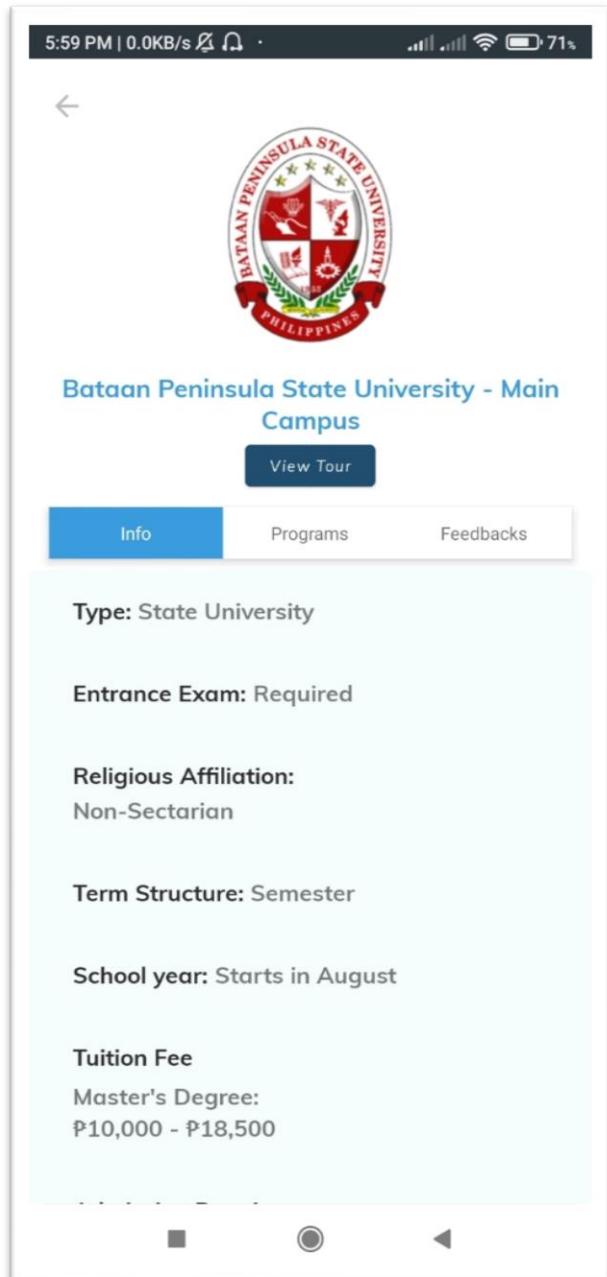


Figure 4. School Module

Figure 4 Shows the School Module where the user can view the information of the colleges/ universities.

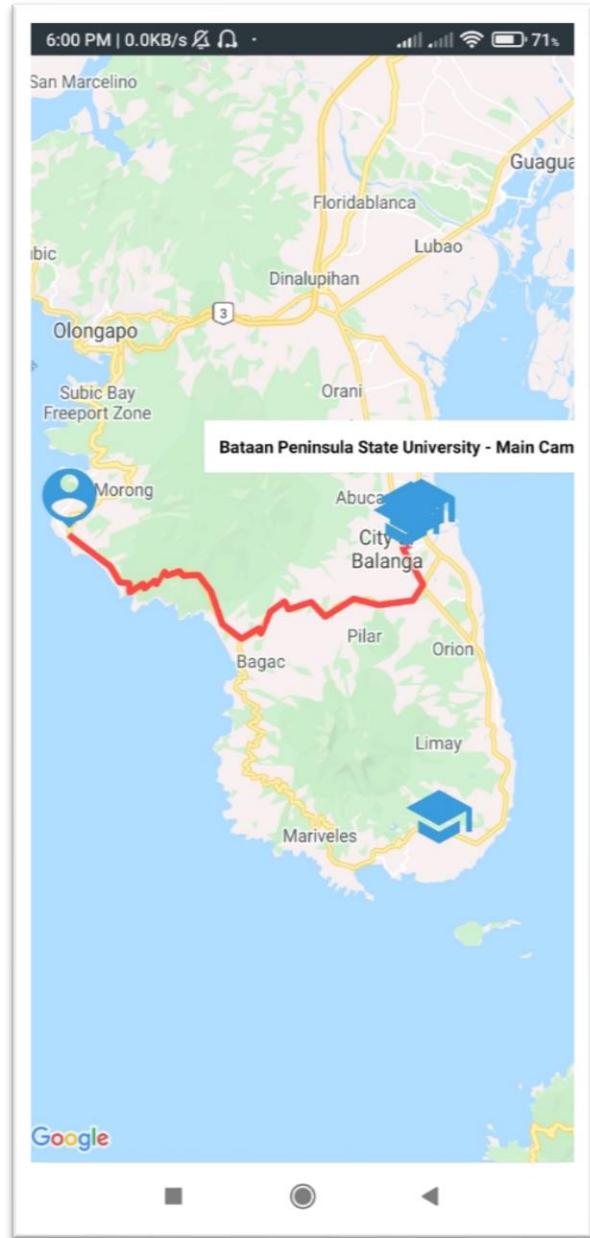


Figure 5. 2D Map Module

Figure 5 Shows the 2D Map Module where the user can view the location of the colleges/ universities.

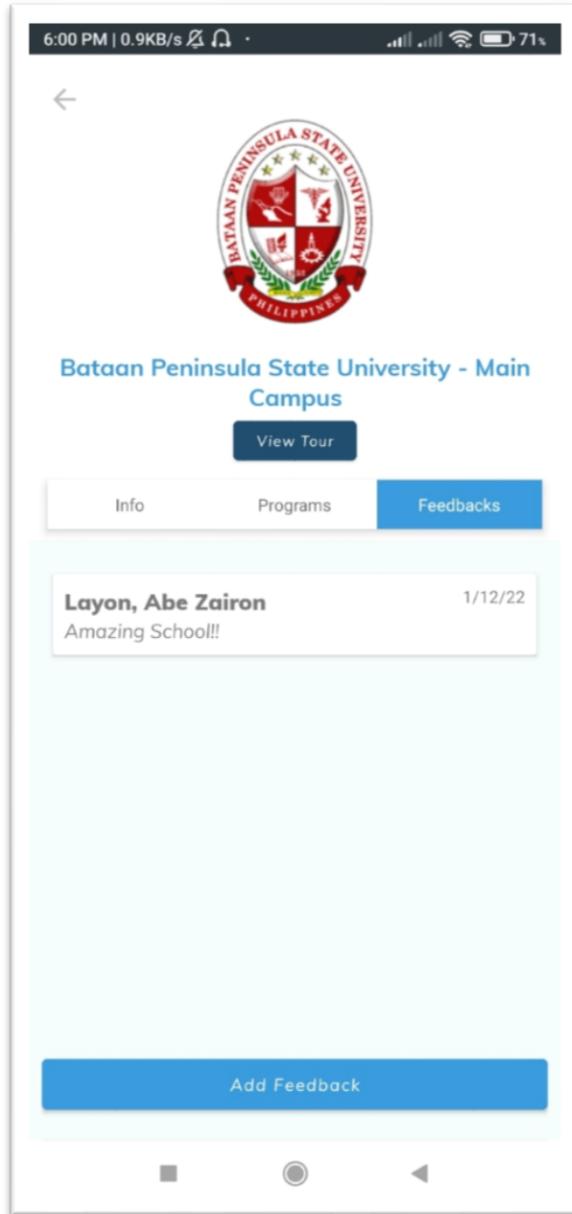


Figure 6. User Feedback Module

Figure 6 Shows the User Feedback Module where the user can view and add feedback on the colleges/ universities.



Figure 7. Virtual Tour Module

Figure 7 Shows the Virtual Tour Module where the user can view different facilities of the school via 360 images.

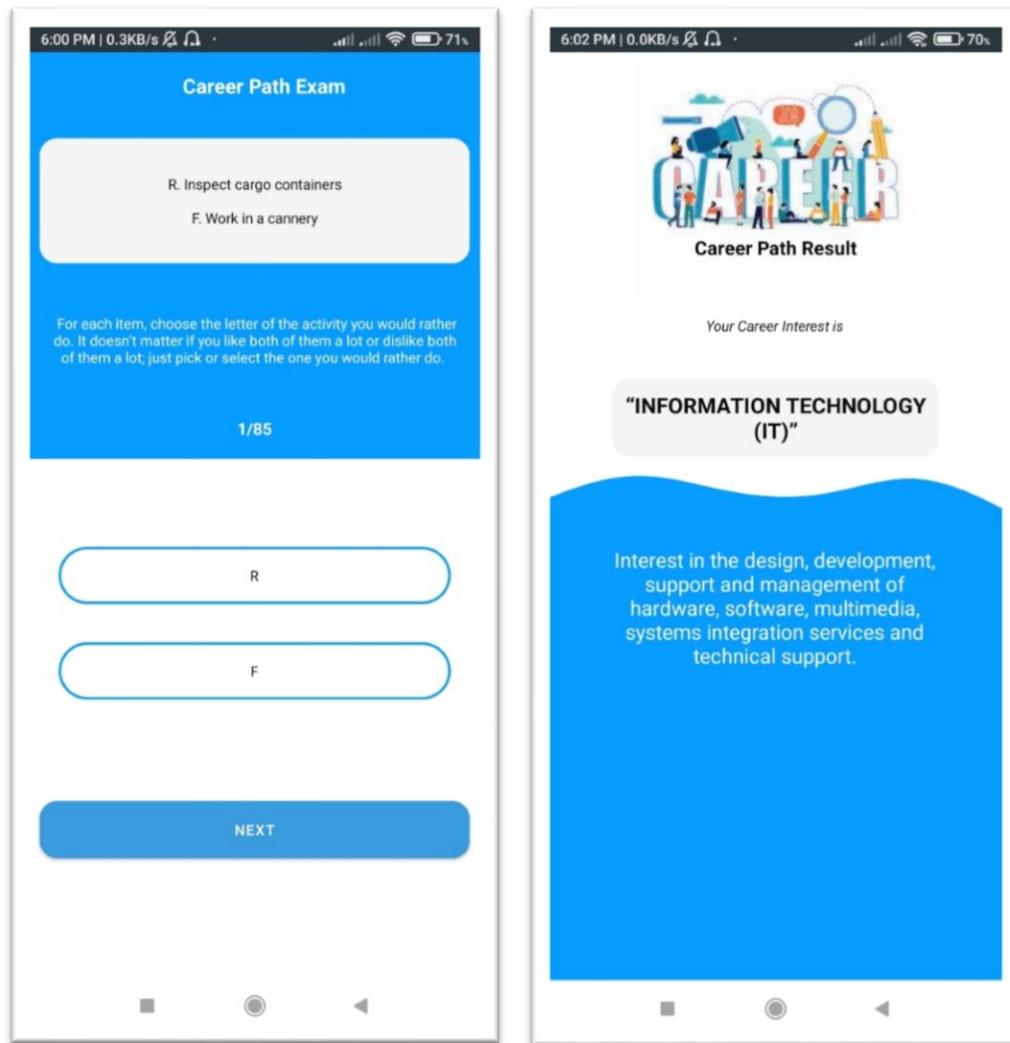


Figure 8. User Feedback Module

Figure 13 Shows the Career Path Exam Module where the user can answer couple of questions to determine what career is applicable for them.

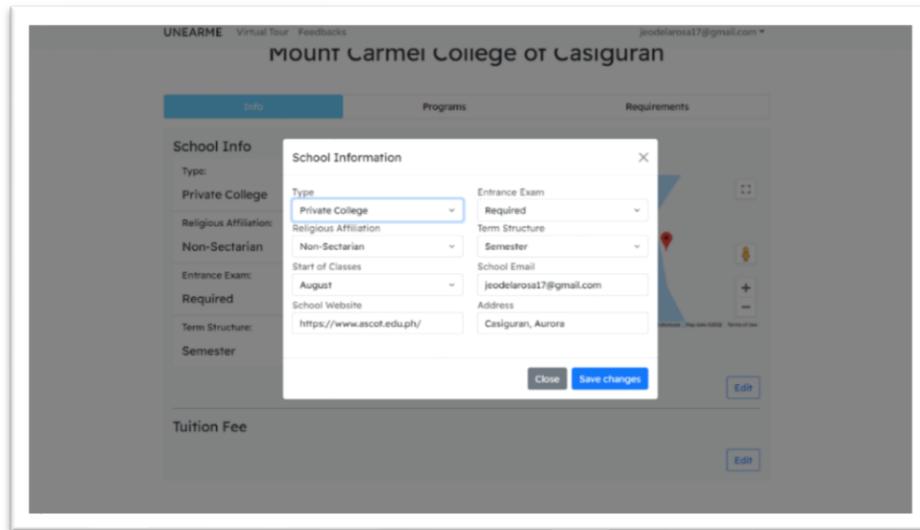


Figure 9. Edit School Module

Figure 9 Shows the Edit School where the user can edit the information's of the school.

Project Capabilities and Limitations

The following are the capabilities of the U-Near Me: HEIs in Central Luzon Mobile Application with 2D Mapping:

- Allowing college applicants to register and login to the system through registration and login form;
- Allowing a college applicant to find college or universities based on cost, program, and location;
- Providing information about school, and links to official university websites school page;

- Allowing college applicants to locate different colleges and universities through the use of 2D mapping;
- Providing 360° images or videos of the facilities in schools to efficiently tour the college applicants;
- Allowing college applicants to compare two colleges based on type, cost, location;
- Providing a career path exam to help college applicants in selecting their course;
- Allowing college applicants to give their comments and suggestions through user's feedback module;
- Managing the school's information through database system

The following are the limitations of the developed U-Near Me: HEIs in Central Luzon Mobile Application with 2D Mapping:

- This mobile application is only limited for college applicants, returning students, and masters students, and focuses only on colleges and universities within the area of Central Luzon.
- U-Near Me can only be used for searching or finding school, college applicants cannot apply for admission in their preferred college within the app.

- Changes in information and courses in schools also cannot be updated automatically, the system admin or school admin still need to update it manually.
- The list of courses can be viewed in the mobile app but the availability of the slot per courses cannot be shown.

Table 6. User Login Test Script

Date	October 14, 2021
Tested by	Abe Zairon M. Layon
Test Case Number	001
Test Case Name	User Login
Test Case Description	This will allow the user to login to the app.
Items(s) to be tested	
1	Password Visibility Button
2	Remember Me Button
3	Sign in Button
Procedural Steps	
1	Input Email
2	Input Password
3	(Optional) Click Password Visibility Button
4	(Optional) Click Remember Me Button

5	Click Sign in Button		
Specifications			
Input	Expected Output/Result	Pass Y/N	Actual Result/Output
Password Visibility Button	If the Password Visibility Button is click, the password will be decrypted.	Y	The Password will be encrypted.
Remember Me Button	If the Remember Me Button is click, the user account will be saved in the app.	Y	The user doesn't need to Login when opening the app.
Sign in Button	If the Sign in Button is click, the user will be redirected to the Homepage of the app.	Y	The homepage will appear.

Table 7. Filter Search Test Script

Date	October 14, 2021
Tested by	Abe Zairon M. Layon
Test Case Number	002
Test Case Name	Filter Search
Test Case Description	This will allow the user to filter or organize the search for more specific result.
Items(s) to be tested	
1	Program Dropdown Button
2	Province Dropdown Button
3	Degree Dropdown Button
4	From Dropdown Button
5	To Dropdown Button
6	Search Button
Procedural Steps	
1	Click Program Dropdown Button
2	Select a Program
3	Click Province Dropdown Button
4	Select a Province
5	Click Degree Dropdown Button
6	Select a Degree
7	Click From Dropdown Button

8	Select Tuition Starting Price		
9	Click To Dropdown Button		
10	Select Tuition Maximum Price		
11	Click Search Button		
Specifications			
Input	Expected Output/Result	Pass Y/N	Actual Result/Output
Program Dropdown Button	If the Program Dropdown Button is click, the list of programs will be shown.	Y	The selected Program will be displayed.
Province Dropdown Button	If the Province Dropdown Button is click, the list of provinces will be shown.	Y	The selected Province will be displayed.
Degree Dropdown Button	If the Degree Dropdown Button is click, the list of	Y	The selected Degree will

	Degree will be shown.		be displayed.
From Dropdown Button	If the From Dropdown Button is click, the list of Tuition Price will be shown.	Y	The selected Starting Price will be displayed.
Search Button	If Search Button is click, the list of universities will be displayed	Y	The list of universities will be displayed based on the user's preferences .

Table 8. Compare Test Script

Date	October 14, 2021
Tested by	Abe Zairon M. Layon

Test Case Number	003		
Test Case Name	Compare		
Test Case Description	This will allow the user to compare two (2) colleges.		
Items(s) to be tested			
1	School A Button		
2	School B Button		
3	University Button		
4	Remove Button		
Procedural Steps			
1	Click School A Button		
2	Select a College/ University		
3	Click School B Button		
4	Select a College/ University		
Specifications			
Input	Expected Output/Result	Pass Y/N	Actual Result/Output
School A Button	If the School A Button is click, the list of colleges/	Y	The Password will be encrypted.

	universities will be displayed.		
School B Button	If the School B Button is click, the list of colleges/universities will be displayed.	Y	The user doesn't need to Login when opening the app.
University Button	If the University Button is click, the selected colleges/universities will be displayed.	Y	The information of the selected college/university will be shown.
Remove Button	If the Remove Button is click, the selected colleges/universities will be removed.	Y	The selected colleges/universities will be removed.

Date	October 14, 2021		
Tested by	Abe Zairon M. Layon		
Test Case Number	005		
Test Case Name	School Info		
Test Case Description	This will allow the user to view colleges info's.		
Items(s) to be tested			
1	Info Button		
2	Programs Button		
3	Virtual Tour Button		
Procedural Steps			
1	Click Info Button		
2	Click Programs Button		
3	Click Virtual Tour Button		
4	Select a College/ University		
Specifications			
Input	Expected Output/Result	Pass Y/N	Actual Result/Output

Info Button	If the Info Button is click, it will display the information of the selected university or colleges.	Y	The user can view the information of the school.
Programs Button	If the Programs Button is click, it will display the different programs offered of the selected university or colleges.	Y	The user will view the different programs offered by the school.
Virtual Tour Button			

Chapter 5

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

This chapter includes the discussion of summary of findings, conclusions and recommendations.

Summary of Findings

Based on the analysis data, the findings are as follows:

The proponents have developed some assumptions of findings based on system capabilities, such as:

- In terms of registration and login, based on initial testing, the system allows users and administrators to create accounts using their Google accounts.
- In terms of locating a school, based on initial testing, the system allows college applicants to identify schools depending on their preferences.
- In terms of delivering information about the school, based on initial testing, the system allows users to be linked through the school's website.
- In terms of 2D mapping, based on initial testing, the system allows college applicants to determine the distance between the school and their location.

- In terms of virtual tour, based on initial testing, the system allows the college applicants view the school facilities.
- In terms of comparing schools, based on initial testing, the system allows college applicants to compare two schools of interest based on type, cost, and location.
- As for Career Path Examination, based on initial testing, the system allows college applicants to find the best course for them based on their interests.
- In terms of the feedback module, based on initial testing, the system allows college applicants to provide feedback and suggestions to the school and the system.
- In terms of maintenance, based on initial testing, the system allows school information to be managed through a database.

Conclusions

The following conclusion are gathered based on the summary of findings.

1. The developed system was capable of managing the accounts of newly created users. It has a user-friendly design with which the readers can interact. This also allows the administration to manipulate their school's data. Students were permitted to choose their school depending on their personal preferences. The technology enables each school's official webpage to be linked. The

system uses 2D mapping to show the user the exact location of their selected institution. The system allows the user to take a virtual tour of the school's facilities. The college applicants was able to compare two colleges based on their type, cost, and location. Students were able to modify their information and take a Career Path Examination after registering in. The exam is focused on the students' interests, which might assist them in determining which program is ideal for them. The system enables users to provide feedback to both the school and the system. The administrator has access to the website in order to maintain the information given by the students.

2. The system was created and implemented using the software requirements, which included Android Studio for coding and creating user interfaces, and Java Development Kit for converting source code into a format that the Java Runtime Environment (JRE) could execute. For most back-end development projects, Java is used as the server-side language, Firebase for database purposes, and PHP, HTML, and CSS for developing the system's actual design. The hardware requirements include a computer system, an Android device, and a modem for internet access.

3. The Developed U-Near Me: HEIs in Central Luzon Mobile Application with 2D Mapping was tested, evaluated and transpire with expected results. The test scripts result was based on ISO 25010:2011: functional suitability, maintainability, usability, performance efficiency, compatibility, reliability, security and portability.

Recommendations

Based on foregoing conclusions, the following are recommended for the further improvement of the project:

1. To show brief backgrounds about the programs.
2. To schedule an entrance exam appointment using the system
3. To include all the schools in the Philippines
4. To show the ratings of the schools

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APPENDIX A

Title Proposal

Project Title : U- Near Me: A Proposed HEIs in Central Luzon Mobile Application with 2D Mapping

Summary

University finder helps students in locating their preferred school in the area. There is currently a website called finduniversity.ph that provides information about universities, their locations, and other schools.

U-Near Me: HEIs in Central Luzon Mobile Application with 2D Mapping is a mobile application that will manage the data of Central Luzon's colleges and universities. It will include information on the university's location as well as a career path examination.

Project Background

Finduniversity.ph is a website in the Philippines which was introduced in 2010 that assists students in finding colleges based on their field of study, location, degree level, and school type. It includes a list of 20,000 courses offered by 900 colleges and universities in Luzon, Visayas, Mindanao. Also, users will be able to look up university rankings. It is run by edukasyon.ph, which is part of the Engadin Corporation, which is a leader in educational technology and services.

The Current State of Technology

Technology plays an important role in today's world, in both industry and people's lives. Students are one of the areas where technology is most beneficial. College applicants are having a difficult time deciding where to study and which university they should attend. This is one of the most important decisions they will make in their lives. There are numerous factors to consider. First and foremost, how many colleges should you apply to? How much will it set you back? Is it close by? And, in particular, the educational quality it provides. College applicants can use information technology to view school information and requirements. Furthermore, Information Technology proposed a way of life, including how college applicants thrive in the new technological world. To ensure that college applicants find the right university faster, with the added benefit of reducing stress over transportation costs and selecting the best fit for them.

Project Problem Statement

This mobile application is only limited for college applicants, returning students, and masters students, and focuses only in college and universities within the area of Central Luzon. U-Near Me can only be used for searching or

finding school, college applicants cannot apply for admission in their preferred college within the app. Changes in information's and courses in schools also cannot be update automatically, the system admin or school admin still need to update it manually. The list of courses can be viewed in the mobile app but the availability of the slot per courses cannot be shown.

Project Assumption

The main objective of the study is to develop and implement U-Near Me: HEI in Central Luzon Mobile Application with 2D Mapping that is capable of listing all colleges and universities within the area of Central Luzon and which will help college applicants to look for college and university that will match his preference.

The following are the benefits that will be gained from the proposed system:

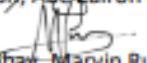
- a. Allowing college applicants to register to the system;
- b. Providing information about school, and links to official university websites;
- c. Allowing a college applicant to find college or universities based on cost, course, and location;
- d. Providing career path exam to help college applicants in selecting their course.
- e. Allowing college applicants to locate different colleges and universities through the use of 2D mapping.
- f. Providing photos or images of the facilities in schools to efficiently tour the college applicants.
- g. Allowing students applicants to compare two colleges through based on type, cost, location; and
- h. Allowing student to give their comments and suggestions through user's feedback module.
- i. Managing the school's information through database system.

Proponents

Dela Rosa, Leo Miguel T.


Jaramillo, Princess

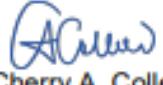

Layon, Abe Zairon M.


Palabay, Marvin Russell V.

Approved by:

Aida T. Solomon, M. Eng.

Janette S. Ambito, MIT


Cherry A. Collera, Ph.D.

APPENDIX B

Adviser's Commitment

STUDENTS' AND ADVISER THESIS COMMITMENT and AGREEMENT

This agreement is binding the Student/s and their thesis adviser for the duration and completion of their research project. As an agreement, the following will be expected from both parties:

- Student/s is/are expected to put his/their work onto their thesis.
- Faculty advisers are expected to guide students to produce their best work.
- Both jobs are time-consuming and must be carried out by students and faculty members working together in a disciplined way over a sustained period.
- Both parties have the responsibility to see the necessary work is completed on time. A clear schedule should be made and agreed by both parties for their meetings to supervise the progressive elaboration of the research project.

Whereas, the thesis adviser is expected to perform the following duties:

- The thesis adviser is expected to mentor the students throughout the project development by providing guidance for the preparation and completion of the project.
- Periodic meetings and performance reviews are expected to be given out by the thesis adviser to their advisee/s to monitor the status of the research project.
- The thesis adviser shall be the source of encouragement and support for the students to ensure that the objectives of the system will be achieved.

The signature below indicated that both parties agree to the duties and responsibilities set forth as stipulated in the Thesis/Research Methodology Manual.

Title: U-Near Me: HEI in Central Luzon Mobile Application with 2D Mapping

Course/Section: NW-4C

Advisee's Full Name Signature/s/Date

Dela Rosa, Leo Miguel T.

Jaramillo, Princess

Layon, Abe Zairon M.

Palabay, Marvin Russell V.

Adviser's Full Name Signature/s/Date



Cherry A. Collera

APPENDIX C

Milestone and Contract Checklist

Thesis Milestone Contract and Checklist

This contract is authorized in the Regulations for four-year BS Information Technology, BS Computer Science and BS Entertainment and Multimedia Computing. The student shall submit this contract for approval at the college responsible for the thesis in accordance with the deadlines stipulated. Any changes to the contract during its duration (e.g. syllabus, adviser, leave of absence/extension, etc.) should be processed by the college.

1. STUDENTS DETAILS (Last Name, First Name, Middle Initial)

Member 1:

Layon, Abe Zairon M.

Member 2:

Jaramillo, Princess C.

Member 3:

Dela Rosa, Jao Miguel

Member 4:

Palabay, Marvin Russell V.

2. ADVISER(S)

State the name of the principal adviser and any co-adviser(s) or external adviser(s). The principal adviser has the overall responsibility for following up the contract on behalf of the college and ensuring the student receives academic supervision for the entire duration of the contract. The student has the right to receive academic supervision during the period he/she shall work on their undergraduate thesis (in accordance with the programme description). If the adviser plans to have a sabbatical during the duration of the contract, the student should be informed of this at the time of entering into the contract.

Principal adviser:


Cherry A. Collera

Office address / Phone / E-mail:

237-2010

Co-external adviser:

3. THESIS PROJECT

a.) Working Title

U-Near Me: HEIs in Central Luzon Mobile Application with 2D Mapping

The copy of the approved Title Proposal should be attached. It should include:

- Research Problems
- Objectives

- Methodology
- Schedule/timetable

Technical/scientific partners (if any)

b.) Implementation of Thesis Project:

Each group member takes responsibility for the project's objectives. All students are entitled to implement their theses on a group basis which will consist of 2-4 members. However, 5 members will be permitted if the class populations exceeded the grouping requirements.

Group project with 4 members

c.) Timetable for Thesis Project:

- | | | |
|--------------------------|-------------------------------------|-------|
| <input type="checkbox"/> | Date of Approval – Title Defense | _____ |
| <input type="checkbox"/> | Date of Approval – Proposal Defense | _____ |
| <input type="checkbox"/> | Date of Approval – Final Defense | _____ |
| <input type="checkbox"/> | Date of Book Submission | _____ |

d.) Planned Progress:

For part-time students, the academic progress must constitute a minimum _____ %. Undergraduate theses of 30 credits should normally implemented on a full-time basis. Students who have engagements as part-time lab assistants and equivalent may apply for the length of study to be adjusted.

- Full-time student (100%)
- Part-time student _____ %

4. REQUIREMENTS FOR EQUIPMENT/RESOURCES

In the event that resources at an external institution shall be used, this must be specified in point 6 b)

- a.) The student's place of work (office/lab):
- b.) Requirements for equipment/resources:

Will there be a requirement for (any of) the following resources during the thesis project

Access to/purchase of equipment or software Please specify:

Access to systems Please specify:

Access to background information and data(set) Please specify:

Expenses (if any):

Approved by the person responsible for resources at the college:

Approved by the person responsible for resources at the external institution:

5. NOTES

6. SIGNATURES

The student, principal adviser, other advisers, and college dean have reached agreements concerning all points covered in the contract.

Student/Date:

Principal Adviser/Date:

Co-/External Adviser/Date:

Co-/External Adviser/Date:

College Dean:

APPENDIX D

Letter of Intent



BATAAN PENINSULA STATE UNIVERSITY

MAIN CAMPUS

College of Information and Communications Technology
City of Balanga, 2100 Batangas

043 427 2000
www.bpsu.edu.ph
bpsu.mkt@gmail.com

May 11, 2021

Mr. RBC Mallari
Associate Dean
University of Nueva Cesena-Batangas
Rizal st., Dinalupihan, Batangas

Dear Sir:

Good day!

We, the 3rd year students of Bachelor of Science in Information Technology major in Network and Web Application, are currently enrolled in ICTC2023 (Capstone Project II) course. The final requirement of this course is to create the U-Near ME: HEI's in Central Luzon Mobile Application with 2D Mapping.

Since we are instructed to identify an establishment that will need computerization for their operation, we have identified your establishment as our base company for the creation of a U-Near ME: HEI's in Central Luzon Mobile Application with 2D Mapping. In this line, we would like to propose that we will be creating and developing a system that will help the company, employees, and clients. We will start the development of the system, no cost in your part, once you allow us to pursue the proposed project. There will be a **Memorandum of Agreement** between the two parties, you as the client and BPSU when you decide to use the finished product.

We are looking forward to working with you in the coming days. We are hoping that we can be partners for this endeavour.

Thank you very much and more power!

Very truly yours,

Dela Rosa, Leo Miguel T.
Janetillo, Princess
Layog, Adelaiaron M.
Padilla, Marvin Russell V.

Endorsed by:

Cherry A. Collera, PhD
ICTC2023 Instructor

Noted by:

Cristina G. Rivers, MScS
Dean, CICT

Approved by:

Mr. RBC Mallari
Associate Dean

Our Vision

A leading university in the Philippines recognized for its proactive contribution to Fernando Development through equitable and inclusive programs and services by 2030.

Our Mission

To develop competent graduates and informed community members by providing relevant, innovative and transformative knowledge, research, extension and production programs and services through progressive enhancement of its human resources, capabilities and institutional mechanisms.

APPENDIX E

Transcript of Interview

Transcript of Interview

Title of the Study: U-Near Me: HEI in Central Luzon Mobile Application with 2D Mapping

Date and Time: May 27, 2021, 7:00pm

Venue: Google Meet

Questions:

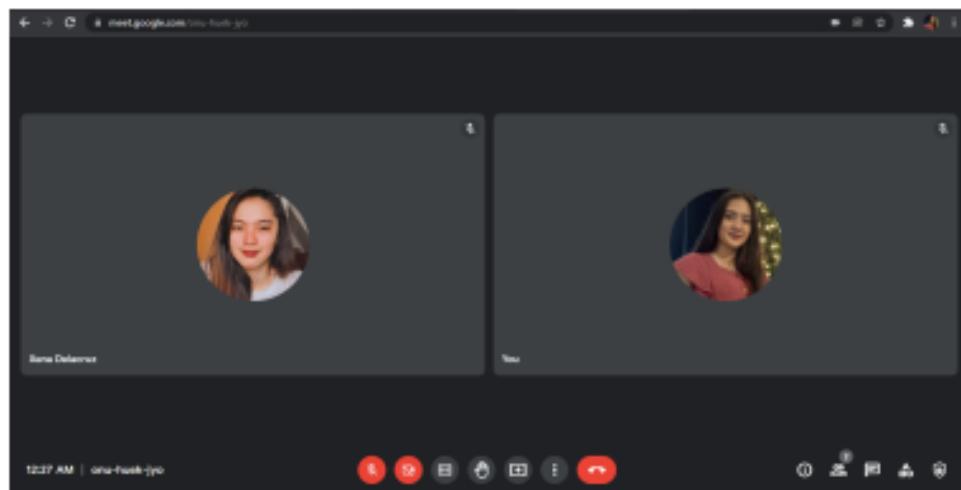
1. May I ask your name? *Xena Dela Cruz*
2. What are the requirements that you've submitted in the school? *PSA and Form 137*
3. What are the things you consider when looking for a school? *Distance, cost, and facilities*
4. What are the challenges you encounter when looking for a school? *Choosing a course*
5. What helps you for choosing a course? *About the thing I'm passionate with*
6. How do you think it will be easier for you to find a school for college? *With the help of my friends*
7. When you compare your chosen schools, how do you compare them to each other? What will be your basis? *Convenience, such as transportation, facilities, and security.*
8. How the career path exam can help you before you choose the university you want? *It helps me to choose which course I am capable of.*
9. Does the school's buildings and facilities affect your choice in choosing a school? Why? Yes, *because I want to feel secured and comfortable.*
10. If we are going to make an application for that. What can you suggest? *An app that can display all the information about the school.*

I certify that all information written here are true and correct to the best of my knowledge. I give my consent to the proponents to use any information provided herein for the purpose of development of their proposed system.



Xena V. Dela Cruz

Signature over Printed Name



APPENDIX F

Topical Outline

U-Near Me: HEI in Central Luzon Mobile Application with 2D Mapping

1. INTRODUCTION

- 1.1 Higher Education Institution**
- 1.2 Higher Education Institution in Central Luzon**
- 1.3 Mobile Application**
- 1.4 Higher Education Institution Mobile Application**

2. BASIC CONCEPTS

- 2.1 Java Programming**
- 2.2 Database Management System**
- 2.3 2D Mapping**
- 2.4 Android Technology**

3. EVALUATION SCHEME MODEL

3.1 ISO 25010

These are the product quality that our system needs to meet:

Functional suitability degree to which a product or system provides functions that meet stated and implied needs when used under specified conditions

Performance efficiency performance relative to the amount of resources used under stated conditions

Compatibility degree to which a product, system or component can exchange information with other products, systems or components, and/or perform its required functions, while sharing the same hardware or software environment

Usability degree to which a product or system can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use

Reliability degree to which a system, product or component performs specified functions under specified conditions for a specified period of time

Security degree to which a product or system protects information and data so that persons or other products or systems have the degree of data access appropriate to their types and levels of authorization

Maintainability degree of effectiveness and efficiency with which a product or system can be modified by the intended maintainers

Portability degree of effectiveness and efficiency with which a system, product or component can be transferred from one hardware, software or other operational or usage environment to another

4. SIMILAR MACHINES / APPLICATIONS

3.1 College Selector App

The project college selector system is an application where students can find and enroll for different colleges that they want. This system is developed for students looking out for admission in best colleges. The system will provide a list of colleges to students from which they can select their required college. On selecting the college, the system will ask for a test that student have to take to enroll themselves for admissions. Students have to take the test and the results are displayed on the spot to the student. The system also sends the result to respective colleges for evaluation purposes along with student's details. The system filters out the Colleges based on the Students merits where the student selects the course and gets a list of colleges based on Cutoffs and other validations. Students can raise a query based on a particular course from a particular college and Admin will reply on that.

Features and Capabilities:

1. Admin login: The system will be under sole control of an admin who provides inputs to the system. Admin will update or add/delete different colleges from the system.
2. Student login: Any student can login into the system by creating an account. He has to provide all the required information that is needed by a college by filling out a form.
3. College list and Selection: After creating a login into the system, each student can see a list of colleges along with their details. Student can select different colleges as per their preference.
4. Test: On selecting a college, an online objective test will be conducted. After the test submitted by student the system calculates the test marks by comparing student's answers with original answers in database and provides result to students on the spot.
5. Test result sent to colleges: The system sends these test results of every student to respective colleges selected by student via email. It also sends respective students details along with the result for evaluation purposes.
6. Student feedback form: Students can also give their reviews about this system by filling up a feedback form in the system.

3.2 The College Fair

Explore careers, possible majors and schools, and see how they connect in a way that's right for you. With The College Fair, you'll have in-depth information on nearly 4,000 colleges in the U.S. which can be filtered by over 1,000 majors, 900 careers and other factors relevant to your search. Create a personal profile and let schools know you are interested in them by saving them to your list for further research.

Features:

1. COLLEGES & UNIVERSITIES - Learn about majors, admission chances, locations, cost of attendance, financial aid trends, average test scores, and other important decision-making factors.
2. CAREER DISCOVERY - Match your strengths and interests with career options that can help guide your college search and better prepare you for the future.
3. SAVE & COMPARE - Create a shortlist of your favorite schools and weigh your options. Your list will make it easier to talk through your plans with parents, friends, and counselors.
4. VIRTUAL GUIDE - Our friendly, digital chatbot Kai is ready to help you with anything related to college searching: college applications, financial aid, or a quick joke in between search results are just the beginning.

3.3 Peterson's

Peterson's comprehensive online college search guide helps students discover their best fit educational program. Two-year or four-year. Undergraduate or Graduate. Certificate program or online degree. Also, it helps you sort through your options and provide advice on the often-confusing college application process.

Features:

1. Meet Your Match - Peterson's connect you with programs that are interested in YOU. Chances are that there are great schools you've never heard of, or places you've never considered...until now.
2. Sort & Filter - Use our search filters to narrow down your options based on location, offered majors, tuition, and more.
3. Save & Connect - Once you find schools that match your interests, save them to your personal dashboard and directly connect with those schools to request more information or apply.

5. DESIGN CONSIDERATIONS / CRITERIA IN TERMS OF RELIABILITY

4.1 Software Requirements

- 4.1.1 Android Studio – for coding and creating user interface.
- 4.1.2 Java Development Kit - to convert source code into a format that the Java Runtime Environment (JRE) can execute.
- 4.1.3 XAMPP – for storing data in database.
- 4.1.4 Notepad – for coding php files.
- 4.1.5 Windows 7 – manage all of the software and hardware on the computer.

4.2 Hardware Requirements

- 4.2.1 4GB RAM - minimum requirements to run app development software's smoothly.
- 4.2.2 i5 Processor – minimum requirements to run app development software's smoothly.
- 4.2.3 PC/Laptop – for application development
- 4.2.4 Android Phone – for testing the application
- 4.2.5 Flash Drive – for storing project files

APPENDIX G

Weekly Progress Report

Weekly Progress Report

DATE : **March 31, 2021**

FROM : **Group 2
NW3C
U-Near Me: HEI in Central Luzon Mobile
Application with 2D Mapping**

RE : **PROGRESS STATUS REPORT**

SOFTWARE: (2%)

Date: March 31, 2021
Finished Activity: Wireframe of U-Near Me
Description: We are starting to create the layout of the user interface. And starting to code the user login and registration.

Date: April 1, 2021
Next Activity: Wireframe and coding of user login and registration
Description: To be finish the wireframe and coding of user login and registration

DOCUMENTATION: (10%)

Date: March 31, 2021
Finished Activity: Chapter 1
Description: This contains the introduction of the study which outlines background of the study, statement of the problem, objective of the study, scope and delimitations, and significance of the study.

Date: April 1, 2021
Next Activity: Chapter 2
Description: Will be starting to discuss the content of

Weekly Progress Report

DATE : **April 4, 2021**

FROM : **Group 2
NW3C
U-Near Me: HEI in Central Luzon Mobile Application with 2D Mapping**

RE : **PROGRESS STATUS REPORT**

SOFTWARE: (2%)

Date: April 4, 2021
Finished Activity: Wireframe of U-Near Me
Description: Finish the Wireframe of the system.

Date: April 5, 2021
Next Activity: Coding of user login and registration
Description: Will be starting the coding of user login and registration

DOCUMENTATION: (18 %)

Date: April 4, 2021
Finished Activity: Chapter 2
Description: This contains the background information on the subject that would aid the researchers in their research. It contains Review of related literature, Software & Hardware requirements, conceptual model, and definition and terms.

Date: April 1, 2021
Next Activity: April 5
Description: Consultation of Chapter 2

Weekly Progress Report

DATE : **September 27, 2021**

FROM : **Group 2
NW3C
U-Near Me: HEI in Central Luzon Mobile Application with 2D Mapping**

RE : **PROGRESS STATUS REPORT**

SOFTWARE: (52%)

Date: September 20, 2021
Finished Activity: Location Pinner
Description: Assigning location for the universities using pin.
Date: September 27, 2021
Next Activity: Suggested Improvements by the Panel
Description: Will be starting to Improve the capabilities based on the suggestions of the Panels.

DOCUMENTATION: (18 %)

Date: September 27, 2021
Finished Activity: Revised Chapter 1-3
Description: This contains the background information on the subject that would aid the researchers in their research. It contains Review of related literature, Software & Hardware requirements, conceptual model, and definition and terms.
Date: September 30, 2021
Next Activity: Chapter 4
Description: Will be started the Chapter 4

Weekly Progress Report

DATE : **October 6, 2021**

FROM : **Group 2
NW4C
U-Near Me: HEI in Central Luzon Mobile Application with 2D Mapping**

RE : **PROGRESS STATUS REPORT**

SOFTWARE: (52%)

Date: September 20, 2021
Finished Activity: Location Pinner
Description: Assigning location for the universities using pin.
Date: October 10, 2021
Next Activity: School Registration
Description: Will be starting to create a webpage in which school admin can register a college or university.

DOCUMENTATION: (65 %)

Date: October 6, 2021
Finished Activity: Preliminary Pages
Description: This contains the Title Page, Dedication, Acknowledgement, Table of Contents etc.
Date: October 12, 2021
Next Activity: Chapter 4
Description: Will be started the Chapter 4

Weekly Progress Report

DATE : **October 20, 2021**

FROM : **Group 2
NW4C
U-Near Me: HEI in Central Luzon Mobile Application with 2D Mapping**

RE : **PROGRESS STATUS REPORT**

SOFTWARE: (52%)

Date: September 20, 2021
Finished Activity: Location Pinner
Description: Assigning location for the universities using pin.
Date: October 20, 2021
Next Activity: School Registration
Description: Finishing the webpage in which school admin can register a college or university.

DOCUMENTATION: (70 %)

Date: October 11, 2021
Finished Activity: Draft Copy of Chapter 4
Description: This contains the Project Description, Project Structure and, Project Capabilities and Limitations.
Date: October 14, 2021
Next Activity: Chapter 4
Description: Continuation the Chapter 4

Weekly Progress Report

DATE : **October 26, 2021**

FROM : **Group 2
NW4C
U-Near Me: HEI in Central Luzon Mobile Application with 2D Mapping**

RE : **PROGRESS STATUS REPORT**

SOFTWARE: (45%)

Date: September 20, 2021
Finished Activity: Location Pinner
Description: Assigning location for the universities using pin.
Date: October 10, 2021
Next Activity: School Registration
Description: Finishing the webpage in which school admin can register a college or university.

DOCUMENTATION: (68 %)

Date: October 26, 2021
Finished Activity: Google Survey Form
Description: This contains a list of question for the testing of the system.
Date: November 02, 2021
Next Activity: Continuation of Chapter 4
Description: Will be continuing the Chapter 4

Weekly Progress Report

DATE : **November 10, 2021**

FROM : **Group 2
NW4C
U-Near Me: HEI in Central Luzon Mobile Application with 2D Mapping**

RE : **PROGRESS STATUS REPORT**

SOFTWARE: (45%)

Date: September 20, 2021
Finished Activity: Location Pinner
Description: Assigning location for the universities using pin.
Date: October 10, 2021
Next Activity: School Registration
Description: Finishing the webpage in which school admin can register a college or university.

DOCUMENTATION: (72 %)

Date: November 2, 2021
Finished Activity: Project Evaluation (Draft)
Description: This contains a list of Evaluation table and the average mean for the testing of the system.
Date: November 11, 2021
Next Activity: Continuation of Chapter 4
Description: Will be continuing the Chapter 4

Weekly Progress Report

DATE : **November 17, 2021**

FROM : **Group 2
NW4C
U-Near Me: HEI in Central Luzon Mobile Application with 2D Mapping**

RE : **PROGRESS STATUS REPORT**

SOFTWARE: (50%)

Date: November 15, 2021
Finished Activity: School Registration
Description: School Registration for the School Admin.

Date: November 18, 2021
Next Activity: School Admin Homepage
Description: Creating the webpage in which school admin can view the information of college or university.

DOCUMENTATION: (79 %)

Date: November 16, 2021
Finished Activity: Result of the Project Evaluation
Description: This contains the results of the Project Evaluation.

Date: November 18, 2021
Next Activity: Continuation of Chapter 4
Description: Will be continuing the Chapter 4

Weekly Progress Report

DATE : **November 29, 2021**

FROM : **Group 2
NW4C
U-Near Me: HEI in Central Luzon Mobile Application with 2D Mapping**

RE : **PROGRESS STATUS REPORT**

SOFTWARE: (54%)

Date: November 25, 2021
Finished Activity: School Admin Homepage
Description: Webpage in which school admin can view the information of college or university.
Date: December 02, 2021
Next Activity: Edit School Page
Description: Creating the webpage in which school admin can edit the information of college or university.

DOCUMENTATION: (85 %)

Date: November 26, 2021
Finished Activity: Chapter 5(Draft Copy)
Description: This contains the summary of findings, conclusions, and recommendations.
Date: December 02, 2021
Next Activity: Continuation of Chapter 5
Description: Will be continuing the Chapter 5

Weekly Progress Report

DATE : **December 7, 2021**

FROM : **Group 2
NW4C
U-Near Me: HEI in Central Luzon Mobile Application with 2D Mapping**

RE : **PROGRESS STATUS REPORT**

SOFTWARE: (56%)

Date: November 25, 2021
Finished Activity: Edit School Page
Description: Creating the webpage in which school admin can edit the information of college or university.
Date: December 08, 2021
Next Activity: Finishing Virtual Tour
Description: Finishing and integrating the virtual tour in the mobile app.

DOCUMENTATION: (90 %)

Date: November 26, 2021
Finished Activity: Chapter 5 (Revised)
Description: This contains the revision of the summary of findings, conclusions, and recommendations.
Date: December 08, 2021
Next Activity: Continuation of Chapter 5
Description: Will be continuing the Chapter 5

Weekly Progress Report

DATE : **December 10, 2021**

FROM : **Group 2
NW4C
U-Near Me: HEI in Central Luzon Mobile
Application with 2D Mapping**

RE : **PROGRESS STATUS REPORT**

SOFTWARE: (56%)

Date: December 08, 2021
Finished Activity: Finishing Virtual Tour
Description: Finishing and integrating the virtual tour in the mobile app.
Date: December 10, 2021
Next Activity: Fixing Bugs
Description: Testing and Fixing bugs for the mobile and web app.

DOCUMENTATION: (95 %)

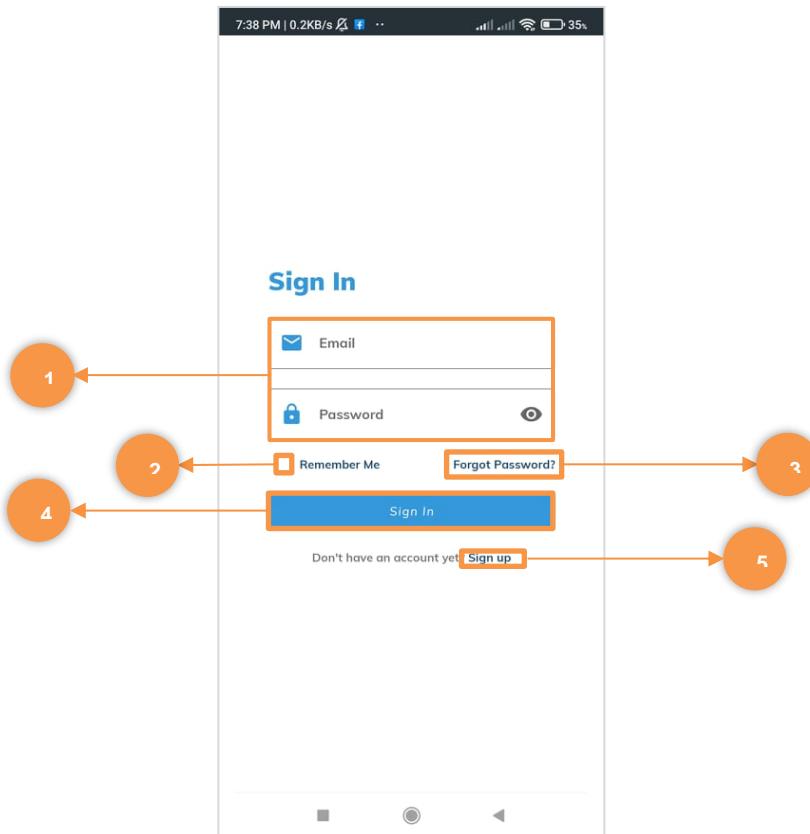
Date: November 08, 2021
Finished Activity: Chapter 5 (Revised)
Description: This contains the revision of the summary of findings, conclusions, and recommendations.
Date: December 10, 2021
Next Activity: Continuation of Chapter 5
Description: Will be continuing the Chapter 5

APPENDIX H

User's Manual

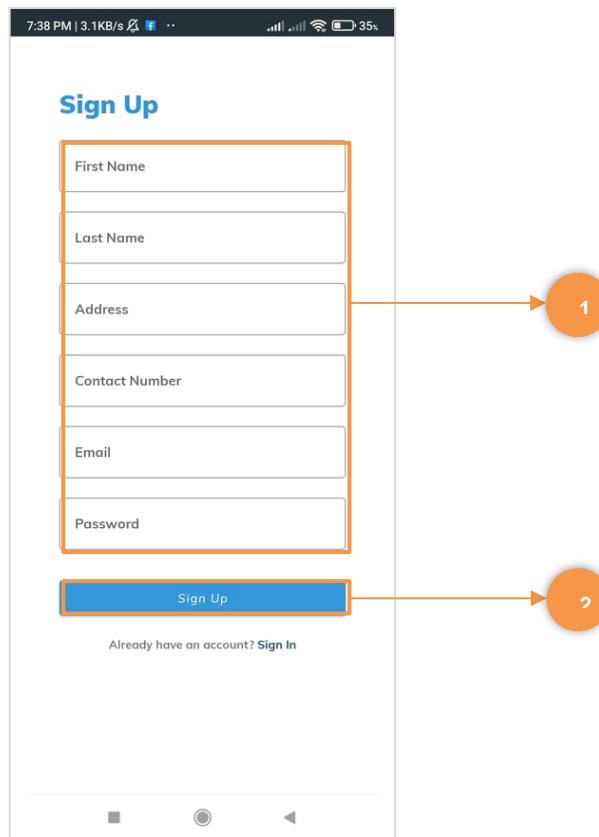
- **For Users**

To access the mobile application the students, school admins, and super admin must log-in and register first.



1. Click the textbox and input your email and password.
2. Check the box if you want the system remember your account.
3. Click the text if you forgot your password.
4. Click Sign in if you are sure with your data, and you will proceed to the main menu.
5. Click sign up if you haven't registered yet.

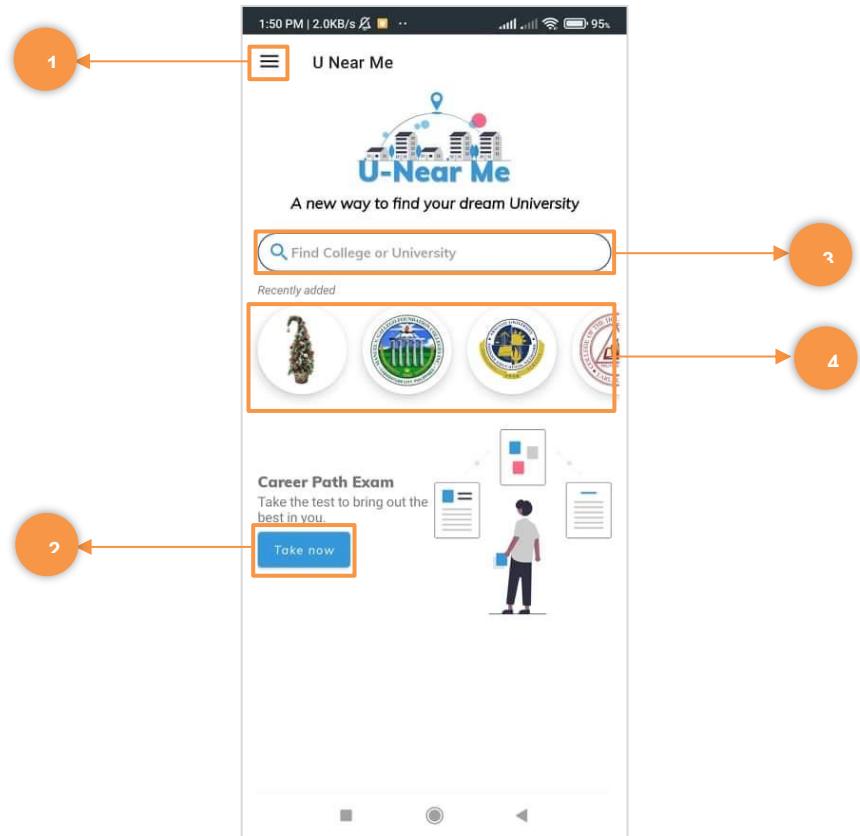
After clicking the sign up button



1. Fill up the basic information
2. Then, sign up

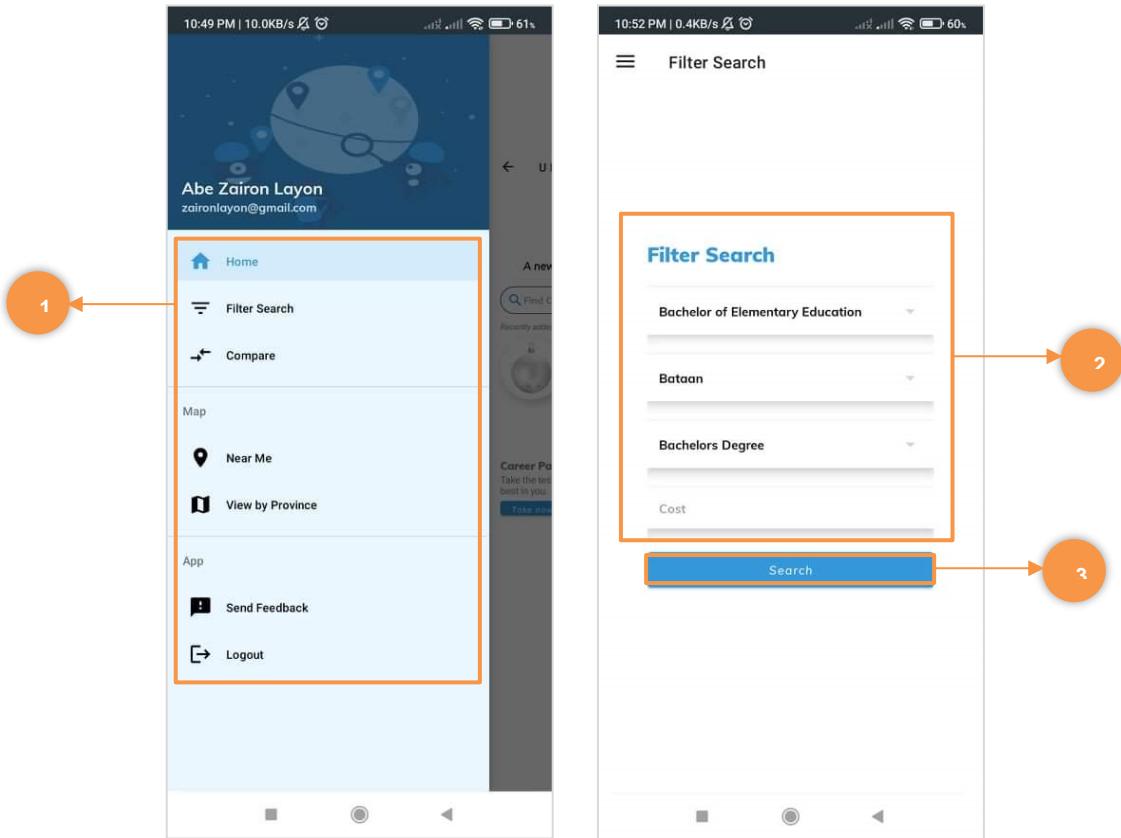
After you register, you will receive an email with confirmation, and you will be able to sign in.

After successfully registering, you will be allowed to access the system, and here is the system's Main Menu.



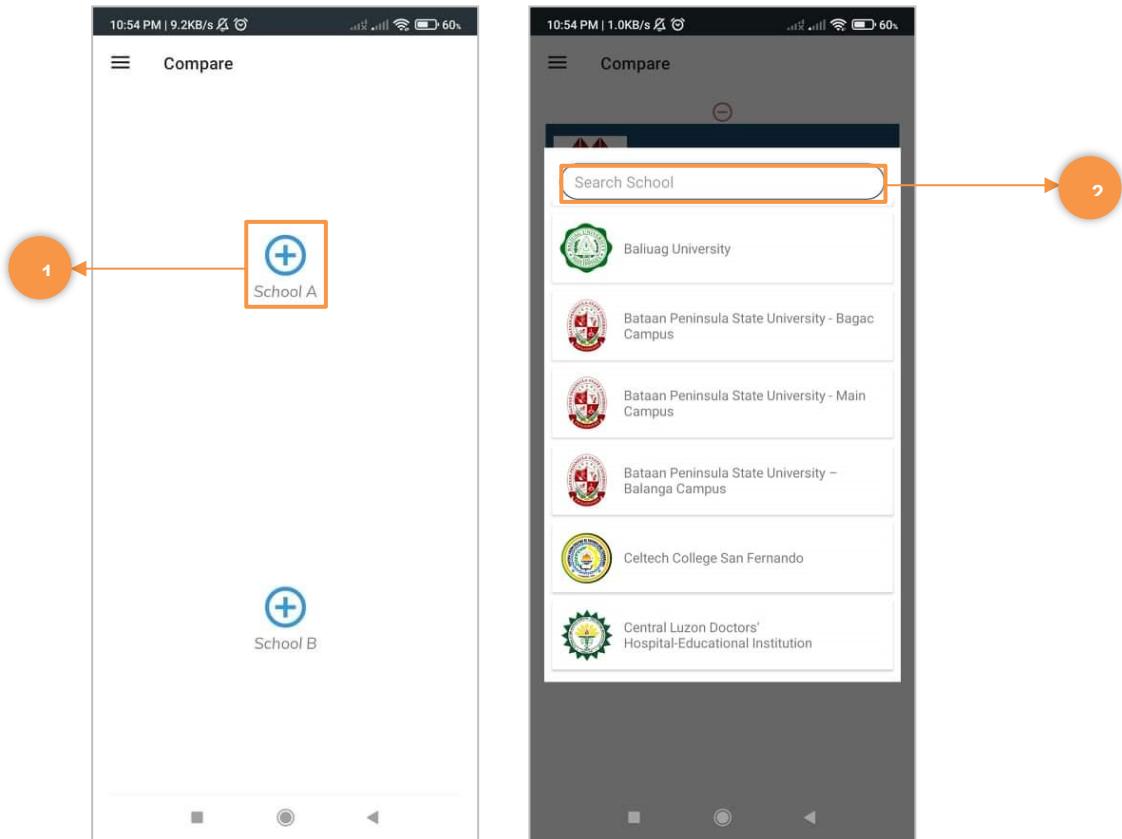
1. This is the app's dashboard, where you can access the app's settings and other features.
2. This is the Career Path Examination button.
3. In this text box, this is where you look for the College or University you want.
4. These are the most recent schools that the school administration has added.

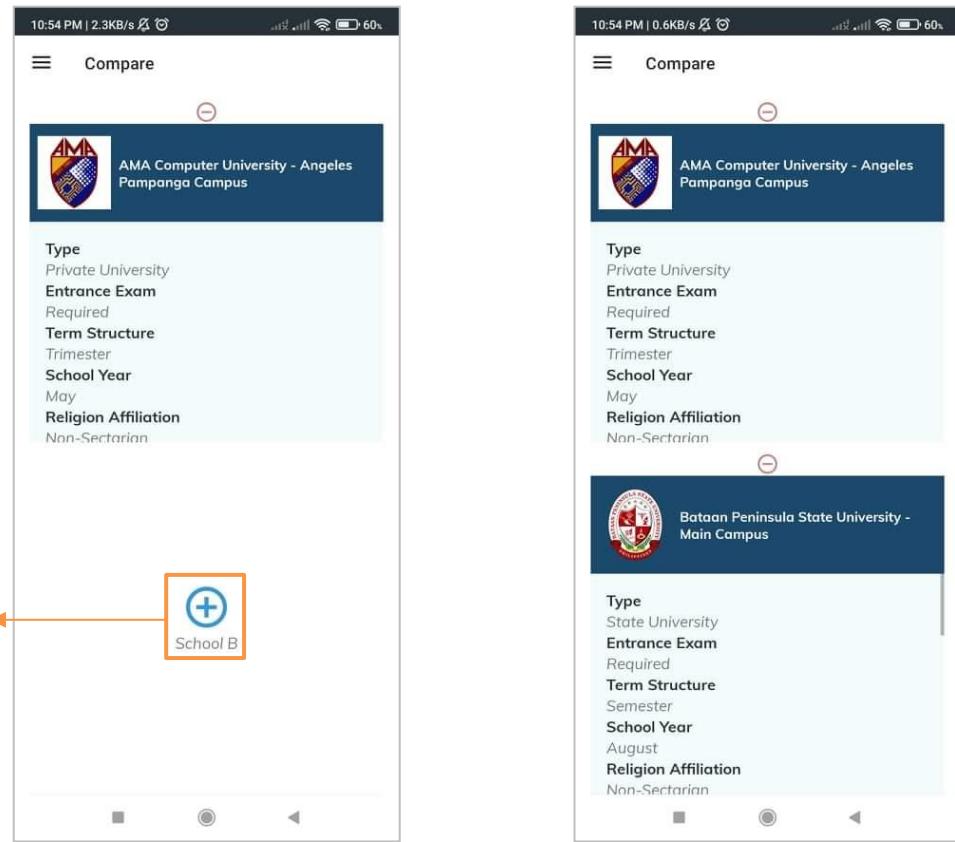
When you click the dashboard;



1. Click the filter search
2. Select the information you require for a college or university, such as the program, province, degree, and cost.
3. To proceed, click the search button after selecting the information.

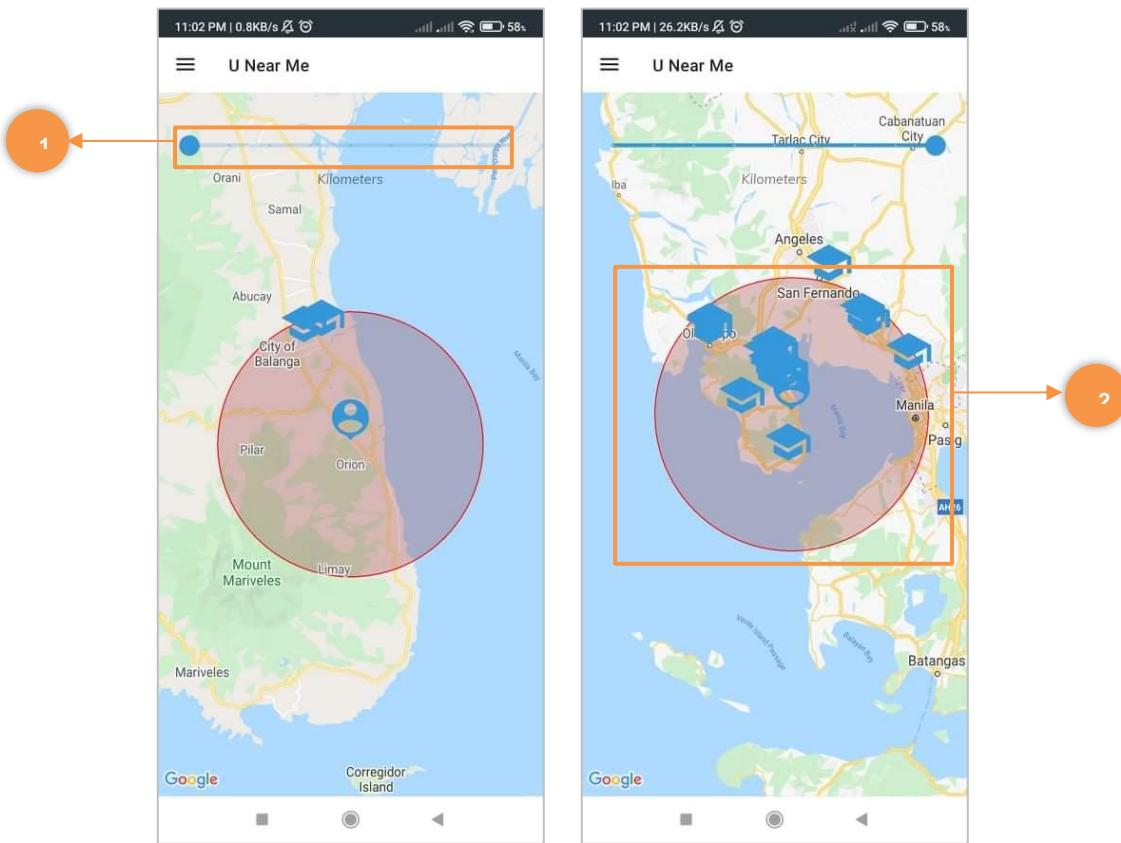
Compare button





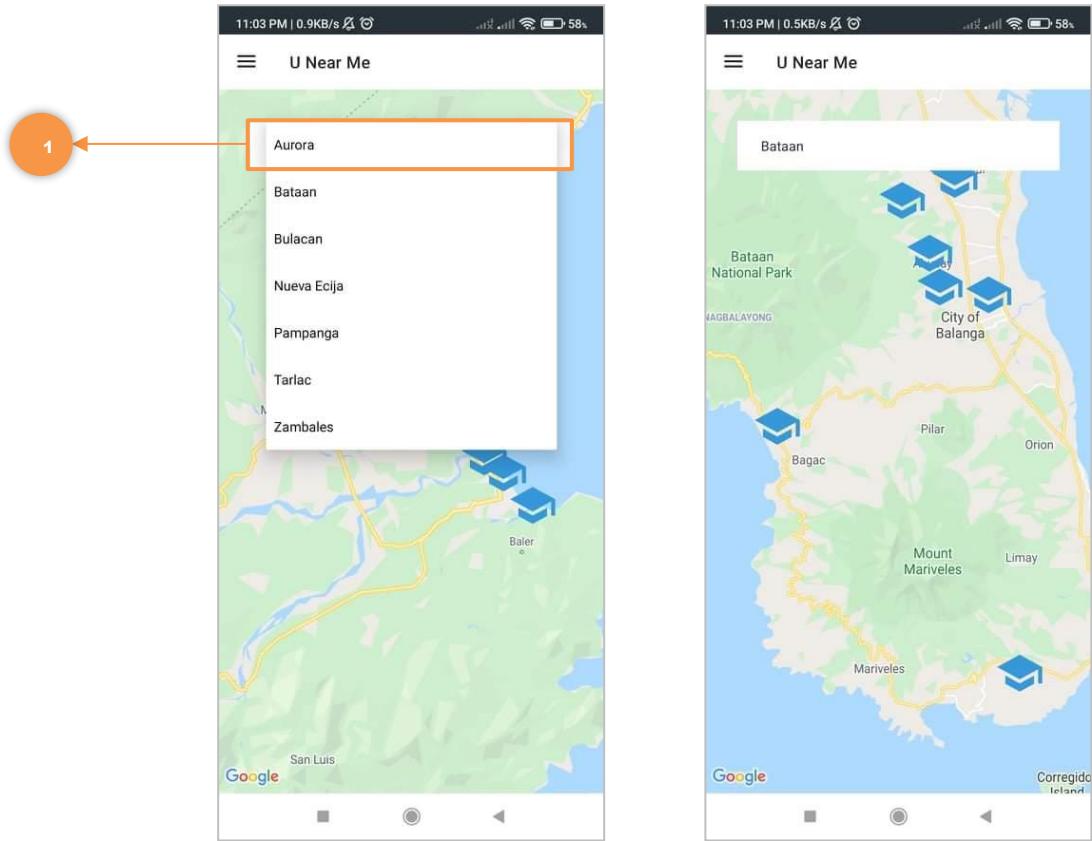
1. Click the ‘+’ button to add school of your choice.
2. Select the school you want to compare.
3. Select the second school you want to compare.

Near me button in the dashboard



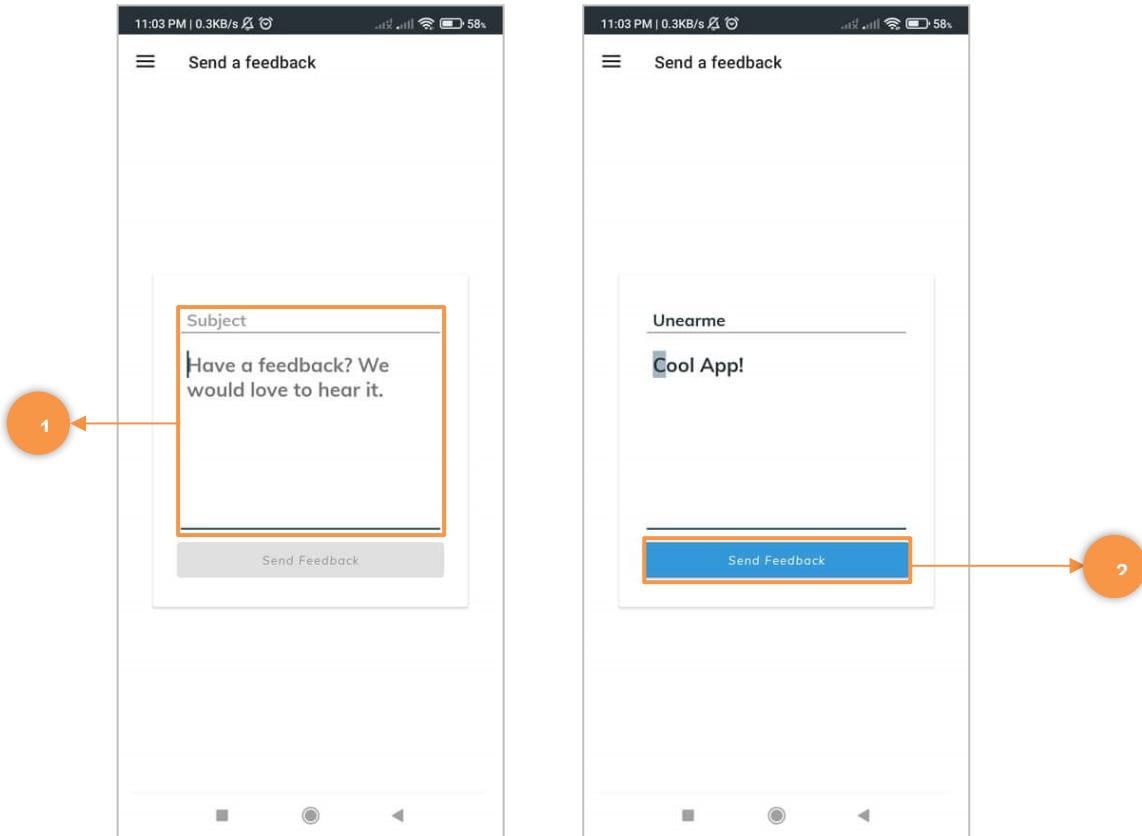
1. You can drag this to expand the range, and it will display the schools within it.
2. You can move this circle to where you want to start your search to see schools near you.

View province

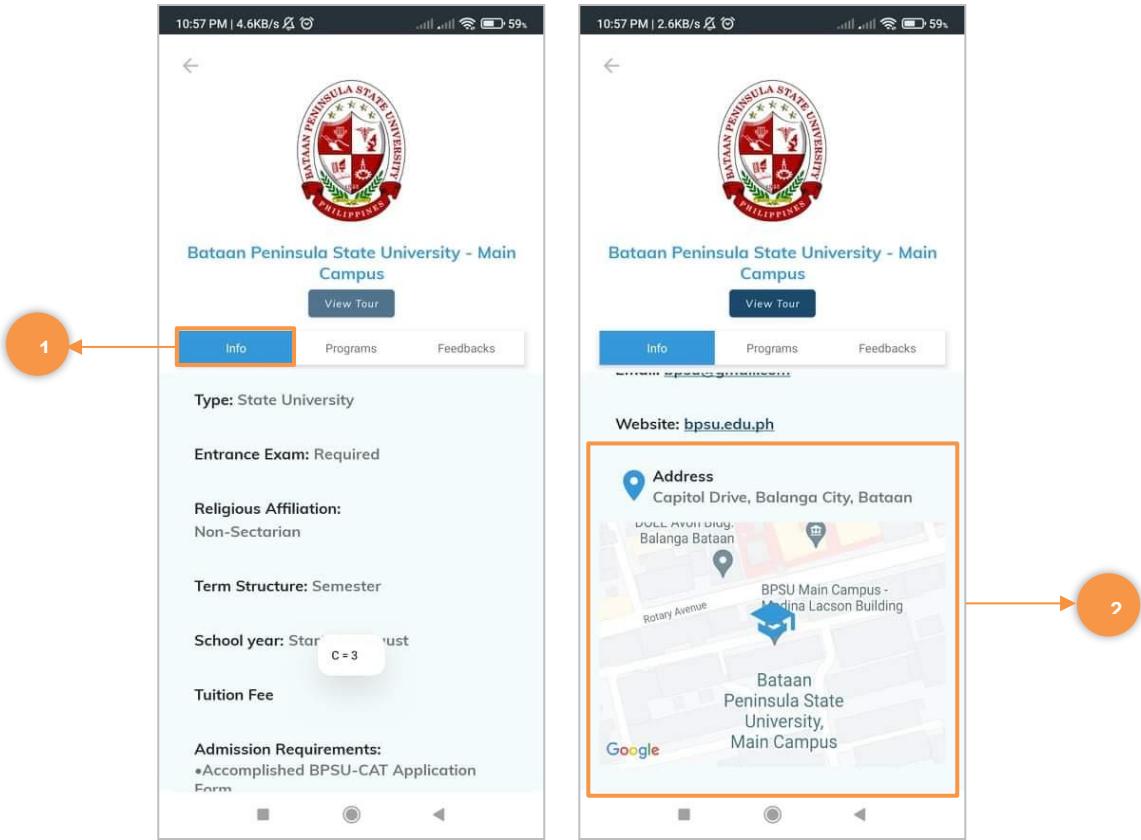


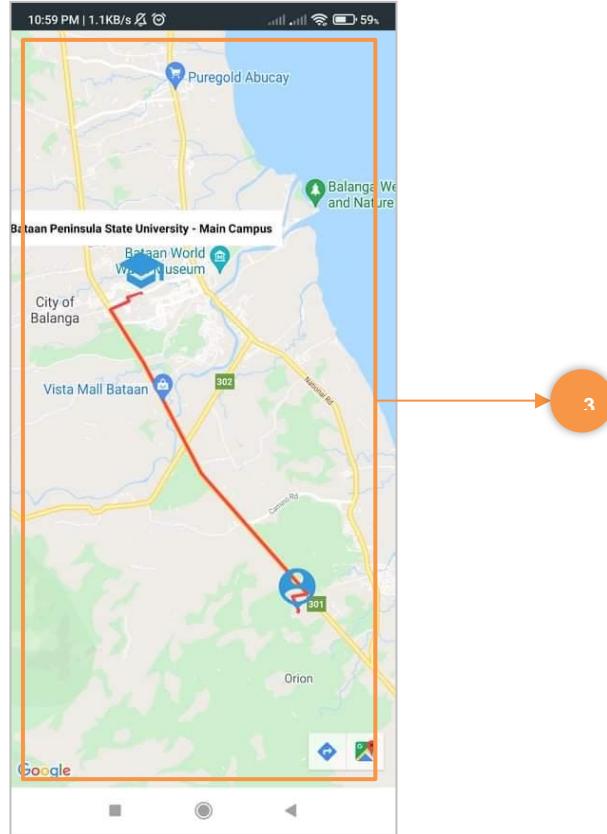
1. When you click this, you will be able to select the province you want and it will display all of the schools in that province.

Send feedback button: give comments and suggestion to the application.

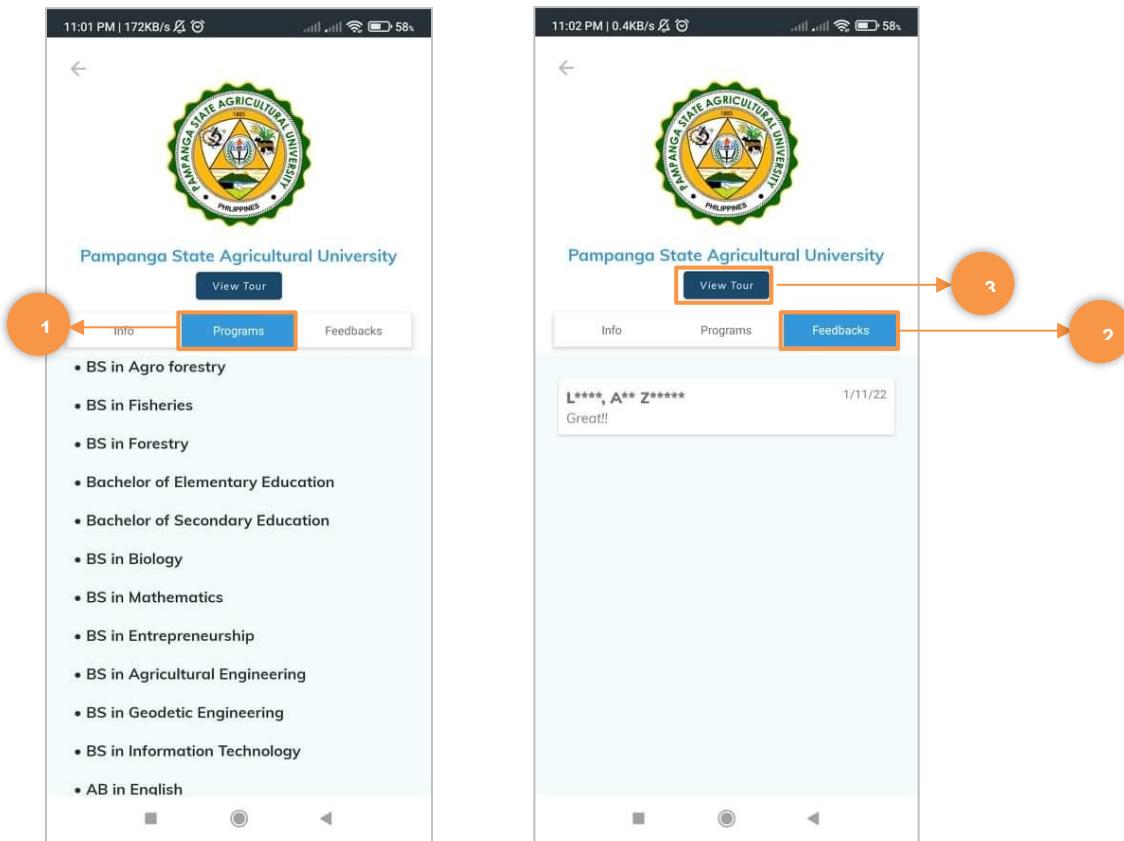


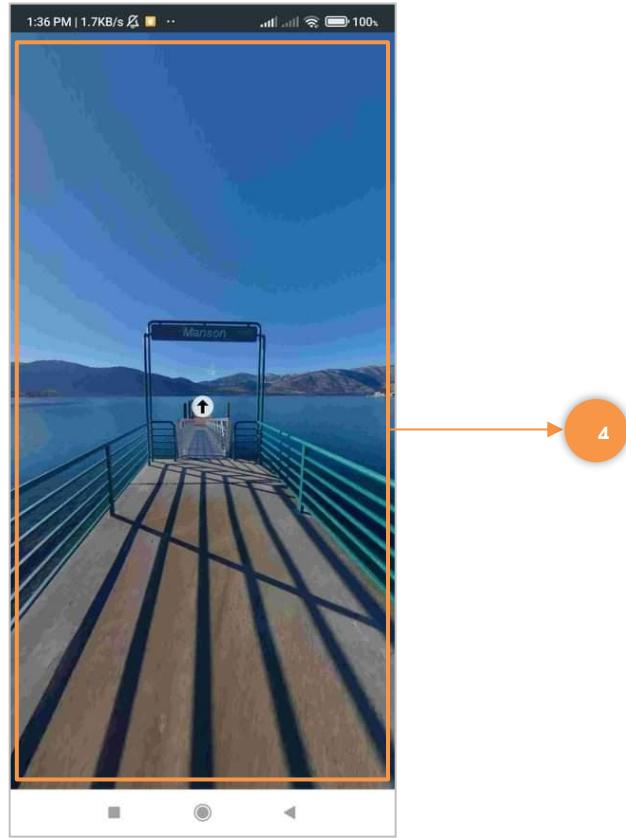
1. Choose a subject and leave a comment or a suggestion.
2. To send feedback, click the button.





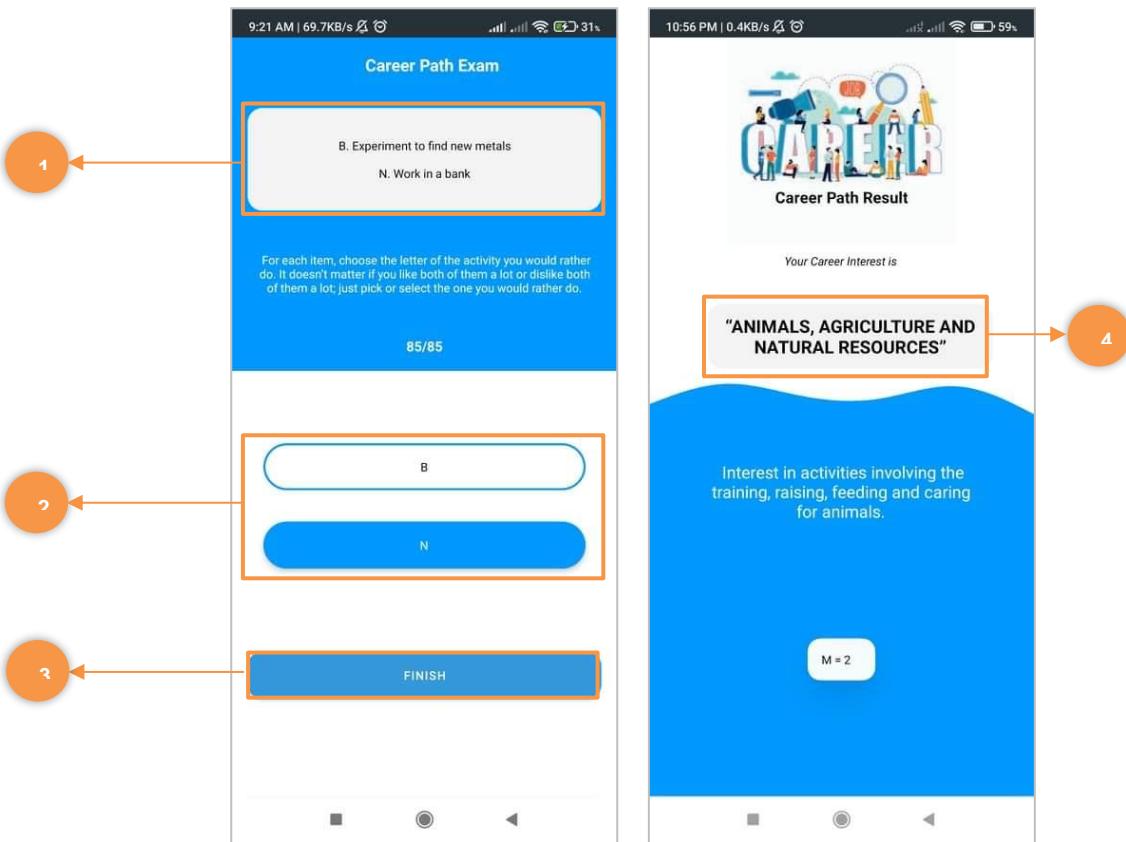
1. Click this to show the information about the school
2. When you scroll down, you will see the 2D mapping
3. When you click the map, it will expand and show you how far the school is. When you click the red line, the distance and travel time are displayed.





1. When you click the program button, the school's programs will be displayed.
2. When you click the feedback button, you can only leave one comment and a suggestion, and you can choose whether or not to display your name.
3. Click the virtual tour button;
4. It will expand the entire screen of the mobile device and allow you to view some of the school's facilities.

Lastly, the career path button in the home page.

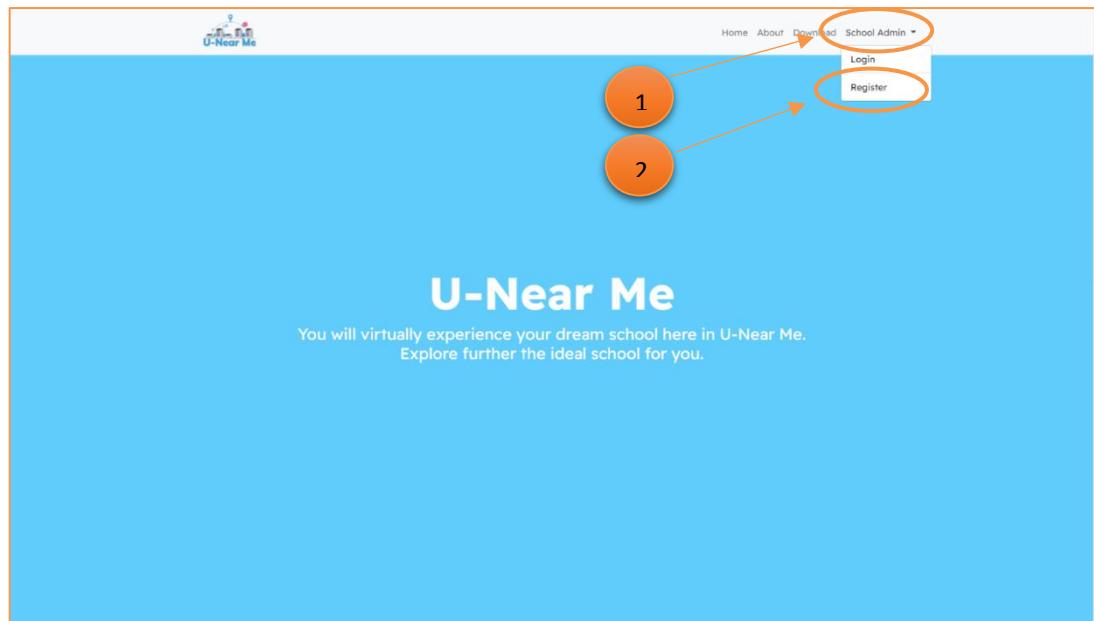


1. You can see options related to your interests in this rectangle.
2. You will select one of your interests.
3. After you have completed 85 items, you will be able to see which program you will fit into based on your interests.

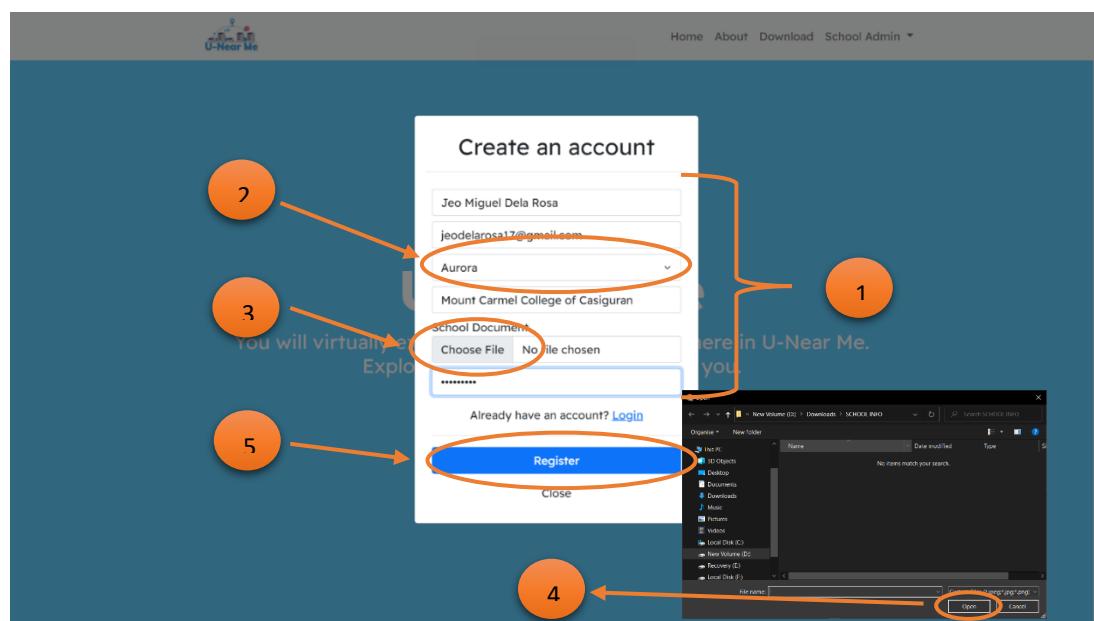
To have access into the system the school admin and super admin must register first. The following are the steps to do it:

For School Admin

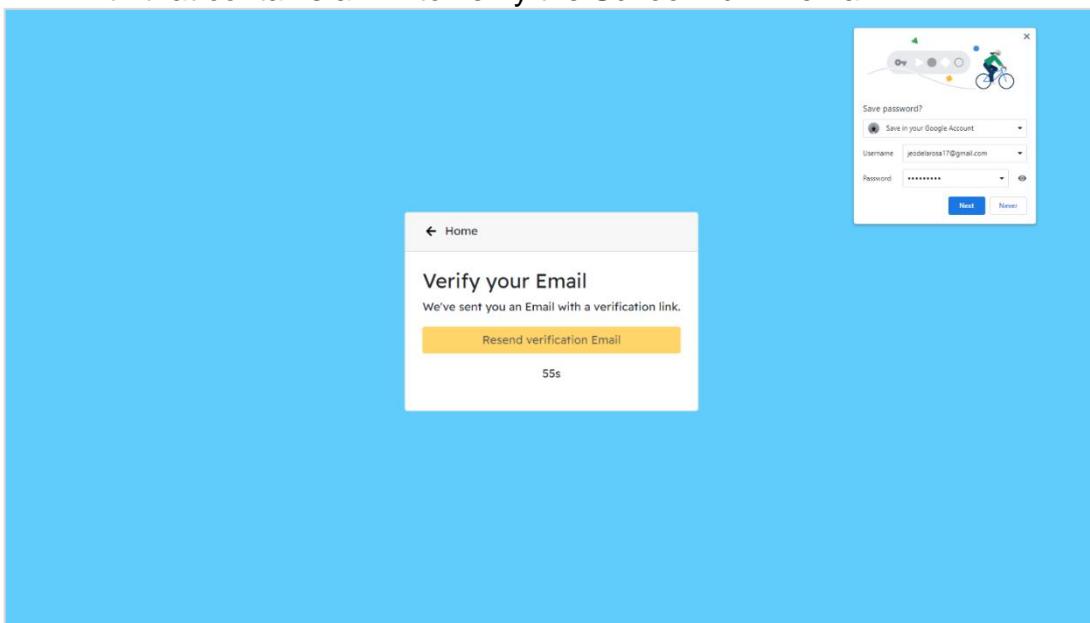
The Developed System allows the School Admin to Register to the system. The following are the steps to do it:

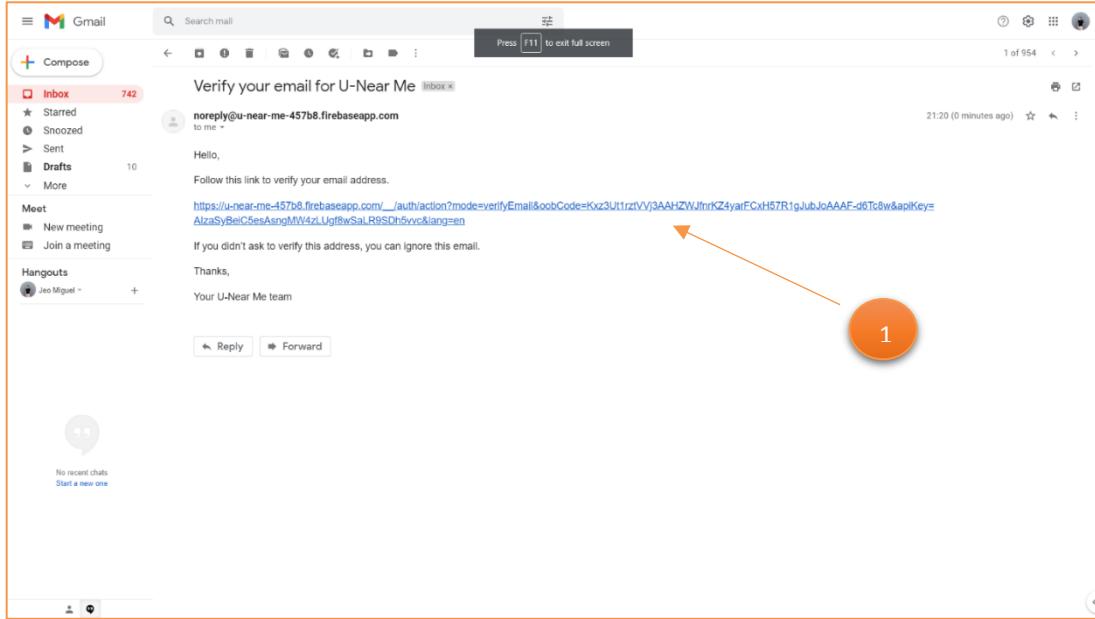


1. To register to the system. Click the School Admin.
2. Click register.

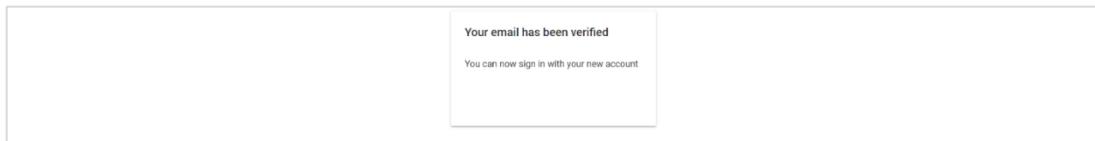


1. Click the textbox for Name, Email, School Name and Password and input the Name and Email of the School Admin, School Name, and the Password.
 2. Click the dropdown menu to select a Province.
 3. Click Choose File to select a document.
 4. Click Open to Upload the selected document.
 5. Click Register.
- Once the School Admin finished the registration a page will appear that says “Verify your Email”. The School Admin then will receive an email with that contains a link to verify the School Admin email.





- After clicking the link on the email, a page will appear that says “Your email has been verified”.

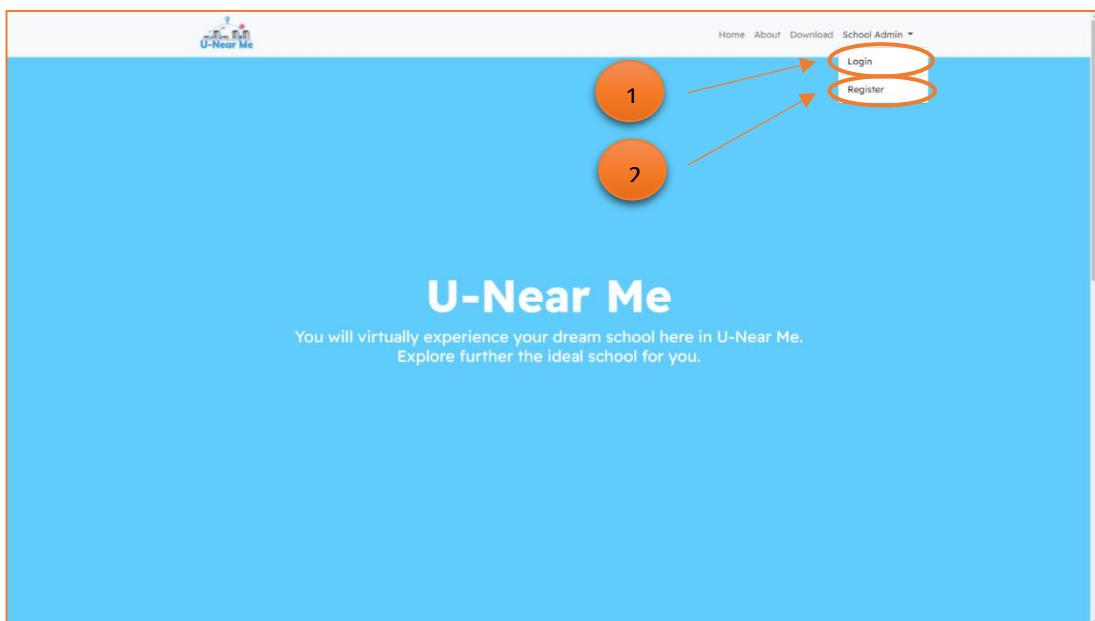


- After verifying the email. The School Admin must wait for the Super Admin to review the documents uploaded by the School Admin and approved the request.

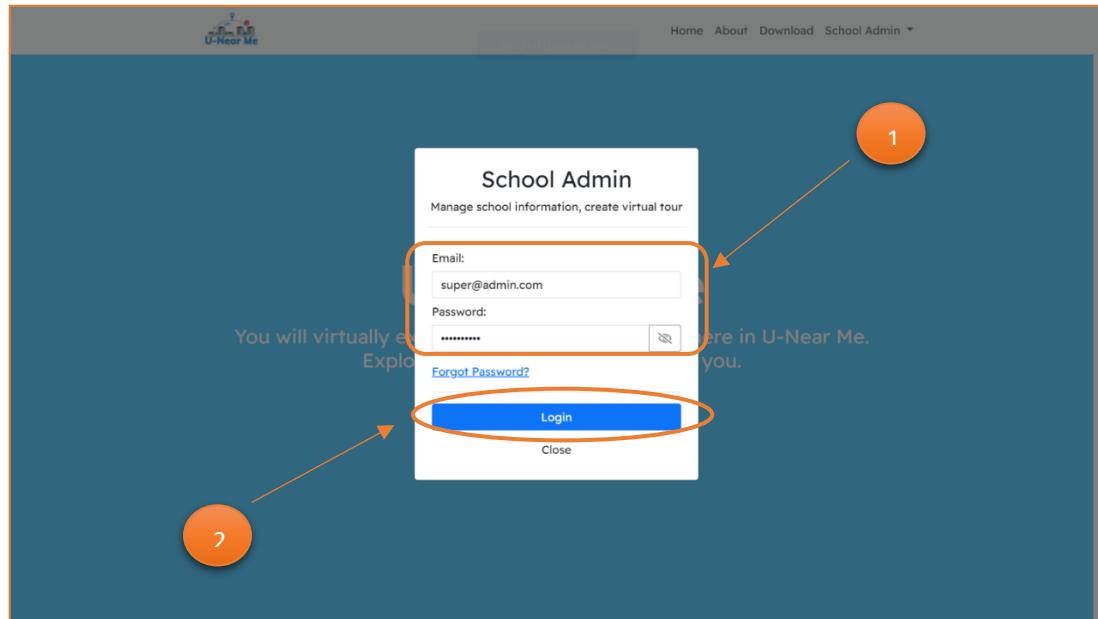
The screenshot shows a 'Setup School' form under 'School Information'. A central modal window displays the word 'Pending' in large letters, followed by the message: 'We are still reviewing your request. You will receive an email from us once approved.' Below the modal are several input fields: 'Type' (dropdown), 'Religious Affiliation' (dropdown), 'Term Structure' (dropdown), 'Start of Classes' (dropdown), 'School Email' (text input), 'School Website' (text input), and 'Address' (text input). At the bottom right of the form is a blue 'Next' button.

For Super Admin

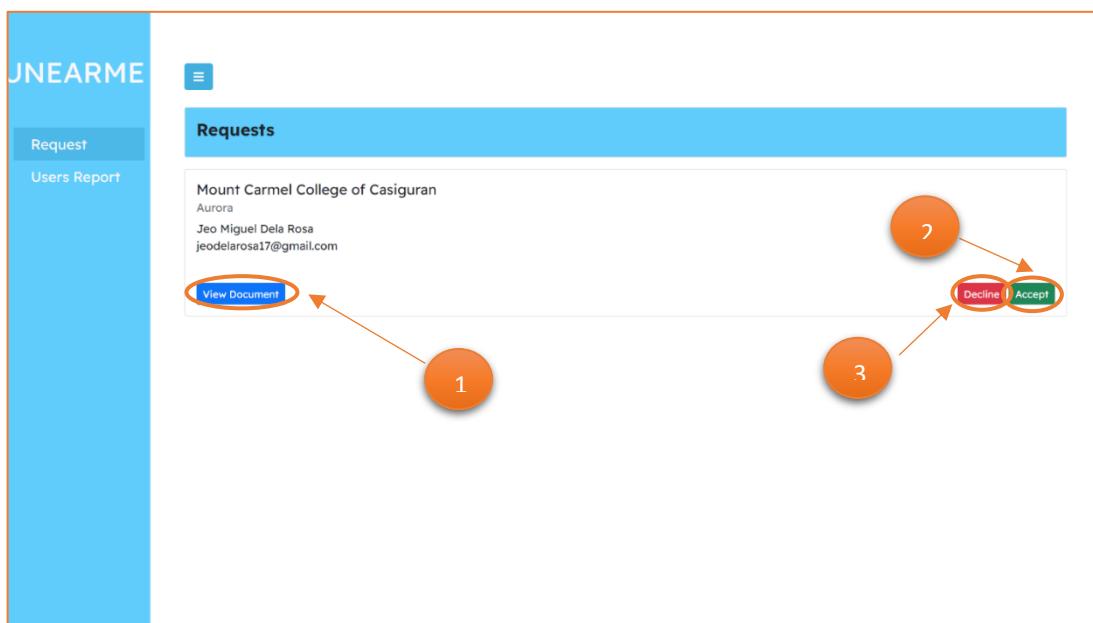
The Developed System allows the Super Admin to Logon to the system. The following are the steps to do it:



3. Click the School Admin.
4. Click Login.



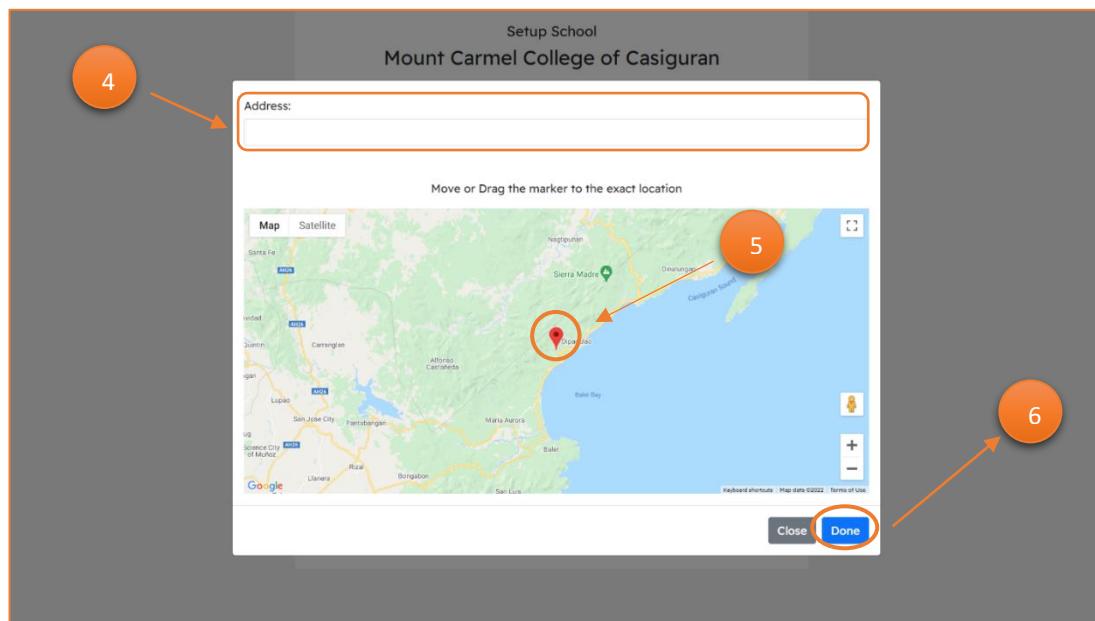
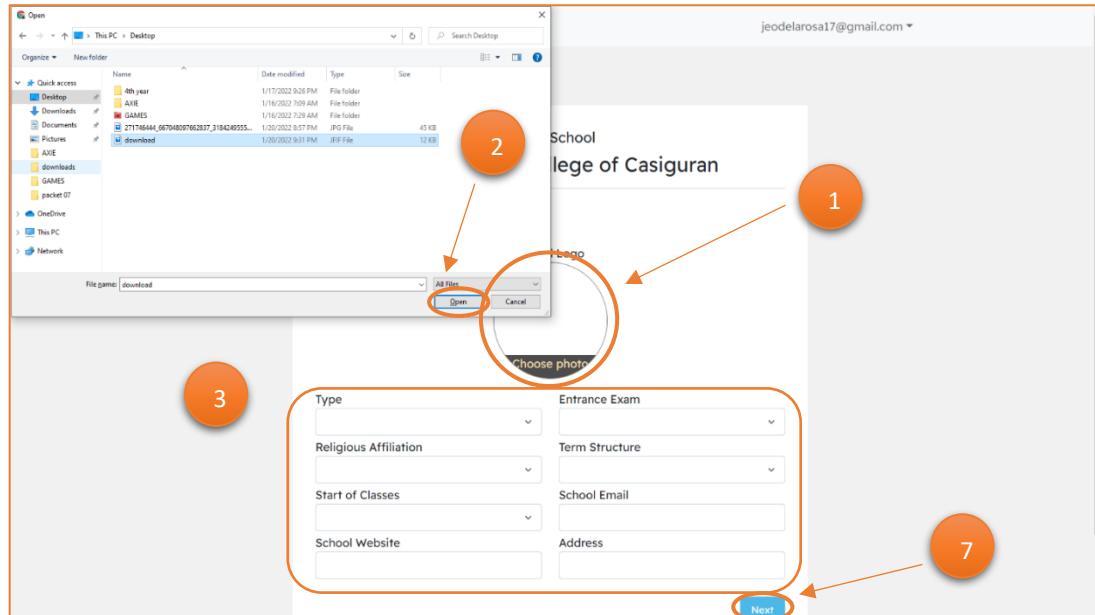
1. Click the textbox for Email and Password then input the Email and Password of the Super Admin.
2. Click Login Button.



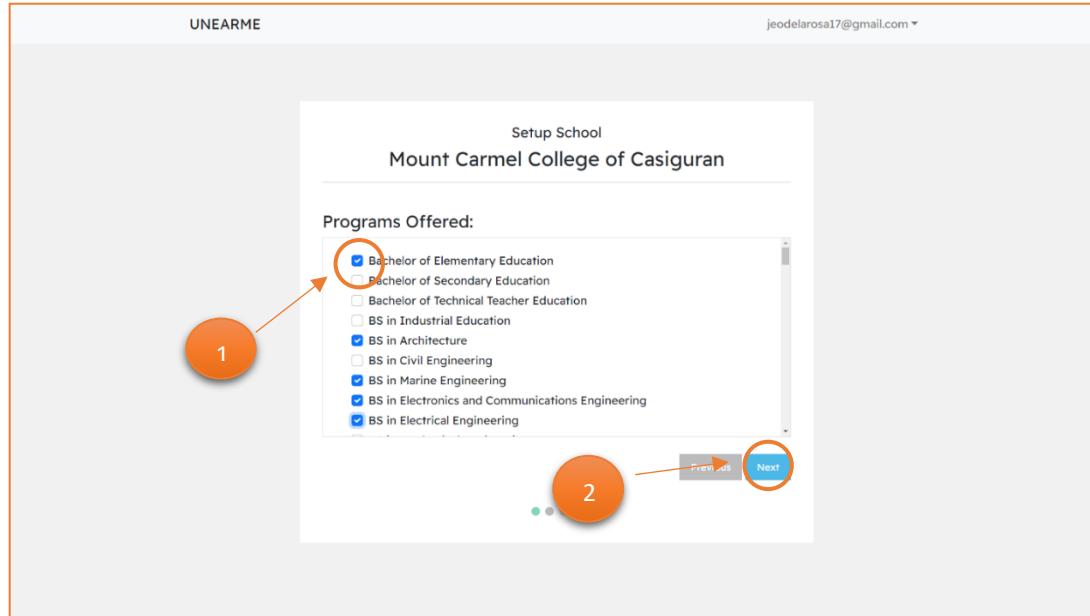
1. Click to Review the Document and to find out if the school is legitimate.
2. Click Accept Button if the School is a legitimate School.
3. Click Decline Button if the School is not existing and a legitimate School.

For School Admin

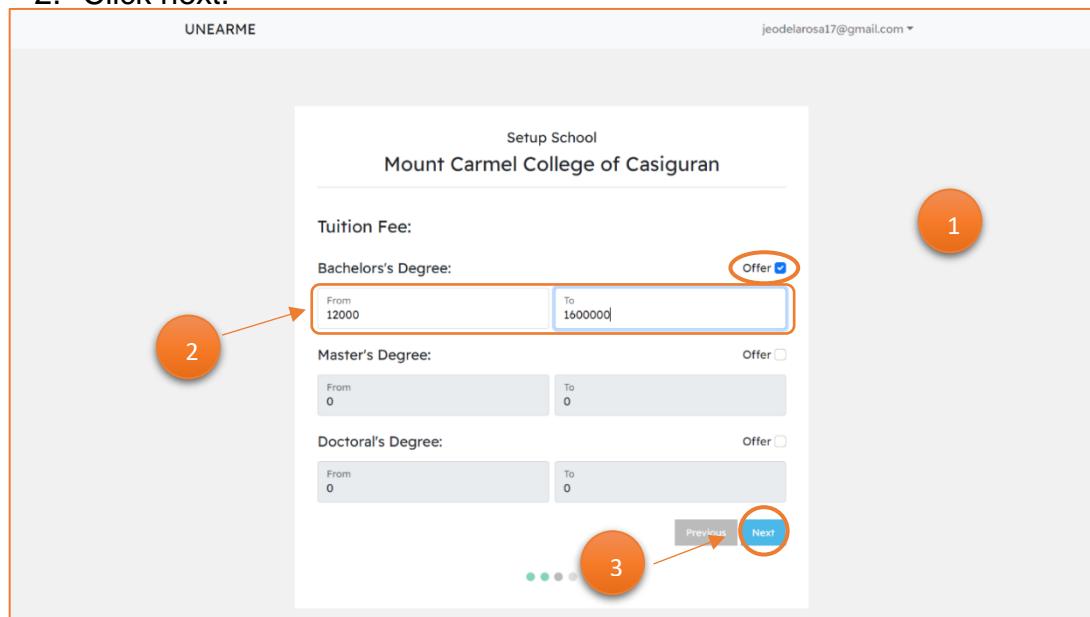
The Developed System allows the School Admin to Setup the School. The following are the steps to do it:



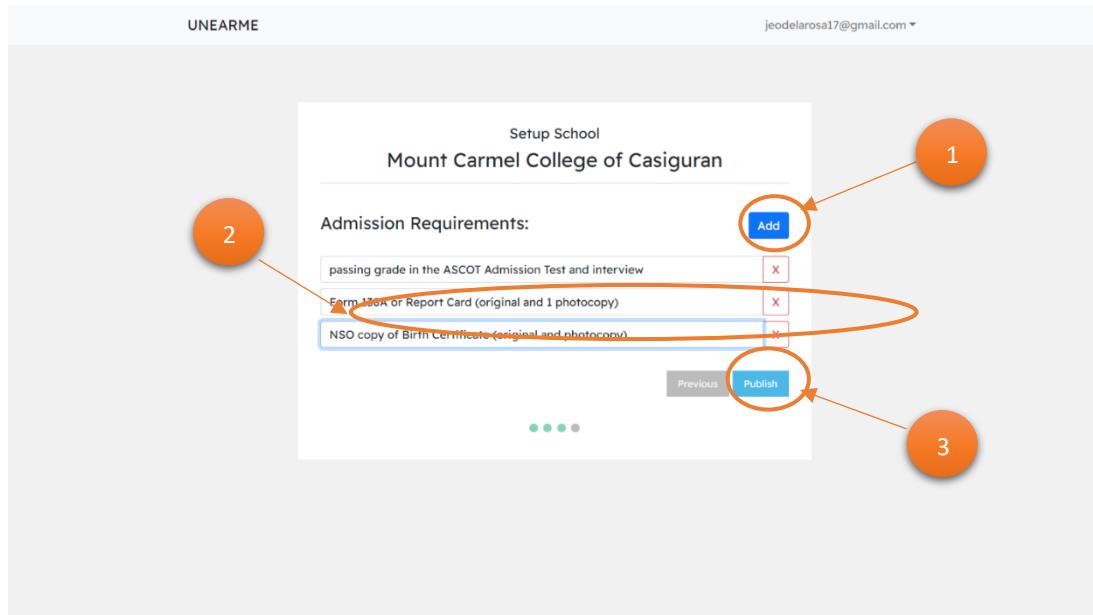
1. Click the Choose Photo to change the School Logo.
2. Click Open to upload the School Logo.
3. Fill up all the fields for the School Info.
4. Input the School Address.
5. Move or drag the marker to the exact location.
6. Click Done.
7. Click Next.



1. Click from the checkbox to select a programs that is offered by the School.
2. Click next.



1. Click offer if the School offers the degree.
2. Click the fields to input the tuition fee range.
3. Click next.



1. Click add.
 2. Click the field to input the admission requirement.
 3. Then click publish
- After the School Setup the School Admin will redirect to the School Admins Homepage which he/she can view the School Information's.

UNEARM

Virtual Tour Feedbacks

jeodelarosa17@gmail.com ▾

Mount Carmel College of Casiguran

Info	Programs	Requirements
School Info		
Type: Private College	Start of Classes: August	Location:
Religious Affiliation: Non-Sectarian	School Email: jeodelarosa17@gmail.com	
Entrance Exam: Required	Website: https://www.ascot.edu.ph/	
Term Structure: Semester	Address: Casiguran, Aurora	

For School Admin

The Developed System allows the School Admin to Setup the School. The following are the steps to do it:

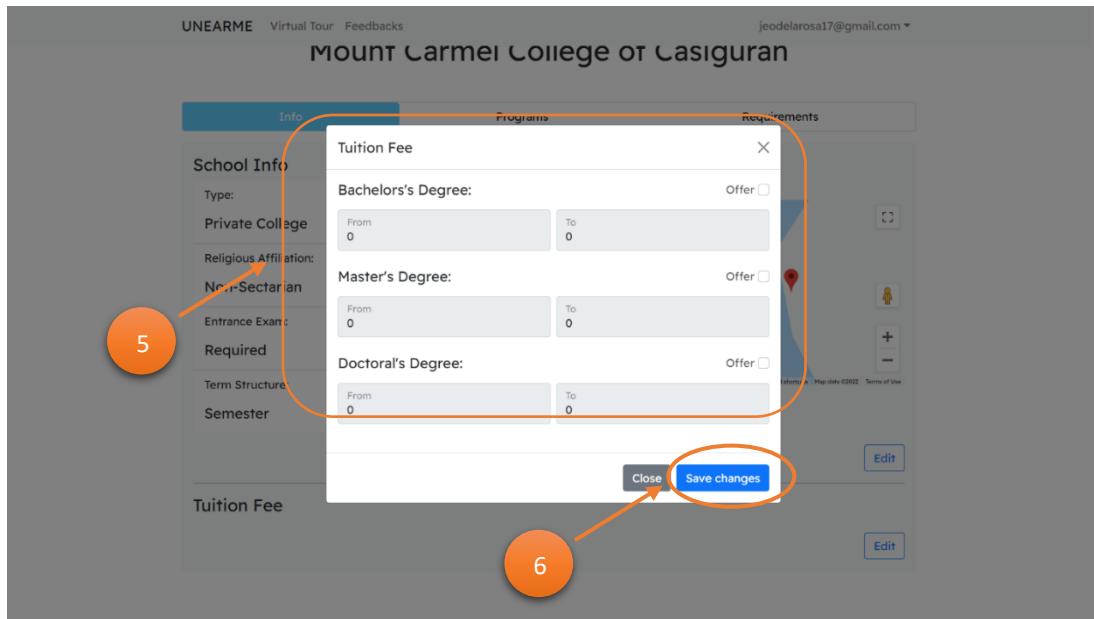
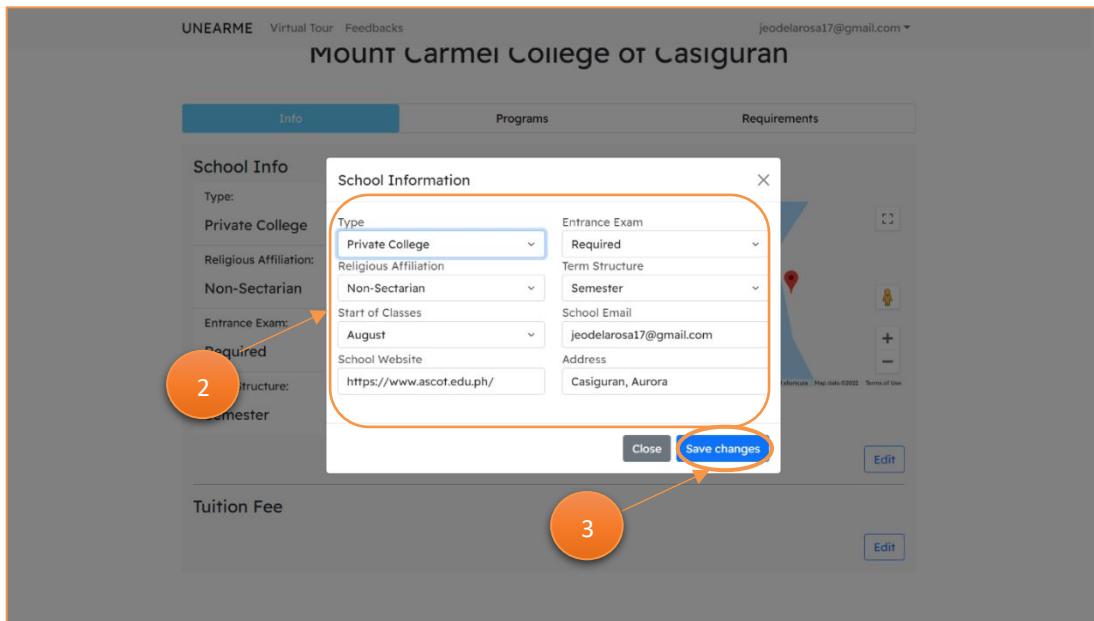
UNEARM

Virtual Tour Feedbacks

jeodelarosa17@gmail.com ▾

MOUNT Carmel College of Casiguran

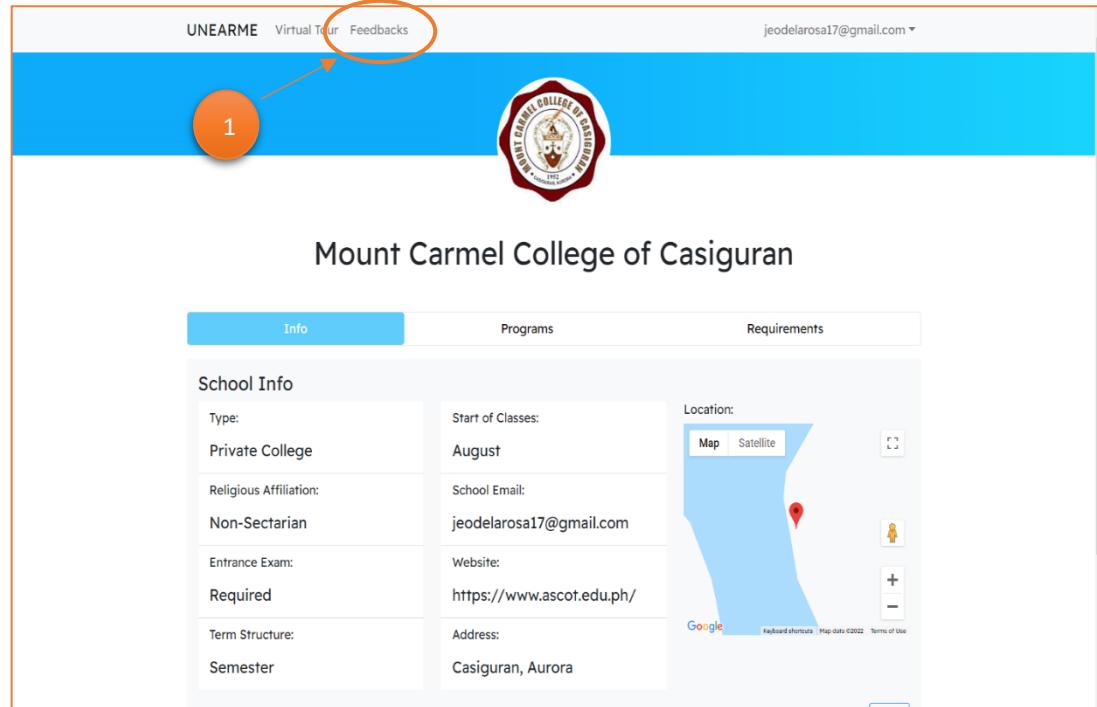
Info	Programs	Requirements
School Info		
Type: Private College	Start of Classes: August	Location:
Religious Affiliation: Non-Sectarian	School Email: jeodelarosa17@gmail.com	
Entrance Exam: Required	Website: https://www.ascot.edu.ph/	
Term Structure: Semester	Address: Casiguran, Aurora	
Tuition Fee		



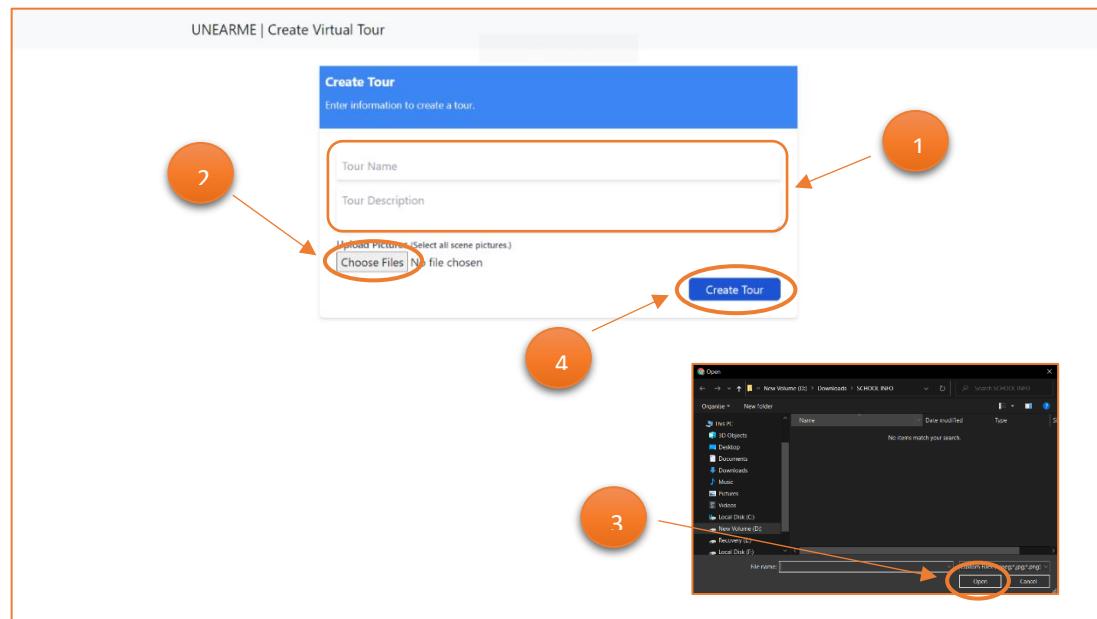
1. Click Edit to make changes to the school information.
2. Click the fields you want to edit.
3. Click Save changes.
4. Click Edit for tuition fee.
5. Click the fields you want to edit.
6. Click Save changes once you've finished editing.

For School Admin

The Developed System allows the School Admin to create the School Virtual Tour. The following are the steps to do it:



1. Click virtual tour.



1. Click the fields and enter the Tour Name and Tour Description.
2. Click choose file to select a 360 image.
3. Click open file to upload the 360 images.
4. Click Create Tour Button to create the Virtual Tour.

For School Admin

The Developed System allows the School Admin to create the School Virtual Tour. The following are the steps to do it:

UNEARMED Virtual Tour **Feedbacks**

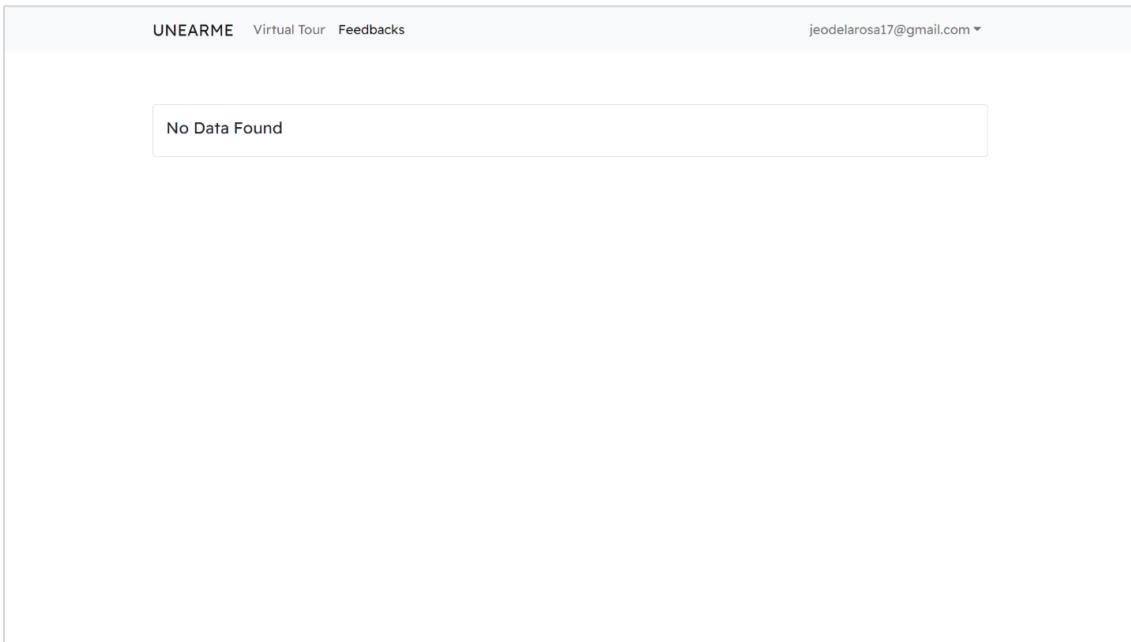
jeodelarosa17@gmail.com ▾

Mount Carmel College of Casiguran

Info		Programs	Requirements																
School Info <table border="1"> <tr> <td>Type: Private College</td> <td>Start of Classes: August</td> <td colspan="2">Location:</td> </tr> <tr> <td>Religious Affiliation: Non-Sectarian</td> <td>School Email: jeodelarosa17@gmail.com</td> <td>Map</td> <td>Satellite</td> </tr> <tr> <td>Entrance Exam: Required</td> <td>Website: https://www.ascot.edu.ph/</td> <td colspan="2"> </td> </tr> <tr> <td>Term Structure: Semester</td> <td>Address: Casiguran, Aurora</td> <td colspan="2"> <small>Keyboard shortcuts Map data ©2022 Terms of Use</small> </td> </tr> </table>				Type: Private College	Start of Classes: August	Location:		Religious Affiliation: Non-Sectarian	School Email: jeodelarosa17@gmail.com	Map	Satellite	Entrance Exam: Required	Website: https://www.ascot.edu.ph/			Term Structure: Semester	Address: Casiguran, Aurora	<small>Keyboard shortcuts Map data ©2022 Terms of Use</small>	
Type: Private College	Start of Classes: August	Location:																	
Religious Affiliation: Non-Sectarian	School Email: jeodelarosa17@gmail.com	Map	Satellite																
Entrance Exam: Required	Website: https://www.ascot.edu.ph/																		
Term Structure: Semester	Address: Casiguran, Aurora	<small>Keyboard shortcuts Map data ©2022 Terms of Use</small>																	

1. Click Feedbacks

- When the School Admin click the feedbacks, a page will appear where the School Admin can see the feedbacks of the School.



Researcher's Profile

PRINCESS CACHILA JARAMILLO

360 Basilio st, Pentor
Dinalupihan, Bataan
09086476354
picesjaramillo@gmail.com

**PERSONAL DATA**

Civil Status	:	Single
Sex	:	Female
Data of Birth	:	June 30, 2000
Place of Birth	:	Dinalupihan, Bataan
Religion	:	Roman Catholic
Nationality	:	Filipino
Height	:	157cm
Weight	:	45kg

EDUCATIONAL BACKGROUND

TERTIARY	Bataan Peninsula State of University BS Information Technology Major in Network and Web App
SECONDARY	Saint John Academy-SHS Academic Track - STEM Mabini Proper Dinalupihan, Bataan
	Saint John Academy- JHS Rizal st. Dinalupihan, Bataan
PRIMARY	Dinalupihan Elementary School Padre Dan Dan Dinalupihan, Bataan

SEMINARS/TRAININGS ATTENDED

-
- Success Charting
Team Aguhon
2017
 - Outreach Program
Bahay Puso
2016
 - Progress Mapping
Team Aguhon
2016
 - Career Orienteering Seminar
Team Aguhon
2015
 - Ministry for Lectors and Commentators
Bahay Pari
2013

COMPUTER SKILLS

- Proficient in HTML coding
- Proficient with Microsoft Office
- Proficient in Adobe Photoshop

CHARACTER REFERENCES

- Ms. Maria Fatima Nadine G. Ancheta, RN
Saint John Academy, Inc.
Mabini Proper, Dinalupihan, Bataan
09463733944
- Mrs. Gemma R. Yao
Principal- Saint John Academy, Inc.
Rizal. Dinalupihan, Bataan

I hereby certify that the above-stated information is true and correct to the best of my knowledge and belief.



Princess Cachila Jaramillo

ABE ZAIRON MAGALLON LAYON

Purok 4, Hilltop, Sabang
Morong, Bataan

09263693494

zaironlayon@gmail.com

**PERSONAL DATA**

Civil Status	:	Single
Sex	:	Male
Data of Birth	:	May 03, 2000
Place of Birth	:	Balanga City, Bataan
Religion	:	Roman Catholic
Nationality	:	Filipino
Height	:	179cm
Weight	:	46kg

EDUCATIONAL BACKGROUND

TERTIARY	Bataan Peninsula State of University BS Information Technology Major in Network and Web Application
SECONDARY	Morong National High School-SHS Technical Vocational - ICT Hilltop, Sabang, Morong, Bataan
	Morong National High School - JHS Hilltop, Sabang, Morong, Bataan
PRIMARY	Morong Central Elementary School Poblacion, Morong, Bataan

SEMINARS/TRAININGS ATTENDED

- Pre-Employment Preparation (PEP) Talk
BPSU
2021
- Tobacco Free Generation
BPSU
2018

COMPUTER SKILLS

- Proficient with Microsoft Word, Excel and PowerPoint
- Proficient in HTML and CSS
- Proficient in Java Programming

CHARACTER REFERENCES

- Mrs. Katheryn Joy Paguio Filipino
Morong National High School - Teacher
Hilltop, Sabang, Morong, Bataan
09104163830
- Mrs. Jenny-Lyn Q. Duran
Morong National High School - Teacher
Hilltop, Sabang, Morong, Bataan
09204412931

I hereby certify that the above-stated information is true and correct to the best of my knowledge and belief.



Abe Zairon Magallon Lay

JEO MIGUEL T. DELA ROSA
150 Rizal, Pilar Bataan
09610468682
jeodelarosa17@gmail.com



PERSONAL DATA

Civil Status	:	Single
Sex	:	Male
Data of Birth	:	November 17, 1999
Place of Birth	:	Pilar, Bataan
Religion	:	Roman Catholic
Nationality	:	Filipino
Height	:	180cm
Weight	:	80kg

EDUCATIONAL BACKGROUND

TERTIARY	Bataan Peninsula State of University BS Information Technology Major in Network and Web
Application	
SECONDARY	Justice Emilio Angles Gancayco
Memorial	High School Home Economics (H.E.) Balagtas, Orion Bataan
Memorial	Justice Emilio Angles Gancayco
	High School Balagtas, Orion Bataan
PRIMARY	Wakas Elementary School Wakas Pilar, Bataan

SEMINARS/TRAININGS ATTENDED

- Pre-Employment Preparation (PEP) Talk
BPSU
2021
- Tobacco Free Generation
BPSU
2018

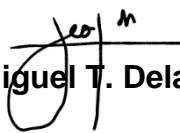
COMPUTER SKILLS

- Proficient in HTML and CSS
- Proficient with Microsoft Office
- Proficient in Adobe Photoshop

CHARACTER REFERENCES

- Mr. Joel Danque
Wakas Elementary School Teacher
Del Rosario Pilar, Bataan
09173068601
- Mr. Obet Reyes
Barangay Captain in Rizal Pilar Bataan
Rizal. Dinalupihan, Bataan

I hereby certify that the above-stated information is true and correct to the best of my knowledge and belief.


Jeo Miguel T. Dela Rosa

MARVIN RUSSELL VILLEGRAS PALABAY

Sangang Daan Brgy. Diwa
Pilar Bataan 2101
09565931941
mrvnplby@gmail.com

**PERSONAL DATA**

Civil Status	:	Single
Sex	:	Male
Data of Birth	:	February 24, 2000
Place of Birth	:	Makati City
Religion	:	Roman Catholic
Nationality	:	Filipino
Height	:	167cm
Weight	:	45kg

EDUCATIONAL BACKGROUND

TERTIARY	Bataan Peninsula State of University BS Information Technology Major in Network and Web Application
SECONDARY	STI College Global City Academic Track - STEM Bonifacio Global City, Taguig
School	Dr. Victoria B. Roman Memorial High Pantingan Pilar, Bataan
PRIMARY	Talisay City Central School Talisay City Cebu

COMPUTER SKILLS

- Computer Literate
- Adobe Creative Suite (Premiere pro, Photoshop, Lightroom, After effects)
- MS Office Skills (MS Word, MS PowerPoint, MS Excel)

CHARACTER REFERENCES

- Aldrin De Sagun
Freelance Photopgraher
09453564677
- Kathrylle Lagoc
STI IT Professor
09369330584

I hereby certify that the above-stated information is true and correct to the best of my knowledge and belief.



Marvin Russell Villegas Palabay