

# **Student and Faculty Clearance Processing System**

A Capstone Project

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College of Computer Studies and Information Technology  
Southern Leyte State University

In Partial Fulfillment of the Requirements  
For the degree Bachelor of Science in Information Technology

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**APPROVAL SHEET**

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## **DEDICATION**

First and foremost, we dedicate this capstone project to the students and faculty members who were dealing with manual clearance processing, as well as to our parents and family, who give us the opportunity to ensure our education and always support us no matter what. Lastly, for the members of this group, who gave their very best to finish this project proposal, we may not be as smart as individuals, but as long as we put our heads together, we can accomplish something better.

## **ACKNOWLEDGEMENT**

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First of all, we would like to acknowledge our all-mighty God for his guidance, strength, peace of mind, and good health.

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To our adviser, Mrs. Czarina Ancella Gabi, for her patience, inspiring guidance, kindness, approachability, suggestions, and also because she is very responsive to the matter or problems.

Lastly, to our classmates, for sharing their ideas and knowledge about the study.

## ABSTRACT

The Students and Faculty Clearance Processing System is a web-based automated system that aimed to replace the manual method of processing the clearances of the students and faculty at Talisay National High School. This system can eliminate the challenges encountered by simplifying the process and ensuring the integrity and accuracy of the information by providing every student and faculty member with access to the clearance system. Students and faculty members can view the updates and progress of their clearance using their computers or mobile devices, wherever they are. This process is very efficient and can save a lot of paper. The developed system facilitates a more accessible and convenient way of clearing the students' and faculty member's obligations to the school. Clearance certificates are readily available in the system or through the registered email once the administrator has verified and approved the submitted documents. Evaluation of the developed system shows that, based on the ISO 25010 standard, it is functional, mostly reliable, mostly usable, very efficient, mostly agreeing for maintainability and portability, mostly secure, and mostly compatible. Hence, the adoption of the developed system is recommended.

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*Keywords:* students, faculty, administrator, clearance process, users, web-base, ISO 25010

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## **CHAPTER I**

### **INTRODUCTION**

#### **Project Context**

Nowadays, technology is a valuable tool that will help us make our work faster and easier. Every year, everything changes and improves, making procedures better than they were previously. For example, technology helps improve the process when an employee settles obligations with the company. A clearance involves repaying debts, fulfilling responsibilities, and returning company property and the employee's documentation on their person (Zagala et al. 2021). For students, a fully-signed clearance allows a student to proceed to another semester.

According to Alroobaea (2018), the manual clearance process is long and time-consuming, which includes a much effort. Nowadays, e-governance is a common trend for all developing countries; they use information and communication technologies (automation) to improve the activities of public sector organizations in a simplified manner. The new system will reduce the time and effort wasted on students' clearance and the cost incurred on paper by the institution. Another advantage is that students can initiate and monitor their clearance status from any location, eliminating the need to travel or be physically present (Jonathan, Misra, Makinde, Damasevicius, Maskeliunas, and Leon, 2019). Daud and Maguid (2022) said that clearance is a mechanism or process used at CCSPC to check students' liabilities at several offices on campus before allowing them to graduate or enroll in the next year. Tunde, Olalekan, Oladimeji, and Victor, (2021) also said that clearance is an authorization status given to an individual or group

of people to access important information or the right to proceed with an event after the completion of a prior event.

Manual clearance processing creates overhead for the students and employees alike in going from one office to another to have their clearance signed. This process takes some days or weeks to be completed and poses a lot of stress to all the students and faculty members who provide a clearance system. Some researchers said the clearance forms are documented in a file cabinet in the manual method. Each time the clearance form is needed, a search operation is conducted on the file cabinets to locate a particular user's clearance form. In this manual processing, students and faculty members should have to appear and fill out the form from all the offices and take clearance from the registrar at the end of the academic year.

Because of the above-cited problems, academic institutions need a method for processing clearances that is both time-efficient and guarantees the integrity and consistency of their clearances. Hence, it is proposed in this study to design and develop a clearance processing system that will allow students and faculty to process their clearances online. The developed system aims to address the issues while providing valuable solutions to academic institutions in this digital age.

### **Purpose and Description of the Project**

The Student and Faculty Clearance Processing System is a web-based system that automates student and faculty clearance processes. Using this automated system, you don't have to find out the record of every student and faculty in so many papers; if they have a liability, we can view all their records through the database. So the primary purpose of this project is for the students and faculty can complete their clearance

wherever they are. They will not have to visit the School campus for this purpose physically. Through an automated system, they can easily access their clearance online. Faculty should register in the system to submit their requirements to complete their clearance quickly, and students must register in the system for their clearance to be processed efficiently. The Admin will provide/register a user account for the students and faculty member, has access to a list of student and faculty numbers and a list of request clearances can also approve the pending clearances of the students and faculty. Students and faculty members will log in and request the system for their clearance. In case of system error or data loss, the system will provide a backup system that will store all the data of the students and faculty clearance processes. Students and faculty members may use their phones or computers to check their clearance status and what requirements they must provide.

The developed web-based students and faculty clearance processing system intends to:

1. replace the manual processing of students and faculty clearances;
2. eliminate potential loss or damage of clearances;
3. eliminate long queues during the signing of clearances;
4. process clearance efficiently;
5. provide a system that is user-friendly and convenient to use; and
6. Secure the health of the students and faculty members brought about by the pandemic.

## **Objectives of the Project**

### **General Objectives**

Generally, this project aimed to design and develop a web-based clearance processing system for faculty and students.

### **Specific Objectives**

Specifically, the project aimed to:

1. Create a system that can be accessed anywhere through the internet using any device; and
2. Eliminate problems brought about by traditional clearance processing.

## **Scope and Limitations of the Project**

### **Scope of the Project**

The developed system is intended for students' and faculty members' use in a school. It will be capable of clearing a student's or faculty's liabilities, if any, online. Students and faculty members can submit required documents or evidence as proof of compliance with whatever the signee requires.

### **Limitations of the Project**

The developed system has a login page that allows only students, faculty members, and system administrators to have access to the system; therefore, the system can't be accessed by unauthorized users. It will be inaccessible if the web host becomes unavailable or if the user has no internet access.

## **Chapter II**

### **REVIEW OF RELATED LITERATURE**

This chapter includes the ideas, theses, findings or conclusions, methodologies, and others. Those included in this chapter help familiarize information relevant and similar to the present study.

#### **Related Literature**

According to Nneji, Deng, Shakher, Monday, Agomou, and Dike (2018), the term "clearance" refers to a status conferred to individuals, such as police officers, military personnel, university graduates, and government and other major establishment employees, that allow them access to a specific document or information. The organization must identify whether the individual has clearance. Clearance is the act of determining and negotiating any permissions required for the use of another person's creative effort. Identifying the owner(s) of the intellectual property, contacting the owners, and negotiating an agreement is all part of the process (Alemu, 2016). Almost every entity uses a clearance form, including businesses, universities, hospitals, etc. Schools or universities use an instructor or student clearance form to confirm that a teacher or student has met all the essential requirements to advance to the next level or higher year.

Clearances can be processed manually or online. However, manual processing of clearances especially is still prevailing in most schools. Manual student clearance processing has a negative impact on time, cost, and responsibility. On time, students spend a significant amount of time and effort waiting in long lines for their turns and

transferring from one office to the next. Every semester, the school spends money on the printing of paper clearing. On the subject of responsibility, both students and office heads devote a significant amount of time to clearing, often at the expense of other vital responsibilities or activities. The advantages of the paperless clearance procedure are eliminated (Cadiz, Bondoc, Estroga, 2017). Various challenges are encountered at IMO University in the manual method used to preserve information regarding student clearance, such as delays in processing clearance. Unavailability of some key staff while processing clearance forms, resulting in students returning to the same office to sign their clearance forms, loss of vital documents due to the manual filing system, damage to documents due to a fire incident, illegal removal of documents by fraudulent staff, resulting in insecurity, and it takes a long time to retrieve a specific clearance form.

The clearance processing system for students and faculty is an online and mobile-based application that allows students and faculty to process clearances. The approach is intended to make the procedure easier while guaranteeing that approval is accurate and complete. The primary purpose of this project is to replace the manual method of processing clearances with an automated process (inettutor, 2021).

According to Daud and Maguid (2022), the clearance processing system benefits the institution's stakeholders, including students, teachers, and administrators. Their study aimed to create a secure web-based student clearance system for Cotabato City State Polytechnic College (CCSPC). The online clearing system was developed for CCSPC students and offices with two-factor authentication for users and web content encryption, making their system secure, reliable, usable, and portable. Functionality, reliability, usability, and portability. The participants "Agree" that the system is functional,



dependable, usable, and portable, as shown by the overall result of the system's evaluation, which is 2.89. The researcher strongly suggested that the proposed idea be fully deployed and completed since it provides a predicted and timely solution to the CCSPC students' current long-standing dilemma in fulfilling their clearance obligations every after-semester break or summer term.

In the study of Cadiz, Bondoc, and Estroga (2017), their system was created to make student clearance processes faster, allowing users to access the system online and to save money by eliminating the need for paper clearance. The system contains three actors: students, administrators, and office leaders. It was programmed in PHP with a database in MYSQL. Overall functionality was deemed satisfactory in the assessment, with an overall mean of 4.06 (High) for office heads and 3.87 (High) for students. It's easy to browse and alter the image (1.83) for office heads and (2.08) for students, and it's also easy to establish the requirement (1.83). (1.50) Other functionalities obtained the lowest score (4.89) from office heads and the highest score (4.53) from students, while other functionalities received the highest score (4.89) from office chiefs and the lowest score (4.53) from students. It denotes that the functional components of the proposed system are in good working order. As previously said, overall efficiency was rated as extremely satisfactory. The overall mean for office managers was 4.62 (Extremely high), while the overall mean for students was 4.47. (Very High). For the office, clicking the main control is quick (4.89). The evaluation revealed that the proposed solution is extremely efficient. The academic constituents benefit from the convenience of e-clearance in processing student clearance. Soon, the researcher will work on a mobile e-clearance application.

The simplicity of e-clearance in the processing of student clearance benefits academic elements. The researcher plans to develop a mobile e-clearance application shortly. According to a study, one of the benefits of technological advancement in changing the educational environment from traditional venues to mobile learning is that the mobile device's portability makes it easier and more comfortable for students (Oden, 2021).

### **Related Studies**

#### **Design and Implementation of Online Clearance System: A Case Study of Imo State University**

This online clearance system is a research project that provided an efficient information management system for schools, particularly in Imo State University, Nigeria. It aimed to provide a method for obtaining clearance after graduation. The objectives of the system include 1) process students' clearance effectively and efficiently, 2) provide a reliable and transparent system devoid of personal inclinations and interest, 3) provide borderless access, 4) ensure prompt clearance, and 5) alleviate the problems and stress of travelling and queuing up of students during clearance. It also allowed the graduates to grasp the procedures and how to complete their clearance online. The system was implemented in this study utilizing PHP, JAVASCRIPT, CSS, APACHE, and MYSQL for the database. In the end, the study achieved all the mentioned objectives (Ben, Henry, Iriaoghuan, 2015).

#### **A Web-Based Database-Driven Students' Clearance System**

This Web-Based Database-Driven Students' Clearance System was created with PHP and MySQL and implemented with the information gathered. It managed the

clearance process for students across all departments and units and eliminated the manual procedure's flaws, including a lack of a central repository for the clearance process. Others complain about how slow, clunky, and frustrating the process is. As a result, the clearance application can be used to record and certify whether or not a student has been cleared to disconnect. Clearance applications are kept on file, and their progress can be checked anytime. This project aims to use PHP and MySQL to design and implement an online student clearance system that will avoid delays in the manual procedure and create a central repository for cleared students. It will be deployed as a web-based tool serving as a clearinghouse for students. Primary Module, Clearance Registration, Cleared/Not Cleared, and Administer are the main modules of the clearance system. The Systems Administrator uses the Administer Module to create and maintain the user (Agbo-Ajala, Makinde, 2015).

### **An Improved e-Clearance Management System for Graduating Students in a University Environment**

The e-clearance system is a web-based method that allows graduating students to clear their last year electronically or online. Front-End Languages used are HTML for building the web pages, CSS for styling the web pages, JavaScript for programming web pages, Sublime Text 3 for the code editor, PHP for the Back-End, MySQL for the database, and the XAMPP servers are used for the design and implementation of the proposed system. This paper sought to improve the current system by examining its flaws. The findings suggest that the new approach presented in this paper has high efficiency and reliability. The design is put into action with the help of a few programming language utilities. A flowchart is a diagram that depicts a step-by-step process for completing a

task in a computer system. This system allows the administrator to print a list of successful student clearance operations. Data integrity is essential to authenticate users and prevent illegal access; passwords and IDs are used. In the end, the proposed system discussed in this paper will be implemented by substituting manual, and semi-manual approaches will lower the amount of money spent and the amount of time spent throughout the clearing process. This enhanced approach, if implemented, is expected to improve efficiency and dependability for both students and the University (Nneji, Deng, Shakher, Monday, Agomou, and Dike 2018).

## Chapter III

### Technical Background

#### Technicality of the project

The developed project is an Online Clearance Processing system for Students and Faculty using a web-based program, and the users can access it through any digital platform. The students' and faculty's clearance processing system is an online clearance processing system accessed by students and faculties without using the manual clearance process. Some technical terms are being used in our project: VS Code – Text Editor, Server-client side – PHP, HTML, CSS. Database – Xampp, MySQL and the Functionality – JavaScript, PhpMyAdmin. Some of the terminologies mentioned above also apply to the technology being used in our project.

#### Details of the technology to be used

This project is a web-based program it will be able to run on any technology, including mobile phones, laptops, and computers.

This project will include the following:

Software Technologies	Description
VS CODE	In the development of the system, the Developer used Microsoft Visual Studio Code to encode the source code of the system throughout development so that data and information could be acquired accurately and quickly.

PHP	It is a general-purpose programming language that is especially well suited for server-side web development. PHP is so adaptable, that it can be used on Mac OS, Windows, and Linux.
XAMPP	It is a platform that provides a suitable environment for testing and verifying the functionality of projects based on Apache, Perl, MySQL, and PHP using the host's system. Xampp helps a local host or server to test its website and clients via computers and laptops before releasing it to the main server.
PHPMYADMIN	It is s a PHP-based freeware utility for managing MySQL and Maria DB databases. Most administration activities, like establishing a database, performing queries, and adding user accounts, may be done with PHPMyAdmin.
JAVASCRIPT	Java Script allows us to create modern web applications that allow users to interact without having to reload the page every time. It is mostly utilized in executing online applications to dynamically edit HTML and CSS to update a user interface using the DOM API. JavaScript is also the greatest technology for creating Web apps and developing websites.

HTML	It is one of many tools that may be used to create a website. This is the simplest of the computer languages to learn. This is the language that Web pages are written in. You can use a Web page editing application to build a Web page without it, but the program will still require HTML to do it.
CSS	It allows one to customize the appearance of various devices, such as huge screens, small screens, and printers. CSS may be used with any XML-based markup language and is not dependent on HTML
APACHE	Apache is a web server that uses HTTP to process requests and serve web assets and information. MySQL is a database that keeps all of your data in a queryable format.
Operating system (OS)	In charge of the computer's software and hardware. It manages files, memory, and processes, handles input and output, and controls peripheral devices like disk drives and printers, among other things.

## **How the Project Will Work**

Shown in Figure 1 is the Functional decomposition of the developed Student and Faculty Clearance Processing System. The developed project has three (3) user types or accounts. Aside from the Students and Faculty, there is also the admin. The system's management is the responsibility of the administrator. They will provide/register a user account for the students, and faculty members also have access to a list of student and faculty numbers and request clearances. They can also approve the pending clearances of the students and faculty. Faculty and students have a similarity assignment that allows them to request clearance, and check approved and pending clearance requests. Also, they can download or print a copy of a completed clearance. The difference between students and faculty is how they request clearance to the Admin. Students will upload or send an image of their fee receipts to the department's office in order to have evidence or proof, while faculty will upload or send a document to the departments.



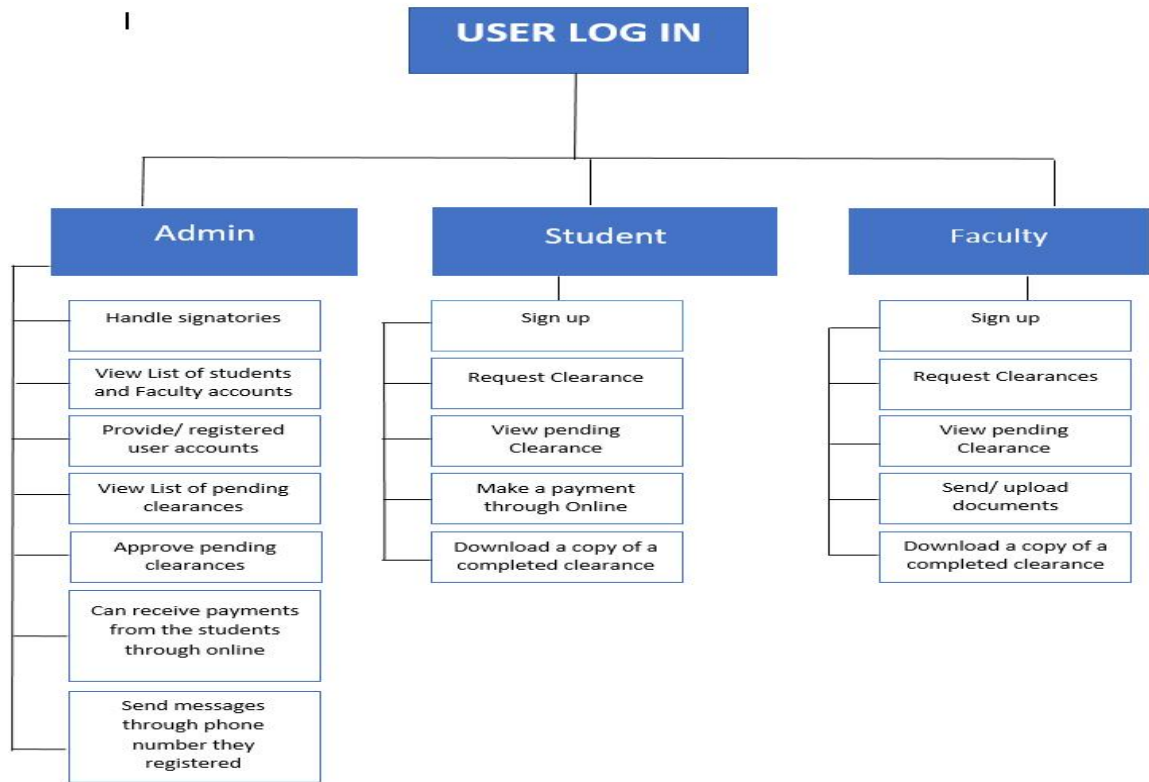


Figure 1. The Functional Decomposition Diagram

Figure 2 presents the developed architectural layout of the project. This project is a web-based system. The user can access the system through any device and desktop with an internet connection. The students and Faculty should have devices for the Online Clearance Process. All the data that the Website had been gathered will be stored in an extensive database that will contain the users' clearance, information, and payments. In case of system failures, the system will provide backup data containing all the data that had been lost, which the administrators will handle every day, and they will update the backup data.

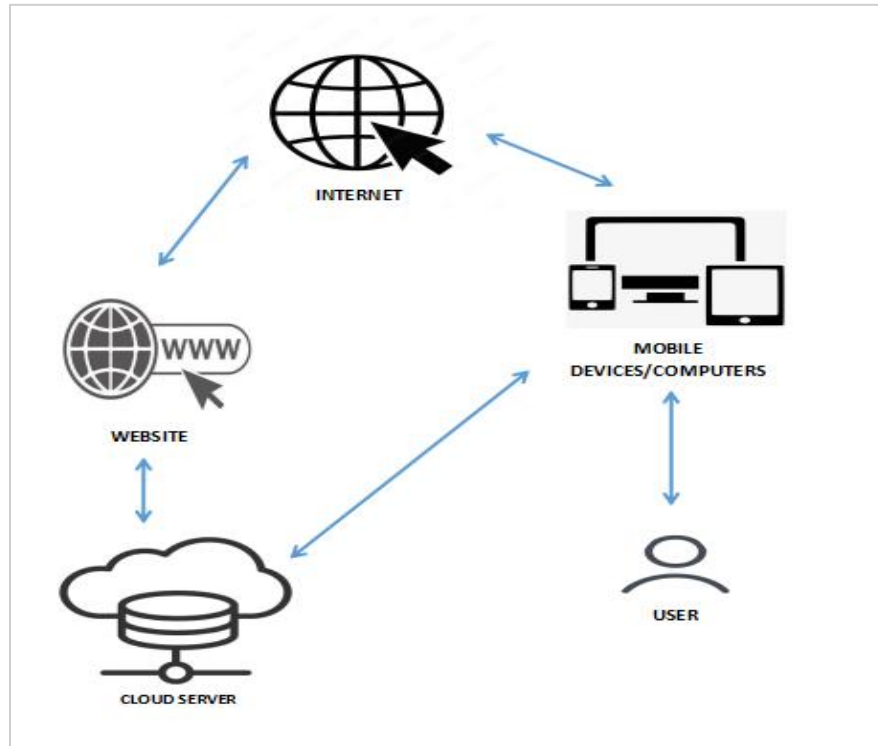


Figure 2. The architectural layout of the Project

## **CHAPTER IV**

### **Methodology**

This chapter covers the Requirement Analysis, Requirement Documentation, Design of the Software, Design of the System, System Processes, Development and Testing, Description of the System, Implementation Plan, and Implementation Results.

#### **Requirements Analysis**

This section presents the Economic Feasibility, Requirements Modelling and the Risk Assessment/Analysis of the project.

#### **System Requirements**

The Clearance Processing System involves faculty, students, and the administrator in order for the system to function. Clearance processing will start with the clearance application made by the faculty and students. Application will be processed online by the faculty and students in which the uploaded documents will be the basis for clearing them. The Administrator is responsible for verifying uploaded documents and clearing the faculty and students from their obligations.

#### **Input**

- The Administrator will register the student and faculty accounts.
- The students, faculty and administrator are required to log in to access the system.
- The Administrator will send message to students and faculty through their Email.
- The faculty and students will apply for clearance processing.
- The faculty will upload the documents required in order to be cleared.
- The students will upload proof of payment in order to be cleared.

## **Process**

- The admin will view, verify and approve/disapprove pending clearance applications.
- If faculty and students are cleared, an email containing a Certificate of Clearance will be sent.
- Once the admin clears a faculty or student, this will be reflected on their respective accounts.
- The faculty and the students are allowed to view the progress status of the clearance.
- The system will save into the database the uploaded proof of payment and documents for admin review.

## **Output**

- Student and Faculty will receive an email with Certificate of Clearance attached once they are cleared.
- They may also download and print the certificate through their Faculty and Students Clearance Processing accounts.

## **Performance**

- The system could generate clearance in fast and reliable process.
- All the data entered by the users will be stored in the system's database.

## **Security and Control**

- To protect data breach, authentication will be required to login the system.
- The system is managed by the administrator.

- The system has a login security, which is a security feature that prevents unauthorized access to sensitive data.
- The system also provides changing of password; changing password on regular basis is required to enhance security by the students and faculty accounts.

## **Data and Process Modeling**

This section presents the Context Diagram and the System Flowchart for the administrator, students and faculty.

### ***Context Diagram***

Figure 3 presents the Context Diagram for the Students and Faculty Clearance Processing System. It has three different user accounts or external entities: The Administrator, Faculty, and Student, in which each has its unique functionality in processing the clearance. The students and faculty both request that their clearance be processed. Then they will upload the required documents for faculty and proof of payment for students. The administrator will then verify if the uploaded documents meet the requirements. If yes, a Certificate of Clearance will be sent to the registered email addresses of faculty and students. This certificate can also be downloaded and printed through the system.

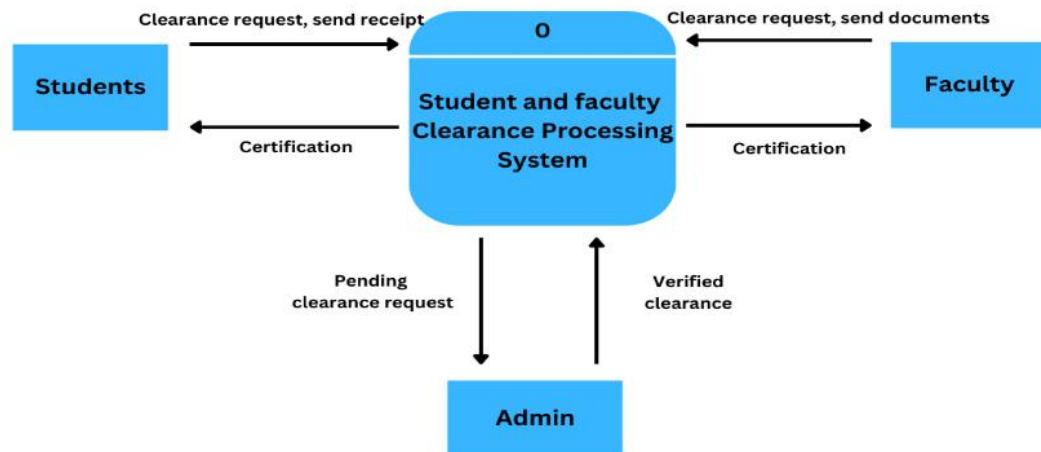


Figure 3. Context Diagram

### *System flow chart*

Figure 4 is the Administrator System Flowchart. The system will check the inputted username and password to see if the user is registered as administrator. Administrator can add accounts or register students and faculty, and the information will be sent to the students' and faculty's emails. The administrator can also view pending clearance, and the admin will verify if the uploaded documents meet the requirements. If not, it will disapprove, and a system-generated email will be sent to the registered email that contains the reason for disapproval. If yes, a Certificate of Clearance will be sent to the registered email addresses of faculty and students. The certificate can also be viewed, downloaded, and printed through their respective accounts.

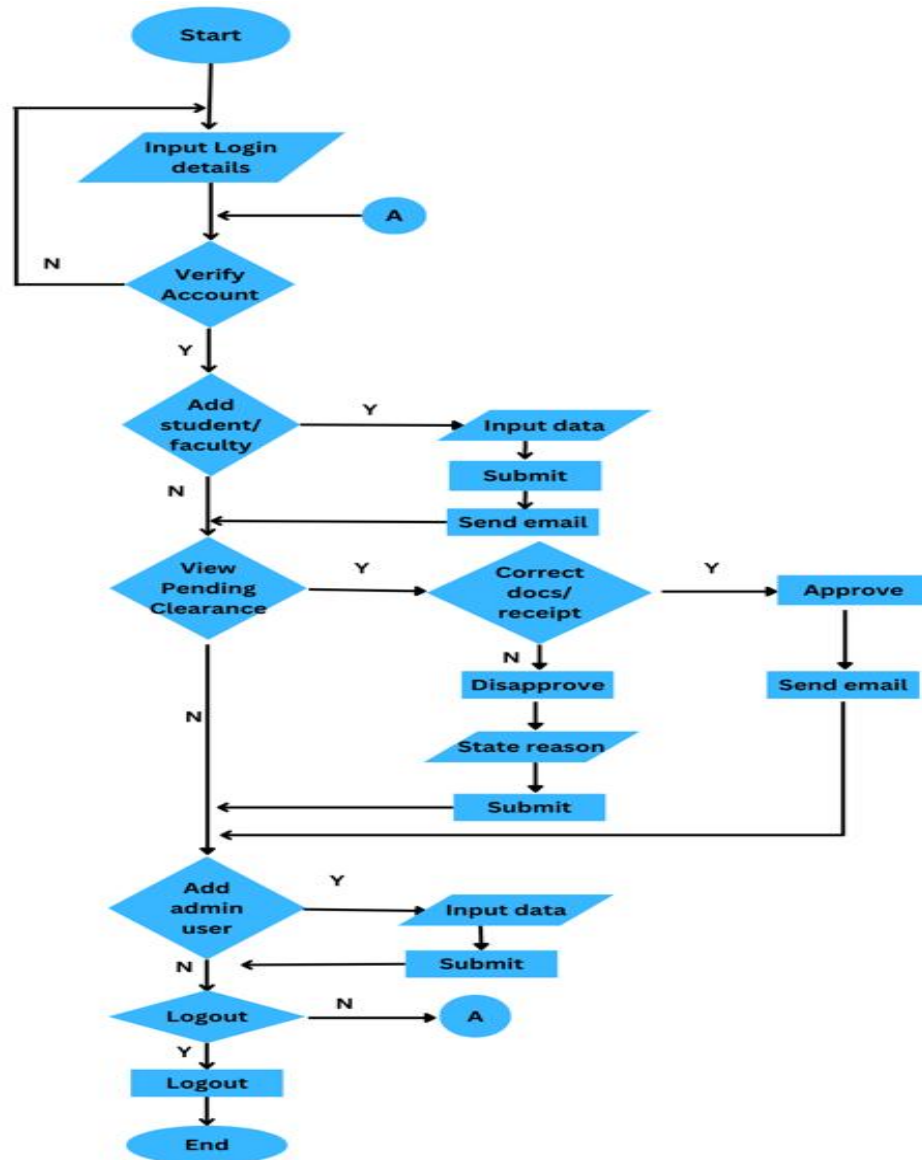


Figure 4. Administrator System Flow Chart

Figure 5 shows the Faculty's and Students' System Flowchart. The system will check the inputted details to see if they are verified or not after the faculty logs in. The faculty can edit the photo and change the password. The faculty can apply for clearance processing, after which the faculty needs to upload the required documents. Once the uploaded documents are verified to be correct by the administrator, the system will send

an email containing the Certificate of Clearance. The certificate can also be viewed through the system using their accounts.

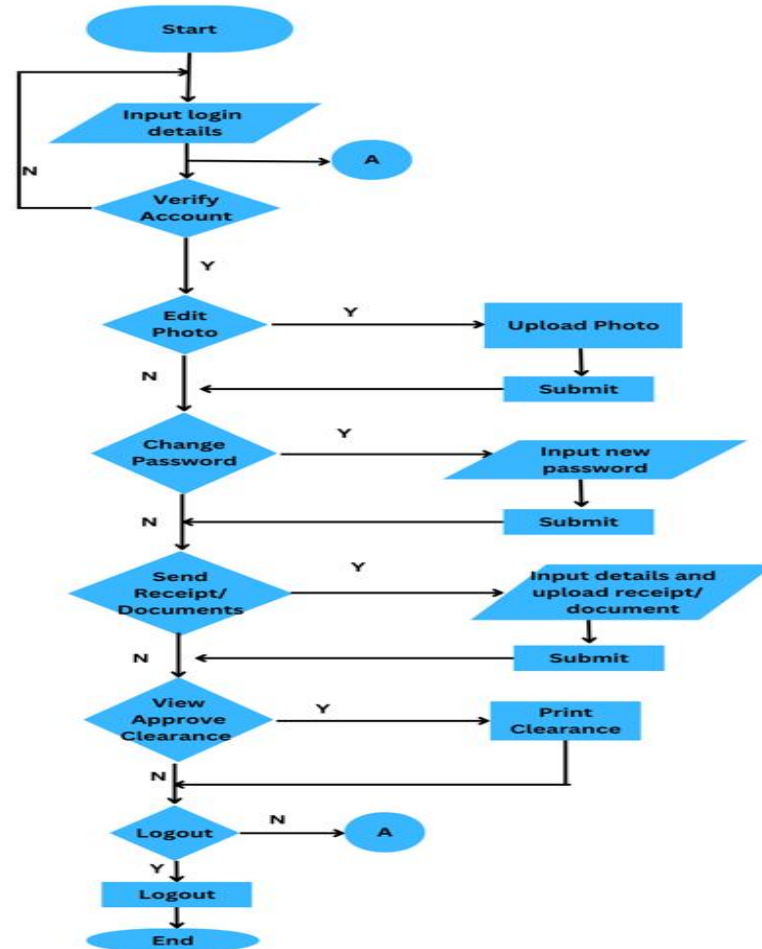


Figure 5. Faculty and Student System Flow Chart

## Object Modeling

A Use Case diagram is graphical representation of a user's potential interactions with a system. The diagram shows various use cases and different types of users the system has.

### *Use case*



Figure 6 shows the Use Case diagram for the Administrator. Using the system, the administrator can login, add or register faculty and student accounts, view records, edit records, view pending clearance, and verify if the uploaded documents and payment receipt meet the requirements. If not, it will disapprove; send an email stating the reason. If yes, a Certificate of Clearance will be sent to the registered email addresses of faculty and students.

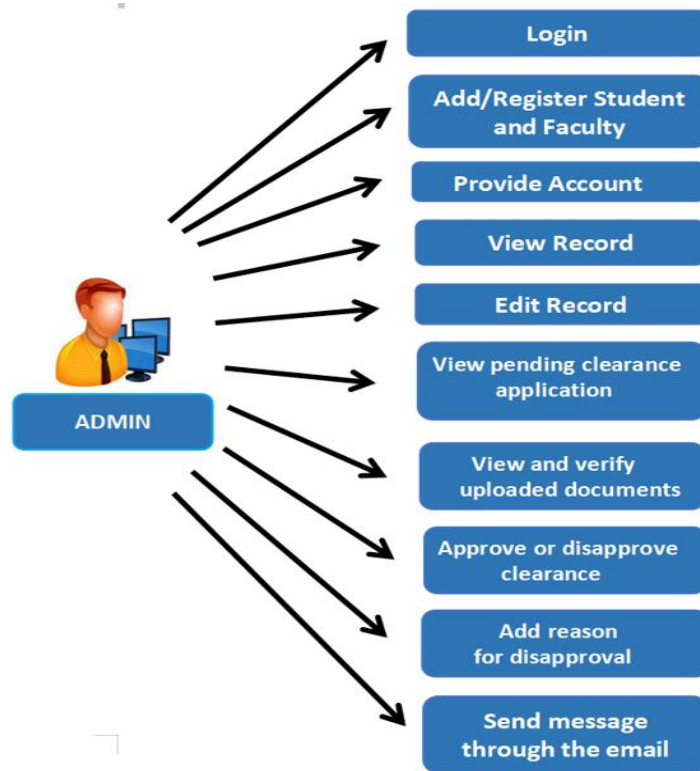


Figure 6 The System Use Case diagram for the Administrator

Presented in the Figure 7 is the Use Case diagram for the faculty and students. Both users can edit their photos and change the password. The student or faculty member will upload payment receipts or other documents as requested by the administrator. They can view pending clearances and approve clearances; if the clearance is completely cleared, they can print it and download it.

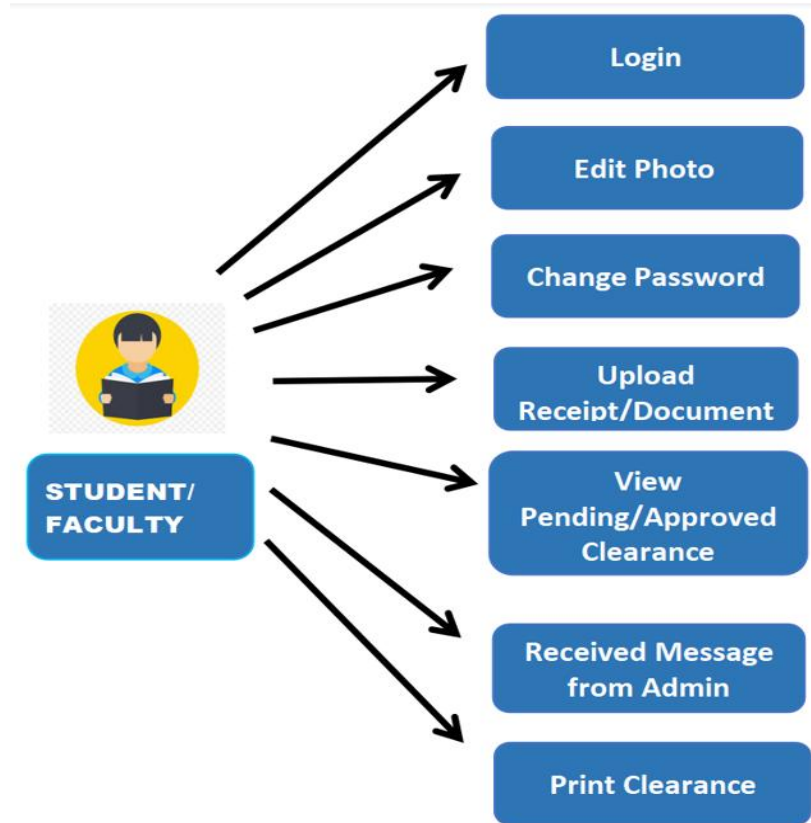


Figure 7. The System Use Case diagram for Faculty and Students

### ***Risk Assessment/Analysis***

The risks, its potential effect, risk grade and recovery measure are presented in this section.

Table 1 identifies and analyzes all of the potential risks and issues that are detrimental to the implementation of Student and Faculty Clearance Processing System. The steps to prevent or minimize the occurrence of the identified risks are also presented.

Table 1. Risk assessment/analysis

<b>Risk Description</b>	<b>Effect</b>	<b>Risk Grading (Low, Medium, High)</b>	<b>Recovery Measure)</b>
Data Privacy	The potential data leak of a user's accounts	High	Increase mechanism to secure the system
Data Breach	Unauthorized user gain access to confidential data b posing as a system user.	High	Authentication should be needed of the administrator and any authorized users.
No internet connection	Inaccessible application/website	Low	Subscribe to a backup ISP

### **Design of the Software**

The design and implementation of the data structures and algorithms utilized in the software are covered in this section. It displays the data design that resulted in the intricate database data model, including the database structure in Figure 8 and the data dictionary in table 2-6.

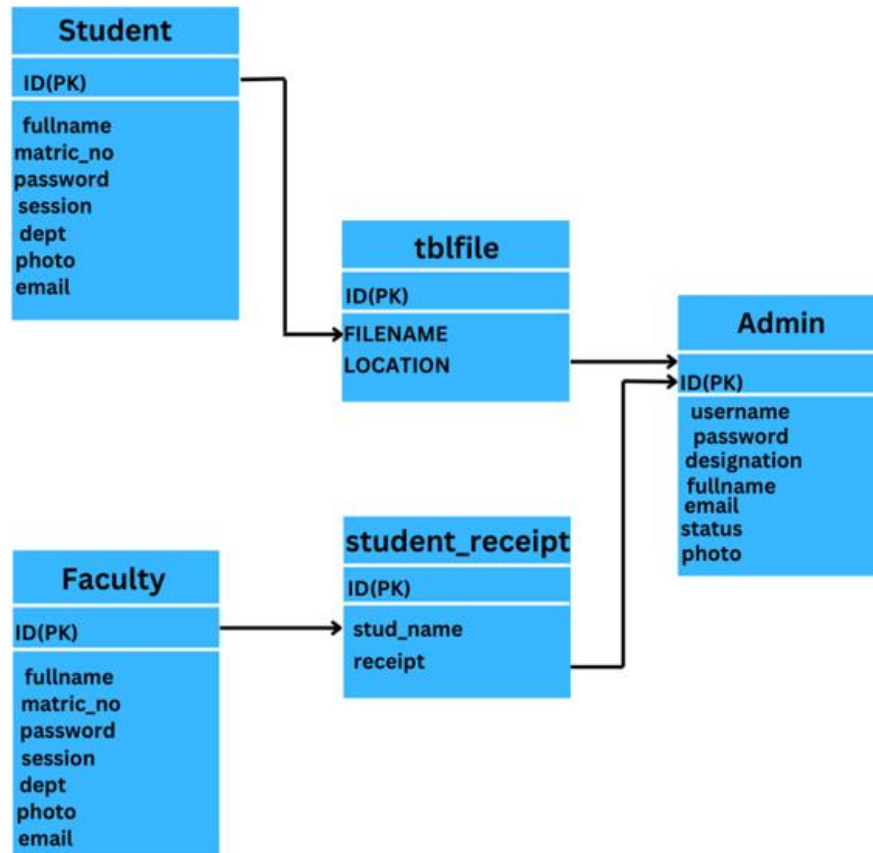


Figure 8. Database Schema of Student and Faculty Clearance Processing System

Table 2 . Data Dictionary – tbl admin

Column	Type	Comment
ID	int(3) Auto_increment	the primary key
username	varchar(15)	Username for the admin, which they will use to access the system
password	varchar(15)	Password for the admin, which they will use to access the system
designation	varchar(25)	Type of administrator
fullname	varchar(30)	Name of the administrator
email	varchar(40)	Contact email of the administrator
status	varchar(10)	Whether active or not
photo	varchar(300)	The image of the administrator

Table 3. Data Dictionary – tbl students

Column	Type	Comment
ID	int(3) Auto_increment	The primary key
fullname	varchar(50)	Name of the students
matric_no	varchar(15)	Students ID number
password	varchar(15)	Password for the students, that will use to access the system
schoolyear	varchar(10)	Year of the signation of clearance
receipt	varchar(90)	Student payment receipt
dept	varchar(44)	Students grade level
email	varchar(50)	Students email
photo	varchar(400)	Students image
fee_is_approved	int(3)	payment

Table 4. Data Dictionary – tbl faculties

Column	Type	Comment
ID	int(3) Auto_increment	The primary key
fullname	varchar(50)	Faculty full name
matric_no	varchar(15)	Faculty ID number
password	varchar(15)	Faculty password, that will use to access the system
School year	varchar(10)	Year of the signation of clearance
dept	varchar(44)	Faculty Grade level advisory
email	varchar(50)	Faculty email address
photo	varchar(400)	Faculty image
documents	varchar(90)	Faculty documents
is_document_approved	int(3)	Faculty documents approved

Table 5. Data Dictionary – tbl student\_receipt

Column	Type	Comment
ID	int(3) Auto_increment	The primary key
stud_name	varchar(30)	Student name
receipt	varchar(90)	Payment receipt (jpg,jpeg,png,gif)

Table 6. Data Dictionary – tbl tblfile

Column	Type	Comment
ID	int(3) Auto_increment	The primary key
FILENAME	varchar(30)	Faculty document's file name
LOCATION	varchar(90)	Faculty document's(docs or pdf)

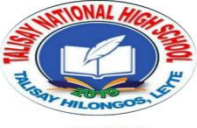
## Design of the System

The developed system is an online web-based system that runs on web platforms using different browsers. Figures 9 to 34 are the screenshot taken from developed system.

## Interface Design

**Login.** Figure 9 to 11 provides the form used to enter login credentials. This authenticates the users of the system.

## Student and Faculty Clearance Processing System



**ADMIN LOGIN**

Sign In

### Vision

*We dream of Filipinos who passionately love their country and whose values and competencies enable them to realized thier full potential and contribute meaningfully to building the nation. As learner-centered public instituion, the department of Education continuously improves itself to better serve its stakeholders.*

### Mission

*To protect and promote the right of every Filipino to equality,equitable,culture-based, and complete basic education where:*

- *Students learn in a child-friendly,gender sensitive,safe,and motivating environment.*
- *Teachers facilitate learning and constantly nurture every learner.*
- *Administrators and staff,as stewards of institution,ensure an enabling and supportive environment for effective learning to happen.*
- *Family,community,and other stakeholders are actively engaged and share responsibility for developing life-long learners*

Figure 9. Admin Login

## STUDENT ONLINE CLEARANCE PROCESSING SYSTEM



**STUDENT LOGIN**

Sign In

### Vision

*We dream of Filipinos who passionately love their country and whose values and competencies enable them to realized thier full potential and contribute meaningfully to building the nation. As learner-centered public instituion, the department of Education continuously improves itself to better serve its stakeholders.*

### Mission

*To protect and promote the right of every Filipino to equality,equitable,culture-based, and complete basic education where:*

- *Students learn in a child-friendly,gender sensitive,safe,and motivating environment.*
- *Teachers facilitate learning and constantly nurture every learner.*
- *Administrators and staff,as stewards of institution,ensure an enabling and supportive environment for effective learning to happen.*
- *Family,community,and other stakeholders are actively engaged and share responsibility for developing life-long learners*

Figure 10. Student Login

## FACULTY ONLINE CLEARANCE PROCESSING SYSTEM



**FACULTY LOGIN**

Sign In

### Vision

*We dream of Filipinos who passionately love their country and whose values and competencies enable them to realized thier full potential and contribute meaningfully to building the nation. As learner-centered public instituion, the department of Education continuously improves itself to better serve its stakeholders.*

### Mission

*To protect and promote the right of every Filipino to equality,equitable,culture-based, and complete basic education where:*

- *Students learn in a child-friendly,gender sensitive,safe,and motivating environment.*
- *Teachers facilitate learning and constantly nurture every learner.*
- *Administrators and staff,as stewards of institution,ensure an enabling and supportive environment for effective learning to happen.*
- *Family,community,and other stakeholders are actively engaged and share responsibility for developing life-long learners*

Figure 11. Faculty Login Form

Figure 12 represents the admin dashboard. It displays the exact date as well as all cleared and pending student and faculty clearances.

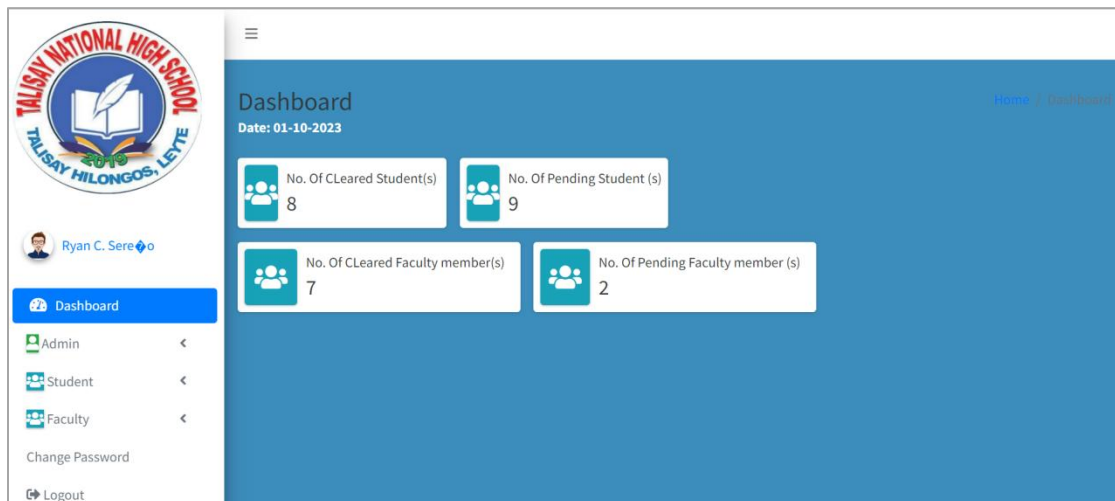


Figure 12. Admin Dashboard

Figure 13 demonstrates the dashboard for students and faculty, which displays their clearance status as well as the status of their printed clearance.

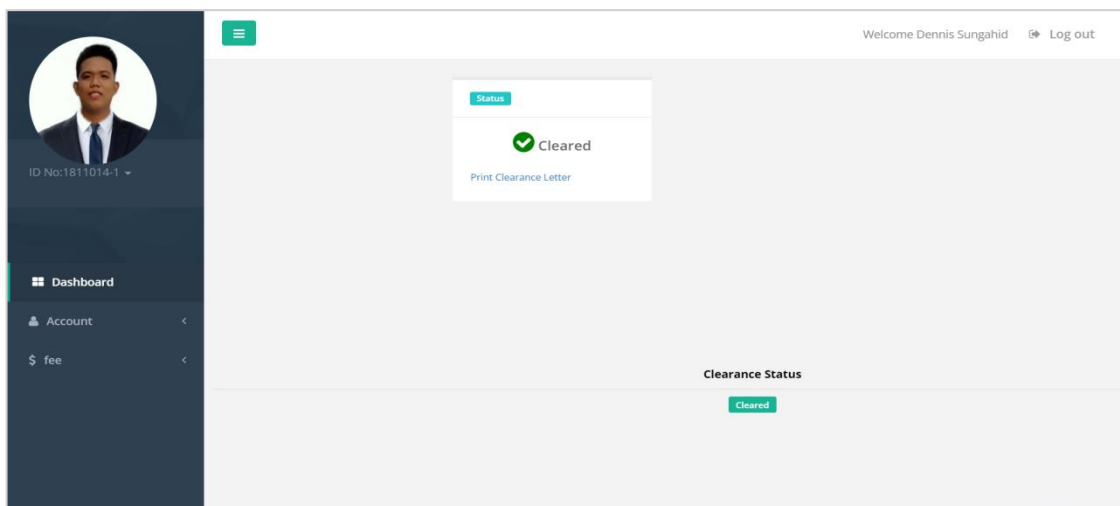


Figure 13. Student/Faculty Dashboard



Figure 14 represents the registration of students and faculty. To register, the administrator will fill out the student and faculty information. The registered account will send messages to the email address they provided.

The screenshot shows a registration form for Talisay National High School. The form includes fields for Name (John Cena), Password, Re-Password, School Year (2022-2023), Grade Level (G7), and Email (adviser@gmail.com). A 'Register' button is at the bottom. A white modal box with a green checkmark and the text 'Success User Added Successfully' is overlaid on the form, with a 'CLOSE' button.

Figure 14. Student/Faculty Registration

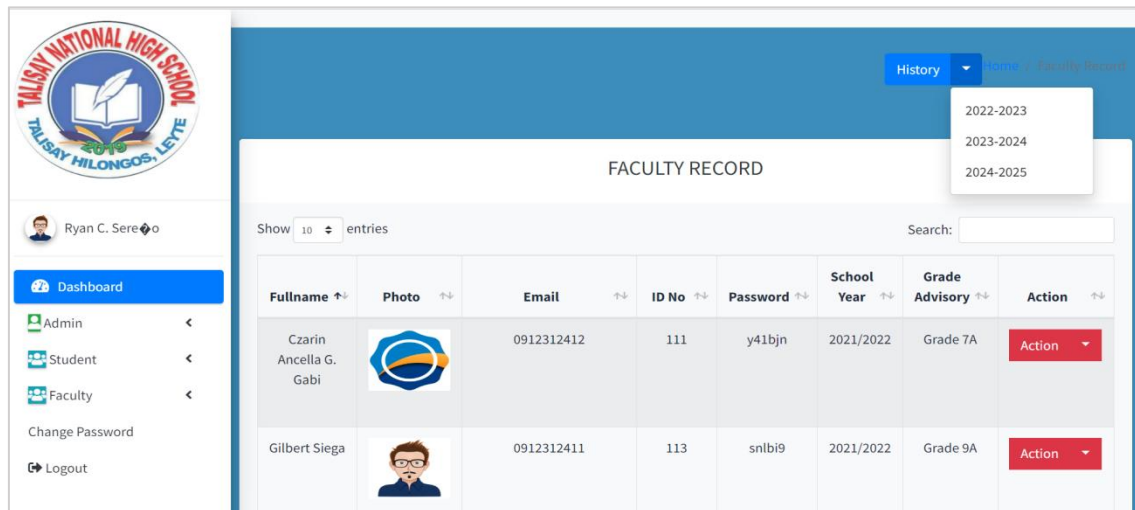
Figure 15 represents the student's information record. It will display all records in the table and have actions to delete or edit records, as well as a record history.

The screenshot shows the 'STUDENT RECORD' page. It features a table with columns: Fullname, Photo, Email, ID No, Password, School Year, Grade Level, and Action. There are two rows of student data. A 'History' dropdown menu is open, showing options for School Year: 2022-2023, 2023-2024, and 2024-2025. The table also includes a search bar and a 'Show 10 entries' indicator.

Fullname	Photo	Email	ID No	Password	School Year	Grade Level	Action
ABC		sasa@gmail.com	12	12345678	2023-2024	G8	Action
Aedrian		sasa@gmail.com	234	12345678	2023-2024	G8	Action

Figure 15. Student Record/Student Information

Figure 16 represents the faculty information record. It will display all records of faculty in the table and have actions to delete or edit records, as well as a record history.





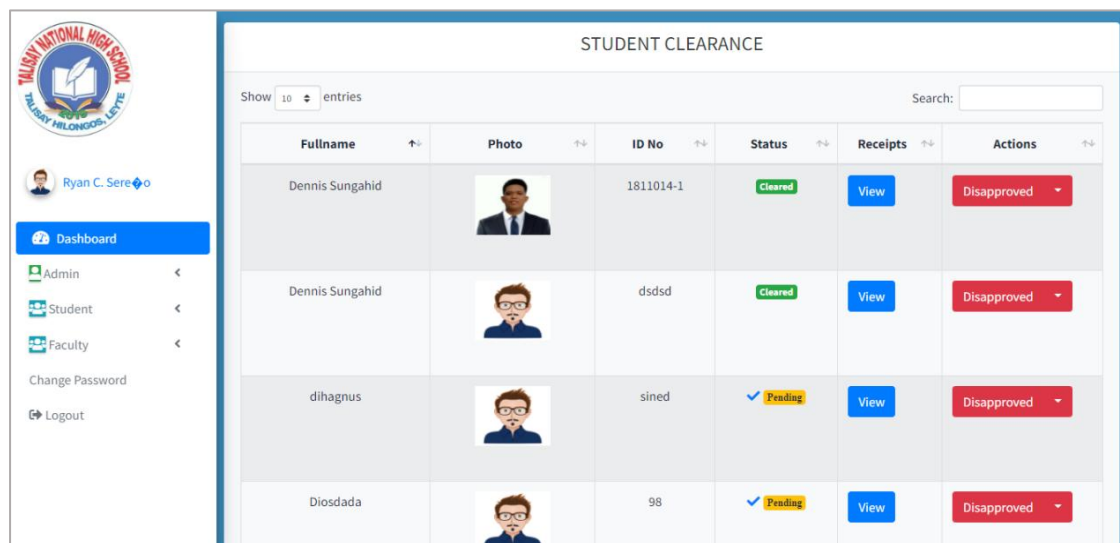
Fullname	Photo	Email	ID No	Password	School Year	Grade Advisory	Action
Czarín Ancella G. Gabi		0912312412	111	y41bjn	2021/2022	Grade 7A	Action
Gilbert Siega		0912312411	113	snlbi9	2021/2022	Grade 9A	Action

Figure 16. Faculty Record/Faculty Information

Figure 17 represents the student clearance process. The student clearance request will be displayed. By reviewing their upload receipts, the administrator will determine whether they are approved or rejected.







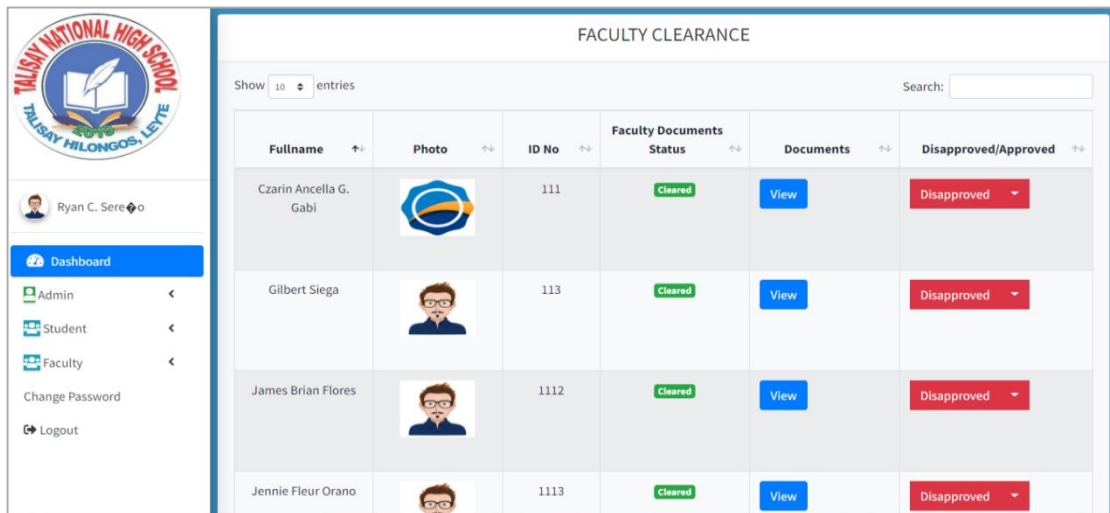
Fullname	Photo	ID No	Status	Receipts	Actions
Dennis Sungahid		1811014-1	Cleared	<a href="#">View</a>	Disapproved
Dennis Sungahid		dsdsd	Cleared	<a href="#">View</a>	Disapproved
dihnagnus		sined	Pending	<a href="#">View</a>	Disapproved
Diosdada		98	Pending	<a href="#">View</a>	Disapproved

Figure 17. Student Clearance Process

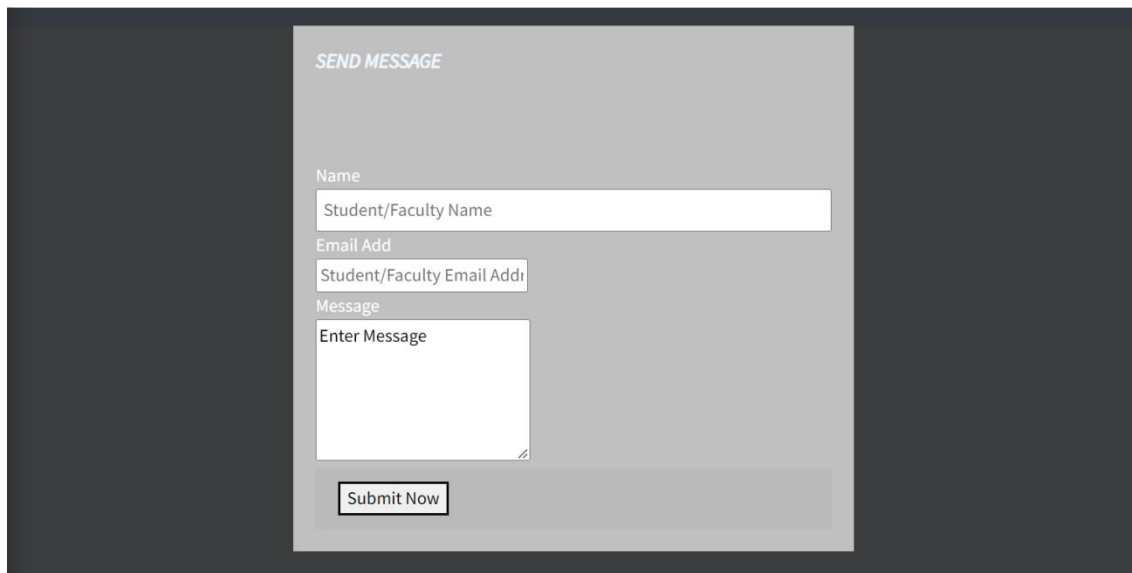
Figure 18 represents the faculty clearance process. The faculty clearance request will be displayed. By reviewing their upload documents, the administrator will determine whether they are approved or rejected.



Fullname	Photo	ID No	Faculty Documents Status	Documents	Disapproved/Approved
Czarín Ancella G. Gabi		111	Cleared	<a href="#">View</a>	Disapproved
Gilbert Siega		113	Cleared	<a href="#">View</a>	Disapproved
James Brian Flores		1112	Cleared	<a href="#">View</a>	Disapproved
Jennie Fleur Orano		1113	Cleared	<a href="#">View</a>	Disapproved

Figure 18. Faculty Clearance Process

Figure 19 represents the message form for denying a clearance request. The message or information will be sent to the student's or faculty's email address.



**SEND MESSAGE**

Name  
Student/Faculty Name

Email Add  
Student/Faculty Email Add

Message  
Enter Message

[Submit Now](#)

Figure 19. Message form for disapproving request clearances

Figure 20 represents a student or faculty member editing a picture. Both students and faculty members can edit their pictures at any time.

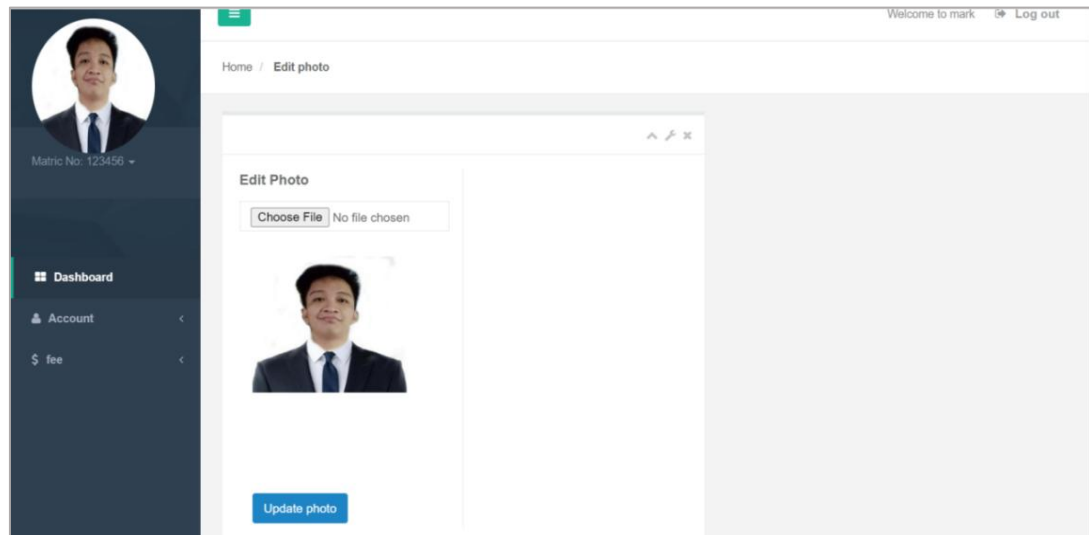


Figure 20. Student/Faculty Editing Photo

Figure 21 represents the password change. It provides a form for students and faculty to change their passwords in the system, which they can do at any time.

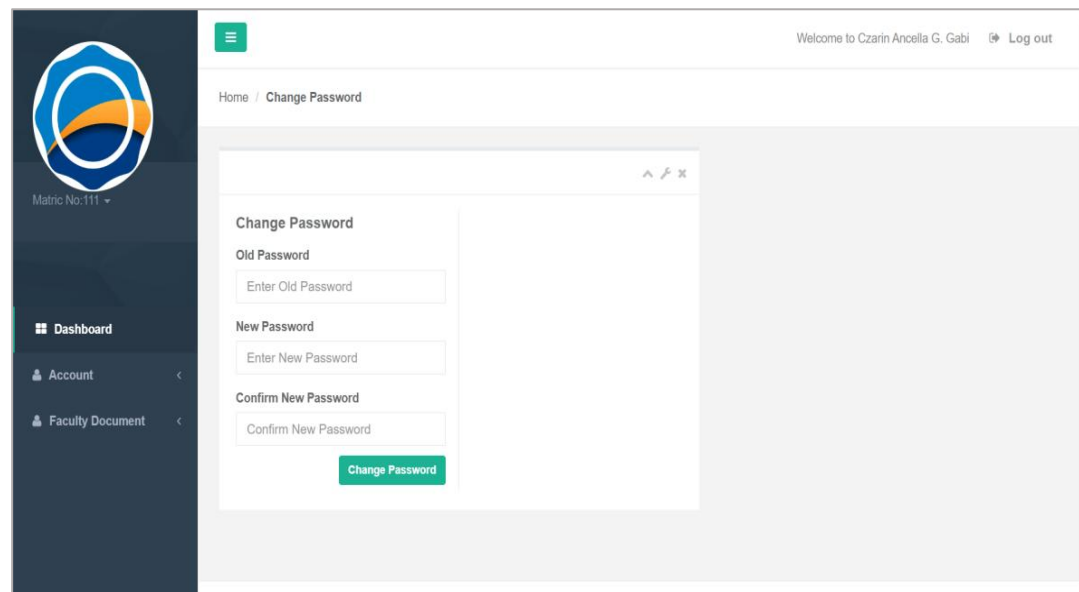
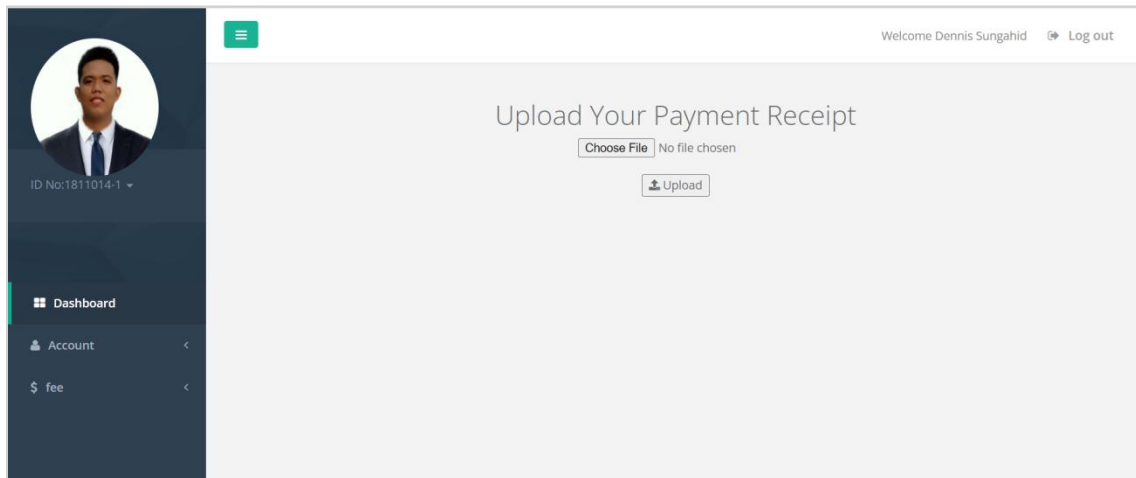


Figure 21. Student/Faculty Change Password

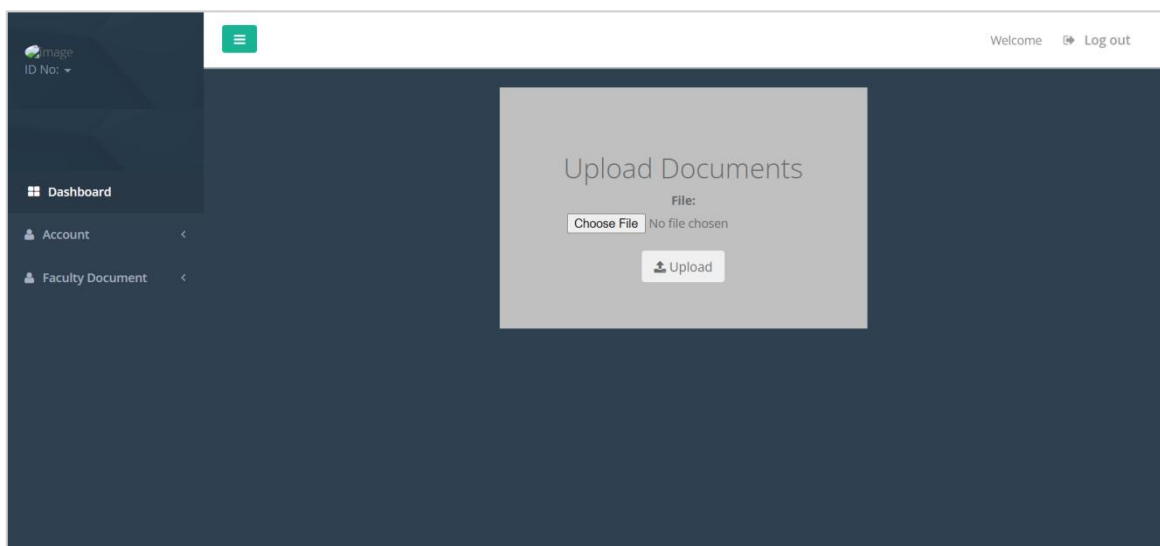
Figure 22 represents a payment receipt sent by a student. It provides a form where students can upload their payment receipts to the administrator.



The screenshot shows a web application interface for a student. On the left is a dark sidebar with a circular profile picture of a man, the text 'ID No:1811014-1', and a menu with 'Dashboard', 'Account', and '\$ fee'. The main content area has a light gray background. At the top right, it says 'Welcome Dennis Sungahid' and 'Log out'. The central heading is 'Upload Your Payment Receipt'. Below it is a file upload section with a 'Choose File' button, the text 'No file chosen', and an 'Upload' button.

Figure 22. Student Sending Payment Receipt

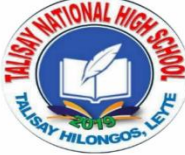
Figure 23 represents the faculty member sending the document. It provides a form where students can upload their required documents to the administrator.




The screenshot shows a web application interface for a faculty member. The left sidebar is dark and contains a profile picture placeholder, 'ID No:', a menu with 'Dashboard', 'Account', and 'Faculty Document', and a green hamburger menu icon. The main content area has a dark blue background. At the top right, it says 'Welcome' and 'Log out'. A light gray box in the center contains the heading 'Upload Documents', the label 'File:', a 'Choose File' button, the text 'No file chosen', and an 'Upload' button.

Figure 23. Faculty sending Documents

Figure 24 represents the student and faculty complete printed clearance. It will show all information indicating that he or she has already cleared the clearance.



## TALISAY NATIONAL HIGH SCHOOL



Hilongos, Leyte

This is to certify that Dennis Sungahid, have been completely cleared his/her Clearance.

Student's Details remains:

**FULLNAME:** Dennis Sungahid

**ID NUMBER:** 1811014-1

**GRADE LEVEL:** G7

**School Year:** 2022-2023

SIGNED

Head\_Teacher

[Print this page](#)

Figure 24. Student/Faculty Complete Printed Clearance

## System Process

Figure 25 presents the research flow of the study following the Input-Process-Output (IPO) model. It summarizes all the essential activities undertaken to achieve the desired output of the project. This will help the input systems that how information and materials enter the process from the outside. The processing stage consists of the actions necessary to change the system inputs. The information and materials produced by the transformation process are the system outputs.

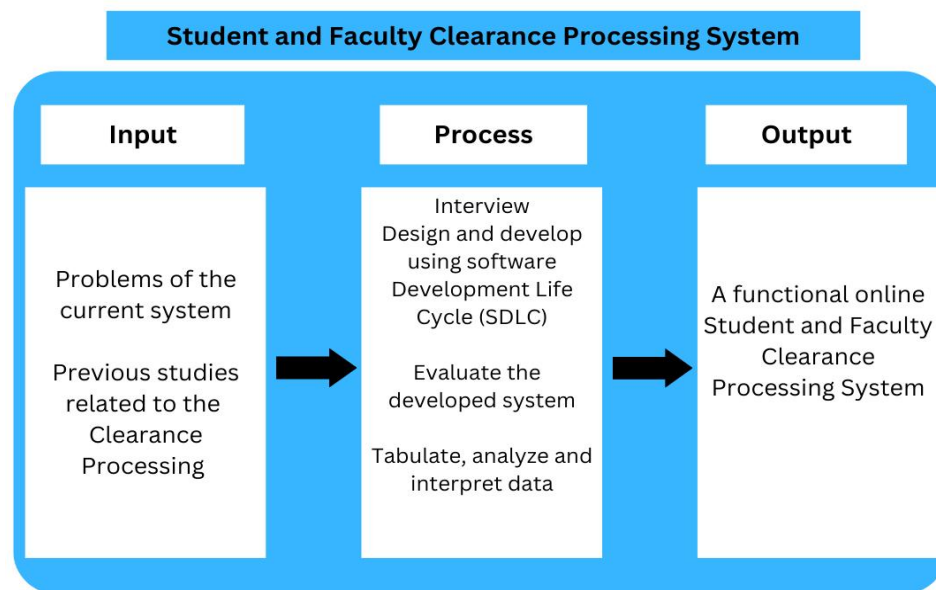


Figure 25. The IPO System Process

## Development and Testing

### *Software Development*

The system development process is anchored to the System Development Life Cycle (SLDC). The first phase process is researching and analysis, where the researcher spent time to gather data about the said system, the researcher also studied the nature of

the developed system. An interview and an onsite visit were conducted to ensure that the real scenario would be incorporated into the developed system. Consultation with the target client was also done to make the system more realistic and address their needs more effectively.

### **Hardware Specification**

Table 7 presents the minimum hardware specifications in developing and using the Students and Faculty Clearance Processing System.

Table 7. Hardware specification

<b>Hardware</b>	<b>Description/Specification</b>
Personal Computer <ul style="list-style-type: none"> <li>• The Intel Core i3-7020U</li> <li>• 2GB RAM installed</li> </ul>	Performs tasks in the development of our system such as coding, system tasking, database management, and system access.
Cellphone <ul style="list-style-type: none"> <li>• Android</li> </ul>	It is a handheld device that will allow people to communicate andE connect wireless.

### **Software Specification**

Table 8 shows the software specification for the development of Students and Faculty Clearance Processing System.



Table 8. Software Specification

Software	Description
Xampp	It is a platform that provides a suitable environment for testing and verifying the functionality of projects based on Apache, Perl, MySQL, and PHP using the host's system.
Visual Studio Code	In the development of the system, Developer used Microsoft Visual Studio Code to encode the source code of the system throughout development so that data and information could be acquired accurately and quickly.
Browser	A browser is a software that allows you to view and interact with all of the information on the World Wide Web.

## Testing

After development, testing of the developed Students and Faculty Clearance Processing System was done. Unit testing was conducted to ensure that the system functions as designed. Compatibility testing was also done to ensure that the web-based system can run using different browsers such as Google Chrome in a windows-based computer. The system was not tested to run in other operating systems.

System testing was also conducted with the target client as evaluators. The members of the Panel Evaluation Committee also evaluated the project. Feedback during testing was utilized to help enhance the developed system. The instrument used in the evaluation was adapted from the ISO 25010 to access the system's functionality, efficiency, usability, maintenance, reliability, portability, security and compability.

## **Description of the System**

The developed system creates a user-friendly design for all types of users. The front end of the system utilizes PHP and other frameworks for web programming like JavaScript Bootstrap, and also uses the apache for the other method of frameworks. The developed system is web-responsive and data-driven powered by MySQL for database functionality. In coding the project, VS code editor and phpmyadmin were used for developing our databases. The Student and Faculty Clearance Processing system also produce phpmailer for sending the message through online.

The developed system facilitates easier and more convenient way of clearing the students and faculty obligations to the school. This eliminates the long queue and wasted time. Certificate of Clearance are readily available in the system or through the registered email once the administrator has verified and approved the submitted documents.

## **Implementation Plan**

Figure 26 presents the implementation plan of the project. This covers from the planning phase to deployment and evaluation of the project

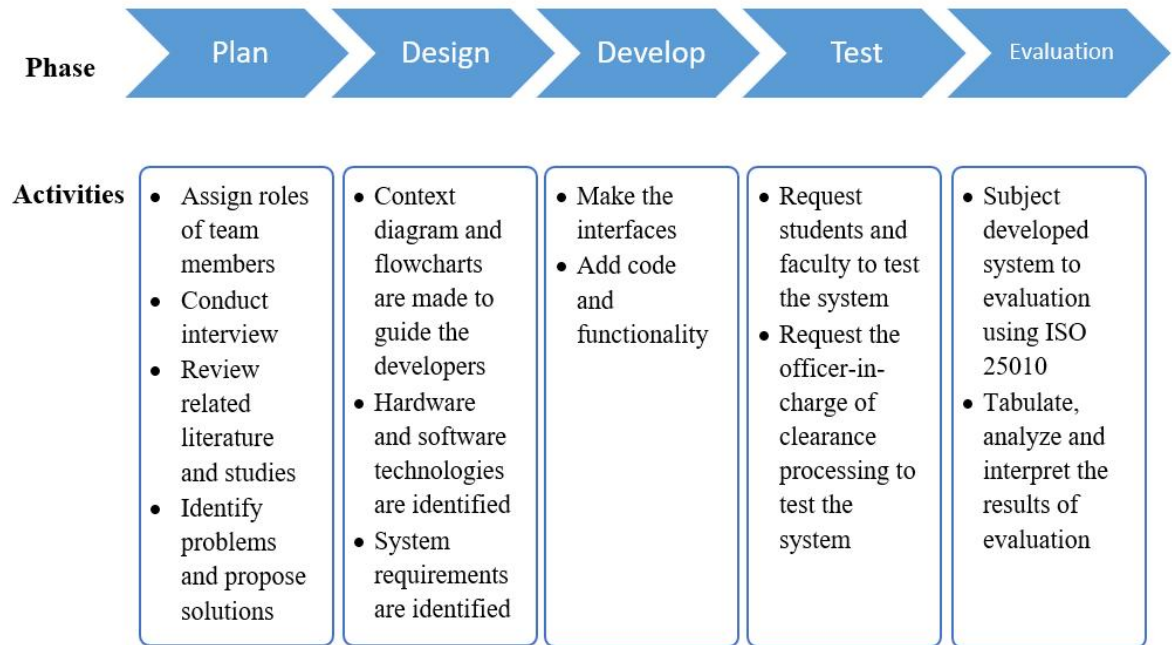


Figure 26. Implementation Plan

### Implementation Results

Table 9 is the result of the evaluation using the ISO 25010. Frequency, mean and modal interpretation are used in the treatment of data using the corresponding Likert Scale provided.

**Functionality Indicator**

Limits of Scale	Qualitative Description
4.21-5.00	Fully Functional
3.21-4.20	Mostly Functional
2.61-3.20	Functional
1.81-2.60	Slightly Functional
1.0-1.8	Not Functional

**Efficiency Indicator**

Limits of Scale	Qualitative Description
4.21-5.00	Very Efficient
3.21-4.20	Mostly Efficient
2.61-3.20	Efficient
1.81-2.60	Almost Efficient
1.0-1.8	Not Efficient

**Usability Indicator**

Limits of Scale	Qualitative Description
4.21-5.00	Very Usable
3.21-4.20	Mostly Usable
2.61-3.20	Usable
1.81-2.60	Almost Usable
1.0-1.8	Not Usable

**Maintainability Indicator**

Limits of Scale	Qualitative Description
4.21-5.00	Strongly Agree
3.21-4.20	Mostly Agree
2.61-3.20	Agree
1.81-2.60	Slightly Agree
1.0-1.8	Strongly Agree

**Reliability Indicator**

Limits of Scale	Qualitative Description
4.21-5.00	Very Reliable
3.21-4.20	Mostly Reliable
2.61-3.20	Reliable
1.81-2.60	Almost Reliable
1.0-1.8	Not Reliable

**Portability Indicator**

Limits of Scale	Qualitative Description
4.21-5.00	Strongly Agree
3.21-4.20	Mostly Agree
2.61-3.20	Agree
1.81-2.60	Slightly Agree
1.0-1.8	Strongly Agree

**Security Indicator**

Limits of Scale	Qualitative Description
4.21-5.00	Very Secure
3.21-4.20	Mostly Secure
2.61-3.20	Secure
1.81-2.60	Almost Secure
1.0-1.8	Not Secure

**Compatibility Indicator**

Limits of Scale	Qualitative Description
4.21-5.00	Very Compatible
3.21-4.20	Mostly Compatible
2.61-3.20	Compatible
1.81-2.60	Almost Compatible
1.0-1.8	Not Compatible

Table 9. User Evaluation of Development of a Document Management

Criteria	5	4	3	2	1	Mean	Interpretation
<b>Functionality</b>						<b>3.13</b>	<b>Functional</b>
The system performs the tasks required.	0	1	3	0	0	3.25	Mostly Functional
The result is as expected.	0	1	2	1	0	3	Functional
The system interacts with another system.	0	1	2	1	0	3	Functional

The system prevents unauthorized access.	0	2	1	1	0	3.25	Mostly Functional
<b>Reliability</b>						<b>3</b>	<b>Reliable</b>
Most of the faults in the system have been eliminated over time.	0	0	4	0	0	3	Reliable
The system is capable of handling errors.	0	0	3	1	0	2.75	Reliable
The system notifies the user about wrong data entry.	0	1	3	0	0	3.25	Mostly Reliable
The software resumes working and restores lost data after a failure.	0	0	4	0	0	3	Reliable
<b>Usability</b>						<b>3.06</b>	<b>Usable</b>
The user comprehends how to use the system easily.	0	1	3	0	0	3.25	Mostly Usable
The user learns to use the system easily.	0	1	3	0	0	32.5	Mostly Usable
The user utilizes the system without much effort.	0	1	2	1	0	3	Usable
The system's interface looks good.	0	0	3	1	0	2.75	Usable
<b>Efficiency</b>						<b>2.91</b>	<b>Efficient</b>
The system responds quickly to the user.	0	1	3	0	0	3	Efficient
The system's execution time is appropriate.	0	1	3	0	0	3	Efficient
The software utilizes resources efficiently.	0	0	3	1	0	2.75	Efficient
<b>Maintainability</b>						<b>3.25</b>	<b>Mostly Agree</b>
The system faults can be easily diagnosed.	0	1	2	1	0	3	Mostly Agree
The system continues functioning when changes are made.	0	2	2	0	0	3.5	Mostly Agree

The software can be tested easily.	0	4	1	1	0	3.25	Mostly Agree
<b>Portability</b>						<b>3.33</b>	<b>Mostly Agree</b>
The system can be moved to other environments.	0	2	1	1	0	3.25	Mostly Agree
The software can be installed easily. <i>(For administrator)</i>	0	2	2	0	0	3.5	Mostly Agree
The software can replace easily other software. <i>(For administrator)</i>		1	3	0	0	3.25	Mostly Agree
<b>Security</b>						<b>3.19</b>	<b>Secure</b>
The software ensures confidentiality of data	0	1	2	1	0	3	Secure
The software prevents unauthorized access and modification to computer programs and/or data	0	1	3	0	0	3.25	Mostly Secure
The software requires authentication of users	0	2	1	1	0	3.25	Mostly Secure
A system log is maintained.	0	1	3	0	0	3.25	Mostly Secure
<b>Compatibility</b>						<b>3.25</b>	<b>Mostly Compatible</b>
The software performs its required functions efficiently while sharing a common environment and resources without negatively impacting any other product/s.	0	1	3	0	0	3.25	Mostly Compatible
The software allows two or more systems, products, or components to exchange and use the information.	0	1	3	0	0	3.25	Mostly Compatible
<b>GRAND MEAN</b>						3.13	

The results shown in Table 9 demonstrate that the developed student and faculty clearance processing system is functional due to the mean of 3.13 for all functionality-related criteria. The result indicates that the system works according to its intended and expected functionality. Based on a reliability mean of 3, the result suggests the system is reliable, as it operates correctly within the specified time frame. The system received a mean score of 3.06 for usability, a quality feature that evaluates how the user interacts with and uses the environment's interface, indicating that it is usable. The system's total efficiency mean of 2.91 indicates that it is efficient. It is quick to respond to user input and completes tasks on time. According to the maintainability criteria, which has a mean of 3.25 and is classified as "Mostly Agree," the system operates easily and quickly. It continues working even when adjustments are made. The system performs well in various circumstances, as indicated by its mean portability score across all parameters of 3.25, which suggests that it is mostly agreeable. With a mean score of 3.19 across all criteria, it is secure in terms of security, implying that the system protects against unauthorized system access and ensures the confidentiality of user data. Finally, in compatibility, the system performs its functions effectively while sharing a shared environment, allowing two or more system components to communicate and use information. It has a 3.25 average across all sub-criteria, indicating it is mostly compatible. The overall average mean of all eight characteristics is 3.13, indicating that the system has met the requirement for eight feature requirements and has been evaluated and, as a result, recommended for implementation.

## **Chapter V**

### **Recommendations**

Discuss recommendations. Based on the outcomes of system implementation and assessment, the following suggestions and recommendations are made.

1. The website's viewing and search capabilities should be available to the general public.
2. The school clerk will be the administrator of the system, which will handle the clearance processes for students and faculty. The school clerk is the designated system administrator and has access to all system privileges.
3. The system must be safeguard sensitive data, protect confidential details and increase the security of interaction between the end users.
4. The student clearance approval process will begin at the time of the fee's signing. Once the student receipts have been checked, the students are now cleared for the clearance for that school year.
5. The faculty clearance approval will begin at the document signing; once the faculty documents have been checked, the faculty are now cleared for the clearance for that school year.



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## Appendices

### APPENDIX A

#### Relevant Source Code

##### Database Connection

```
<?php
```

```
$servername = "localhost";  
$username = "root";  
$password = "";  
$dbname = "student_clearance";
```

```
$conn = mysqli_connect($servername, $username, $password, $dbname);
```

```
if (!$conn) {  
    die("Connection failed: " . mysqli_connect_error());  
}  
?>
```

```
<?php
```

```
define('DB_HOST','localhost');  
define('DB_USER','root');  
define('DB_PASS','');  
define('DB_NAME','student_clearance');
```

```
try  
{  
    $dbh = new PDO("mysql:host=".DB_HOST.";dbname=".DB_NAME,DB_USER,  
    DB_PASS,array(PDO::MYSQL_ATTR_INIT_COMMAND => "SET NAMES 'utf8'"));  
}  
catch (PDOException $e)  
{  
    exit("Error: " . $e->getMessage());  
}  
?>
```

## Add

```
if(isset($_POST['submit']))
{

    $fullname = mysqli_real_escape_string($conn,$_POST['txtfullname']);
    $matric_no = mysqli_real_escape_string($conn,$_POST['txtmatric_no']);
    $email = mysqli_real_escape_string($conn,$_POST['txtemail']);
    $session = mysqli_real_escape_string($conn,$_POST['cmdsession']);
    $faculty = mysqli_real_escape_string($conn,$_POST['cmdfaculty']);
    $dept = mysqli_real_escape_string($conn,$_POST['cmddept']);
    $email = mysqli_real_escape_string($conn,$_POST['txtemail']);
    $password = mysqli_real_escape_string($conn,$_POST['txtpassword']);
    $password2 = mysqli_real_escape_string($conn,$_POST['txtpassword2']);

    $sql = "SELECT * FROM students where matric_no='";
    $result = mysqli_query($conn, $sql);
    if (mysqli_num_rows($result) > 0) {
        $_SESSION['error'] = ' Matric No already Exist ';
    }elseif($password!=$password2){
        $_SESSION['error'] = 'Both Passwords Do not match';

    }elseif(strlen($password) < 8){
        $_SESSION['error'] = 'Password must be at least 8 characters';
    }else{
        $query = "INSERT into `students`
(fullname,matric_no,password,session,faculty,dept,email,photo)
VALUES
('$fullname','$matric_no','$password','$session','$faculty','$dept','$email','uploads/avatar_
nick.png')";
        $result = mysqli_query($conn,$query);
        if($result){
            $_SESSION['email']=$email;
            $_SESSION['password']=$password;

            $_SESSION['success'] = 'User Added Successfully';

        }else{
            $_SESSION['error'] = 'Problem Adding User';

        }
    }
}
```

### **Edit**

```
if(isset($_POST["btnedit"]))
{

    $fullname = mysqli_real_escape_string($conn,$_POST['txtfullname']);
    $email = mysqli_real_escape_string($conn,$_POST['txtemail']);
    $session = mysqli_real_escape_string($conn,$_POST['cmdsession']);
    $dept = mysqli_real_escape_string($conn,$_POST['cmddept']);

    $sql = " update students set fullname='$fullname',email='$email',
    session='$session',dept='$dept' where ID='$id'";
    if (mysqli_query($conn, $sql)) {

        header("Location: student-record.php");
    } else {
        $_SESSION['error']='Editing Was Not Successful';

    }

}
```

### **Delete**

```
<?php
error_reporting(0);
include('../connect2.php');

$id= $_GET['id'];
$sql = "DELETE FROM students WHERE ID=?";
$stmt= $dbh->prepare($sql);
$stmt->execute([$id]);

header("Location: student-record.php");
?>
```

## APPENDIX B

### Evaluation Instrument

#### System Evaluation (ISO 25010)

**Instructions:** Please evaluate the “Development of a Document Management System” using the scale shown below. Check (/) the appropriate score. Thank You.

Dennis Sungahid

Project Leader

Czarina Ancella G. Gabi PhD

Adviser

---

#### Functionality Indicator

Limits of Scale	Qualitative Description
4.21-5.00	Fully Functional
3.21-4.20	Mostly Functional
2.61-3.20	Functional
1.81-2.60	Slightly Functional
1.0-1.8	Not Functional

#### Efficiency Indicator

Limits of Scale	Qualitative Description
4.21-5.00	Very Efficient
3.21-4.20	Mostly Efficient
2.61-3.20	Efficient
1.81-2.60	Almost Efficient
1.0-1.8	Not Efficient

#### Usability Indicator

Limits of Scale	Qualitative Description
4.21-5.00	Very Usable
3.21-4.20	Mostly Usable
2.61-3.20	Usable
1.81-2.60	Almost Usable
1.0-1.8	Not Usable

#### Maintainability Indicator

Limits of Scale	Qualitative Description
4.21-5.00	Strongly Agree
3.21-4.20	Mostly Agree
2.61-3.20	Agree
1.81-2.60	Slightly Agree
1.0-1.8	Strongly Agree

#### Reliability Indicator

Limits of Scale	Qualitative Description
4.21-5.00	Very Reliable
3.21-4.20	Mostly Reliable
2.61-3.20	Reliable
1.81-2.60	Almost Reliable
1.0-1.8	Not Reliable

#### Portability Indicator

Limits of Scale	Qualitative Description
4.21-5.00	Strongly Agree
3.21-4.20	Mostly Agree
2.61-3.20	Agree
1.81-2.60	Slightly Agree
1.0-1.8	Strongly Agree

#### Security Indicator

Limits of Scale	Qualitative Description
4.21-5.00	Very Secure
3.21-4.20	Mostly Secure
2.61-3.20	Secure
1.81-2.60	Almost Secure
1.0-1.8	Not Secure

#### Compatibility Indicator

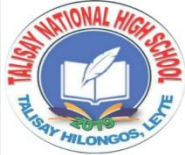
Limits of Scale	Qualitative Description
4.21-5.00	Very Compatible
3.21-4.20	Mostly Compatible
2.61-3.20	Compatible
1.81-2.60	Almost Compatible
1.0-1.8	Not Compatible


Criteria		Score				
<i>Characteristic</i>	<i>Sub Characteristic</i>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1. Functionality	The system performs the tasks required.					
	The result is as expected.					
	The system interacts with another system.					
	The system prevents unauthorized access.					
2. Reliability	Most of the faults in the system have been eliminated over time.					
	The system is capable of handling errors.					
	The system notifies the user about wrong data entry.					
	The software resumes working and restores lost data after a failure.					
3. Usability	The user comprehends how to use the system easily.					
	The user learns to use the system easily.					
	The user utilizes the system without much effort.					
	The system's interface looks good.					
4. Efficiency	The system responds quickly to the user.					
	The system's execution time is appropriate.					
	The software utilizes resources efficiently.					
5. Maintainability	The system faults can be easily diagnosed.					
	The system continues functioning when changes are made.					
	The software can be tested easily.					
6. Portability	The system can be moved to other environments.					
	The software can be installed easily. <i>(for administrator)</i>					
	The software can replace easily other software. <i>(for administrator)</i>					
7. Security	The software ensures confidentiality of data					
	The software prevents unauthorized access and modification to computer programs and/or data					
	The software requires authentication of users					
	A system log is maintained.					
8. Compatibility	The software performs its required functions efficiently while sharing a common environment and resources without negatively impacting any other product/s.					
	The software allows two or more systems, products, or components to exchange and use the information.					



## APPENDIX C

### Sample Input




Ryan C. Sere

- Dashboard
- Admin
- Student
- Faculty
- Change Password
- Logout

**Fullname**

**Password**

**Re-Password**


**School Year**


**Grade Level**

**Email**




Register


### Sample Output





Ryan C. Sere




- Dashboard
- Admin
- Student
- Faculty
- Change Password
- Logout

Show 10 entries Search:							
Fullname	Photo	Email	ID No	Password	School Year	Grade Level	Action
ABC		sasa@gmail.com	12	12345678	2023-2024	G8	Action
Aedrian		sasa@gmail.com	234	12345678	2023-2024	G8	Action
bogart		gello@gmail.com	09213	jehanutog	2022-2023	G10	Action



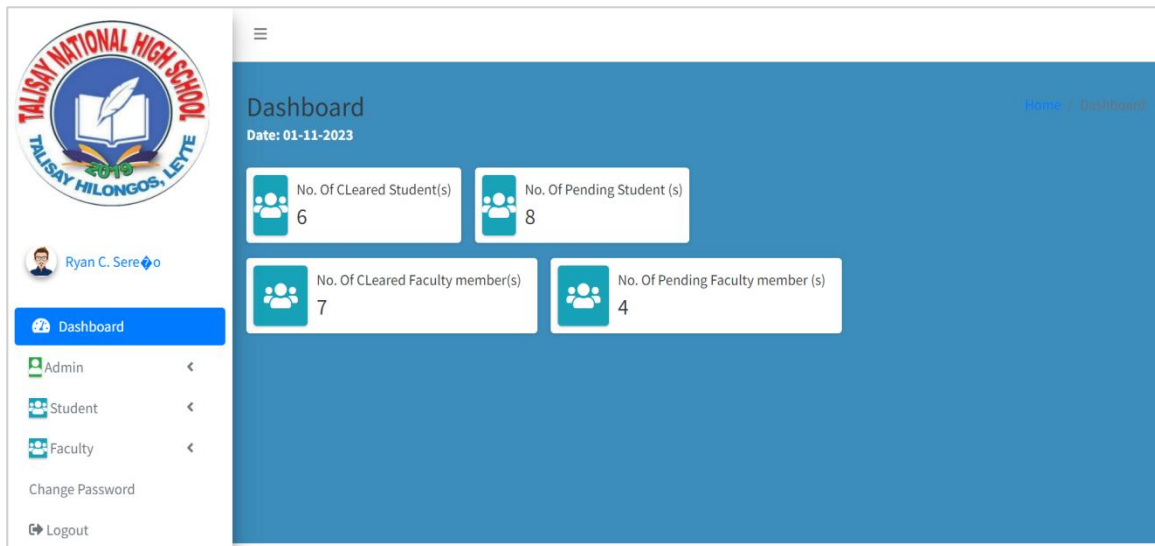

Ryan C. Sere

- Dashboard
- Admin
- Student
- Faculty
- Change Password
- Logout

Show 10 entries Search:					
Fullname	Photo	ID No	Status	Receipts	Actions
ABC		12	Cleared	<a href="#">View</a>	Disapproved
Dennis Sungahid		1811014-1	Cleared	<a href="#">View</a>	Disapproved
Dennis Sungahid		1811014-1	Pending	<a href="#">View</a>	Disapproved

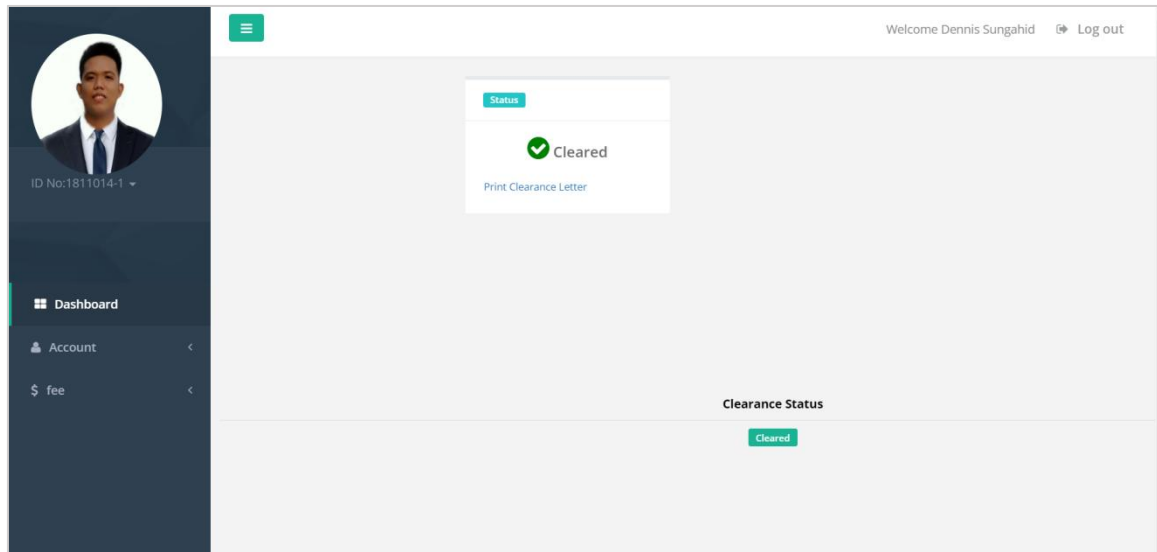
## User Guide

### Admin Dashboard



- The administrator will register student and faculty information accounts.
- Send Information account to student and faculty through their email.
- Click faculty record in sidebar to view and edit or delete the student and faculty information.
- Click View button to view the payment receipts or documents.
- Send Information account to student and faculty through email.
- Check requirements for clearing the clearances

## Student and Faculty User



- Student and Faculty can Edit or update their photo
- They can Change their password anytime
- View pending and approved clearance
- Upload payment receipts and documents
- Can print completed clearance

## Appendix D

### Documentation



## APPENDIX E

### Curriculum Vitae

SEREÑO RYAN COSTILLAS  
Brgy. Calumpang, Matalom Leyte  
Cell Number: 09120972562  
Email address: [serenoryan9@gmail.com](mailto:serenoryan9@gmail.com)



#### PERSONAL INFORMATION:

---

NICKNAME	: Ry
BIRTHDAY	: August 30, 2000
BIRTHPLACE	: Matalom Leyte
AGE	: 22
NATIONALITY	: Filipino
RELEGION	: Roman Catholic
CIVIL STATUS	: Single
FATHER'S NAME	: Julio K. Sereño
MOTHER'S NAME	: Norma C. Sereño

#### EDUCATIONAL BACKGROUND

---

<b>TERTIARY:</b>	Southern Leyte State University Bachelor of Science in Information Technology Major in Programming Sogod Southern Leyte 2018-2022
<b>SECONDARY</b>	Libhu National High School Libhu, Maasin City Southern Leyte 2017-2018
<b>PRIMARY</b>	Calumpang Elementary School Calumpang, Matalom Leyte 2011-2012

## Curriculum Vitae

SUNGAHID DENNIS PUNAY  
Brgy. Talisay Hilongos, Leyte  
Cell Number: 09518211687  
Email address: [dennissungahid11@gmail.com](mailto:dennissungahid11@gmail.com)



### PERSONAL INFORMATION:

---

NICKNAME	: Den
BIRTHDAY	: May 11, 2000
BIRTHPLACE	: Hilongos, Leyte
AGE	: 22
NATIONALITY	: Filipino
RELEGION	: Roman Catholic
CIVIL STATUS	: Single
FATHER'S NAME	: Nestor C. Sungahid
MOTHER'S NAME	: Diosdada P. Sungahid

### EDUCATIONAL BACKGROUND

---

<b>TERTIARY:</b>	Southern Leyte State University Bachelor of Science in Information Technology Major in Programming Sogod Southern Leyte 2018-2022
<b>SECONDARY</b>	Hilongos National Vocational School R.V Fulache St. Hilongos Leyte 2017-2018
<b>PRIMARY</b>	Talisay Elementary School Talisay Hilongos, Leyte 2011-2012

## Curriculum Vitae

COQUILLA JEHAN GERCAN  
Brgy. Pinamudlan, San Francisco Southern Leyte  
Cell Number: 09709948513  
Email address: [coquillajehan@gmail.com](mailto:coquillajehan@gmail.com)



### **PERSONAL INFORMATION:**

---

NICKNAME	: Han
BIRTHDAY	: October 10 1999
BIRTHPLACE	: Pinamdulan, San Francisco Southern Leyte
AGE	: 22
NATIONALITY	: Filipino
RELEGION	: Roman Catholic
CIVIL STATUS	: Single
FATHER'S NAME	: Danilo P. Coquilla
MOTHER'S NAME	: Juvy Coquilla

### **EDUCATIONAL BACKGROUND**

---

<b>TERTIARY:</b>	Southern Leyte State University Bachelor of Science in Information Technology Major in Programming Sogod Southern Leyte 2018-2022
<b>SECONDARY</b>	Marayag National High School Marayag, San Francisco Southern Leyte 2017-2018
<b>PRIMARY</b>	Pinamudlan Elementary School Pinamudlan, San Francisco Southern Leyte 2011-2012

## Curriculum Vitae

HILONGO JE ANN  
Malitbog Southern Leyte  
Cell Number: 09164823965  
Email address: [jeannhilongo@gmail.com](mailto:jeannhilongo@gmail.com)



### **PERSONAL INFORMATION:**

---

NICKNAME	: Je
BIRTHDAY	: May 3, 1996
BIRTHPLACE	: Malitbog Southern Leyte
AGE	: 26
NATIONALITY	: Filipino
RELEGION	: Born Again Christian
CIVIL STATUS	: Single
FATHER'S NAME	: Samuel Suacillo
MOTHER'S NAME	: Jocelyn Hilongo

### **EDUCATIONAL BACKGROUND**

---

<b>TERTIARY:</b>	Southern Leyte State University Bachelor of Science in Information Technology Major in Programming Sogod Southern Leyte 2018-2022
<b>SECONDARY</b>	Northern Mindanao College Inc. 2017-2018
<b>PRIMARY</b>	Alfonso Dagani Elementary School Mabini, Cabadbaran City 2008-2009



## Curriculum Vitae

IBAÑEZ SARAH  
Libagon Southern Leyte  
Cell Number: 09152650088  
Email address: [ibanezsarah175@gmail.com](mailto:ibanezsarah175@gmail.com)



### **PERSONAL INFORMATION:**

---

NICKNAME	: Sar
BIRTHDAY	: October 22, 1998
BIRTHPLACE	: Libagon Southern Leyte
AGE	: 23
NATIONALITY	: Filipino
RELEGION	: Roman Catholic
CIVIL STATUS	: Single
FATHER'S NAME	: Joveniano Ibañez
MOTHER'S NAME	: Hepolita Ibañez

### **EDUCATIONAL BACKGROUND**

---

<b>TERTIARY:</b>	Southern Leyte State University Bachelor of Science in Information Technology Major in Programming Sogod Southern Leyte 2018-2022
<b>SECONDARY</b>	Rito Monte De Ramos Sr. Memorial Nahaong National High School 2017-2018
<b>PRIMARY</b>	Tigbao Elementary School Tigbao Libagon Southern Leyte 2010- 2011

## Curriculum Vitae

RABE MARK LOUI CABRERA  
Talisay, Hilongos Leyte  
Cell Number: 09363960402  
Email address: [akocmak2x@gmail.com](mailto:akocmak2x@gmail.com)



### **PERSONAL INFORMATION:**

---

NICKNAME	: Mak-Mak
BIRTHDAY	: March 14, 1999
BIRTHPLACE	: Hilongos Leyte
AGE	: 23
NATIONALITY	: Filipino
RELEGION	: Roman Catholic
CIVIL STATUS	: Single
FATHER'S NAME	: Florencio Rabe
MOTHER'S NAME	: Luz Rabe

### **EDUCATIONAL BACKGROUND**

---

<b>TERTIARY:</b>	Southern Leyte State University Bachelor of Science in Information Technology Major in Programming Sogod Southern Leyte 2018-2022
<b>SECONDARY</b>	Hilongos National Vocational School R.V Fulache St. Hilongos Leyte 2017-2018
<b>PRIMARY</b>	Talisay Elementary School Talisay Hilongos Leyte 2011- 2012