

Capstone and Thesis Project Directory for UST CICS (Version 2)

A Capstone Project
Presented to the
Department of Information Technology
College of Information and Computing Sciences
University of Santo Tomas

in Partial Fulfillment
of the Requirements for the degree in
Bachelor of Science in Information Technology
Specialization in Web and Mobile App Development

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July 2024

ABSTRACT

The University of Santo Tomas College of Information and Computing Sciences (UST CICS) faced challenges in managing and accessing past capstone projects and thesis papers after transitioning from Blackboard to Canvas, making many academic works inaccessible. To address this, the proponents developed a web-based platform to centralize the storage, management, and sharing of capstone projects and thesis papers across the college's three departments: Information Technology (IT), Information Systems (IS), and Computer Science (CS). The system enables students to upload their capstone projects, while faculty and administrators can easily view, manage, and access project files through an organized interface.

The system implements user authentication via UST Gmail, ensuring that only verified users can access the platform, with role-based access control applied to give students, faculty, and administrators different levels of access. Students can browse, search, and submit their projects, while faculty can review and comment on submissions, with an advanced search feature allowing users to find projects by department, specialization, year, and keywords. The platform reduces redundancy in proposals by enabling students to compare their topics with existing projects through a content preview system.

This version of the “Capstone Project Directory System” expands its functionality to include the IT, IS, and CS departments and provides a centralized repository for capstone project information. By streamlining project management and enhancing accessibility, the system improves collaboration and ensures the preservation of valuable academic materials.

ACKNOWLEDGEMENT

The Proponents of this project would like to express their sincerest gratitude to the following:

First and foremost, to sir Edwin de Guzman, our technical adviser, for offering helpful guidance, support, insightful suggestions, and valuable expertise throughout the whole process of the system's development until its completion.

To our designated Panel Members, for delivering detailed suggestions and insightful feedback on our system, which greatly contributed to enhancing the project.

To our Capstone Coordinator, Ms. Ronina Tayuan, for her invaluable advice and guidance throughout the process of developing the system, ensuring that we stayed on track and achieved our goals successfully.

To the students and various members of the faculty that participated in testing the system and offered their feedback, suggestions, and constructive criticism for our project. We thank you for spending the time and effort in testing the system.

To our family and friends, for their constant support and encouragement that motivates us to succeed.

Lastly, we extend our heartfelt gratitude to our Creator for granting us wisdom, guidance, and support throughout this project. He guided our path during challenging times, strengthened us in the face of setbacks, and sustained us through every trial

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Chapter 1: Introduction

Project Context

UST CICS (University of Santo Tomas College of Information and Computing Sciences) was formally established in 2014 after being part of the Faculty of Engineering. The college's students developed numerous valuable capstone projects across its three departments each year. However, due to a recent change in the college's Learning Management System, many previously developed projects became difficult to locate, lost, or left behind in the old system. This situation significantly hampered the ability to find references and save the projects developed in the past.

The capstone project or thesis was an academic research project given to students in the final year of their education. According to the Commission on Higher Education (2015), it was one of the main prerequisites for finishing a university degree. Capstone projects and thesis papers were essential because they helped students develop their abilities and gave them a chance to demonstrate their expertise in their field of study.

At the time, some capstone projects with hardbound copies were stored in the faculty room, while soft copies of abstracts were stored in the IT Community Blackboard course site. However, due to the transition from Blackboard to Canvas, many previous capstone projects became inaccessible and could no longer be used for new proposals and referencing.

To address this issue, the proponents proposed a dedicated system for each department chair within the College of Information and Computing Sciences. This system allowed students to easily submit their capstone project files and ensured that these files were readily accessible

by administrators, the department chairperson, the students, and the faculty. By centralizing the submission and storage process, the system streamlined project management, enhanced accessibility, and preserved valuable academic work for future reference and use.

The proposed project was version 2 of the “Capstone Project Directory System for UST IT Department.” In this version, the proponents aimed to apply the recommendations from the previous project and expand the system, which stored the project information from the IT, IS, and CS departments. This centralized repository provided a mechanism for accessing capstone project information and content, reducing the time and effort required by faculty members and students who needed to refer to past capstone projects.

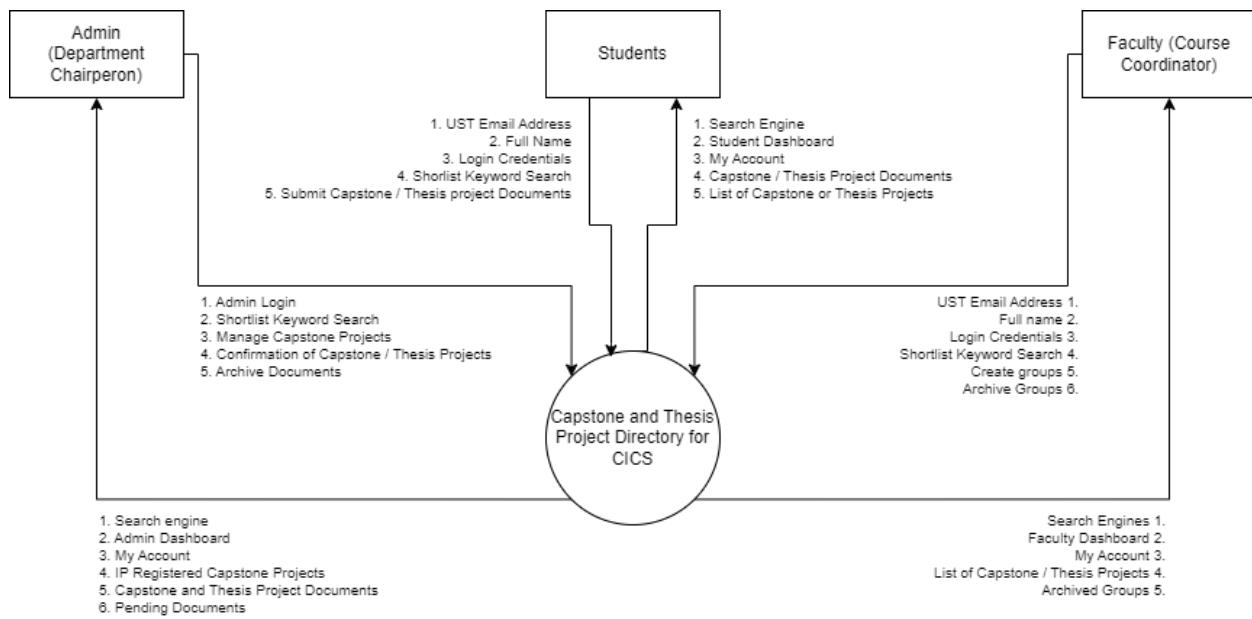


Figure 1.1: Project Context Diagram

The target users of the system are the students and professors of the University of Santo Tomas, College of Information and Computing Sciences, Department of Information Technology, Information Systems, and Computer Science. The three main actors in the system are the admin, faculty, and student accounts. Each account will have its own dashboard depending on their access control, in which different account type has different sets of access and functions that each user type can do. The admin role is to be given to the chairperson of each of the departments of the college, who will have the administrator account, which can help them manage the submitted capstone projects as well as the ability to change the access control of faculties.

Students will be required to register to the system with their University of Santo Tomas email accounts which have their own domain (ust.edu.ph). Students can select a capstone project title and preview the contents of that selected capstone or thesis project, contents such as the ACM paper document. Admin accounts can select a project title and access the full documents of the projects. Faculty accounts can select a project title and view some project documents, such as the ACM, conference paper, and full documents. All user type has the ability to search and browse through the capstone projects and will also have the ability to use the advanced searching capabilities of the system as well as search by department, track specialization, year published, and by keywords. To avoid redundancy in capstone or thesis proposals, the ACM will be the basis of the new students who will create proposals. The student will manually open the ACM of the IP-registered capstone or thesis project and compare similar topics from previous years.

Student accounts can upload their capstone project details and documents through the submit final requirement tab in which post final defense requirements are submitted. The admin needs to log in to the admin account to have the ability to manage the capstone projects on the website and approve the submitted documents for it to be stored within the system using the admin dashboard. All types of users will also have the options to change the password of their account through the “My Account” page.

Purpose and Description

The purpose of this project was to create a web-based application that served as a platform for efficiently managing and organizing capstone projects created by students of UST CICS. The project aimed to streamline the storage, retrieval, and sharing of academic papers using tags, labels, the academic year of submission, and categories based on specialization. The platform allowed students to upload files such as ACM files, full capstone projects, and thesis papers to the website. These files could then be viewed by other students and faculty.

This project benefited the students and faculty of UST CICS, including the three departments: Information Technology (IT), Information Systems (IS), and Computer Science (CS). Students were able to easily share their work with their peers. New capstone students could efficiently search for existing projects to serve as inspiration and to avoid duplication, while faculty members, such as panelists, could conveniently view and comment on the projects created by the students.

Objectives

General Objective

Developed a second version of a web-based platform that managed, organized, and facilitated the sharing of capstone projects and thesis papers for UST CICS students and faculty.

Specific Objectives

1. Stored and organized capstone projects and thesis papers with a dedicated repository and implemented Role-Based Access Control (RBAC) to manage access based on user roles.
2. Provided a repository for accessing capstone and thesis projects across IT, IS, and CS departments, fostering idea exchange among students and enabling faculty feedback and support.
3. Built significant search features with filters, autocomplete, and suggestions, including tags, labels, and categorization by specialization and academic year.
4. Implemented document version control, two-factor authentication, and regular updates to encryption methods to ensure document integrity and security.
5. Designed a flexible system architecture, developed analytics tools for tracking usage and submissions, and implemented batch file uploads along with features for providing feedback and comments on incomplete submissions.

Scope and Limitations

Scope of Version 1

1. There will be three log-in accounts: Admin, Faculty, and Students.
 - 1.a. Registration of accounts will be available for the Faculty and the Students.
 - 1.b. The administrator account will be created and will be handed to the IT Chairperson automatically
2. The system will provide a list of IP registered capstone projects where the faculty can view the conference paper, approval form, and the AVP, while the students can only view the conference paper.
3. The system will provide a page for students which will allow them to submit their final project along with the final requirements, and wait for the approval of the administrator.
4. There will also be a pending capstone project page where the administrator will accept or decline the submitted final project of the students. Once accepted, the final project should be together with the final requirements such as the ACM and the full document which should be in PDF format, the source code which must be in ZIP file format, and the AVP which should be in MP4 file format. This will be listed in the IP registered capstone projects and an IP registration number will also be assigned to the project
5. The system will also provide a page for the best capstone projects which is managed by the administrator
6. The system will provide a group collaboration page in which faculty and students can join and share the link of their final document.

7. A create collaboration group will be available for the faculty in which they can accept members. Only the faculty who created the group will be allowed to manage members.
8. The administrator account will have the ability to add, edit, and delete in the lists of IP registered capstone projects.
9. For the past capstone projects with IP registration numbers, the administrator will manually input the registration numbers.
10. A dashboard will be available for the administrator, faculty, and the students which will help them to navigate into different pages.
11. The system will allow sorting past of capstone projects which will be done based on the IP registration number, project title, specialization, year published, and technical adviser.
12. Redundancies for the past capstone projects will be avoided by using the IP registry number. If the IP Registry number for the past capstone project was already in the system, the system will not accept the project.
13. The system will provide a my account page where all the users can see information about their account and change their password.
14. The system will secure the database using hashing function while the accounts will be secured by using the UST G-suite email.
15. The search function will be limited to searching by using IP registration number, title, specialization, year published, technical adviser, and keywords.

Scope of Version 2

1. The system stored and organized approved capstone proposals for referencing, capstone projects from the IT and IS Departments, and thesis papers from the CS Department in a dedicated repository, with Role-Based Access Control (RBAC) to manage access based on user roles, including Admin, Faculty, and Students.
2. The platform featured a responsive and user-friendly interface with visual aids for improved navigation. It enabled document sharing among students for reference, provided a page for showcasing the best capstone projects and thesis papers, and included a group collaboration page for project discussions and feedback, where faculty could create and manage groups.
3. Advanced search capabilities were developed to shortlist results based on keywords, with filters for project status, type, owner, and more. It initially supported strict searches based on the ACM document submitted. Additional features included autocomplete, searching through the contents of documents, and suggestion functionalities, along with tags, labels, and categorization by specialization and academic year for easier document retrieval. Document version control was implemented to track changes.
4. The system integrated two-factor authentication and regular updates to encryption methods for enhanced security, secured the database using hashing functions, and protected accounts with UST G-suite email credentials. A "My Account" page allowed users to manage their account information.
5. Designed with a scalable architecture for future growth, the system included analytics tools for tracking usage, submissions, and activity logs. It provided

batch file upload features, implemented a form for entering required documents in plain text and storing entries in a database, allowed uploading of post-defense requirements, and generated PDFs functionalities. Additionally, text and content analysis features were incorporated for checking submissions, all of which were accessible through a comprehensive dashboard for administrators, faculty, and students.

Limitation of Version 1

1. The Administrator is the only one who will approve the submitted final projects by the students and will be able to add, edit, and delete in the past capstone projects.
2. The students can only view details such as specialization, author/s, year published, technical adviser, and the conference paper of a project.
3. The chairperson of the Information Technology Department will be the only one who will have access to the administrator account.
4. The system will require students to register themselves using their UST G-Suite account in order to view the system.
5. For the ACM and Full Document of the Capstone Project, only the PDF file type will be accepted by the system.
6. The students will only be able to attach the link of their document for panel reviewing.
7. The system will not have a file viewer in which the faculty members can comment or edit.

8. Full documents and source codes cannot be viewed inside the system by faculty members and students.
9. The assigning of panels by the IT subject coordinator will be outside the system. The panels will have to join manually in the collaboration group for them to access the groups in which they are a panel.

Limitation of Version 2

1. Capstone 1 requirements were manually submitted to the chairpersons of each department and were not submittable in the system.
2. Chairpersons for the Information Technology, Information Systems, and Computer Science departments were the only ones granted access to the administrative account for their respective departments.
3. Students could only view details such as the academic year of submission, track specialization, author/s, technical adviser, ACM, or conference paper of a project.
4. Students were required to register in the system using their UST G-suite accounts.
5. For the submission of ACM and full documentation files, the system only accepted basic copied and pasted text from the files being submitted.
6. The system did not include a file viewer for faculty members to comment on or edit submissions.
7. Administrators were the only ones responsible for approving submitted final projects.
8. IT, IS, and CS CP1 subject coordinators assigned panels outside the system. The panels were required to manually join the collaboration groups to access the groups where they served as panelists.

9. Faculty members and students could not view full documents or source codes within the system.
10. Students wishing to obtain a PDF format of project documents needed approval from the administrators outside the system.
11. Subject coordinators assigned panels outside the system, and the panels manually joined collaboration groups to access their assigned groups.

Chapter 2: Review of Related Literatures, Studies and Systems

A capstone project was a requirement for graduating students in the UST Information Technology and Information Systems programs, while a thesis paper was required for the Computer Science Department. It was essential for every student in each department as it provided a culminating experience that involved creativity, strategic thinking, and advanced problem-solving. It served as an opportunity for students to showcase their confidence and competence, demonstrating the knowledge they gained during their studies (Abu Salem et al., 2020). A study by Wieck (2003) titled "*The Capstone Project - A Foundation for Work?*" tested the Christchurch Polytechnic Institute of Technology's information and communication students, demonstrating that changes in competence and confidence shown by selected measures were positive outcomes of the Capstone Project.

Considering the number of graduates produced by the college each year, the proponents proposed a project website to assist the UST CICS Information Technology, Information Systems, and Computer Science departments in managing their completed capstone and thesis projects. The proposed solution aimed to create a centralized system or repository to house all project documents for each group.

Having an online platform for educational institutions was identified as an effective way to store academic work while providing easy access. Such a platform established flexibility, reduced costs, expanded resources, and provided alternative ways of learning (Yadav et al., 2023). Improving and making ICT/IT infrastructure accessible was recognized as a way to enhance research capabilities. This improvement allowed students and faculty to attain more

reliable data and other forms of needed information without limitations, which was particularly beneficial for institutions aiming to maximize ICT benefits (*Improving IT Infrastructure to Ensure Better Access to Research*, n.d.).

A centralized repository for UST CICS significantly benefited IT, IS, and CS students by enabling them to gather ideas quickly and avoid project duplication. This system streamlined information gathering and facilitated efficient research workflows (Hruby et al., 2013). According to Yang et al. (2020), centralized repositories improved data integrity, accessibility, and collaboration by consolidating information in one location. This was particularly important in educational settings where multiple stakeholders required access to up-to-date organizational data. Furthermore, Rouse (2018) emphasized that a searchable file system was essential for easy access, location, and retrieval of information. This feature saved time by allowing students to locate specific capstone projects quickly, enhancing efficiency and reducing effort. Submitted projects were tagged with specific labels for their respective tracks and departments. Ockerbloom (2006) highlighted that tagging significantly improved the search process by helping users find relevant articles and suggesting additional search terms.

Archiving capstone and thesis documents was crucial for preserving academic integrity, facilitating future research, and ensuring the longevity of academic contributions. Digital archives enabled the easy access, retrieval, and reuse of academic work, promoting continuous learning and innovation. Aloluk (2018) noted that Taibah University's well-managed archiving system expedited document management, simplifying access for academic staff and students. Tibbo (2003) similarly emphasized the importance of digital archiving in maintaining the accessibility and integrity of academic records, helping avoid redundant research efforts (Aloluk, 2018; Tibbo, 2003).

To ensure website security, the system implemented two-factor authentication to protect users' accounts and privacy. While two-factor authentication was sometimes prone to inaccuracies and could hinder productivity, it remained one of the best options for safeguarding personal data (Nath & Mondal, 2016). This measure strengthened users' resilience against attacks from unauthorized visitors (*Two-Factor or Not Two-Factor? A Comparative Usability Study of Two-Factor Authentication*, n.d.). Despite its challenges, it was a valuable addition to the system's security framework (Reese, 2018).

Role-Based Access Controls (RBAC) were also utilized to enhance security. RBAC provided structured access control by assigning roles with specific permissions, ensuring effective data security and management within the system (Bouadjemi, 2023).

Managing capstone projects involved efficiently handling the data within the system using a database management system (DBMS). The DBMS centralized data storage and managed associated processes (Susanto & Meiryani, 2019). Given the volume of documents involved in capstone projects, the DBMS's ability to quickly search through large datasets (Luthor, 2019) and provide swift access to papers (Costoiu et al., 2012) proved invaluable. Data was stored centrally on a server (Matheu, 2005) and accessed via a web application. Maintaining virtual copies of capstone project documents mitigated risks associated with losing physical copies due to human error or natural disasters (Caluza, 2017).

Chapter 3: Technical Background

Requirement Analysis

I. Functional Requirements

A. Log in

Allowed users to sign into the system using the email address and password they provided upon registration or signed in through their UST Gmail accounts.

B. Register

Allowed users to create an account to enable them to log in to the system.

C. Forgot Password

Allowed users to reset their password through their registered email address.

D. Change Password

Allowed users to change their password.

E. View list of IP-registered Capstone Projects and Thesis Papers

Allowed administrators to view and edit the list of IP-registered capstone projects and thesis papers.

F. Submission of Capstone Projects and Thesis Papers

Allowed students to submit their final capstone project or thesis paper and their final requirements and post-defense requirements for approval and viewing through a form that accepted plain texts.

G. Best Capstone Projects and Thesis Papers

Allowed administrators to view and edit the list of best IT and IS Capstone Projects and best CS Thesis Papers.

H. Search

A function that allowed users to search for a project's IP registration number, title, specialization, year published, technical adviser, and keywords, and included autocomplete, searching through the contents of a document, and suggestion features. This also strictly searched initially based on the ACM document submitted.

I. Filter option

A function that organized files by project status, type, owner, and more, along with tags, labels, and categorization by specialization and academic year for easier document retrieval.

J. Approval of Pending Capstone Projects

Enabled administrators to review and approve or reject submitted projects if they were complete, and provided comments and feedback if submissions were incomplete.

K. Generate PDF

Allowed the generation of PDF files of the capstone project or thesis documents

L. Text and Content Analysis

Allowed the analysis of texts and contents for easier searching and keyword generation

M. Role Management

Allowed administrators to manage user roles within the system, such as promoting a faculty member to a higher role or adjusting permissions as necessary.

N. Log out

Allowed users to log out of their accounts securely.

II. Non Functional Requirements

A. UI Functionality and Design

The system's interface was aesthetically appealing and user-friendly, allowing users to navigate and complete tasks without much instruction and ensuring that all functions were functional.

B. Manageability

The system was designed for easy maintenance and updates, allowing administrators to effectively manage user accounts, capstone and thesis files, and system settings without substantial technical knowledge.

C. Security and Encryption

The system used strong security measures involving data encryption and two-factor authentication via registered email to secure sensitive user data and capstone and thesis information from unauthorized access and breaches.

D. Responsiveness

The system was designed for performance across several platforms and screen sizes, guaranteeing swift loading times and smooth interactions when viewed on various sizes of screens, including desktops, tablets, or smartphones.

E. Usability

The system was simple and straightforward, with clear and concise instructions, help features, and feedback systems that assisted users through their activities and reduced the possibility of errors.

F. Reliability

The system performed every function accurately, including advanced searching, submitting requirements, and converting plain text to PDF.

G. Data Integrity

The system guaranteed data integrity by incorporating safeguards against data loss and corruption.

H. Scalability

The system was scalable enough to accommodate increasing users, projects, and data without compromising speed.

III. System/Technical Requirements

A. Hardware Requirements

The following are the minimum and optimal requirements for the web browser:

	Minimum Hardware Requirement	Optimal Hardware Requirement
OS	Windows XP	Windows 10
CPU	Intel Core i3	Intel Core i5

Table 3.1 : Minimum and Optimal Requirements for the Web Browser

The minimum OS required for the web browser was Windows XP, which was the minimum needed for a web browser, and the CPU had to be Intel Core i3.

On the other hand, the optimal operating system for the web browser was Windows 10, and the CPU was Intel Core i5.

B. Software Requirements

The following are the software requirements for the web browser:

Software Tools	Programming Language	Phyton
	Frontend Framework	VueJs
	Version Control System (VCS)	Github
	Integrated Development Environment (IDE)	Visual Studio Code
	Backend Framework	postgresql

Table 3.2 : Software Requirements for the Web Browser

The web browser was programmed in Django. The frontend framework was developed using VueJS, while the backend framework was PostgreSQL. Visual Studio Code served as the proponents' chosen IDE, and the version control system used was GitHub.

C. System Deployment

The proponents finalized a plan to utilize hosting services under the university's domain, managed by the Office of ICT, for the deployment of the system. The chosen hosting solution accommodated the system's large and growing data needs without requiring a dedicated server. The following outlined the specific deployment plan:

1. **Technical Setup:** The system was deployed on a university-provided web hosting environment integrated within the UST domain. This hosting had the capacity to store and manage the project's data, ensuring reliable access and data security. The configuration of the hosting supported the projected data growth, with scalable storage options available for future expansion.

2. **Deployment Steps and Timeline:**

- a. **Request and Approval:** The hosting request had already been submitted to the Office of ICT. Once approved, the initial setup commenced.
- b. **Domain Configuration:** The system was configured to operate under the university's domain, with proper DNS setup.
- c. **System Upload and Testing:** After domain configuration, the system files were uploaded, and a testing phase began to ensure functionality, data integrity, and user accessibility.
- d. **Go-Live:** Once testing was successful, the system went live for both faculty and student use, with ongoing monitoring to ensure performance.

3. **Roles and Responsibilities:** The Office of ICT assigned a staff member to the group to oversee the hosting environment setup, providing technical guidance on configuration and ensuring the system's efficient deployment and long-term sustainability.

Design Methodology

Methodology



Figure 3.1: Agile Model

The proponents utilized the agile methodology for the system development process of this project. This project management methodology centered on taking incremental and iterative steps toward completion. It consisted of the following phases: planning, design, development, testing, deployment, and review and launch. This methodology enabled the proponents to gather frequent feedback from their clients through multiple iteration steps. The iterative process allowed them to continuously refine and improve the system, ensuring that each development cycle was aligned with their clients' needs and goals.

Phase 1: Planning

In the planning phase, the proponents focused on gathering information regarding the processes and requirements needed for managing and organizing capstone projects at UST CICS. The information was gathered through multiple methods. First, formal interviews were conducted with clients, including students, faculty, and department chairs. Secondly, discussions were held with peers who had completed or were currently engaged in capstone projects. Lastly, the proponents drew from their own first-hand experience with capstone projects. This gathering process allowed the proponents to brainstorm possible solutions and features to optimize and streamline the capstone project management process. Additionally, the proponents conducted research on existing technologies that could assist in the development of the system.

Phase 2: Design

In this phase, the proponents listed the functional and non-functional requirements based on the needs determined in the planning phase and finalized the features that would be implemented. This phase transformed and refined the requirements and needs into a complete system design. The proponents created mockups and diagrams, such as use-case diagrams, class diagrams, and entity relationship diagrams, which served as blueprints for the development phase.

Phase 3: Development

During the development phase, the proponents focused on coding and building the system based on the designs created in the previous phase. This involved writing the actual code, integrating various components, and ensuring that all features and functionalities worked as intended. The proponents followed the agile principle of iterative development, meaning they continuously developed and integrated small parts of the system, allowing for regular testing and feedback.

Phase 4: Test

In the testing phase, the proponents performed various tests to ensure the system's functionality, performance, and security. This included unit testing, integration testing, system testing, and user acceptance testing. The goal was to identify and fix any bugs or issues before deployment. Feedback from clients and stakeholders was crucial in this phase to ensure the system met their needs and expectations.

Phase 5: Deploy

The deployment phase involved preparing the system for release and making it available for use. The proponents ensured that the system was properly installed, configured, and deployed in the production environment. This phase

included creating user documentation, providing training for users, and ensuring that all data was correctly migrated to the new system.

Phase 6: Review and Launch

In the final phase, review and launch, the proponents conducted a thorough review of the system's performance and gathered feedback from users and stakeholders. This phase included monitoring the system for any post-deployment issues, making necessary adjustments, and ensuring that the system operated smoothly. The proponents officially launched the system once it met all the requirements and satisfied the users' needs. This phase also involved documenting lessons learned and planning for future iterations or enhancements of the system.

System Designs Diagram

Use-Case Diagram

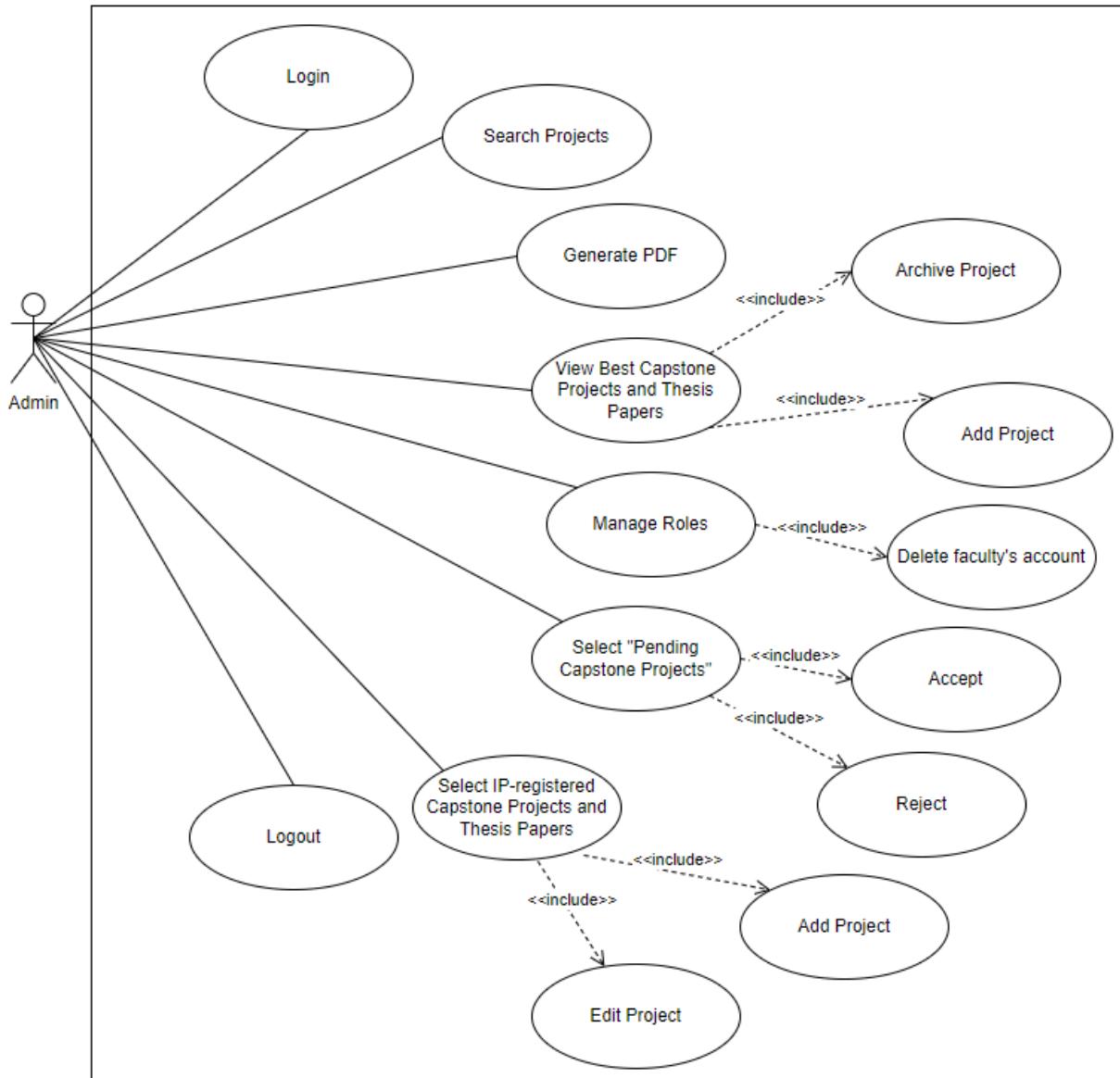


Figure 3.2: Admin Detailed Use Case Diagram

The Admin has the following functions: login, register, forgot password, change password, search projects (including filtering projects and text and content analysis), select "Pending Capstone Projects" (with the ability to accept or reject them), view best

capstone projects and thesis papers (including adding and editing projects), select IP-registered capstone projects and thesis papers, manage accounts and roles, and logout. Admins play a critical role in managing the system by overseeing project submissions and ensuring that only the best projects are showcased.



Figure 3.3: Faculty Detailed Use Case Diagram

The Faculty has similar capabilities as admin but focuses more on interacting with the projects and assisting students. Faculty functions include login, register, forgot password, change password, search projects (including filtering projects and text and content analysis), and logout. Faculty members can analyze the text and content of projects to provide detailed feedback and guidance to students.



Figure 3.4: Student Detailed Use Case Diagram

The Student has the following functions: login, register, forgot password, change password, search projects (including filtering projects and text and content analysis), submit capstone projects and thesis papers (with an option to generate a PDF), and logout. Students primarily interact with the system to submit their work and search for existing projects to help with their research and learning.

Activity Diagram

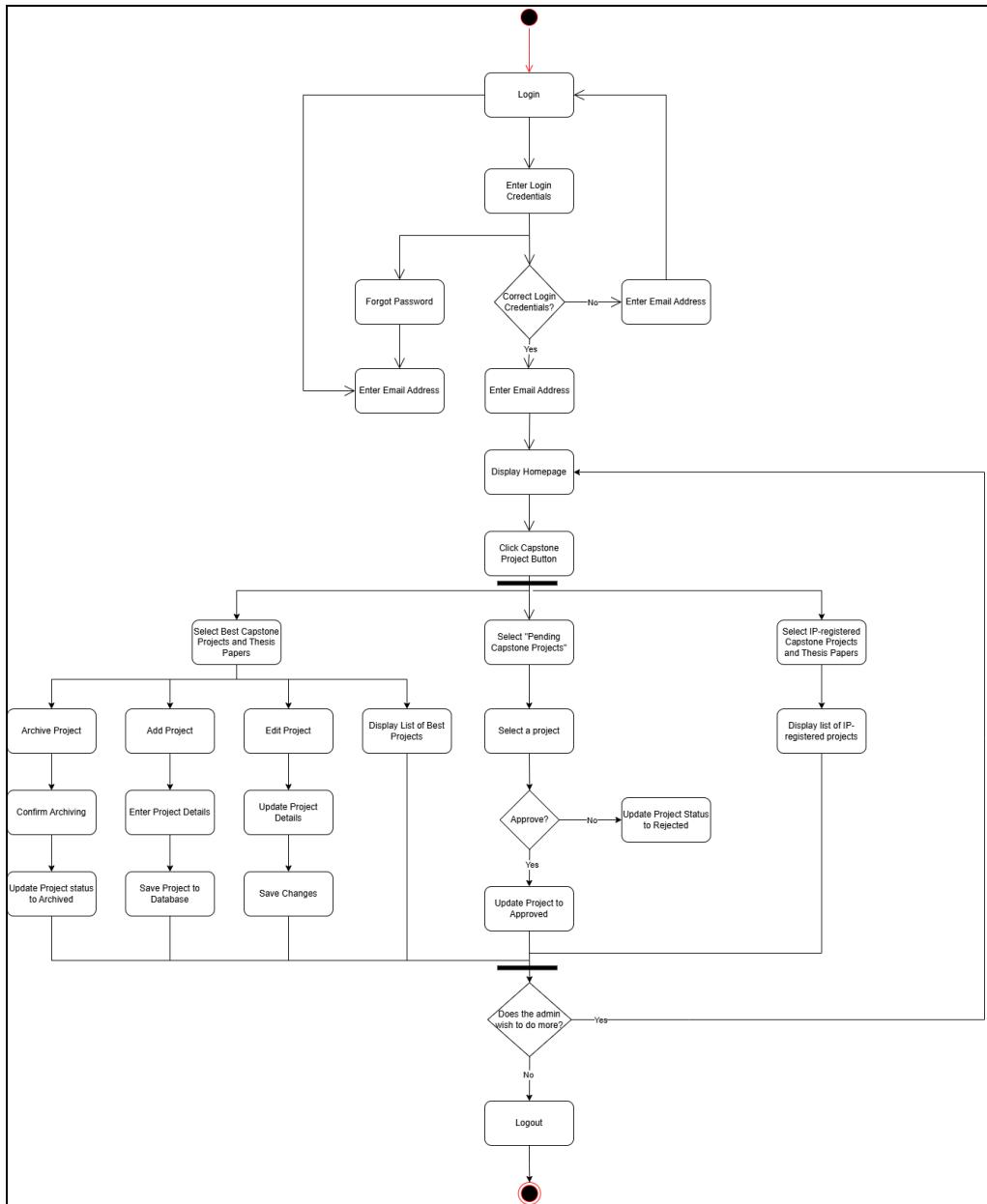


Figure 3.5: UML Activity Diagram for Capstone Project Directory System (Admin Side)

Figure 3.5 illustrates the detailed activity diagram for an admin user interacting with the capstone project management system. The process begins when the admin opens the website and is directed to the login page, where they must enter their login credentials. If the credentials are correct, the admin proceeds to the homepage; if

incorrect, they must re-enter their email address. If the admin has forgotten their password, they can reset it by entering their email address and following the recovery steps.

Once logged in, the admin is redirected to the homepage, which provides access to various functionalities. For capstone project management, the admin clicks the "Capstone Project" button, revealing several options. If the admin selects "Pending Capstone Projects," they can view projects awaiting approval and decide whether to approve or reject them. Approved projects have their status updated to "Approved," while rejected projects are marked as "Rejected."

Additionally, the admin can manage top-rated projects by selecting "Best Capstone Projects and Thesis Papers." This option allows the admin to archive, add, or edit projects. Archiving a project requires confirmation, and the project's status is updated to "Archived." To add a new project, the admin enters the project details and saves them to the database. Editing involves updating project details and saving the changes.

Another management option available is "IP-registered Capstone Projects and Thesis Papers," where the admin can view and manage projects registered for intellectual property protection.

After managing the projects, the admin can log out from the system to securely end their session. Throughout the process, the admin is provided with various tools for managing capstone projects, ensuring they can effectively maintain and update project information while emphasizing security and efficient handling of tasks.

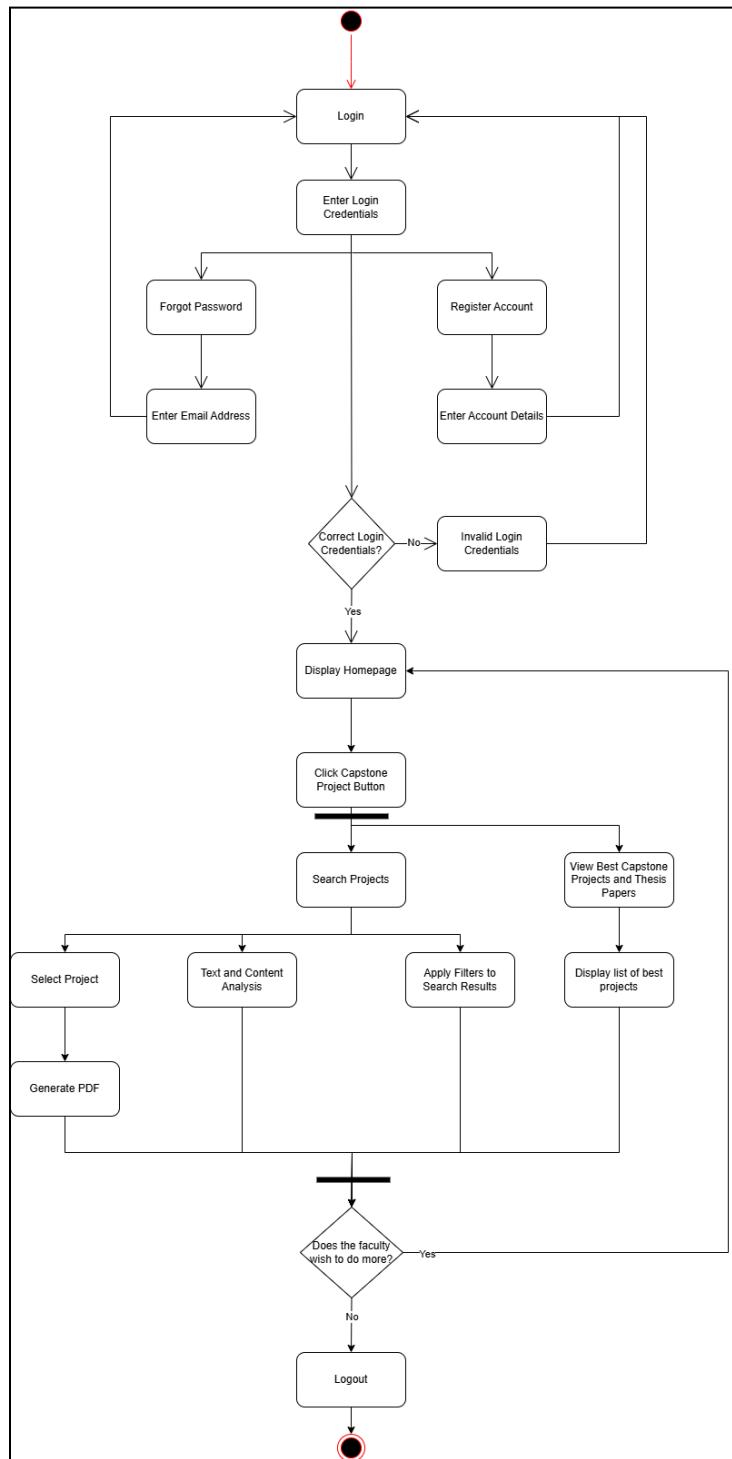


Figure 3.6: UML Activity Diagram for Capstone Project Directory System (Faculty Side)

Figure 3.6 depicts the detailed activity diagram for a Faculty user interacting with the Capstone Project Directory System. The process begins when the Faculty user opens the website and is directed to the login page, where they must enter their login credentials. If the credentials are correct, the Faculty user is redirected to the homepage; if incorrect, they are prompted to re-enter their credentials or register for an account. If the Faculty user has forgotten their password, they can click the "Forgot Password" link, enter their email address, and receive a password reset link via email.

If the Faculty user does not have an account, they can click the "Register Account" link, enter their account details, and submit the registration form. The system then creates a new account and sends a confirmation email. After a successful login, the Faculty user is taken to the homepage, which displays a dashboard with various options, including the "Capstone Projects" button.

By clicking the "Capstone Projects" button, the Faculty user can access functionalities like "Search Projects" and "View Best Capstone Projects and Thesis Papers." In the "Search Projects" option, the Faculty user enters search criteria and performs a search. They can then select a project from the search results and generate a PDF of the selected project, use the system's text and content analysis feature, or apply filters to narrow down the search results.

In the "View Best Capstone Projects and Thesis Papers" option, the Faculty user can view a list of the best projects. If they wish to do more, they can perform additional

actions; otherwise, they can proceed to log out. When the Faculty user finishes their tasks, they click the "Logout" button, ending their session and logging out of the system.

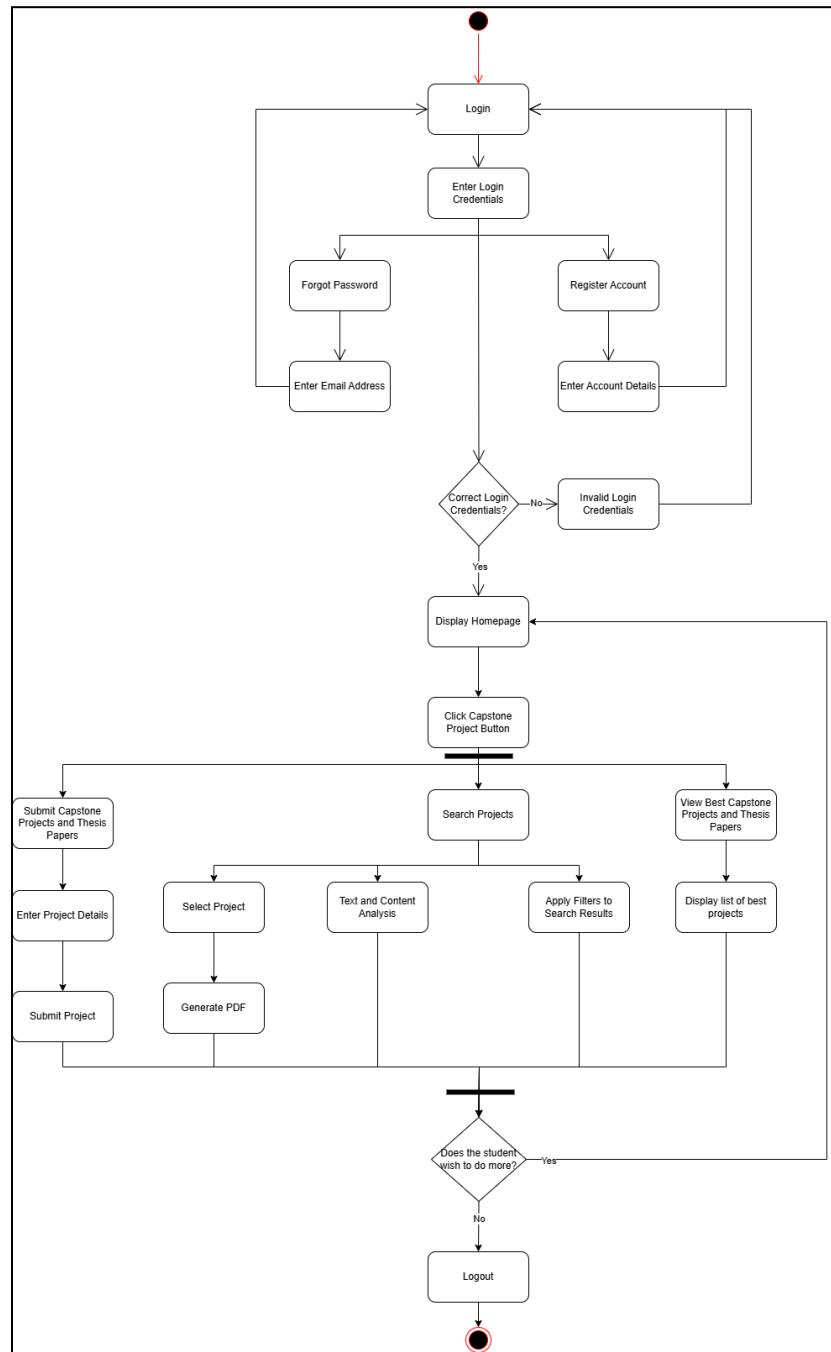


Figure 3.7: UML Activity Diagram for Capstone Project Directory System (Student Side)

Figure 3.7 illustrates the detailed activity diagram for a Student user interacting with the Capstone Project Directory System. The process begins when the Student opens

the website and is directed to the login page, where they must enter their login credentials. If the credentials are correct, the Student is redirected to the homepage; if incorrect, they are prompted to re-enter their credentials or register for an account. If the Student forgets their password, they can click the "Forgot Password" link, enter their email address, and receive a password reset link via email.

If the Student does not have an account, they can click the "Register Account" link, enter their account details, and submit the registration form. The system then creates a new account and sends a confirmation email. After a successful login, the Student is taken to the homepage, which displays a dashboard with various options, including the "Capstone Projects" button.

By clicking the "Capstone Projects" button, the Student can access functionalities like "Submit Capstone Projects and Thesis Papers," "Search Projects," and "View Best Capstone Projects and Thesis Papers." In the "Submit Capstone Projects and Thesis Papers" option, the Student enters the project details and submits the project. In the "Search Projects" option, the Student enters search criteria and performs a search. They can then select a project from the search results and generate a PDF of the selected project, use the system's text and content analysis feature, or apply filters to narrow down the search results.

In the "View Best Capstone Projects and Thesis Papers" option, the Student can view a list of the best projects. If they wish to do more, they can perform additional

actions; otherwise, they can proceed to log out. When the Student finishes their tasks, they click the "Logout" button, ending their session and logging out of the system.

Entity Relationship Diagram

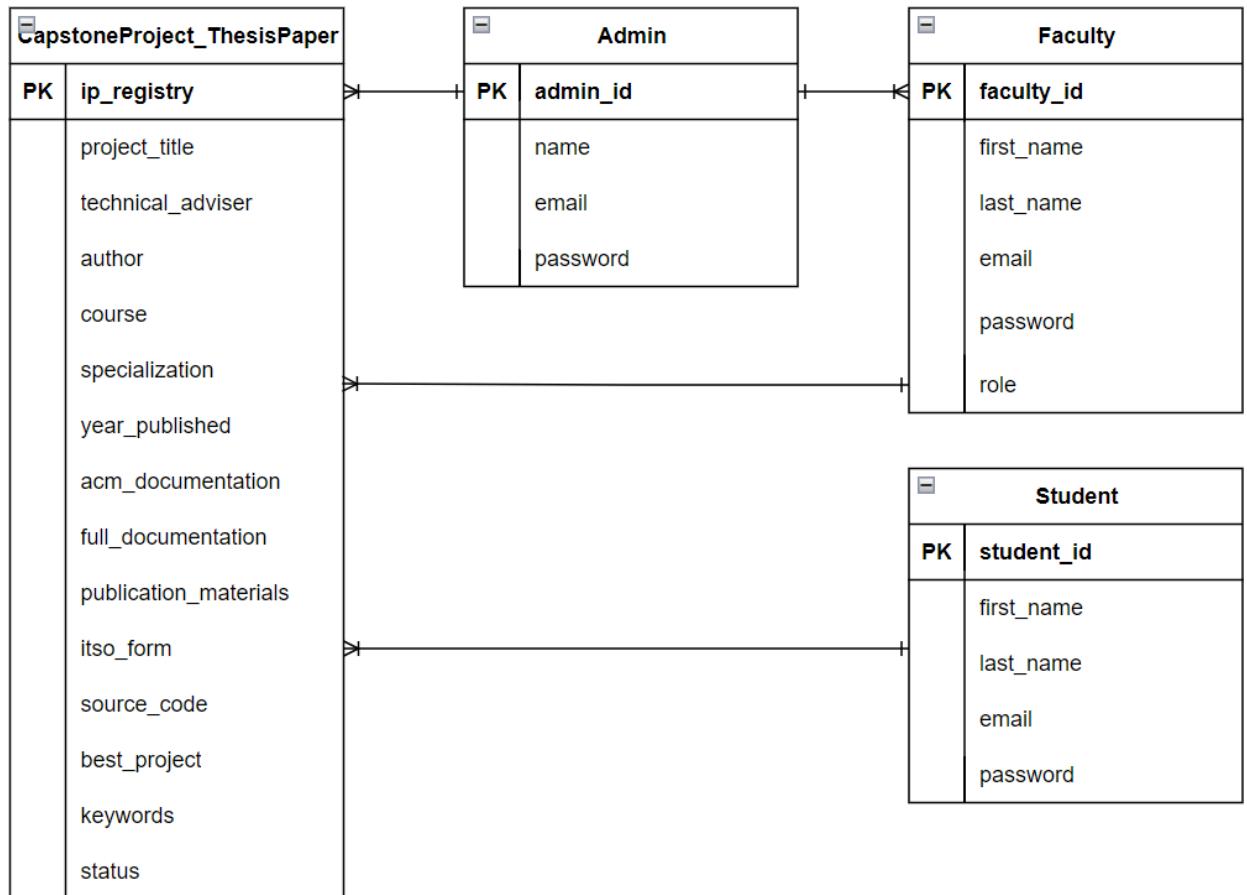


Figure 3.8: Entity Relationship Diagram

The system used an Entity Relationship Diagram. The database comprises five tables that include “Admin” who can view and manage multiple capstone projects and can manage faculty accounts. “Faculty” who can view multiple capstone projects and thesis papers and may add and edit depending on their roles. “Students” who can view multiple capstone projects and thesis papers and can submit their own. “Capstone Projects and Thesis Papers” where everyone can view the project of other students.

Class Diagram

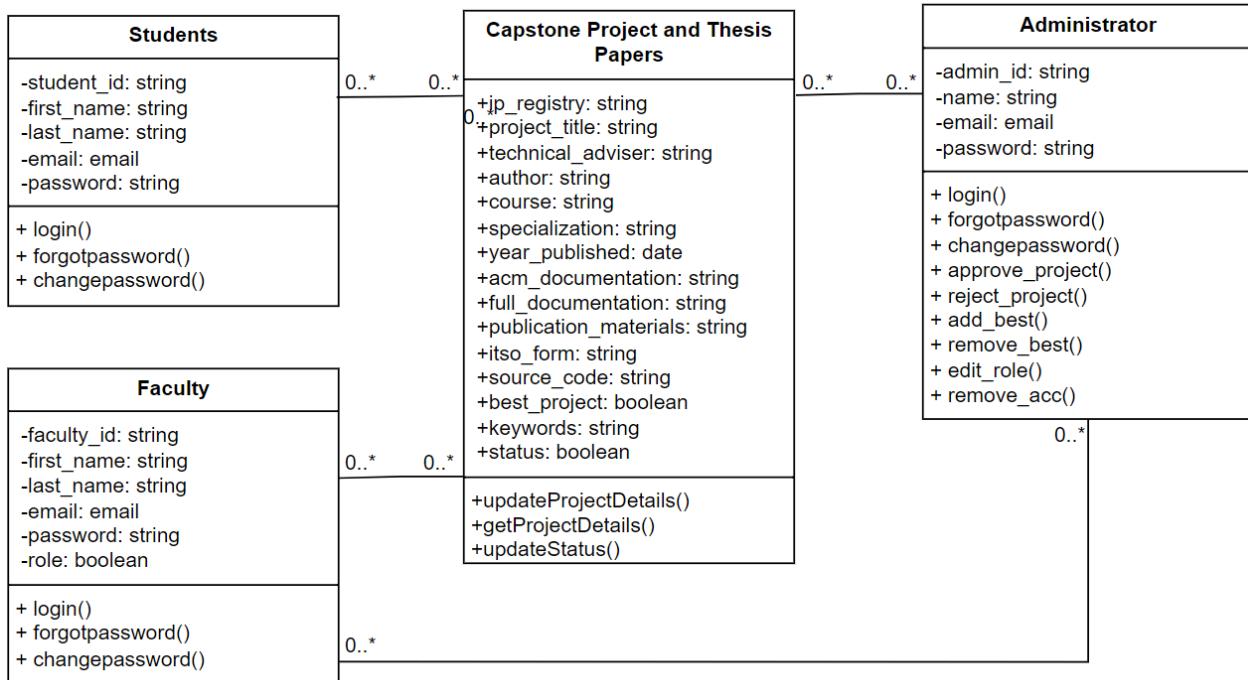


Figure 3.9: Class Diagram

The figure above shows three types of users in this system: Administrator, Faculty, and the Students. The diagram shows how each entity relates to one another and shows how the whole structure and flow of the system will work. Both the students and the faculty members will be required to register in order to access the system. After registration, the student will have the option to view the list of past and approved capstone projects and thesis papers and submit their own. While for the faculty, view the list of past and approved capstone projects and thesis papers and approve or modify it depending on their roles. For the administrator, they may also approve and reject proposals as well as add and remove best capstone projects and manage faculty roles.

Data Dictionary

Admin			
Name	Type	Acceptable Value	Description
admin_id	Object Id	Randomly generated 12-byte alphanumeric value(a-zA-Z0-9)	The unique identifier for each admin account.
name	string	Combination of Uppercase and Lowercase Letter (A-Z) or (a-z), numeric values (0-9) and some special characters.	The name of the account.
email	email	Combination of Uppercase and Lowercase Letter (A-Z) or (a-z), numeric values (0-9) and some special characters.	The email address of the account, used for logging in.
password	string	Combination of Uppercase and Lowercase Letter (A-Z) or (a-z), numeric values (0-9) and some special characters	The password is used for authentication and security.

Faculty			
Name	Type	Acceptable Value	Description
faculty_id	string	Randomly generated 12-byte alphanumeric value(a-zA-Z0-9)	The unique identifier for each faculty account.
name	string	Combination of Uppercase and Lowercase Letter	The name of the account.

		(A-Z) or (a-z), numeric values (0-9) and some special characters.	
email	email	Combination of Uppercase and Lowercase Letter (A-Z) or (a-z), numeric values (0-9) and some special characters.	The email address of the account, used for logging in.
password	string	Combination of Uppercase and Lowercase Letter (A-Z) or (a-z), numeric values (0-9) and some special characters	The password is used for authentication and security.
role	boolean	Faculty or Capstone Coordinator.	Indicates the role of the faculty within the system which determine the level of access and the functionalities available to the faculty.

Students			
Name	Type	Acceptable Value	Description
student_id	string	Randomly generated 12-byte alphanumeric value(a-zA-Z0-9)	The unique identifier for each student account.
name	string	Combination of Uppercase and Lowercase Letter (A-Z) or (a-z), numeric values (0-9) and some special characters.	The name of the account.

email	email	Combination of Uppercase and Lowercase Letter (A-Z) or (a-z), numeric values (0-9) and some special characters.	The email address of the account, used for logging in.
password	string	Combination of Uppercase and Lowercase Letter (A-Z) or (a-z), numeric values (0-9) and some special characters	The password is used for authentication and security.

Capstone Project			
Name	Type	Acceptable Value	Description
Ip_registry	string	Randomly generated 12-byte alphanumeric value(a-zA-Z0-9)	The unique identifier for each project.
project_title	string	Combination of Uppercase and Lowercase Letter (A-Z) or (a-z), numeric values (0-9) and some special characters.	The title of the project.
technical_adviser	string	Combination of Uppercase and Lowercase Letter (A-Z) or (a-z), numeric values (0-9) and some special characters.	The technical adviser involved in the project.
author	string	Combination of Uppercase and Lowercase Letter (A-Z) or (a-z), numeric values (0-9) and some special	The authors of the project.

		characters.	
course	string	Combination of Uppercase and Lowercase Letter (A-Z) or (a-z), numeric values (0-9) and some special characters.	The course taken by the members of the project
specialization	string	Combination of Uppercase and Lowercase Letter (A-Z) or (a-z), numeric values (0-9) and some special characters.	The specialization chosen by the members of the project.
year_published	date	Four(4) digit number that represents the year.	The year that the project was published.
acm_documentation	string	Combination of Uppercase and Lowercase Letter (A-Z) or (a-z), numeric values (0-9) and some special characters.	The ACM Documentation
publication_materials	string	Combination of Uppercase and Lowercase Letter (A-Z) or (a-z), numeric values (0-9) and some special characters.	The publication materials involved with the project
itso_form	string	Combination of Uppercase and Lowercase Letter (A-Z) or (a-z), numeric values (0-9) and some special characters.	The ITSO form to protect intellectual property of projects.
best_project	boolean	True or false.	The title of best

			project is given to some outstanding projects selected.
source_code	string	Combination of Uppercase and Lowercase Letter (A-Z) or (a-z), numeric values (0-9) and some special characters.	The source code of the project.
keywords	string	Combination of Uppercase and Lowercase Letter (A-Z) or (a-z), numeric values (0-9) and some special characters.	The keywords that relate to the project to aid in searching.
status	boolean	Approved or rejected.	Indicates the current status of the project within the system.

Development Plan

Mockups

Administrator Side

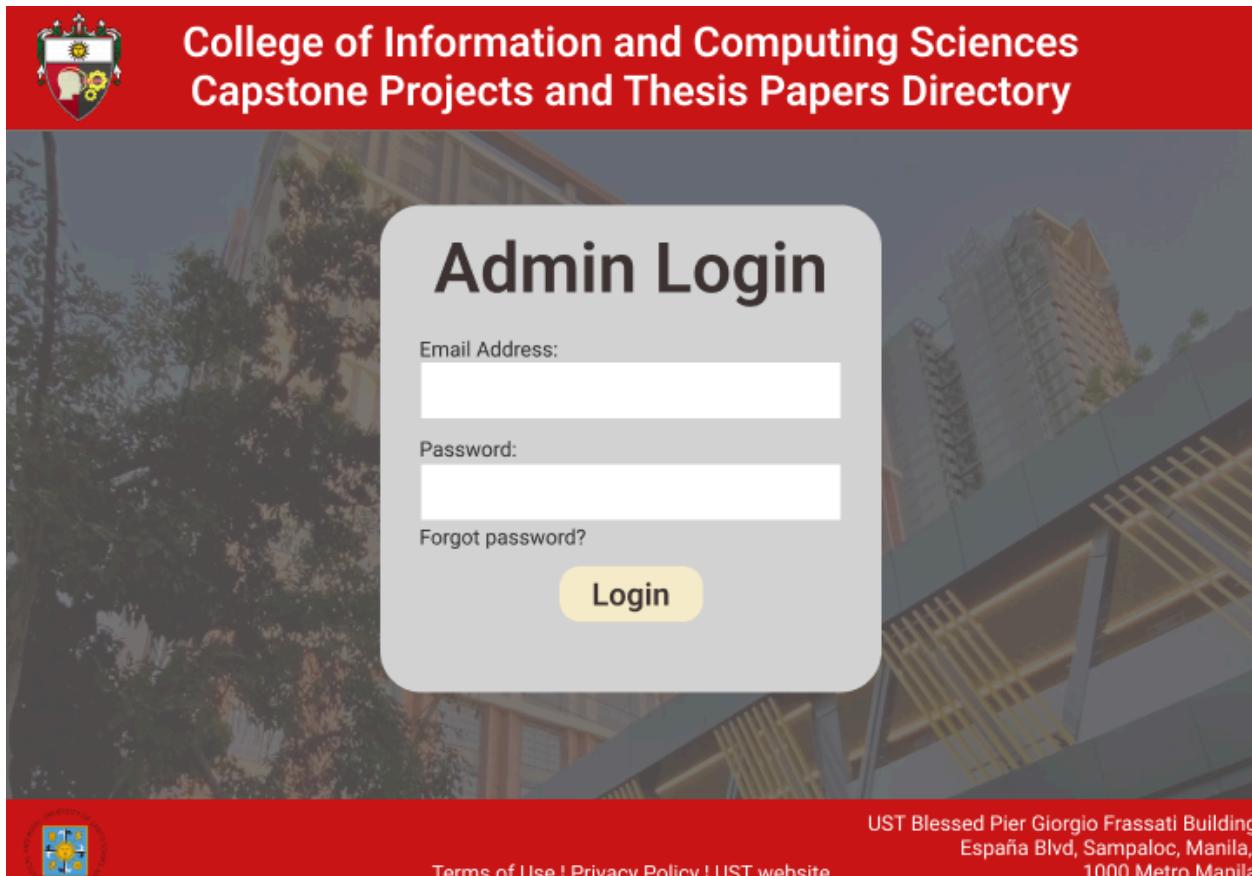


Figure 3.10: Administrator Login Page

In the login page, the administrator will be prompted to enter their correct login credentials and click the login button to access the website.



Figure 3.11: Administrator Forgot Password

If the administrator forgets their password, they can click "Forgot password?" on the login page to be directed to the password recovery page. They will then be prompted to enter their registered email address to receive a password reset link.

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

Homepage

About UST

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nullam rutrum euismod maximus. Fusce semper, felis ac lacinia condimentum, libero diam mattis libero, non posuere nunc tellus nec enim. Quisque sit amet erat lorem. Praesent hendrerit, urna in gravida pharetra, risus libero volutpat est, in ullamcorper arcu risus id ante.

Student Handbook

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Others

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nullam rutrum euismod maximus. Fusce semper, felis ac lacinia condimentum, libero diam mattis libero, non posuere nunc tellus nec enim. Quisque sit amet erat lorem. Praesent hendrerit, urna in gravida pharetra, risus libero volutpat est, in ullamcorper arcu risus id ante. Vivamus risus ante, pretium in nunc non, congue molestie purus. Phasellus venenatis metus nec fringilla volutpat. Nam ut tellus posuere, maximus lorem vel, porttitor diam. Phasellus maximus ullamcorper gravida. Vivamus lorem urna, placerat sit amet semper id, interdum in mauris. Nam volutpat quam tortor, vel rhoncus ipsum ornare id. Orci varius natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Vestibulum auctor aliquam volutpat.

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Figure 3.12: Administrator Homepage

The administrator homepage will be the first page to greet the administrator. Here, they can find information about UST, CICS, the Student Handbook, and other available resources.

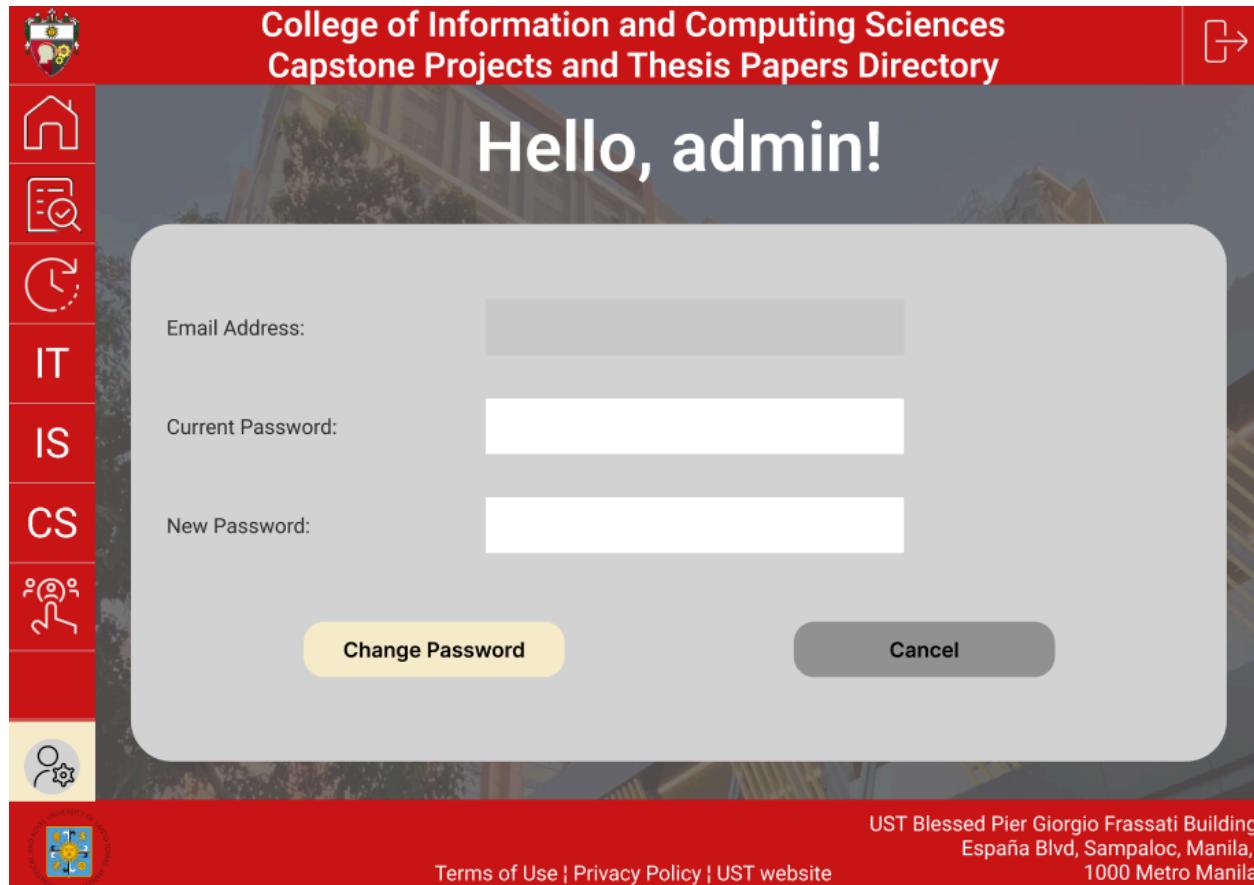


Figure 3.13: Change Password (Admin side)

By clicking the profile icon at the bottom of the sidebar, the administrator will be taken to their profile page, which contains their email address (which cannot be changed). This page also allows the administrator to change their password by entering their current and new passwords.

The screenshot shows the 'IP-registered IT Capstone Projects' page. On the left, there's a vertical sidebar with icons for Home, Search, and Sort, and labels IT, IS, CS, and another unlabeled icon. The main content area has a red header bar with the text 'College of Information and Computing Sciences' and 'Capstone Projects and Thesis Papers Directory'. Below the header is a large title 'IP-registered IT Capstone Projects'. A search bar is present. Underneath the title is a table with columns: 'IP Registration Number', 'Title', 'Specialization', 'Year Published', and 'Author/s'. Each row in the table has a green button labeled 'Add to Best IT Capstone list' and a blue button labeled 'Edit'. At the bottom of the table is a large white button labeled 'Add IT Capstone Project'. The footer contains the UST logo, links for 'Terms of Use | Privacy Policy | UST website', and the address 'UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila'.

IP Registration Number	Title	Specialization	Year Published	Author/s
				Add to Best IT Capstone list Edit
				Add to Best IT Capstone list Edit
				Add to Best IT Capstone list Edit
				Add to Best IT Capstone list Edit

Add IT Capstone Project

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Figure 3.14: IP-registered IT Capstone Projects (Admin Side)

The screenshot shows the 'IP-registered IS Capstone Projects' section of the directory. On the left, there's a vertical sidebar with icons for Home, Search, and Sort, and labels IT, IS, CS, and a person icon. The main area has a search bar and filters for All, 2019-2023, 2014-2018, 2013, Available for Viewing, Restricted, and More. A 'Sort by' dropdown is also present. The table lists four projects, each with 'Add to Best IS Capstone list' and 'Edit' buttons. At the bottom, there's an 'Add IS Capstone Project' button and links for Terms of Use, Privacy Policy, and UST website. The footer includes the UST logo and address: UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila.

IP Registration Number	Title	Specialization	Year Published	Author/s		
					Add to Best IS Capstone list	Edit
					Add to Best IS Capstone list	Edit
					Add to Best IS Capstone list	Edit
					Add to Best IS Capstone list	Edit

Add IS Capstone Project

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Figure 3.15: IP-registered IS Capstone Projects (Admin Side)

The screenshot displays the 'IP-registered CS Thesis Papers' section of the directory. The table header includes columns for 'IP Registration Number', 'Title', 'Specialization', 'Year Published', 'Author/s', and actions. The actions column contains two buttons per row: 'Add to Best CS Thesis Papers list' (green) and 'Edit' (blue). The sidebar on the left features icons for Home, Search, and Sort, with 'IT', 'IS', 'CS', and 'Human' listed vertically. The footer includes a 'Terms of Use | Privacy Policy | UST website' link.

IP Registration Number	Title	Specialization	Year Published	Author/s	
					<button>Add to Best CS Thesis Papers list</button> <button>Edit</button>
					<button>Add to Best CS Thesis Papers list</button> <button>Edit</button>
					<button>Add to Best CS Thesis Papers list</button> <button>Edit</button>
					<button>Add to Best CS Thesis Papers list</button> <button>Edit</button>

Figure 3.16: IP-registered CS Thesis Papers (Admin Side)

Figures 3.14, 3.15, and 3.16 show the list of IP-registered Capstone Projects from IT and IS, respectively, and Thesis Projects from CS. These can be accessed by clicking the IP-Registered Projects and Papers icon on the sidebar, prompting the admin to choose between the IT, IS, and CS departments. The table consists of the project/paper's IP registration number, title, specialization, publication year, author(s), an option to add to the best IT/IS/CS capstone projects/thesis papers list, and an edit button. At the bottom of the table is an "Add IT/IS/CS Capstone Project/Thesis Paper" button.

The screenshot shows a web-based administrative interface for managing capstone projects. The header features the college's crest and name, "College of Information and Computing Sciences Capstone Projects and Thesis Papers Directory". A vertical sidebar on the left contains icons for Home, Search, Clock, IT, IS, CS, and a person icon. The main content area is titled "Add IT Capstone Project". It includes fields for IP Registration #, Specialization, Capstone Title, Author 1, Author 2, Author 3, Author 4, Year Published, Technical Adviser, Full Document, ACM Paper, Source Code, Approval Form, and Keywords. Each document field has an "Upload File" button. At the bottom are "Add IT Capstone Project" and "Cancel" buttons.

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

Add IT Capstone Project

IP Registration #: Specialization:

Capstone Title:

Author 1: Author 3:
Author 2: Author 4:

Year Published: Technical Adviser:

Full Document: Upload File

ACM Paper: Upload File

Source Code:

Approval Form: Upload File

Keywords:

Add IT Capstone Project Cancel

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Figure 3.17: Add IP-registered IT Capstone Projects (Admin Side)

The screenshot shows a web-based application for managing capstone projects. On the left, there is a vertical sidebar with icons and labels: a shield icon for 'College of Information and Computing Sciences', a house icon for 'Capstone Projects and Thesis Papers Directory', a magnifying glass icon for 'Search', a circular arrow icon for 'IT', a 'IS' icon, a 'CS' icon, a person icon for 'Approval Form', and a user icon for 'Terms of Use'. The main content area has a red header bar with the text 'College of Information and Computing Sciences' and 'Capstone Projects and Thesis Papers Directory'. Below the header, the title 'Add IS Capstone Project' is displayed in large white font. The form itself consists of several input fields and file upload buttons. The fields include: 'IP Registration #' (input field), 'Specialization:' (dropdown menu), 'Capstone Title:' (input field), 'Author 1:' (input field), 'Author 3:' (input field), 'Author 2:' (input field), 'Author 4:' (input field), 'Year Published:' (input field), 'Technical Adviser:' (input field), 'Full Document:' (input field with 'Upload File' button), 'ACM Paper:' (input field with 'Upload File' button), 'Source Code:' (input field), 'Approval Form:' (input field with 'Upload File' button), and 'Keywords:' (input field). At the bottom of the form are two buttons: 'Add IS Capstone Project' (yellow background) and 'Cancel' (red background). Below the form, the footer contains links to 'Terms of Use', 'Privacy Policy', and 'UST website', along with the physical address: 'UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila'.

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

Add IS Capstone Project

IP Registration #: Specialization:

Capstone Title:

Author 1: Author 3:

Author 2: Author 4:

Year Published: Technical Adviser:

Full Document:

ACM Paper:

Source Code:

Approval Form:

Keywords:

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Figure 3.18: Add IP-registered IS Capstone Projects (Admin Side)

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

Add CS Thesis Paper

IP Registration #: Specialization:

Thesis Title:

Author 1: Author 3:
Author 2: Author 4:

Year Published: Technical Adviser:

Full Document: Upload File

ACM Paper: Upload File

Source Code:

Approval Form: Upload File

Keywords:

Add CS Thesis Paper **Cancel**

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Figure 3.19: Add IP-registered CS Thesis Papers (Admin Side)

By clicking the "Add IT/IS/CS Capstone Projects/Thesis Papers" button, figures 3.17, 3.18, and 3.19 will be shown, prompting the admin to input and upload all required information to add either a capstone project or a thesis paper to the list.

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

Edit IT Capstone Project

IP Registration #: Specialization:
Capstone Title:
Author 1: Author 3:
Author 2: Author 4:
Year Published: Technical Adviser:
Full Document: Upload File
ACM Paper: Upload File
Source Code:
Approval Form: Upload File
Keywords:

Save IT Capstone Project **Cancel**

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Figure 3.20: Edit IP-registered IT Capstone Projects (Admin Side)

The screenshot shows a web-based application for managing capstone projects. On the left, there is a vertical sidebar with icons and labels: a shield icon for Home, a magnifying glass icon for Search, a circular arrow icon for Refresh, and the letters IT, IS, and CS stacked vertically. Below these are icons for a person and a gear.

The main content area has a red header bar with the text "College of Information and Computing Sciences" and "Capstone Projects and Thesis Papers Directory". To the right of the header is a small "Logout" icon.

Edit IS Capstone Project

The form fields include:

- IP Registration #: [Text input]
- Specialization: [Text input]
- Capstone Title: [Text input]
- Author 1: [Text input]
- Author 3: [Text input]
- Author 2: [Text input]
- Author 4: [Text input]
- Year Published: [Text input]
- Technical Adviser: [Text input]
- Full Document: [Text input] with an "Upload File" button to its right.
- ACM Paper: [Text input] with an "Upload File" button to its right.
- Source Code: [Text input]
- Approval Form: [Text input] with an "Upload File" button to its right.
- Keywords: [Text input]

At the bottom are two buttons: a green "Save IS Capstone Project" button and a red "Cancel" button.

At the very bottom of the page, there is footer text: "UST Blessed Pier Giorgio Frassati Building", "España Blvd, Sampaloc, Manila, 1000 Metro Manila", "Terms of Use | Privacy Policy | UST website", and the UST logo.

Figure 3.21: Edit IP-registered IS Capstone Projects (Admin Side)

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

Edit CS Thesis Paper

IP Registration #:	Specialization:
Thesis Title:	
Author 1:	Author 3:
Author 2:	Author 4:
Year Published:	Technical Adviser:
Full Document:	<input type="button" value="Upload File"/>
ACM Paper:	<input type="button" value="Upload File"/>
Source Code:	
Approval Form:	<input type="button" value="Upload File"/>
Keywords:	

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Figure 3.22: Edit IP-registered CS Thesis Papers (Admin Side)

Upon clicking the edit button of a title, figures 3.20, 3.21 and 3.22 will be shown, enabling the admin to edit the title, specialization, authors, technical adviser, and keywords. The IP registration number, source code link, and final requirements file will not be editable and will be disabled.

The screenshot shows a web-based application for managing capstone projects. At the top, there's a red header bar with the text "College of Information and Computing Sciences" and "Capstone Projects and Thesis Papers Directory". On the left side, there's a vertical sidebar with icons for Home, Search, and a clock, followed by department abbreviations: IT, IS, CS, and another partially visible. The main content area has a title "Approval of IT Capstone Projects" and a search bar. Below the search bar is a filter bar with buttons for "All", "2019-2023", "2014-2018", "2013", "Available for Viewing", "Restricted", and "More". There's also a "Sort by" dropdown menu. The central part of the screen is a table with columns: "Approve", "Reject", "Title", "Specialization", "Year Published", "Author/s", "Full Document", and "Approval Form". The table contains five rows, each corresponding to a project. Each row has two buttons: "View Document" for both "Full Document" and "Approval Form". The "Approve" column shows green checkmarks, while the "Reject" column shows red X's.

	Approve	Reject	Title	Specialization	Year Published	Author/s	Full Document	Approval Form
IT							View Document	View Document
IS							View Document	View Document
CS							View Document	View Document
○○○							View Document	View Document
							View Document	View Document

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Figure 3.23: Approval of IT Capstone Projects (Admin Side)

The screenshot shows the 'Approval of IT Capstone Projects' section of the directory. On the left, there's a vertical sidebar with icons for Home, Search, and Refresh, followed by the letters 'IT', 'IS', 'CS', and a logo. The main content area has a red header bar with the college name and a search icon. Below the header is a navigation bar with filters: All, 2019-2023, 2014-2018, 2013, Available for Viewing, Restricted, More, and Sort by. The main table has columns for Approve, Reject, Conference Paper, Source Code, and Keywords. Each row contains a green checkmark or red X in the Approve column, and a red X in the Reject column. Buttons for 'View Document' are provided for both the Conference Paper and Source Code columns.

	Approve	Reject	Conference Paper	Source Code	Keywords
1			View Document	View Document	
2			View Document	View Document	
3			View Document	View Document	
4			View Document	View Document	
5			View Document	View Document	

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Figure 3.24: Approval of IT Capstone Projects (Admin Side) cont.

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

Approval of IS Capstone Projects

Sort by

Approve	Reject	Title	Specialization	Year Published	Author/s	Full Document	Approval Form
✓	✗					View Document	View Document
✓	✗					View Document	View Document
✓	✗					View Document	View Document
✓	✗					View Document	View Document
✓	✗					View Document	View Document

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Figure 3.25: Approval of IS Capstone Projects (Admin Side)

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

Approval of IS Capstone Projects

Sort by ▾

	Approve	Reject	Conference Paper	Source Code	Keywords
IT			View Document	View Document	
IS			View Document	View Document	
CS			View Document	View Document	
ଓଡ଼ିଆ			View Document	View Document	
			View Document	View Document	

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Figure 3.26: Approval of IS Capstone Projects (Admin Side) cont.

The screenshot shows a web-based administrative interface for managing thesis papers. At the top, a red header bar displays the college's name and a search bar. Below the header is a sidebar with icons for Home, Project Status, and a circular progress bar, followed by vertical labels IT, IS, CS, and another unlabeled icon. The main content area features a large title "Approval of CS Thesis Papers". A table lists five thesis entries, each with two columns: "Approve" (green checkmark) and "Reject" (red X). To the right of the table are "View Document" buttons for both the full document and the approval form. Above the table, a filter bar includes dropdowns for "All", "2019-2023", "2014-2018", "2013", "Available for Viewing", "Restricted", and "More", along with a "Sort by" dropdown. At the bottom of the page, there are links for "Terms of Use", "Privacy Policy", and "UST website", along with the college's address: UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila.

	Approve	Reject	Title	Specialization	Year Published	Author/s	Full Document	Approval Form
1	✓	✗					View Document	View Document
2	✓	✗					View Document	View Document
3	✓	✗					View Document	View Document
4	✓	✗					View Document	View Document
5	✓	✗					View Document	View Document

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Figure 3.27: Approval of CS Thesis Papers (Admin Side)

	Approve	Reject	Conference Paper	Source Code	Keywords
IT			View Document	View Document	
IS			View Document	View Document	
CS			View Document	View Document	
?			View Document	View Document	
			View Document	View Document	

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Figure 3.28: Approval of CS Thesis Papers (Admin Side) cont.

Depending on their selection, clicking the pending icon on the sidebar will lead the admin to figures 3.23, 3.25, or 3.27. These pages enable the admins to approve or reject capstone projects or thesis papers. The admin will also be able to view all documents and information related to the project/paper. Once a paper/project is approved, it will automatically receive an IP registration number and be transferred to the list of IP-registered Capstone Projects from IT and IS, as well as Thesis Projects from CS.

The screenshot displays a web application interface for managing capstone projects. At the top, a red header bar features the college's logo and the text "College of Information and Computing Sciences Capstone Projects and Thesis Papers Directory". Below the header, a large title "IP-registered IT Capstone Projects" is centered. A navigation menu on the left includes icons for home, search, and other administrative functions, along with category labels "IT", "IS", "CS", and "Others". The main content area shows a table of registered projects with columns for "IP Registration Number", "Title", "Keywords", and "ACM Paper". Each project entry includes a "View Document" button. A modal window is open over the table, centered on a project titled "Title". The modal contains a large block of placeholder text (Lorem ipsum) and two buttons at the bottom: "Generate PDF" and "View Document". At the bottom of the page, there are links for "Terms of Use | Privacy Policy | UST website" and the physical address of the building: "UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila".

Figure 3.29: View ACM Paper (Admin Side)

Clicking the "View Document" button on an ACM Paper of a project/paper will prompt a modal containing the plain text version. A "Generate PDF" button will also appear, allowing the admin to view and download a PDF version.

The screenshot shows a web application interface for managing capstone projects and thesis papers. At the top, there's a red header bar with the text "College of Information and Computing Sciences" and "Capstone Projects and Thesis Papers Directory". On the far right of the header is a small icon of a person with a briefcase. Below the header is a navigation menu on the left side, featuring a vertical stack of icons and labels: a house icon, a magnifying glass icon, a circular arrow icon, "IT", "IS", "CS", and a person icon. To the right of the menu is a large title "Title Approval Form" in bold white letters. Below the title is a large text area containing placeholder text (Lorem ipsum) describing a project. At the bottom of the page is a footer with the text "UST Blessed Pier Giorgio Frassati Building", "España Blvd, Sampaloc, Manila, 1000 Metro Manila", "Terms of Use | Privacy Policy | UST website", and the UST logo.

Figure 3.30: View Approval Form (Admin Side)

Clicking the "View Document" button on an approval form of a project/paper will also lead the admin to a page containing the plain text version. They can return to the previous page by clicking the "Back" button.

The screenshot shows a web application interface for managing capstone projects. On the left, there is a vertical sidebar with icons and labels: Home (house), Search (magnifying glass), Clock (clock), IT (yellow box with 'IT'), IS (red box with 'IS'), CS (blue box with 'CS'), and a person icon. The main content area has a red header with the text "College of Information and Computing Sciences" and "Capstone Projects and Thesis Papers Directory". Below the header, the title "Best IT Capstone Projects" is displayed in large white font. A table is present with three columns: "Web and Mobile Development:", "IT Automation:", and "Network and Security:". Each column contains four rows, each labeled "Title". At the bottom of the page, there is a button labeled "Edit List" and links for "Terms of Use | Privacy Policy | UST website". The footer contains the address "UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila".

Web and Mobile Development:	IT Automation:	Network and Security:
Title	Title	Title

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Figure 3.31: Best IT Capstone Projects Page (Admin Side)

The screenshot shows a web application interface for managing capstone projects. On the left, there is a vertical sidebar with icons and labels: Home, Search, Refresh, IT (highlighted in red), IS (highlighted in yellow), CS, and Help. The main content area has a header: "College of Information and Computing Sciences" and "Capstone Projects and Thesis Papers Directory". Below the header is a large title: "Best IS Capstone Projects". The main content is a table with two columns: "Business Analytics:" and "Service Management:". Both columns have five rows, each labeled "Title". At the bottom of the table is a button labeled "Edit List". The footer contains the UST logo, links to "Terms of Use | Privacy Policy | UST website", and the address: "UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila".

	Business Analytics:	Service Management:
	Title	Title

Edit List

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Figure 3.32: Best IS Capstone Projects Page (Admin Side)

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Capstone Projects and Thesis Papers Directory

Best CS Thesis Papers

Core Computer Science:	Game Development:	Data Science:
Title	Title	Title

Edit List

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Figure 3.33: Best CS Thesis Papers Page (Admin Side)

Figures 3.31, 3.32, and 3.33 show the table of the best capstone projects for IT and IS, as well as the best thesis papers for CS for each year. These can be accessed by clicking the desired department on the sidebar. Clicking on the titles will open a modal containing the plain text of its ACM Paper, which can generate a PDF form with a click of a button. The administrators can edit this list by clicking the "Edit List" button at the bottom.

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

Best IT Capstone Projects

Web and Mobile Development:	IT Automation:	Network and Security:
<input checked="" type="checkbox"/> Title	<input checked="" type="checkbox"/> Title	<input checked="" type="checkbox"/> Title
<input checked="" type="checkbox"/> Title	<input checked="" type="checkbox"/> Title	<input checked="" type="checkbox"/> Title
<input checked="" type="checkbox"/> Title	<input checked="" type="checkbox"/> Title	<input checked="" type="checkbox"/> Title
<input checked="" type="checkbox"/> Title	<input checked="" type="checkbox"/> Title	<input checked="" type="checkbox"/> Title

Save Archive Cancel

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Figure 3.34: Edit Best IT Capstone Projects (Admin Side)

The screenshot shows a web application interface for managing capstone projects. On the left, there's a vertical sidebar with icons for Home, Search, and other administrative functions, followed by large letters IT, IS, and CS. The main header reads "College of Information and Computing Sciences Capstone Projects and Thesis Papers Directory". Below the header, the title "Best IS Capstone Projects" is displayed. A modal window is open, divided into two sections: "Business Analytics:" and "Service Management:". Both sections show four entries, each with a blue checkmark and the word "Title". At the bottom of the modal are three buttons: "Save" (green), "Archive" (red), and "Cancel" (yellow). The footer contains the UST logo, links to Terms of Use, Privacy Policy, and the UST website, and the address: UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila.

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

Best IS Capstone Projects

Business Analytics:

- ✓ Title
- ✓ Title
- ✓ Title
- ✓ Title

Service Management:

- ✓ Title
- ✓ Title
- ✓ Title
- ✓ Title

Save Archive Cancel

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Figure 3.35: Edit Best IS Capstone Projects(Admin Side)

The screenshot shows a web-based application interface for managing thesis papers. At the top, a red header bar displays the college's name and a search icon. Below the header, a sidebar on the left features icons for Home, Search, and Refresh, followed by vertical labels IT, IS, CS, and another unlabeled icon. The main content area has a title 'Best CS Thesis Papers'. It contains three columns: 'Core Computer Science:', 'Game Development:', and 'Data Science:'. Each column lists four items, each preceded by a blue checkmark and the word 'Title'. At the bottom of the list are three buttons: 'Save' (green), 'Archive' (red), and 'Cancel' (yellow). The footer includes the college's address at UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila, and links for Terms of Use, Privacy Policy, and the UST website.

Core Computer Science:	Game Development:	Data Science:
✓ Title	✓ Title	✓ Title
✓ Title	✓ Title	✓ Title
✓ Title	✓ Title	✓ Title
✓ Title	✓ Title	✓ Title

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Figure 3.36: Edit Best CS Thesis Papers (Admin Side)

By clicking the "Edit List" button from the best capstone projects for IT and IS and the best thesis papers for CS, figures 3.34, 3.35, or 3.36 will be shown, allowing administrators to select or deselect titles they want to archive from the list. Clicking the "Save" button will save their modifications while clicking "Cancel" will discard the changes and return the list to its previous state.

Figure 3.37: Manage Roles (Admin Side)

By clicking the "Manage Roles" icon from the sidebar, a table (Figure 3.38) will be displayed, showing the list of faculty members. This table includes columns for the faculty members' names, their email addresses, their current roles, an option to change their roles, their departments, an option to delete their account, and the last administrator who updated their roles. Administrators will have the ability to save their changes or revert back to the previous state.

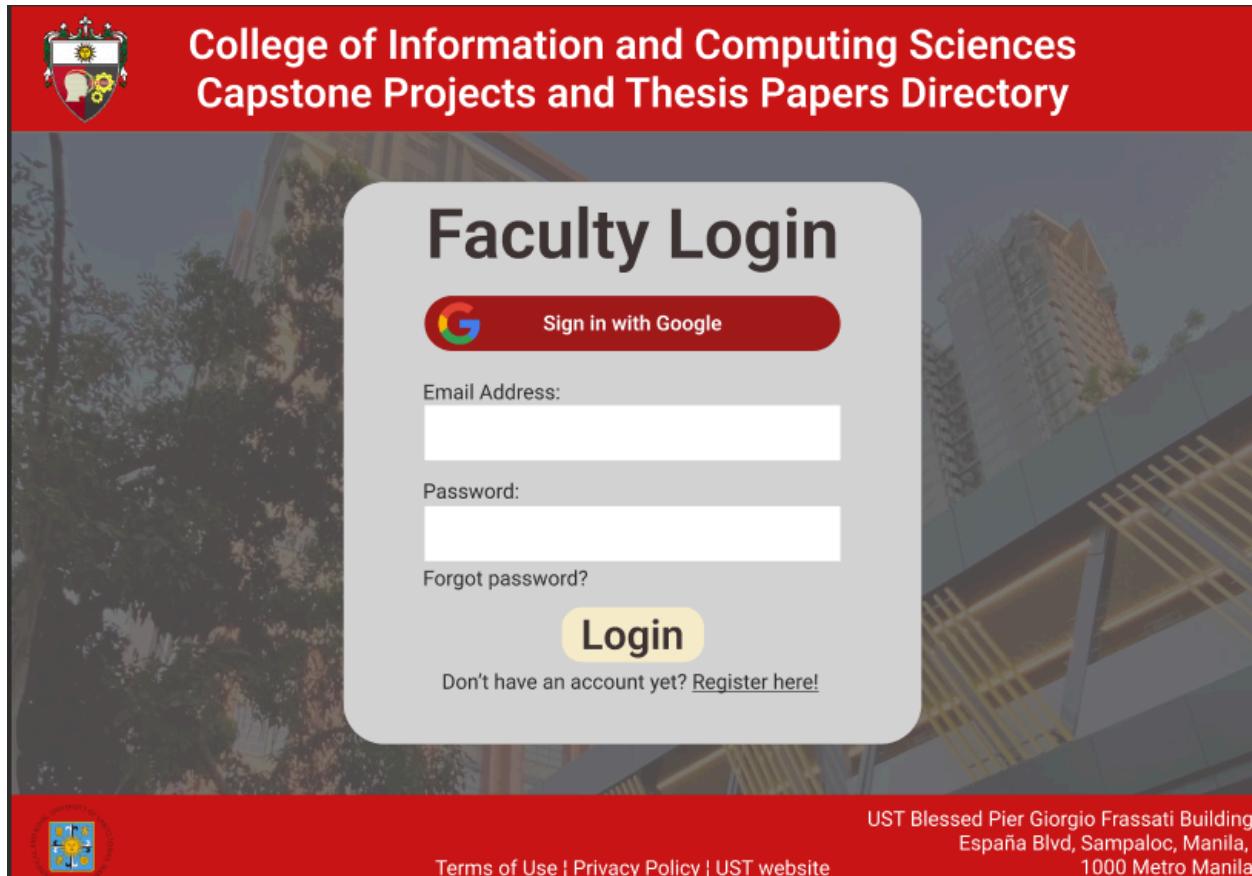
Faculty Side

Figure 3.38: Faculty Login Page

In the login page, the faculty member will be prompted to enter their correct login credentials and click the login button to access the website. They also have the option to sign in through their GSuite accounts.

The screenshot shows the 'Create Faculty Account' page of the College of Information and Computing Sciences Capstone Projects and Thesis Papers Directory. The page has a red header with the college's logo and name. Below the header, the title 'Create Faculty Account' is displayed in large white text. The main form area contains fields for 'First Name' and 'Last Name' (both with placeholder text), 'UST Email Address' (placeholder text), and 'Password' (placeholder text). A note below the password field states '(Must contain at least 8 characters, a combination of uppercase letters, lowercase letters, and numbers.)'. There are two checkboxes: one for accepting terms and conditions and another for being a robot. Below these is a reCAPTCHA field. At the bottom are 'Create Account' and 'Back' buttons. The footer includes links for Terms of Use, Privacy Policy, and the UST website, along with the university's address: UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila.

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

Create Faculty Account

First Name:

Last Name:

UST Email Address:

Password:

(Must contain at least 8 characters, a combination of uppercase letters, lowercase letters, and numbers.)

By checking the box, I state that I have read and understood the terms and conditions.

I'm not a robot  reCAPTCHA
Privacy • Terms

Create Account **Back**

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Figure 3.39: Faculty Registration Page

If the faculty member does not have an account yet, they can click "Register here" at the bottom of the login page. They will then be redirected to the faculty account creation page, where they will be asked to enter the necessary information for account creation and complete a CAPTCHA to confirm their identity.

The screenshot shows a password recovery form. At the top, the college's crest and name are displayed. The main heading is "Password Recovery". Below it, a placeholder text says "Enter your registered email address in able to receive a link to reset your password". A text input field is labeled "Email Address:" and contains a placeholder email. Below the input field are two buttons: "Return to login page" and "Reset Password". At the bottom of the page, there is a red footer bar containing the university's logo, the address "UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila", and links for "Terms of Use | Privacy Policy | UST website".

Figure 3.40: Faculty Forgot Password

If the faculty member forgets their password, they can click "Forgot password?" on the login page to be directed to the password recovery page. They will then be prompted to enter their registered email address to receive a password reset link.

The screenshot shows the homepage of the College of Information and Computing Sciences Capstone Projects and Thesis Papers Directory. The header features the college's logo and name in red. A navigation menu on the left includes icons for Home, Search, IT, IS, CS, and a desk. The main content area has a large banner image of a building. It contains sections for 'About UST' (with placeholder text), 'Student Handbook' (with placeholder text), and 'Others' (with placeholder text). At the bottom, there are links for Terms of Use, Privacy Policy, and the UST website, along with the physical address of the building.

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

Homepage

About UST

Student Handbook

Others

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Figure 3.41: Faculty Homepage

The homepage will be the first page to greet the faculty member. They can find information about UST, CICS, the Student Handbook, and other resources here.

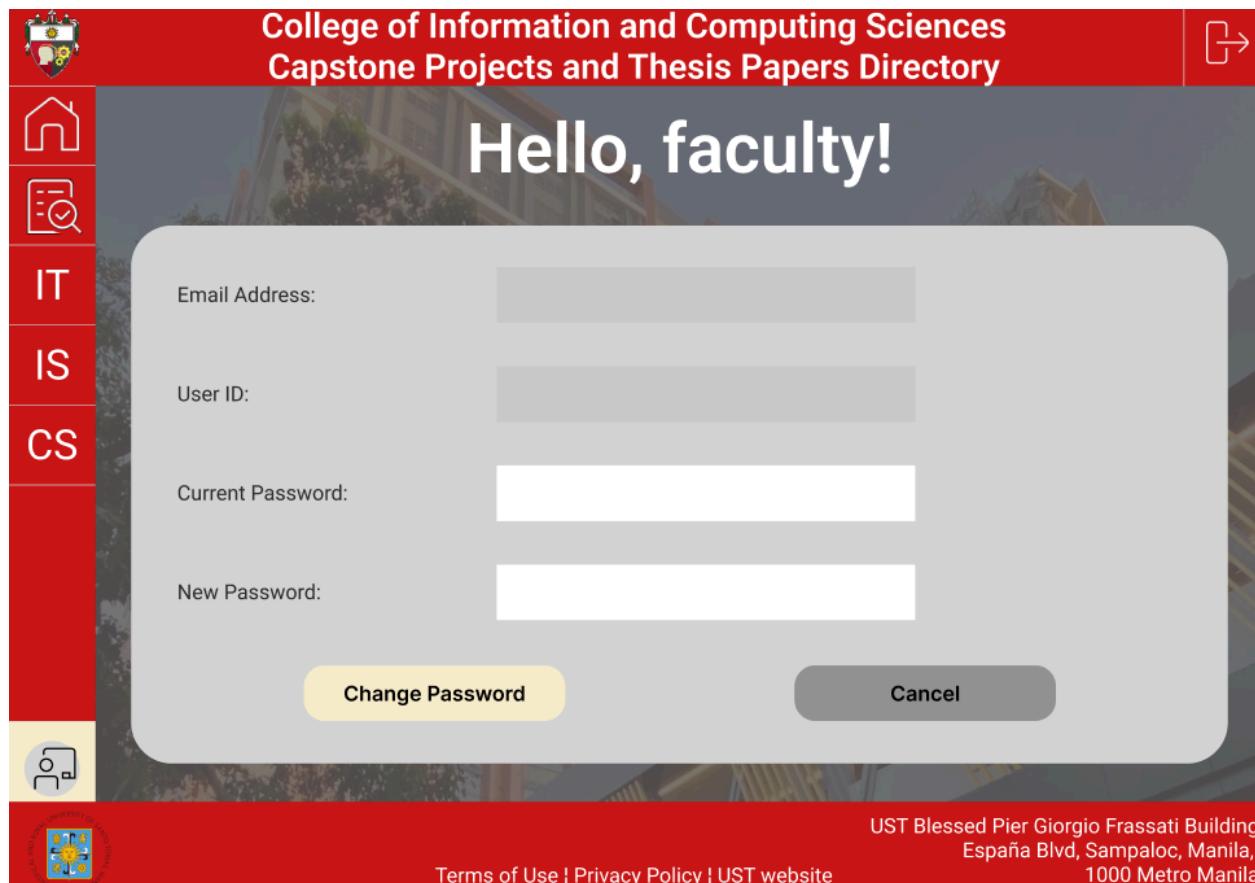


Figure 3.42: Faculty Profile

By clicking the profile icon at the bottom of the sidebar, the faculty member will be taken to their profile page, which contains their email address and user ID (both of which cannot be changed). This page also allows faculty members to change their passwords by entering their current and new passwords.

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

IP-registered IT Capstone Projects

All 2019-2023 2014-2018 2013 Available for Viewing Restricted More Sort by

IP Registration Number	Title	Specialization	Year Published	Author/s	Approval Form	ACM Paper
					View Document	View Document
					View Document	View Document
					View Document	View Document
					View Document	View Document
					View Document	View Document

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Figure 3.43: IP-registered IT Capstone Projects (Faculty Side)

The screenshot shows the faculty side of the capstone projects directory. The header features the college's logo and name, along with a search bar and a download icon. A sidebar on the left lists 'IT', 'IS', and 'CS' categories. The main content area displays a table for 'IP-registered IT Capstone Projects'. The table has two columns: 'Source Code' and 'Keywords'. Under 'Source Code', there are five rows, each with a 'View Document' button. The 'Keywords' column is empty. At the bottom of the page, there is a footer with the university's address and links to terms of use, privacy policy, and the UST website.

Source Code	Keywords
View Document	

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Figure 3.44: IP-registered IT Capstone Projects (Faculty Side) cont.

The screenshot shows a website for the College of Information and Computing Sciences. At the top, there is a red header bar with the text "College of Information and Computing Sciences" and "Capstone Projects and Thesis Papers Directory". On the left side, there is a vertical sidebar with icons for Home, Search, and Faculty (IT, IS, CS). The main content area features a large title "IP-registered IS Capstone Projects" and a search bar. Below the search bar is a navigation menu with filters: All, 2019-2023, 2014-2018, 2013, Available for Viewing, Restricted, More, and Sort by. The main content area displays a table with columns: IP Registration Number, Title, Specialization, Year Published, Author/s, Approval Form, and ACM Paper. Each row in the table has two "View Document" buttons. The footer contains the UST logo, the address "UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila", and links for Terms of Use, Privacy Policy, and UST website.

IP Registration Number	Title	Specialization	Year Published	Author/s	Approval Form	ACM Paper
					View Document	View Document
					View Document	View Document
					View Document	View Document
					View Document	View Document
					View Document	View Document

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Figure 3.45: IP-registered IS Capstone Projects (Faculty Side)

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

IP-registered IS Capstone Projects

All 2019-2023 2014-2018 2013 Available for Viewing Restricted More Sort by

Source Code	Keywords
View Document	

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Figure 3.46: IP-registered IS Capstone Projects (Faculty Side) cont.

The screenshot shows the faculty side of the website for the College of Information and Computing Sciences. The header features a red bar with the college's name and a search icon. A vertical sidebar on the left lists 'IT', 'IS', and 'CS'. The main content area displays a table of IP-registered CS Thesis Papers. The table has columns for IP Registration Number, Title, Specialization, Year Published, Author/s, Approval Form, and ACM Paper. Each row contains two 'View Document' buttons. The footer includes the university's logo, address, and links to Terms of Use, Privacy Policy, and the UST website.

IP Registration Number	Title	Specialization	Year Published	Author/s	Approval Form	ACM Paper
					View Document	View Document
					View Document	View Document
					View Document	View Document
					View Document	View Document
					View Document	View Document

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Figure 3.47: IP-registered CS Thesis Papers (Faculty Side)

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

IP-registered CS Thesis Papers

All 2019-2023 2014-2018 2013 Available for Viewing Restricted More Sort by

Source Code	Keywords
View Document	

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Figure 3.48: IP-registered CS Thesis Papers (Faculty Side) cont.

Figures 3.43, 3.45, and 3.47 show the list of IP-registered Capstone Projects from IT and IS, respectively, and Thesis Projects from CS. These can be accessed by clicking the IP-Registered Projects and Papers icon on the sidebar, prompting the faculty member to choose between the IT, IS, and CS departments. The table consists of the project/paper's IP registration number, title, specialization, publication year, author(s), a button to view the approval form, a button to view the ACM Paper, a button that leads the faculty member to the source code, and available keywords of the title project/paper.

The screenshot shows the 'IP-registered IT Capstone Projects' page. On the left, a vertical sidebar features icons for Home, Search, and Refresh, followed by the letters 'IT', 'IS', and 'CS'. The main content area has a header with the college's name and a search bar. Below is a table with columns for IP Registration Number, Title, Specialization, Year Published, Author/s, and two buttons ('Add to Best IT Capstone list' and 'Edit'). At the bottom, there are links for 'Add IT Capstone Project', 'Terms of Use', 'Privacy Policy', and 'UST website', along with the university's address: UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila.

IP Registration Number	Title	Specialization	Year Published	Author/s		
					<button>Add to Best IT Capstone list</button>	<button>Edit</button>
					<button>Add to Best IT Capstone list</button>	<button>Edit</button>
					<button>Add to Best IT Capstone list</button>	<button>Edit</button>
					<button>Add to Best IT Capstone list</button>	<button>Edit</button>

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Figure 3.49: IP-registered IT Capstone Projects (Faculty - Capstone Coordinator Side)

The screenshot shows the homepage of the College of Information and Computing Sciences Capstone Projects and Thesis Papers Directory. The header features the college's logo and name. A sidebar on the left lists 'IT', 'IS', and 'CS' with corresponding icons. The main content area displays a grid of capstone projects with columns for IP Registration Number, Title, Specialization, Year Published, Author/s, and actions (Add to Best IS Capstone list, Edit). A search bar and filter options (All, 2019-2023, 2014+2018, 2013, Available for Viewing, Restricted, More) are at the top. A button to 'Add IS Capstone Project' is visible. The footer contains links to Terms of Use, Privacy Policy, and the UST website, along with the college's address: UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila.

IP Registration Number	Title	Specialization	Year Published	Author/s	
					<button>Add to Best IS Capstone list</button> <button>Edit</button>
					<button>Add to Best IS Capstone list</button> <button>Edit</button>
					<button>Add to Best IS Capstone list</button> <button>Edit</button>
					<button>Add to Best IS Capstone list</button> <button>Edit</button>

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Figure 3.50: IP-registered IS Capstone Projects (Faculty - Capstone Coordinator Side)

The screenshot displays the 'IP-registered CS Thesis Papers' section of the college's directory. The interface includes a sidebar with departmental icons (Home, IP-Registered Projects and Papers, IT, IS, CS) and a search/filter bar at the top. A table lists thesis papers with columns for IP Registration Number, Title, Specialization, Year Published, Author/s, and actions (Add to Best CS Thesis Papers list, Edit). The bottom right corner contains the university's address: UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila.

Figure 3.51: IP-registered CS Thesis Papers (Faculty - Capstone Coordinator Side)

Figures 3.49, 3.50, and 3.51 show the list of IP-registered Capstone Projects from IT and IS, respectively, and Thesis Projects from CS. These can be accessed by clicking the IP-Registered Projects and Papers icon on the sidebar, which is only available for faculties with capstone coordinator role, prompting them to choose between the IT, IS, and CS departments. The table consists of the project/paper's IP registration number, title, specialization, publication year, author(s), an option to add to the best IT/IS/CS capstone projects/thesis papers list, and an edit button. At the bottom of the table is an "Add IT/IS/CS Capstone Project/Thesis Paper" button.

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

Add IT Capstone Project

IP Registration #: Specialization:

Capstone Title:

Author 1: Author 3:
Author 2: Author 4:

Year Published: Technical Adviser:

Full Document: Upload File

ACM Paper: Upload File

Source Code:

Approval Form: Upload File

Keywords:

Add IT Capstone Project **Cancel**

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Figure 3.52: Add IP-registered IT Capstone Projects (Faculty - Capstone Coordinator Side)

The screenshot shows a web application interface for managing capstone projects. On the left, there is a vertical sidebar with icons and labels: a house icon for Home, a magnifying glass icon for Search, a circular arrow icon for Refresh, and the letters IT, IS, and CS stacked vertically. Below these are two more icons: a person icon and a circular logo.

The main header reads "College of Information and Computing Sciences" and "Capstone Projects and Thesis Papers Directory". A large title "Add IS Capstone Project" is centered above a form area.

The form fields include:

- IP Registration #: (input field)
- Specialization: (dropdown menu)
- Capstone Title: (input field)
- Author 1: (input field)
- Author 3: (input field)
- Author 2: (input field)
- Author 4: (input field)
- Year Published: (input field)
- Technical Adviser: (input field)
- Full Document: (input field) with an "Upload File" button to its right.
- ACM Paper: (input field) with an "Upload File" button to its right.
- Source Code: (input field)
- Approval Form: (input field) with an "Upload File" button to its right.
- Keywords: (input field)

At the bottom of the form are two buttons: "Add IS Capstone Project" (in yellow) and "Cancel" (in red).

On the right side of the page, there is footer information: "UST Blessed Pier Giorgio Frassati Building", "España Blvd, Sampaloc, Manila, 1000 Metro Manila", and links to "Terms of Use", "Privacy Policy", and the "UST website".

Figure 3.53: Add IP-registered IS Capstone Projects (Faculty - Capstone Coordinator Side)

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

Add CS Thesis Paper

IP Registration #: Specialization:

Thesis Title:

Author 1: Author 3:
Author 2: Author 4:

Year Published: Technical Adviser:

Full Document:

ACM Paper:

Source Code:

Approval Form:

Keywords:

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Figure 3.54: Add IP-registered CS Thesis Papers (Faculty - Capstone Coordinator Side)

By clicking the "Add IT/IS/CS Capstone Projects/Thesis Papers" button, figures 3.52, 3.53 and 3.54 will be shown, prompting the faculties with the capstone coordinator role to input and upload all required information to add either a capstone project or a thesis paper to the list.

The screenshot shows a web application interface for managing capstone projects. On the left, there is a vertical sidebar with icons for Home, Search, and Faculty/Student roles, followed by the letters 'IT', 'IS', and 'CS'. The main header reads 'College of Information and Computing Sciences Capstone Projects and Thesis Papers Directory'. Below the header, the title 'Edit IT Capstone Project' is displayed. The form contains fields for 'IP Registration #', 'Specialization', 'Capstone Title', 'Author 1', 'Author 3', 'Author 2', 'Author 4', 'Year Published', 'Technical Adviser', 'Full Document' (with an 'Upload File' button), 'ACM Paper' (with an 'Upload File' button), 'Source Code' (with an 'Upload File' button), 'Approval Form' (with an 'Upload File' button), and 'Keywords'. At the bottom are two buttons: 'Save IT Capstone Project' (green) and 'Cancel' (red). The footer includes links for 'Terms of Use', 'Privacy Policy', and 'UST website', along with the university's address: 'UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila'.

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

Edit IT Capstone Project

IP Registration #: Specialization:

Capstone Title:

Author 1: Author 3:
Author 2: Author 4:

Year Published: Technical Adviser:

Full Document: Upload File

ACM Paper: Upload File

Source Code: Upload File

Approval Form: Upload File

Keywords:

Save IT Capstone Project Cancel

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Figure 3.55: Edit IP-registered IT Capstone Projects (Faculty - Capstone Coordinator Side)

The screenshot shows a web application interface for managing capstone projects. On the left, there is a vertical sidebar with icons and text: a shield logo at the top, followed by 'College of Information and Computing Sciences' and 'Capstone Projects and Thesis Papers Directory'. Below this, the letters 'IT', 'IS', and 'CS' are stacked vertically. To the right of the sidebar is the main content area.

The main content area has a title 'Edit IS Capstone Project' in large white font. Below the title are several input fields:

- IP Registration #:
- Specialization:
- Capstone Title:
- Author 1: Author 3:
- Author 2: Author 4:
- Year Published: Technical Adviser:
- Full Document: Upload File
- ACM Paper: Upload File
- Source Code:
- Approval Form: Upload File
- Keywords:

At the bottom of the form are two buttons: a green 'Save IS Capstone Project' button and a red 'Cancel' button.

At the very bottom of the page, there is footer text: 'Terms of Use | Privacy Policy | UST website' on the left, and 'UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila' on the right.

Figure 3.56: Edit IP-registered IS Capstone Projects (Faculty - Capstone Coordinator Side)

The screenshot shows a web application interface for managing thesis papers. On the left, there's a vertical sidebar with icons for Home, Search, and other navigation. The main header reads "College of Information and Computing Sciences Capstone Projects and Thesis Papers Directory". Below the header, the title "Edit CS Thesis Paper" is prominently displayed. The form contains fields for IP Registration # (disabled), Specialization (disabled), Thesis Title, Author 1, Author 2, Author 3, Author 4, Year Published, Full Document (with an Upload File button), ACM Paper (with an Upload File button), Source Code (disabled), Approval Form (with an Upload File button), and Keywords. At the bottom are "Save CS Thesis Paper" and "Cancel" buttons.

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Figure 3.57: Edit IP-registered CS Thesis Papers (Faculty - Capstone Coordinator Side)

Upon clicking the edit button of a title, figures 3.55, 3.56, and 3.57 will be shown, enabling the faculties with the capstone coordinator role to edit the title, specialization, authors, technical adviser, and keywords. The IP registration number, source code link, and final requirements file will not be editable and will be disabled.

The screenshot shows a dark-themed web application for managing capstone projects. At the top, a red header bar displays the college's name and a search icon. Below the header, a large title 'IP-registered IT Capstone Projects' is centered. To the left, a vertical sidebar features icons for Home, Search, and faculty/student categories (IT, IS, CS). The main content area lists projects by 'IP Registration Number' and 'Title'. A specific project entry is highlighted in a modal window. The modal contains the project's title, a detailed abstract (Lorem ipsum placeholder text), and two buttons: 'Generate PDF' and 'View Document'. In the bottom right corner of the modal, there is a table with columns 'Keywords' and 'ACM Paper', each containing five rows with 'View Document' buttons. The footer of the page includes links for 'Terms of Use', 'Privacy Policy', and 'UST website', along with the university's address: UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila.

Figure 3.58: View ACM Paper (Faculty Side)

Clicking the "View Document" button on an ACM Paper of a project/paper will prompt a modal containing the plain text version. A "Generate PDF" button will also appear, allowing the

faculty member to view and download a PDF version.

The screenshot shows a web application interface for managing capstone projects and thesis papers. At the top, there's a red header bar with the text "College of Information and Computing Sciences" and "Capstone Projects and Thesis Papers Directory". Below the header, a large title "Title Approval Form" is centered. To the left of the main content area, there's a vertical sidebar with icons and labels: a house icon for Home, a document with a checkmark icon for View Document, and three stacked letters IT, IS, and CS. At the bottom of the sidebar is another icon. The main content area contains a large text block with placeholder text (Lorem ipsum) describing a project. In the bottom right corner of the content area, there's a "Back" button. At the very bottom of the page, there's a footer with the UST logo, links for "Terms of Use | Privacy Policy | UST website", and the address "UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila".

Figure 3.59: View Approval Form (Faculty Side)

Clicking the "View Document" button on an approval form of a project/paper will also lead the faculty member to a page containing the plain text version. They can return to the previous page by clicking the "Back" button.

The screenshot shows a web page for the College of Information and Computing Sciences. The header features a red bar with the college's name and a search icon. A vertical sidebar on the left has icons for Home, Search, IT (highlighted in yellow), IS, and CS. The main content area displays a table titled "Best IT Capstone Projects" with three columns: "Web and Mobile Development:", "IT Automation:", and "Network and Security:". Each column contains four rows, each labeled "Title". At the bottom, there are links for Terms of Use, Privacy Policy, and the UST website, along with the college's address: UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila.

Web and Mobile Development:	IT Automation:	Network and Security:
Title	Title	Title

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Figure 3.60: Best IT Capstone Projects Page (Faculty Side)

The screenshot shows a web page for the College of Information and Computing Sciences. At the top, there's a red header bar with the college's logo on the left, followed by the text "College of Information and Computing Sciences" and "Capstone Projects and Thesis Papers Directory". On the right side of the header is a white search icon. Below the header, a vertical sidebar on the left features colored squares with icons: a house-like icon for Home, a magnifying glass for Search, the letters "IT", the letters "IS" (which is highlighted in yellow), and the letters "CS". To the right of the sidebar, the main content area has a dark background with a faint image of a building. A large white rounded rectangle contains the title "Best IS Capstone Projects" in bold. Below this, there are two columns: "Business Analytics:" on the left and "Service Management:" on the right. Both columns have four rows, each labeled "Title". At the bottom of the page, there's a red footer bar with the college's logo on the left, followed by links for "Terms of Use", "Privacy Policy", and "UST website". To the right, the address is listed: "UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila".

Best IS Capstone Projects	
Business Analytics:	Service Management:
Title	Title

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Figure 3.61: Best IS Capstone Projects Page (Faculty Side)

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

Best CS Thesis Papers

Core Computer Science:	Game Development:	Data Science:
Title	Title	Title

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Figure 3.62: Best CS Thesis Papers Page (Faculty Side)

Figures 3.60 3.61, and 3.62 show the table of the best capstone projects for IT and IS, and the best thesis papers for CS for each year. These can be accessed by clicking the desired department on the sidebar. Clicking on the titles will open a modal containing the plain text of its ACM Paper, which can generate a PDF form with a click of a button.

The screenshot shows a web application interface for managing capstone projects. On the left, there's a vertical sidebar with icons for Home, Search, and a clock, followed by the letters IT, IS, and CS. The main content area has a red header bar with the text "College of Information and Computing Sciences" and "Capstone Projects and Thesis Papers Directory". Below the header, a large title "Best IT Capstone Projects" is displayed. The main content is a table with three columns: "Web and Mobile Development:", "IT Automation:", and "Network and Security:". Each column contains four entries, each with a blue checkmark and the word "Title". At the bottom of the table are three buttons: "Save" (green), "Archive" (red), and "Cancel" (yellow). The footer of the page includes links for "Terms of Use", "Privacy Policy", and "UST website", along with the university's address: "UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila".

Web and Mobile Development:	IT Automation:	Network and Security:
✓ Title	✓ Title	✓ Title
✓ Title	✓ Title	✓ Title
✓ Title	✓ Title	✓ Title
✓ Title	✓ Title	✓ Title

Save Archive Cancel

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Figure 3.63: Edit Best IT Capstone Projects (Faculty - Capstone Coordinator Side)

The screenshot shows a web application interface for managing capstone projects. On the left, there's a vertical sidebar with icons for Home, Search, and a clock, followed by a red bar with the letters IT, IS, and CS. Below the sidebar is a user icon. The main header reads "College of Information and Computing Sciences Capstone Projects and Thesis Papers Directory". A large title "Best IS Capstone Projects" is centered above a modal dialog. The dialog has two sections: "Business Analytics:" on the left and "Service Management:" on the right, each containing four items labeled "Title". At the bottom of the dialog are three buttons: "Save" (green), "Archive" (red), and "Cancel" (yellow). The footer contains links for "Terms of Use", "Privacy Policy", and "UST website", along with the college's address: "UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila".

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

Best IS Capstone Projects

Business Analytics:

- ✓ Title
- ✓ Title
- ✓ Title
- ✓ Title

Service Management:

- ✓ Title
- ✓ Title
- ✓ Title
- ✓ Title

Save Archive Cancel

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Figure 3.64: Edit Best IS Capstone Projects(Faculty - Capstone Coordinator Side)

The screenshot shows a web-based application for managing capstone projects and thesis papers. At the top, there's a red header bar with the text "College of Information and Computing Sciences" and "Capstone Projects and Thesis Papers Directory". Below the header is a large title "Best CS Thesis Papers". To the left, there's a vertical sidebar with icons for Home, Search, Clock, IT, IS, CS, and Help. The main content area is divided into three columns: "Core Computer Science:", "Game Development:", and "Data Science:". Each column lists four items, each preceded by a blue checkbox. The "Core Computer Science:" column contains four entries labeled "Title". The "Game Development:" and "Data Science:" columns also contain four entries labeled "Title". At the bottom of the main area are three buttons: "Save" (green), "Archive" (red), and "Cancel" (yellow). In the bottom right corner, there's some text about the location: "UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila".

Figure 3.65: Edit Best CS Thesis Papers (Faculty - Capstone Coordinator Side)

By clicking the "Edit List" button from the best capstone projects for IT and IS and the best thesis papers for CS, figures 3.63, 3.64, or 3.65 will be shown, allowing faculties with the capstone coordinator role to select or deselect titles they want to remove from the list. Clicking the "Save" button will save their modifications while clicking "Cancel" will discard the changes and return the list to its previous state.

Student Side

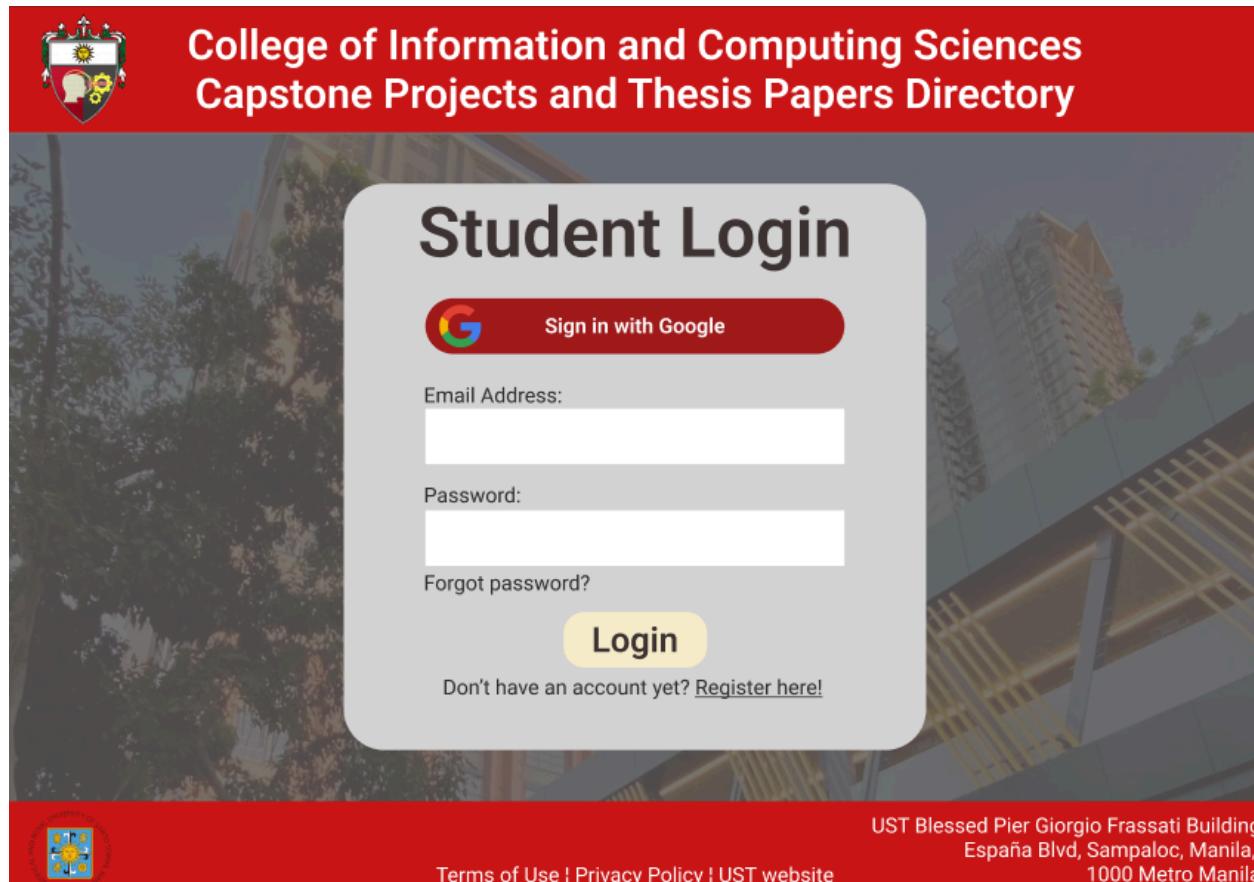


Figure 3.66: Student Login Page

In the login page, the student will be prompted to enter their correct login credentials and click the login button to access the website. It also gives the student an option to sign in using their GSuite accounts.

The screenshot shows the 'Create Student Account' page of the College of Information and Computing Sciences Capstone Projects and Thesis Papers Directory. The page features a red header with the college's logo and name. Below the header, a large banner image of a modern building is visible. The main form area contains fields for First Name, Last Name, UST Email Address, and Student ID, each with a corresponding input field. There is also a Password field with a note below it stating '(Must contain at least 8 characters, a combination of uppercase letters, lowercase letters, and numbers.)'. A reCAPTCHA verification box is present. At the bottom of the form are two buttons: 'Create Account' (highlighted in yellow) and 'Back'. The footer of the page includes the college's logo, links for Terms of Use, Privacy Policy, and the UST website, and the physical address: UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila.

Figure 3.67: Student Registration Page

If the student has no account yet, they can click "Register here" at the bottom of the login page. They will then be redirected to the student account creation page, where they will be asked to enter the necessary information for account creation and complete a CAPTCHA to confirm their identity.



Figure 3.68: Student Forgot Password

If the student forgets their password, they can click "Forgot password?" on the login page to be directed to the password recovery page. They will then be prompted to enter their registered email address to receive a password reset link.

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

Homepage

About UST

Student Handbook

Others

UST Blessed Pier Giorgio Frassati Building
España Blvd, Sampaloc, Manila,
1000 Metro Manila

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Figure 3.69: Student Homepage

The homepage will be the first page to greet the student. Here, they can find information about UST, CICS, the Student Handbook, and other available resources.

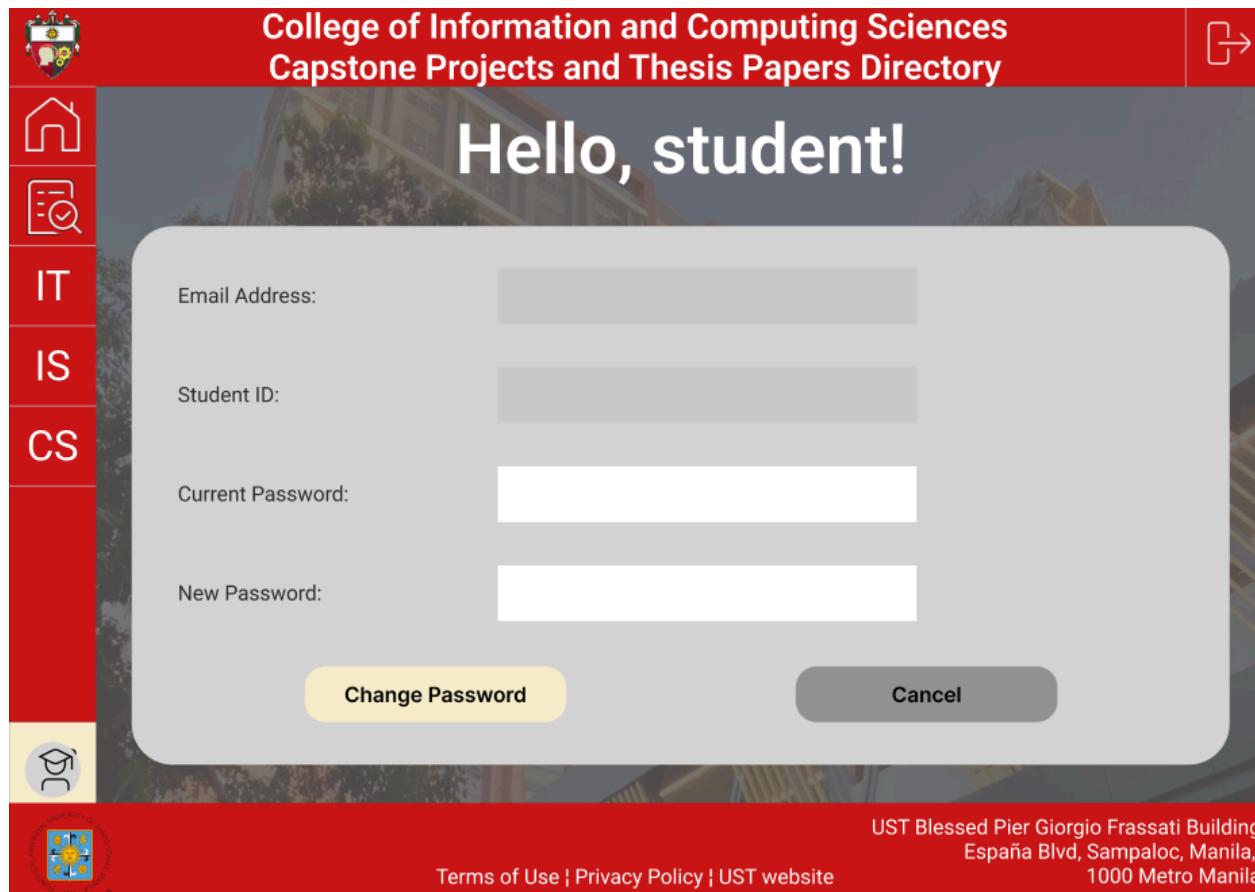


Figure 3.70: Student Profile

By clicking the profile icon at the bottom of the sidebar, the student will be taken to their profile page, which contains their email address and student ID (both of which cannot be changed). This page also allows students to change their passwords by entering their current and new passwords.

The screenshot shows the homepage of the College of Information and Computing Sciences Capstone Projects and Thesis Papers Directory. The header features a red bar with the college's name and a search icon. A sidebar on the left lists 'IT', 'IS', and 'CS'. The main content area displays a grid of projects with columns for IP Registration Number, Title, Specialization, Year Published, Author/s, Technical Adviser, Keywords, and ACM Paper. Each project row includes a 'View Document' button. At the bottom, there are links for 'Submit Final Requirements', 'Terms of Use', 'Privacy Policy', and 'UST website', along with the college's address: UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila.

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

IP-registered IT Capstone Projects

Sort by

IP Registration Number	Title	Specialization	Year Published	Author/s	Technical Adviser	Keywords	ACM Paper
							View Document
							View Document
							View Document
							View Document
							View Document

Submit Final Requirements

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Figure 3.71: IP-registered IT Capstone Projects (Student Side)

The screenshot shows the homepage of the College of Information and Computing Sciences Capstone Projects and Thesis Papers Directory. The header features a red bar with the college's name and a search icon. A sidebar on the left lists 'IT', 'IS', and 'CS' with corresponding icons. The main content area displays a grid of capstone projects with columns for IP Registration Number, Title, Specialization, Year Published, Author/s, Technical Adviser, Keywords, and ACM Paper. Each project row includes a 'View Document' button. At the bottom, there are links for 'Submit Final Requirements', 'Terms of Use', 'Privacy Policy', and 'UST website'. The footer contains the university's logo and address: UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila.

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

IP-registered IS Capstone Projects

All 2019-2023 2014-2018 2013 Available for Viewing Restricted More Sort by

IP Registration Number	Title	Specialization	Year Published	Author/s	Technical Adviser	Keywords	ACM Paper
							<button>View Document</button>
							<button>View Document</button>
							<button>View Document</button>
							<button>View Document</button>
							<button>View Document</button>

Submit Final Requirements

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Figure 3.72: IP-registered IS Capstone Projects (Student Side)

The screenshot displays the 'IP-registered CS Thesis Papers' section of the college's website. The sidebar on the left features icons for Home, Search, IT, IS, and CS. The main content area includes a search bar and a table with columns: IP Registration Number, Title, Specialization, Year Published, Author/s, Technical Adviser, Keywords, and ACM Paper. Each row in the table contains a 'View Document' button. The bottom right of the page provides the university's address: UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila.

Figure 3.73: IP-registered CS Thesis Papers (Student Side)

Figures 3.71, 3.72, and 3.73 show the list of IP-registered Capstone Projects from IT and IS, respectively, and Thesis Projects from CS. These can be accessed by clicking the IP-Registered Projects and Papers icon on the sidebar, prompting the student to choose between the three departments: IT, IS, and CS. The table consists of the project/paper's IP registration number, title, specialization, publication year, author(s), technical adviser, a button to view the ACM Paper, and available keywords of the title project/paper.

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

IP-registered IT Capstone Projects

Sort by

IP Registration Number	Title	Keywords	ACM Paper
			View Document

Title

Placeholder text (Lorem ipsum) describing the project content.

[Generate PDF](#)

[View Document](#)

[Submit Final Requirements](#)

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Figure 3.74: View ACM Paper (Student Side)

Clicking the "View Document" button on an ACM Paper of a project/paper will prompt a modal containing the plain text version. A "Generate PDF" button will also appear, allowing the student to view and download a PDF version.

The screenshot shows a web page for the College of Information and Computing Sciences. The header features a red bar with the college's name and a search icon. A sidebar on the left lists 'IT', 'IS', and 'CS' with corresponding icons. The main content area displays a table with three columns: 'Web and Mobile Development:', 'IT Automation:', and 'Network and Security:'. Each column contains four rows, each labeled 'Title'. At the bottom, there are links for 'Terms of Use | Privacy Policy | UST website' and the college's address: 'UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila'.

Web and Mobile Development:	IT Automation:	Network and Security:
Title	Title	Title

UST Blessed Pier Giorgio Frassati Building
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1000 Metro Manila

Figure 3.75: Best IT Capstone Projects Page (Student Side)

The screenshot shows a web page titled "College of Information and Computing Sciences Capstone Projects and Thesis Papers Directory". On the left, there is a vertical navigation bar with icons for Home, Search, IT, IS (highlighted in yellow), and CS. Below the navigation bar is the university's logo. The main content area features a large title "Best IS Capstone Projects". Below it is a table with two columns: "Business Analytics:" and "Service Management:". Both columns contain four rows, each labeled "Title". At the bottom of the page, there are links for "Terms of Use", "Privacy Policy", and "UST website", along with the university's address: "UST Blessed Pier Giorgio Frassati Building, España Blvd, Sampaloc, Manila, 1000 Metro Manila".

Business Analytics:	Service Management:
Title	Title

UST Blessed Pier Giorgio Frassati Building
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1000 Metro Manila

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Figure 3.76: Best IS Capstone Projects Page (Student Side)

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

Best CS Thesis Papers

Core Computer Science:	Game Development:	Data Science:
Title	Title	Title

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Figure 3.77: Best CS Thesis Papers Page (Student Side)

Figures 3.75, 3.76, and 3.77 show the table of the best capstone projects for IT and IS, and the best thesis papers for CS for each year. These can be accessed by clicking the desired department on the sidebar. Clicking on the titles will open a modal containing the plain text of its ACM Paper, which can generate a PDF form with a click of a button.

The screenshot shows a web-based submission form titled "Final Requirements Submission". The header includes the college's logo and name, and a red navigation bar on the left with vertical tabs labeled "IT", "IS", and "CS". The main form area contains fields for "IP Registration #:" (disabled), "Specialization:", "Capstone Title:", "Author 1:", "Author 2:", "Year Published:", "Technical Adviser:", "Full Document:" (with an "Upload File" button), "Conference Paper:" (with an "Upload File" button), "Source Code:", "Approval Form:" (with an "Upload File" button), and "Keywords:". At the bottom are "Submit" and "Cancel" buttons.

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

Final Requirements Submission

IP Registration #: Specialization:

Capstone Title:

Author 1: Author 3:
Author 2: Author 4:

Year Published: Technical Adviser:

Full Document: Upload File

Conference Paper: Upload File

Source Code:

Approval Form: Upload File

Keywords:

Submit **Cancel**

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Figure 3.78: Final Requirements Submission Page (Student Side)

The student, who is the leader of their group, can also submit their final requirements by clicking the "Submit Final Requirements" button at the bottom of the IP-Registered Projects and Papers page, which will only be available on specific dates. This will lead the student to figure xx, where they will be prompted to submit the following requirements. The IP Registration Number will be disabled as this will be assigned automatically.

General

Title	short description	Month and Year
Title	short description	Month and Year
Title	short description	Month and Year
Title	short description	Month and Year
Title	short description	Month and Year
Title	short description	Month and Year
Title	short description	Month and Year
Title	short description	Month and Year
Title	short description	Month and Year
Title	short description	Month and Year
Title	short description	Month and Year
Title	short description	Month and Year
Title	short description	Month and Year
Title	short description	Month and Year
Title	short description	Month and Year

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Figure 3.79: Search Function

By typing a word, files containing the typed word in their title, contents, or keywords will appear in the results. The results will display the project's or paper's title, a short description, and the month and year of publication.

College of Information and Computing Sciences
Capstone Projects and Thesis Papers Directory

IP-registered IT Capstone Projects

Sort by

- Academic Year (Oldest to Newest)
- Academic Year (Newest to Oldest)
- Year Submitted (Oldest to Newest)
- Year Submitted (Newest to Oldest)
- Title (A-Z)
- Title (Z-A)
- Author(s) (A-Z)
- Author(s) (Z-A)
- Technical Adviser (A-Z)
- Technical Adviser (Z-A)
- Keywords (A-Z)
- Keywords (Z-A)

View Document

Submit Final Requirements

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Figure 3.80: Sort By Function

For the "Sort by" function, users can sort the results based on various criteria such as Academic Year (Oldest to Newest), Academic Year (Newest to Oldest), Year Submitted (Oldest to Newest), Year Submitted (Newest to Oldest), Title (A-Z), Title (Z-A), Author(s) (A-Z), Author(s) (Z-A), Technical Adviser (A-Z), Technical Adviser (Z-A), Keywords (A-Z), and Keywords (Z-A). This sorting feature allows users to organize the search results according to their preferences, making finding specific projects or papers easier.

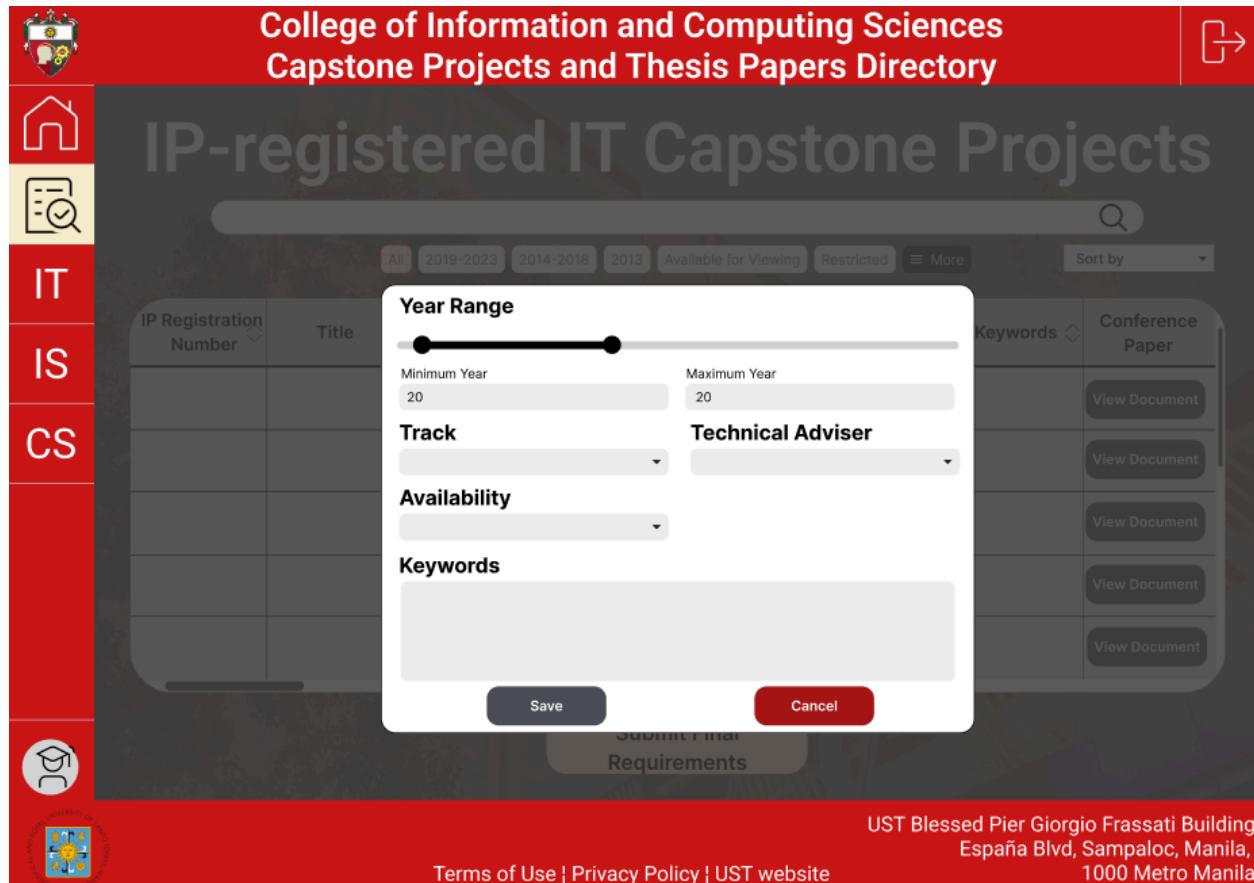


Figure 3.81: Filter Function

For the "Filter" function, users can refine their search results using several criteria. Users can set a Year Range by adjusting the minimum and maximum year sliders. They can also filter results by Track, selecting from various specializations available. Additionally, users can specify the Technical Adviser, choose Availability options, and enter Keywords relevant to their search. This filtering capability enables users to narrow their search results, making it easier to find specific projects or papers matching their criteria.

Test Plan

Testing will be done in a modular process. The system has three actors: the student, faculty, and the administrator. For the functional requirements, unit and integration testing will be implemented.

Unit Testing

Unit testing will be conducted by the project's software developers, who will run each code and page of the website to check for bugs and errors. The unit testing will be performed starting from the login page, homepage, view capstone projects list page, manage (add/edit/delete) capstone project page, view capstone project documents, manage (approve/decline) pending capstone projects, submit capstone projects, search projects, filter projects, and generate PDFs. The database will also be checked to ensure that updates done with the data of the website contents are successfully reflected.

Integration Testing

Integration testing will check the behavior of the entire system and its interface with the software modules. If no errors are found, the Integration testing stage will be conducted, including checks for possible bugs and environment issues such as memory allocation failures.

Alpha Testing

Alpha testing will be done by the quality assurance team to test the system for performance issues and bugs from a user's perspective, allowing needed improvements to be applied before User Acceptance Testing (UAT).

User Acceptance Test (UAT)

System tests will be approached through unit testing, integration testing, and UAT. In UAT, actual users will test the system to determine if it performs its necessary tasks and provides the right solutions to the department's requirements.

Features to be Tested

The following are the functional and non-functional requirements that will be tested for the Capstone Project Directory System for UST IT Department:

Functional Requirements from Administrator's Perspective (For Testing)

1. Login

1.1. Forgot Password

1.2. Logout

2. My Account

2.1. Change Password

3. Admin Dashboard

3.1. Add Capstone Project

3.2. Edit Capstone Project

4. List of Capstone Projects

4.1. View Capstone Project documents

4.2. Sort Capstone Projects (IP Registration Number, Title, Specialization, Year

Published, Technical Adviser)

5. Approval of Pending Capstone Projects

5.1. Approve or Reject submitted projects

6. Best Capstone Projects and Thesis Papers

6.1. View and manage the list of best projects

6.2. Archive best projects or papers

Functional Requirements from Student's Perspective (For Testing)

1. Login

1.1. Register

1.2. Forgot Password

1.3. Logout

2. My Account

2.1. Change Password

3. Student Dashboard

3.1. Homepage button

3.2. Capstone Projects button

4. List of Capstone Projects

4.1. View Conference Paper button

4.2. Sort Capstone Projects (Title, Specialization, Year Published, Technical Adviser)

5. Submission of Capstone Projects and Thesis Papers

5.1. Enter and submit project details

6. Search and Filter Projects

6.1. Search projects by various criteria and apply filters

Functional Requirements from Faculty's Perspective (For Testing)

1. Login

- 1.1. Register
- 1.2. Forgot Password
- 1.3. Logout

2. My Account

- 2.1. Change Password

3. Faculty Dashboard

- 3.1. Homepage button
- 3.2. Capstone Projects button

4. List of Capstone Projects

- 4.1. View Capstone Project documents (AVP, ACM, Approval Form)
- 4.2. Sort Capstone Projects (Title, Specialization, Year Published, Technical Adviser)

5. Search and Filter Projects

- 5.1. Search projects by various criteria and apply filters

Non-functional Requirements (For Testing)

- 1. **Manageability** - Test if the system performs all its functions needed to easily manage the capstone projects.
- 2. **Security** - Test if the system only accepts users that register using the email provided by the University of Santo Tomas with the domain ust.edu.ph.
- 3. **Reliability** - Test the system's accuracy in performing its functions, including the searching and submitting of documents.

4. **Scalability** - Test the system to ensure it can handle a high amount of workload.
5. **UI Functionality and Design** - Ensure the system's interface is aesthetically appealing and user-friendly.
6. **Security and Encryption** - Ensure the system uses strong security measures involving data encryption and two-factor authentication.
7. **Responsiveness** - Ensure the system performs well across several platforms and screen sizes.
8. **Usability** - Ensure the system is simple and straightforward with clear instructions and help features.
9. **Data Integrity** - Ensure the system guarantees data integrity by incorporating safeguards against data loss and corruption.

Test Cases

Test Case ID: Login_TC01		Test Designed by: Stephanie Leigh Mangahas									
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024									
Module Name: Authentication		Test Executed by:									
Test Title: Successful Login		Test Execution date:									
Description: Ensure users can log in with correct credentials											
Pre-conditions:		User has a registered account									
Dependencies:		User registration module									
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes					
1	Navigate to the login page		The user will be redirected to the login								

			page			
2	Enter a valid email address	john.doe@ust.edu.ph	The system will accept the users input			
3	Enter the correct password	password123	The system will accept the users input			
4	Click the "Log in" button		The user will be redirected to the homepage			
Post Conditions:		User is logged in				

Table 3.3: Successful Login Test Plan

Test Case ID: Login_TC02		Test Designed by: Stephanie Leigh Mangahas									
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024									
Module Name: Authentication		Test Executed by:									
Test Title: Unsuccessful Login with Incorrect Password		Test Execution date:									
Description: Ensure users cannot log in with incorrect Password											
Pre-conditions:		User has a registered account									
Dependencies:		User registration module									
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes					
1	Navigate to the login page		The user will be redirected to the login page								

2	Enter a valid email address	john.doe@ust.edu.ph	The system will accept the users input			
3	Enter the incorrect password	wrongpassword	The system will not accept the users input			
4	Click the "Log in" button		The user will receive an error message indicating incorrect password			
Post Conditions:		User remains on the login page				

Table 3.4: Unsuccessful Login Test Plan

Test Case ID: Register_TC03		Test Designed by: Stephanie Leigh Mangahas									
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024									
Module Name: Authentication		Test Executed by:									
Test Title: Successful Registration		Test Execution date:									
Description: Ensure users can register with valid information											
Pre-conditions:		User must have a valid UST account									
Dependencies:		User registration module									
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes					
1	Navigate to the registration page		The user will be redirected to the registration page								

2	Enter valid email	stephanieleigh.mangahas.cics@ust.edu.ph	The system checks if the email is registered or not			
3	Enter valid password	password123	The system will accept the users input			
4	Click the "Register" button		User receives a confirmation notification and is redirected to the login page			
Post Conditions:		User Account is created				

Table 3.5: Successful Registration Test Plan

Test Case ID: Register_TC04		Test Designed by: Mary Julia Sharina A. Malagayo									
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024									
Module Name: Authentication		Test Executed by:									
Test Title: Unsuccessful Duplicate Registration		Test Execution date:									
Description: Ensure users cannot register when they're already registered beforehand											
Pre-conditions:		User must have a registered account									
Dependencies:		User registration module									
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes					
1	Navigate to the registration page		The user will be redirected to the								

			registration page			
2	Enter already registered email	stephanieleigh.mangahas.cics@ust.edu.ph	The system checks if the email is registered or not			
3	Enter valid password	password123	The system will accept the users input			
4	Click the "Register" button		An alert will pop up saying that an account under the email already exist			
Post Conditions:		The user will not be able to reuse any registered email				

Table 3.6: Unsuccessful Duplicate Registration Test Plan

Test Case ID: ForgotPass_TC05	Test Designed by: Mary Julia Sharina A. Malagayo					
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024					
Module Name: Authentication	Test Executed by:					
Test Title: Successful Password Recovery	Test Execution date:					
Description: Ensures that a user can successfully reset their password using the "Forgot Password" feature, which sends a password reset link to their registered email address.						
Pre-conditions:	User has a registered account in the system					
	User has access to registered email					
Dependencies:	User registration module					
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes

1	Navigate to the login page		The user will be redirected to the login page			
2	Click the "Forgot Password" link under the password input field		The user will be redirected to the password recovery page			
3	Enter registered email	john.doe@ust.edu.ph	The system checks if the email is registered			
4	Click the "Reset Password" button		The user will receive an email containing a password reset link			
5	Click the password reset link provided in the user's email		The user will be redirected to the "Enter new password" page			
6	Enter new password	newpassword123	The system will accept the user's input			
7	Click the "Save" button		The system will save the user input			
Post Conditions:		The user successfully reset their password and can login using the new one				

Table 3.7: Successful Password Recovery Test Plan

Test Case ID: ForgotPass_TC06	Test Designed by: Mary Julia Sharina A. Malagayo
-------------------------------	--

Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024				
Module Name: Authentication		Test Executed by:				
Test Title:Unsuccessful Password Recovery		Test Execution date:				
Description: Ensures that the system will not be able to proceed if the email submitted is not registered						
Pre-conditions:		User has no registered account in the system				
Dependencies:		User registration module				
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Navigate to the login page		The user will be redirected to the login page			
2	Click the "Forgot Password" link under the password input field		The user will be redirected to the password recovery page			
3	Enter registered email	unregistered @ust.edu.ph	The system checks if the email is registered			
4	Click the "Reset Password" button		The system will show an "Email is not registered" alert			
Post Conditions:		The system will show an "Email is not registered" alert				

Table 3.8: Unsuccessful Password Recovery Test Plan

Test Case ID: ChangePass_TC07	Test Designed by: Mary Julia Sharina A. Malagayo
--------------------------------------	---

Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024				
Module Name: Authentication		Test Executed by:				
Test Title: Successful Password Change		Test Execution date:				
Description: Ensures that a user can successfully change their password when valid credentials and a new password are provided.						
Pre-conditions:		The user is registered in the system				
		The user is logged in				
Dependencies:		User Profile				
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Navigate to the profile page		The user will be redirected to the profile page			
2	Enter current password	password123	The system validates the current password.			
3	Enter new valid password	newpassword 123	The system checks that the new password meets the required criteria			
4	Click the "Save" button		The system updates the user's password in the database and a success message is displayed, indicating that the password			

			has been changed successfully			
Post Conditions:	The user can log in with the new password and cannot login with the former password.					

Table 3.9: Successful Password Change Test Plan

Test Case ID: EditList_TC08		Test Designed by: Mary Julia Sharina A. Malagayo									
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024									
Module Name: Administrators		Test Executed by:									
Test Title: Edit capstone projects and thesis papers		Test Execution date:									
Description: Ensure administrators and capstone coordinators can view and edit the projects and papers.											
Pre-conditions:		User is logged in as administrator or as a capstone coordinator									
Dependencies:		Project data in the database									
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes					
1	Navigate to the list of IP-registered capstone projects and thesis papers page		The user will be redirected to the list of IP-registered capstone projects and thesis papers page								
2	Click the "Edit" Button of a project/paper		The user will be redirected to the edit page								

3	Input new specialization, title, author/s, technical adviser, year published, and/or keywords	Specialization: IT automation	The system will accept the user's input			
4	Click the "Save" button		The system overrides the previous information with the new one			
Post Conditions:		The project/paper has the updated information.				

Table 3.10: Edit and View Capstone Projects and Thesis Papers Test Plan

Test Case ID: Submission_TC09		Test Designed by: Stephanie Leigh Mangahas				
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024				
Module Name: Project Submission		Test Executed by:				
Test Title: Successful Project Submission		Test Execution date:				
Description: Ensure students can submit their projects						
Pre-conditions:		User is logged in as a student				
Dependencies:		User login module				
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Navigate to "Submit Project" page		Project submission page is displayed			

2	Enter project title	Capstone Project 2024	The user will be able to input on the title field			
3	Enter project description	Description of the project	The user will be able to input on the description field			
4	Upload project files	capstone2024.pdf	The files will be uploaded successfully			
5	Click the "Submit" button		Project is submitted successfully and confirmation message is displayed			
Post Conditions:		Project is stored on the database				

Table 3.11: Submission of Capstone Projects and Thesis Papers Test Plan

Test Case ID: EditBest_TC10		Test Designed by: Stephanie Leigh Mangahas				
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024				
Module Name: Administrator		Test Executed by:				
Test Title: Edit best capstone projects		Test Execution date:				
Description: Ensure administrators and capstone coordinators can view and edit the list of best projects.						
Pre-conditions:	User is logged in as administrator or as capstone coordinators					
Dependencies:	Project data in the database					
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes

1	Enter valid email	stephanieleigh.mangahas.cics@ust.edu.ph	The system will accept the users input			
2	Enter valid password	password123	The system will accept the users input			
3	Navigate to the "Best Projects" page		The user will be redirected to the "Best Projects" page			
4	Click on the "Edit List" button		Checkboxes will appear beside each capstone project			
5	Select the capstone project	Capstone Project 2024				
6	Click on the "Save" button		The selected capstone is added to the list			
Post Conditions:		The best capstone and thesis list will be updated				

Table 3.12: View and Edit the Best Capstone Projects and Thesis Papers Test Plan

Test Case ID: Search_TC11	Test Designed by: Stephanie Leigh Mangahas
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024
Module Name: Search	Test Executed by:
Test Title: Successful Search by Title	Test Execution date:
Description: Ensure users can search for projects by title	
Pre-conditions:	User is logged in
Dependencies:	Project data in the database

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Navigate to the search page		Search page is displayed			
2	Enter project title in the search bar	Capstone Project 2024	Project title is entered in the search bar			
3	Click on the "Search" button		Projects matching the title are displayed			
Post Conditions:		Search results are displayed				

Table 3.13: Successful Search by Title Test Plan

Test Case ID: Filter_TC12	Test Designed by: Stephanie Leigh Mangahas					
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024					
Module Name: Search	Test Executed by:					
Test Title: Filter by specialization	Test Execution date:					
Description: Ensure users can filter projects by specialization						
Pre-conditions:	User has a valid account and is logged in					
Dependencies:	Project data in the database					
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Navigate to the project list page		Project list is displayed			
2	Select a specialization from the	Information Technology	Specialization is selected from the			

	dropdown list		dropdown list			
3	Click on the "Apply" Filter		Projects matching the specialization are displayed			
Post Conditions:		Filtered Projects are displayed				

Table 3.14: Successful Filter by Specialization Test Plan

Test Case ID: Approval_TC13		Test Designed by: Stephanie Leigh Mangahas									
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024									
Module Name: Project Approval		Test Executed by:									
Test Title: Approve a Project		Test Execution date:									
Description: Ensure administrators can approve pending projects											
Pre-conditions:		User is logged in as administrator									
Dependencies:		Project submission module									
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes					
1	Login using the admin account	john.doe@u st.edu.ph, password123	The user will be redirected to the homepage with the admin dashboard visible								
2	Navigate to the "Pending Projects" page		Pending Projects are displayed								

3	Select a project from the list	Capstone Project 2024	Project details are displayed			
4	Click on the Approve button		Project status is updated to "Approved"			
Post Conditions:		Project is marked as approve				

Table 3.15: Approval of Pending Capstone Projects and Thesis Papers Test Plan

Test Case ID: Generate_PDF_TC14		Test Designed by: Stephanie Leigh Mangahas									
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024									
Module Name: Document Generation		Test Executed by:									
Test Title: Generate PDF of a project		Test Execution date:									
Description: Ensure users can generate a PDF of a project											
Pre-conditions:		User is logged in a viewing a project									
Dependencies:		Project details page									
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes					
1	Navigate to the IP-registered and IT Capstones page		IP-registered and IT Capstones page is displayed								
2	Click on "View Document" of a project	Capston Project 2024	Title and description of the project will be displayed								
3	Click on the "Generate PDF" button		PDT of the project is generated and								

			available for download			
Post Conditions:	PDF of the project is available for download					

Table 3.16: PDF Generation of a Capstone Project or a Thesis Paper Test Plan

Test Case ID: TAC_Analysis_TC15		Test Designed by: Keane Joshua Lee									
Test Priority (Low/Med/High): Med		Test Designed date: 13/07/2024									
Module Name: Text and Content Analysis		Test Executed by:									
Test Title: Keyword Searching		Test Execution date:									
Description: Verify the keyword searching functionality by searching for a specific keywords from existing projects.											
Pre-conditions:		User is logged in a viewing a project									
Dependencies:		Project data in the database									
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes					
1	Navigate to the search bar		The user will be redirected to the search page								
2	Enter a keyword in the search bar	"keyword"	All results containing the word searched will be suggested to the user								
3	Click the search button		The system will show all results containing the keyword								
4	Verify that search		All displayed								

	results are relevant		results contain the keyword.			
Post Conditions:	Search results of files containing the keyword are displayed					

Table 3.17: Successful Text and Content Analysis Test Plan

Test Case ID: Role_Management_TC16		Test Designed by: Stephanie Leigh Manghas									
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024									
Module Name: User Management		Test Executed by:									
Test Title: Change User Role		Test Execution date:									
Description: Ensure administrators can change faculty roles											
Pre-conditions:		User is logged in as an administrator									
Dependencies:		User accounts									
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes					
1	Navigate to the "Manage Roles" page		Manage roles page is displayed								
2	Select a faculty member from the list	John Doe	Faculty member details are displayed								
3	Choose a new role from the dropdown	Capstone Coordinator	New role is selected from the dropdown								
4	Click on the "save" button		Role of the selected faculty member is updated successfully								
Post Conditions:		Faculty members' role is updated									

Table 3.18: User Role Management Test Plan

Test Case ID: Role_Management_TC17	Test Designed by: Mary Julia Sharina A. Malagayo				
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024				
Module Name: User Management	Test Executed by:				
Test Title: Change User Role	Test Execution date:				
Description: Ensure administrators can delete retired/resigned faculty members					
Pre-conditions:	User is logged in as an administrator				
Dependencies:	User accounts				
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)
1	Navigate to the "Manage Roles" page		Manage roles page is displayed		
2	Select a retired/resigned faculty member from the list	John Doe	Faculty member details are displayed		
3	Press the "Delete" button		The system will ask the user to confirm the decision		
4	Click on the "Confirm" button		The retired/resigned faculty member will be deleted from the list		
Post Conditions:		The list of faculty members are successfully updated.			

Table 3.19: Faculty Account Deletion Test Plan

Test Case ID: Logout_TC18	Test Designed by: Stephanie Leigh
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		Mangahas									
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024									
Module Name: Authentication		Test Executed by:									
Test Title: Succesful Logout		Test Execution date:									
Description: Ensure users can logout of the system											
Pre-conditions:		User is logged in									
Dependencies:		User login module									
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes					
1	Click on the "Logout" button		User is logged out and redirected to the login page								
Post Conditions:		User is logged out of the system									

Table 3.20: Successful Logout Test Plan

Implementation Plan

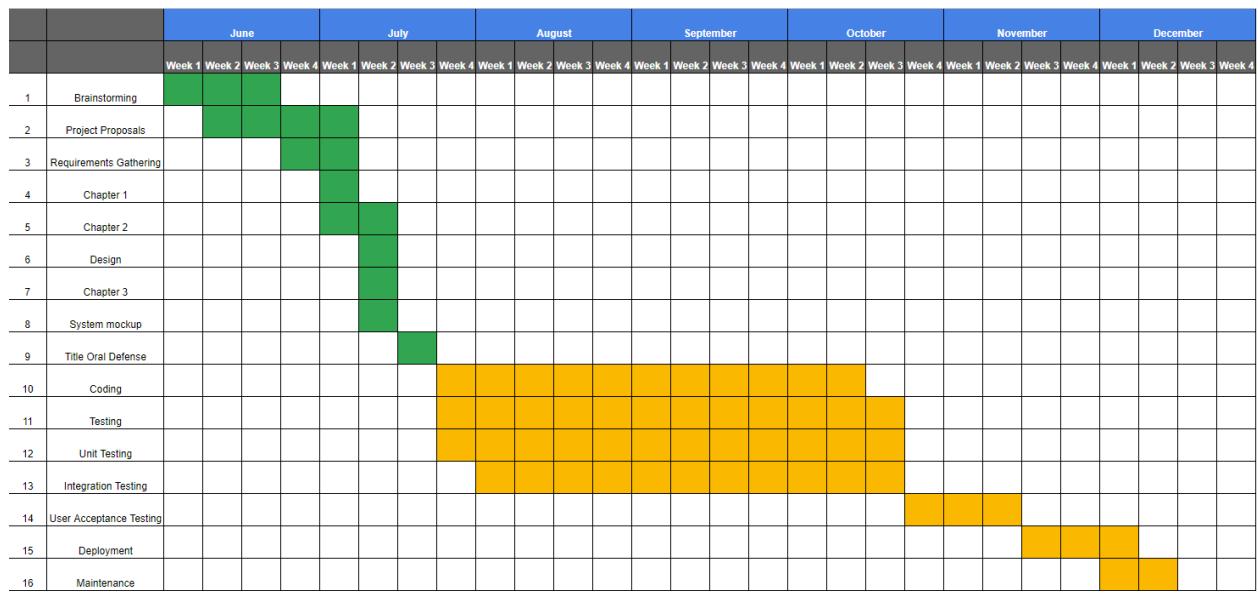


Figure 3.82: Gantt Chart

The figure above shows the time allocation for the project. It indicates which phase of the project will be worked on and when it is expected to be completed. During the first two months, the proponents are expected to work on the project proposals and Chapters 1 through 3 of the paper, covering the Introduction, Review of Related Literature, and Methodology. The rest of the time will be dedicated to coding and testing the system. The second version of the Capstone Project Directory System is expected to be completed in the second week of December, at the end of the last term of the academic year 2024.

Chapter 4: Implementation, Results and Discussion

In this chapter, the implementations, testing, results, and discussions will be thoroughly explained. The design and requirements of the project, together with the results of the overall tests for our system, that were done in accordance with the respective functions, will be presented here thoroughly as well.

4.1 Requirements Documentation

4.1.1 Use-Case Diagram

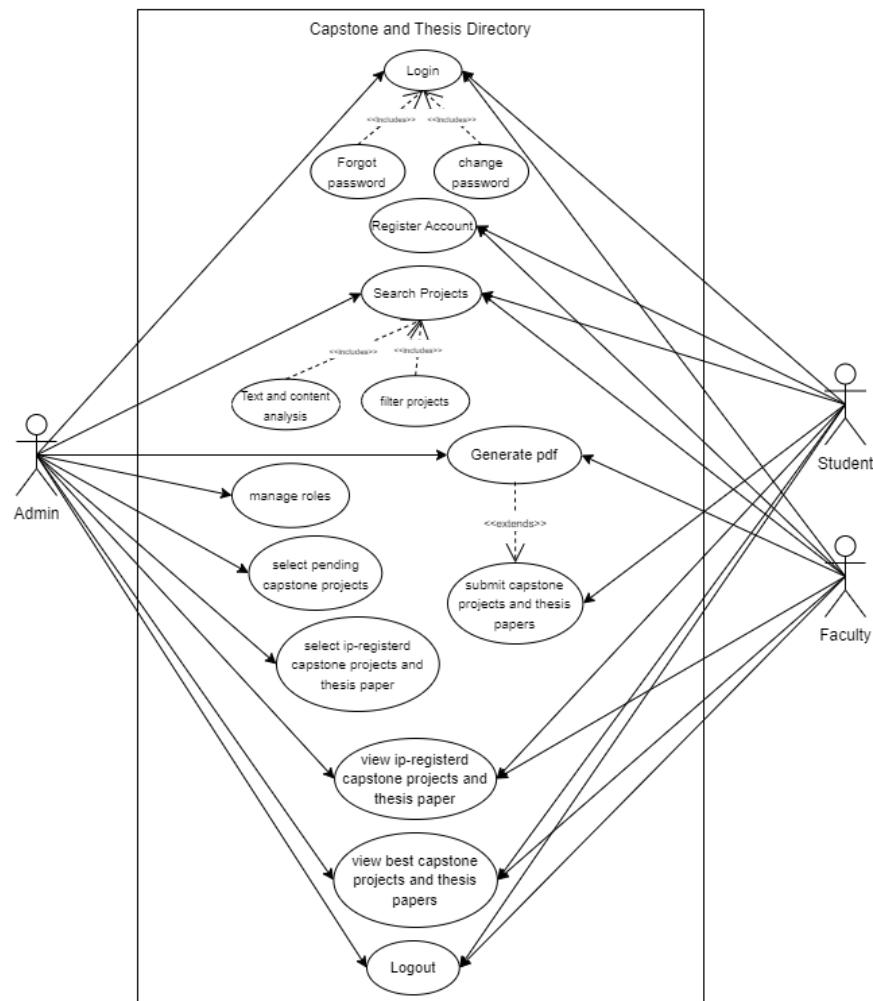


Figure 4.1.1.1: Updated Detailed Use-Case Diagram

The updated use-case diagram presents the functions of the Admin, Faculty, and Student users within the Capstone and Thesis Project Directory system. The essential features are still there but are now more effectively arranged under different user roles. The organization has been improved.

Faculty have login, register, forgot password, and change password options. In contrast, Admin only has a login option since admin accounts are created beforehand and will be handed over to the account users. Upon login, the Admin is directed to a dashboard with system management features, including managing accounts and roles, selecting IP-registered projects, and viewing the best capstone and thesis submissions. Admins can search projects, perform text analysis, and filter results to review and approve or reject pending projects. Admins can approve the submission of projects and save it within the system. This role is critical for maintaining the integrity of project submissions and managing the overall system.

Faculty members have similar login features and project search capabilities, but their role focuses more on providing feedback and guiding students. They can analyze content using the search and filter tools but do not have the same level of control over project approval or system management as the Admins.

Students also have login and account management functions. After logging in, they can submit their capstone and thesis projects, search through existing submissions, and generate PDF versions of their work. Students primarily interact with the system to contribute new projects or explore existing ones to support their research and academic development.

4.1.2 Use Case Descriptions

The following use case descriptions are based on the Figure 4.1 updated detailed use case diagram that is located in chapter 4 of this document.

4.1.2.A Actor: Admin

Table 4.1.2.A Use Case Description for Admin

Function: Admin Login

PreCondition: The Admin must access the system through the designated URL.

Use Case Steps:

1. Enter the Admin's email in the email field.
2. Enter the designated password in the password field.
3. Click the Login button.

PostCondition:

Once the Admin clicks Login, the system should verify the credentials. If valid, the Admin is redirected to the Admin dashboard, where they can manage projects and users.

Function: Manage Projects

PreCondition: Admin must be logged in to access the project management page.

Use Case Steps:

1. Click on "Manage Projects" in the Admin dashboard.

2. Browse through the list of submitted projects.
3. Select a project to approve or reject.
4. Provide feedback if necessary.
5. Click "Approve" or "Reject" to update the project status.

PostCondition:

The system updates the project's status, either making it publicly available or sending it back for revisions.

Function: View Best Projects

PreCondition: Admin must be logged in and have access to the best projects page.

Use Case Steps:

1. Navigate to the "View Best Projects" page.
2. Review the list of awarded best projects.
3. Select a project to view

PostCondition:

The selected best projects are displayed for the Admin, and they can add new projects to the best list if necessary.

Function: Role Management**PreCondition:** Admin must be logged in to the system and have access to user management.**Use Case Steps:**

1. Click on "Manage Roles."
2. Select a user from the list.
3. Change the user's role (e.g., from Faculty to Capstone Coordinator).
4. Click "Save" to confirm the changes.

PostCondition:

The system updates the user's role, reflecting the new permissions and access levels in the system.

Function: Logout (Admin)**PreCondition:** Admin must be logged in to the system.**Use Case Steps:**

1. Click the "Logout" button.

PostCondition:

The system ends the current session and redirects the Admin to the login page.

4.1.2.B Actor: Faculty

Table 4.1.2.B Use Case Description for Faculty

Function: Faculty Login

PreCondition: The Faculty member must access the system through the designated URL.

Use Case Steps:

1. Enter the Faculty member's email in the email field.
2. Enter the designated password in the password field.
3. Click the Login button.

PostCondition:

After validating credentials, the system redirects the Faculty member to the Faculty dashboard where they can view and analyze projects.

Function: View Capstone Projects

PreCondition: Faculty must be logged in to the system.

Use Case Steps:

1. Click "View Projects" in the Faculty dashboard.
2. Enter search criteria (e.g., title, specialization).

3. Browse the list of results.
4. Select a project to view its details.

PostCondition:

The system displays the selected project's details, allowing Faculty to review the ACM paper and other documents.

Function: Logout (Faculty)

PreCondition: Faculty member must be logged in to the system.

Use Case Steps:

1. Click the "Logout" button.

PostCondition:

The system ends the current session and returns the Faculty member to the login page.

4.1.2.C Actor: Student

Table 4.1.2.C Use Case Description for Student

Function: Student Login

PreCondition: The Student must access the system through the designated URL.

Use Case Steps:

1. Enter the Student's email in the email field.
2. Enter the designated password in the password field.
3. Click the Login button.

PostCondition:

After validating credentials, the system redirects the Student to the dashboard where they can submit projects or search for past projects.

Function: Submit Capstone Project

PreCondition: The student must be logged in to access the project submission form.

Use Case Steps:

1. Click on "Submit Project."
2. Fill in project details such as title, description, and technical adviser.
3. Upload required files (e.g., ACM paper, source code).
4. Click "Submit."

PostCondition:

The system validates the submission and stores it in the database. The project awaits Admin approval.

Function: Search Projects

PreCondition: The student must be logged in to access the search feature.

Use Case Steps:

1. Enter search criteria, such as title or author.
2. Click "Search."
3. Browse the list of matching projects.
4. Select a project to view more details.

PostCondition:

The system displays the relevant project results, allowing the Student to review its details and documents.

Function: Generate PDFs

PreCondition: Students must have access to a project to generate its PDF.

Use Case Steps:

1. From the project details page, click "Generate PDF."
2. Wait for the system to create the PDF.
3. Download the generated PDF file.

PostCondition:

The system provides the Student with a downloadable PDF version of the project.

Function: Logout (Student)

PreCondition: Student must be logged in to the system.

Use Case Steps:

1. Hover to user profile icon
2. Click the "Logout" button.

PostCondition:

The system logs out the user and returns them to the login page, ending the session.

4.1.3 Minimum and Recommended System Requirements

In this Section, the minimum and recommended system requirements will be listed in order to run the system without any hardware issues.

Specifications	Minimum (PC)
OS (Operating System)	Windows 10 or Higher
Screen Size	13"
RAM	4GB
Processor	Intel Core i3 10th gen or its AMD Equivalent
Web Browser	Any of the following: <ul style="list-style-type: none"> • Chrome 119 • Safari 17.3 • Microsoft Edge 120 • Firefox 121 • Opera 105

Table 4.1.3.1 Minimum System Requirements for PC

Specifications	Minimum (PC)
OS (Operating System)	Windows 10 or Higher
Screen Size	14"
RAM	8-16GB
Processor	Intel Core i5 12th gen or its AMD Equivalent
Web Browser	Any of the following: <ul style="list-style-type: none"> • Chrome 120 • Safari 17.3 • Microsoft Edge 121 • Firefox 122 • Opera 106

Table 4.1.3.2 Recommended System Requirements for PC

The following tables list the minimum and recommended specifications for devices compatible with our system designed to meet the stated requirements. These specifications are based on the most common hardware available in the Philippines. Devices that fall below the recommended specifications may experience UI problems or, worse, issues with server interactions due to the hardware limitations of the user's device.

4.1.4 Class Diagram

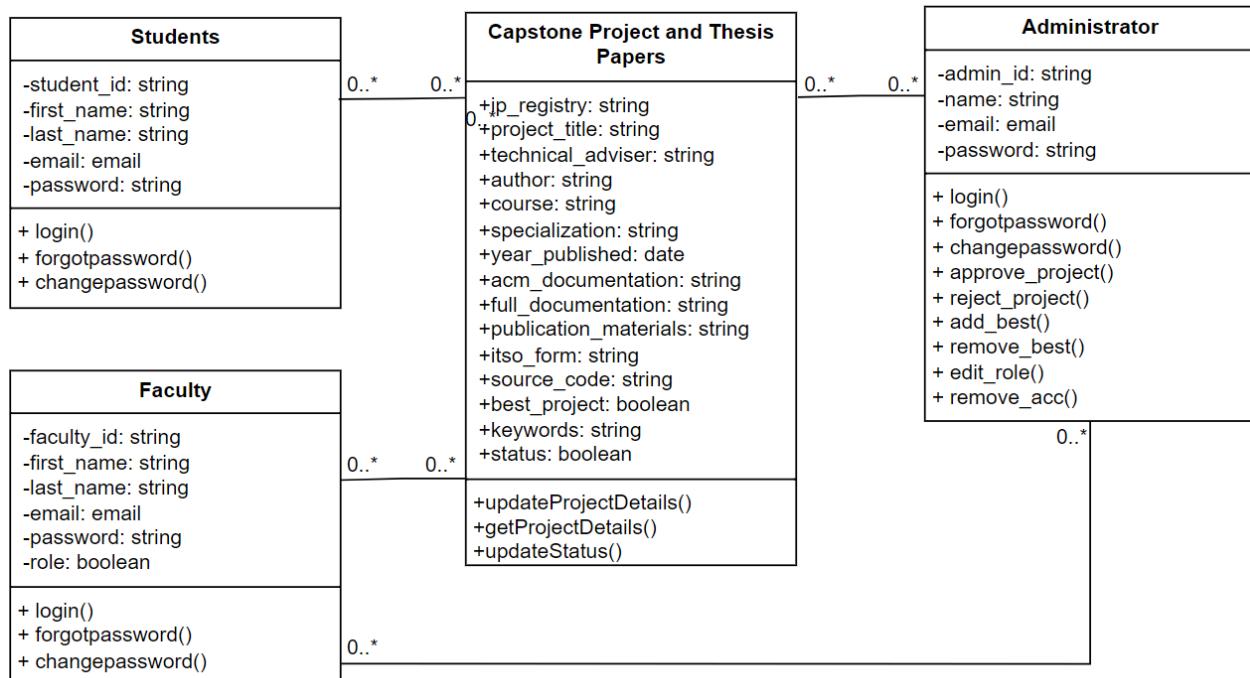


Figure 4.1.4.1 - Class Diagram

The figure above shows three types of users in this system: Administrators, Faculty, and Students. The diagram shows how each entity relates to one another and shows how the whole structure and flow of the system will work. Both the students and the faculty members will be required to register in order to access the system. After registration, the student will have the

option to view the list of past and approved capstone projects and thesis papers and submit their own. While for the faculty, view the list of past and approved capstone projects and thesis papers and approve or modify it depending on their roles. For the administrator, they may also approve and reject proposals as well as add and remove best capstone projects and manage faculty roles.

4.1.5 Database Diagram

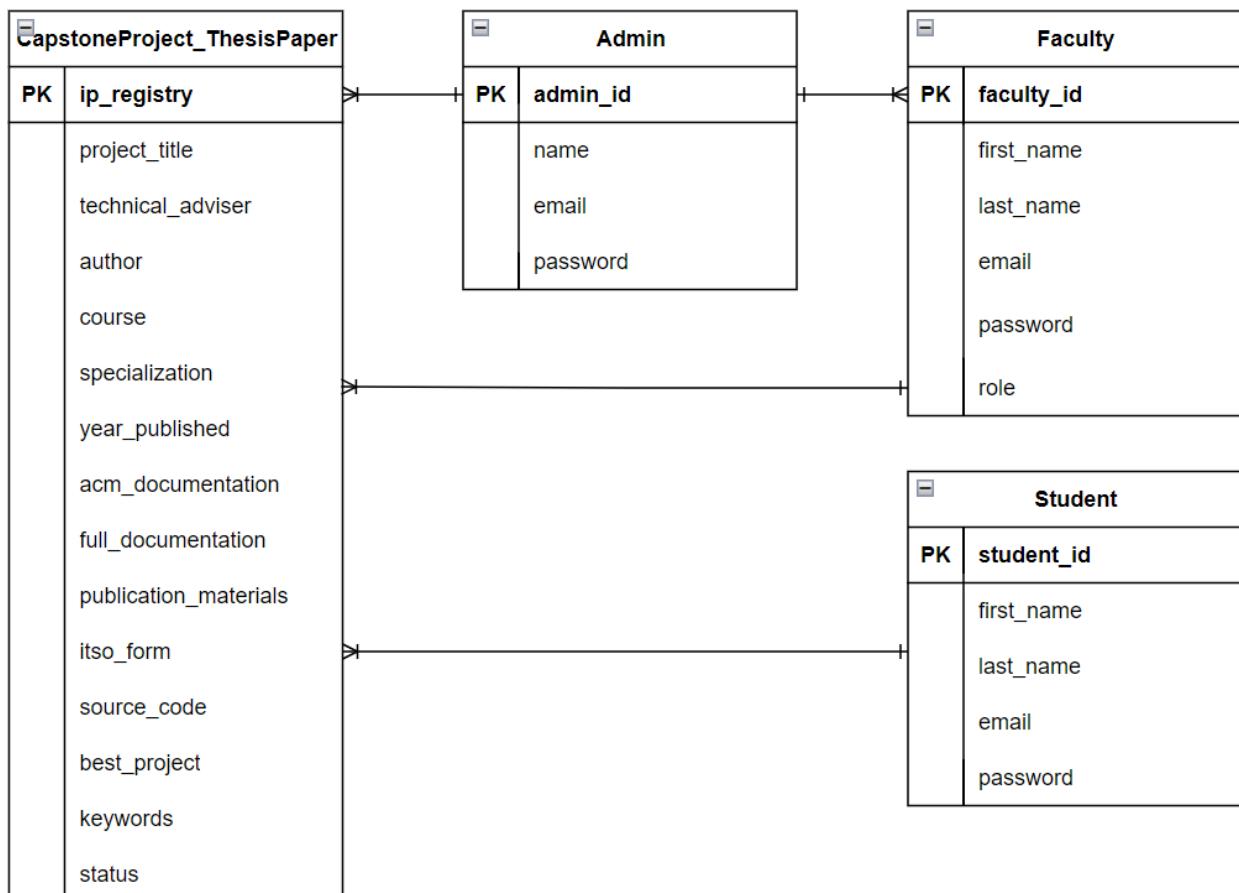


Figure 4.1.5.1 - Entity Relationship Diagram

Figure 4.1.5.1 focuses on how the system's database is structured using an Entity Relationship Diagram (ERD) that consists of five key tables, which define how users (Admins, Faculty, Students) interact with capstone projects and thesis papers.

The Admin table stores administrator details (admin_id, name, email, password), allowing them to manage multiple capstone projects and faculty accounts. The Faculty table stores faculty information (faculty_id, name, email, role), allowing them to view and, depending on their role, edit or add capstone projects. The Student table records student details (student_id, name, email), enabling them to view and submit their own capstone projects.

The CapstoneProject_ThesisPaper table contains the capstone projects, identified by ip_registry, with attributes such as project title, technical adviser, documentation, and status. All users can view these projects, but permissions to add or edit depend on the user type. This ERD efficiently models the relationships between admins, faculty, students, and the capstone projects they interact with.

4.2 Design of Software, Systems, Product, and/or Processes

4.2.1 System Sequence Diagrams

I. Admin System Sequence Design Diagrams

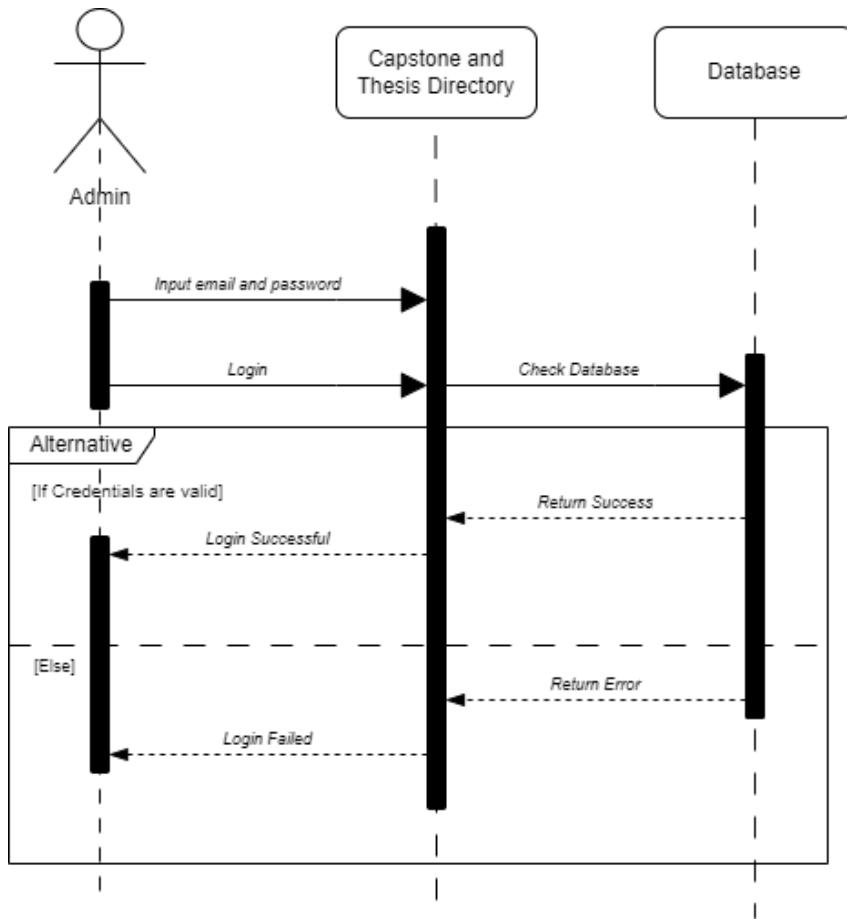


Figure 4.2.1.1 - Admin Login System Sequence Diagram

Figure 4.2.1.1 focuses on the process of "Admin Login". This sequence diagram shows the admin logging into the system by entering their email and password. The system checks the database to validate the credentials. If the login details are correct, the admin is successfully logged in. If the login fails, an error message is displayed, prompting the admin to re-enter their credentials.

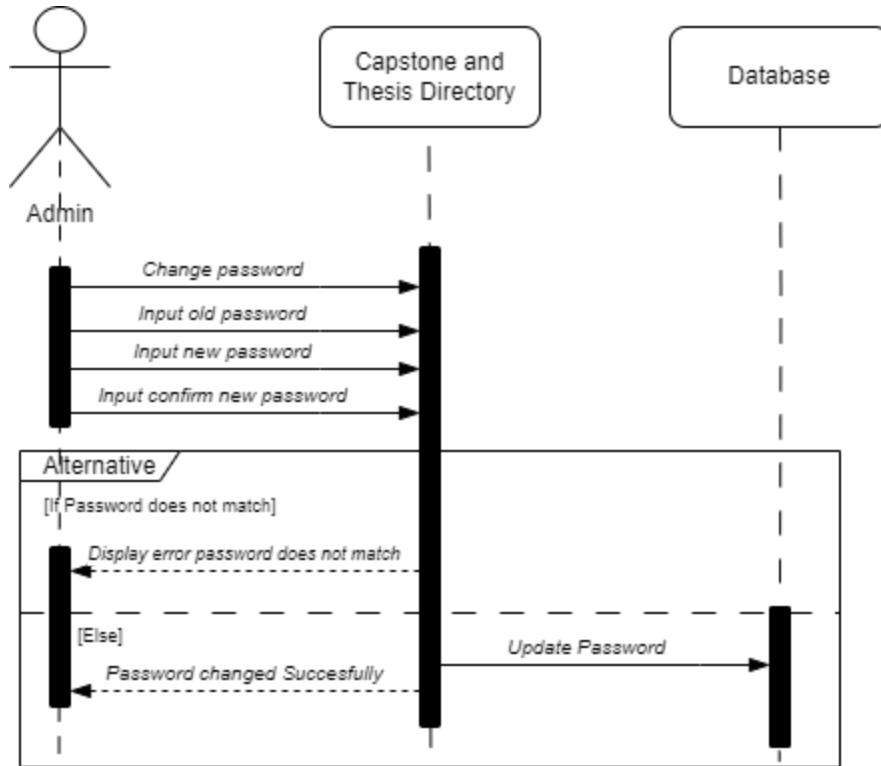


Figure 4.2.1.2 - Admin Change Password

Figure 4.2.1.2 focuses on the process of "Admin Change Password." In this sequence, the admin user starts by accessing the change password functionality within the system. The admin inputs their old password, followed by the new password and a confirmation of the new password. The system checks if the new password and its confirmation match. If they do, the password is updated successfully, and a success message is displayed. If not, an error message prompts the admin to try again.

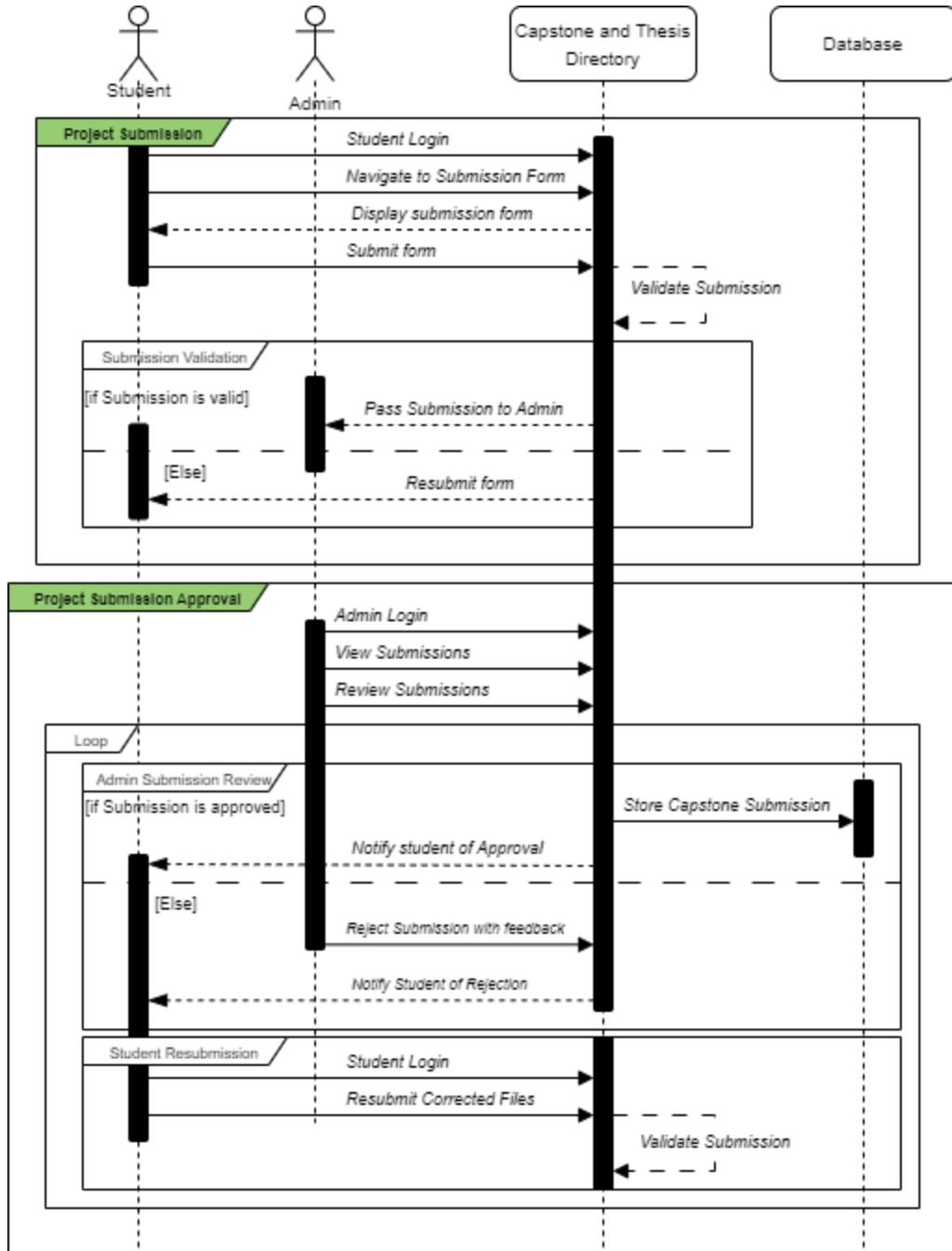


Figure 4.2.1.3 - Admin & Student Capstone Submission & Approval

Figure 4.2.1.3 focuses on the combined process of "Project Submission and Approval." In this sequence diagram, the process begins with a student logging into the Capstone and Thesis Directory system. After successfully logging in, the student navigates to the submission form, where they can upload their capstone or thesis documents. The form is then submitted, and the

system validates the submission. If any validation issues are detected, the student is prompted to resubmit the corrected form. Once the submission passes validation, it is passed on to the admin for review.

On the admin side, the process continues with the admin logging into the system and navigating the list of submitted projects. The admin reviews the submissions and has two options: approve or reject the project. If the project is approved, the system notifies the student of the approval. In case the project is rejected, the admin provides feedback, and the student is notified to resubmit the corrected files, starting the submission process over again. This loop ensures that submissions are properly validated and reviewed before being officially accepted into the system.

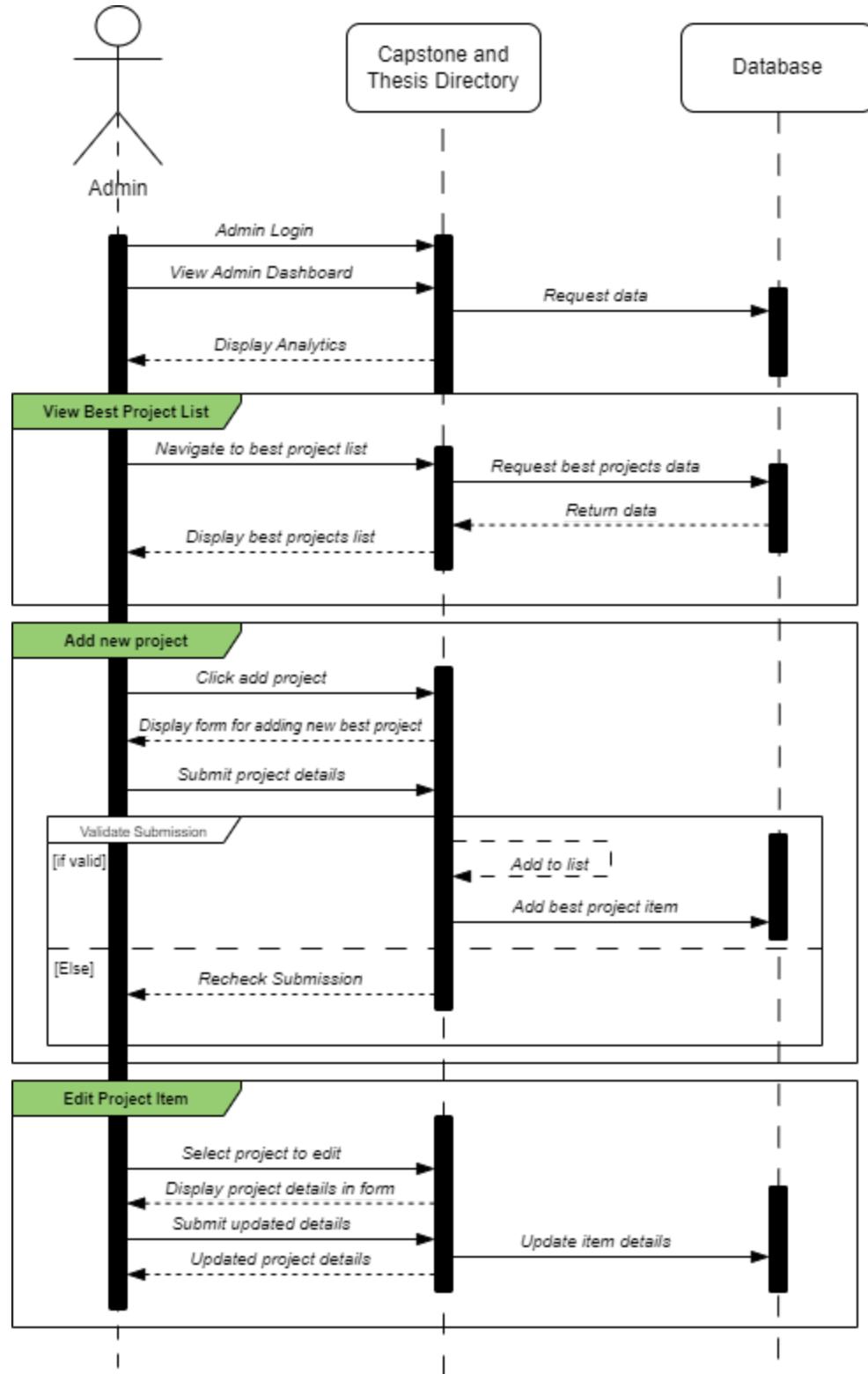


Figure 4.2.1.4 - Admin View and Edit Best Capstone & Thesis

Figure 4.2.1.4 focuses on the process of "View and Edit Best Capstone & Thesis List." In this process, the admin logs into the Capstone and Thesis Directory and navigates to the Admin Dashboard, where they can view system analytics. The admin then navigates to the "Best Project List" page to request data on the best projects stored in the system. After the list is displayed, the admin can click the "Add Project" button to add a new entry to the best project list. This action prompts a form where the admin inputs the details of the new project, which is then validated by the system before being added to the list. Additionally, the admin has the option to select an existing project to edit, update the project details, and submit the updated information to the system.

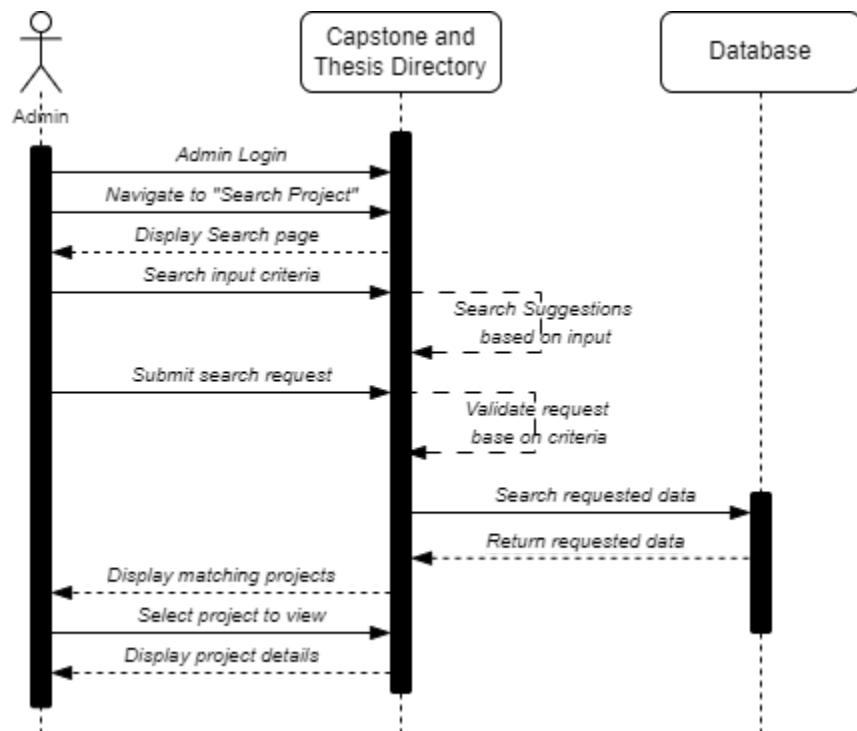


Figure 4.2.1.5 - Admin Search Projects

Figure 4.2.1.5 focuses on the process of "Search Projects". In this sequence, the admin begins by logging into the system and navigating to the "Search Projects" page. The admin enters

the search criteria (such as project title, IP registration number, etc.) and submits the search request. The system processes the search by retrieving the requested data from the database and returning the matching results. The admin can then select a specific project to view its details.

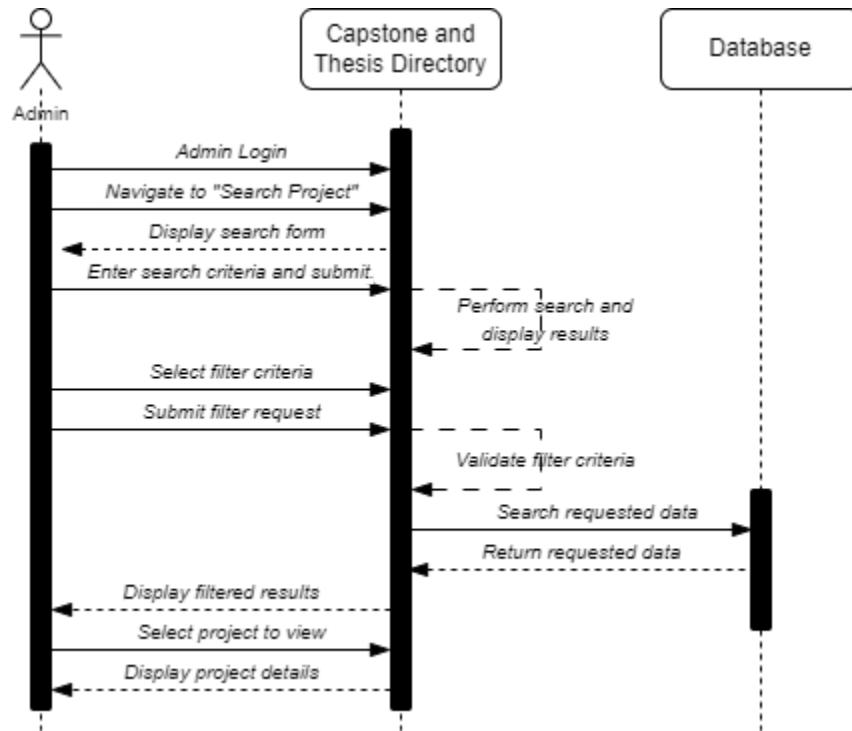


Figure 4.2.1.6 - Admin Filter Projects

Figure 4.2.1.6 focuses on the process of "Admin Filter Projects". Here, the admin begins by logging into the system and navigating to the "Search Project" functionality. The admin inputs the search criteria and submits the request. If needed, the admin can select additional filter criteria to refine the search results. The system processes the search and returns the filtered project data, allowing the admin to view the relevant project details.

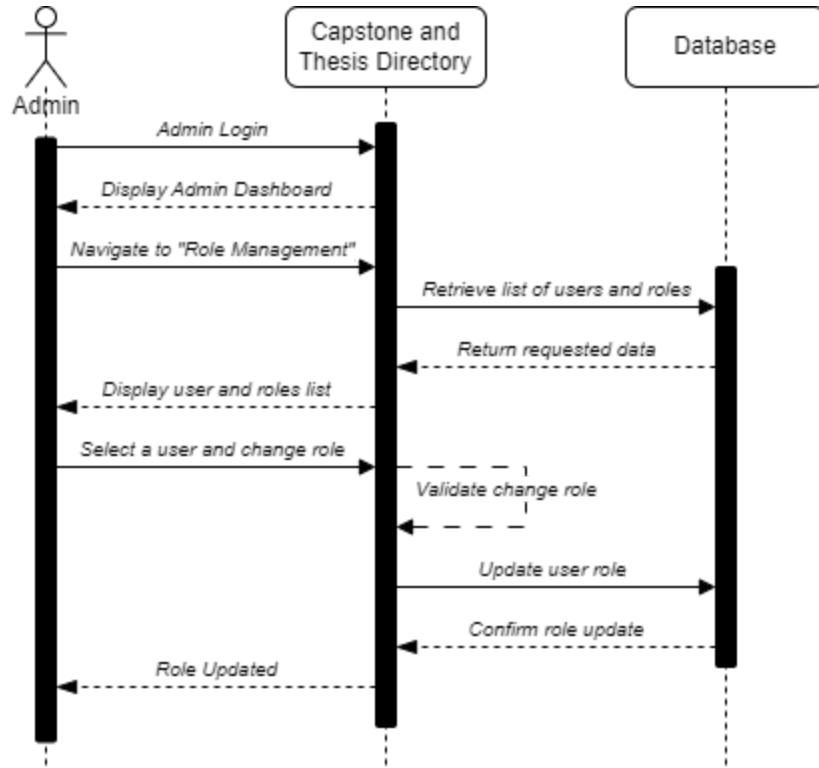


Figure 4.2.1.7 - Admin Role Management

Figure 4.2.1.7 focuses on the process of "Admin IP Registration". In this diagram, the admin starts by logging into the Capstone and Thesis Directory and navigating to the IP registration page. The system displays the list of IP-registered projects. The admin can then select a specific project to view, and the system returns the corresponding IP registration file for further review.

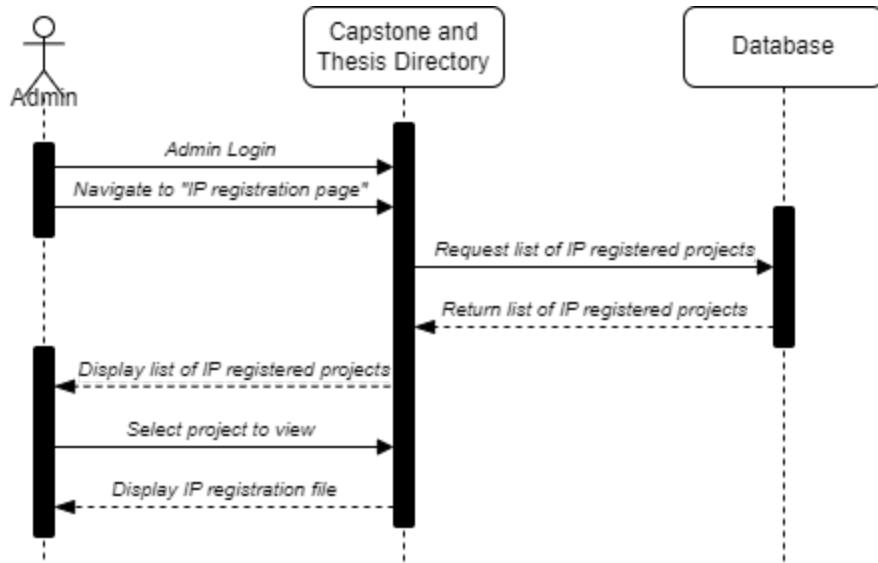


Figure 4.2.1.8 - Admin View IP Registered Projects

Figure 4.2.1.8 focuses on the process of "IP Registration". This diagram outlines the steps for viewing IP-registered projects. After logging in, the admin navigates to the "IP Registration" page. The system requests and retrieves the list of IP-registered projects from the database. Once the list is displayed, the admin can select a specific project to view its IP registration file, which the system returns for review.

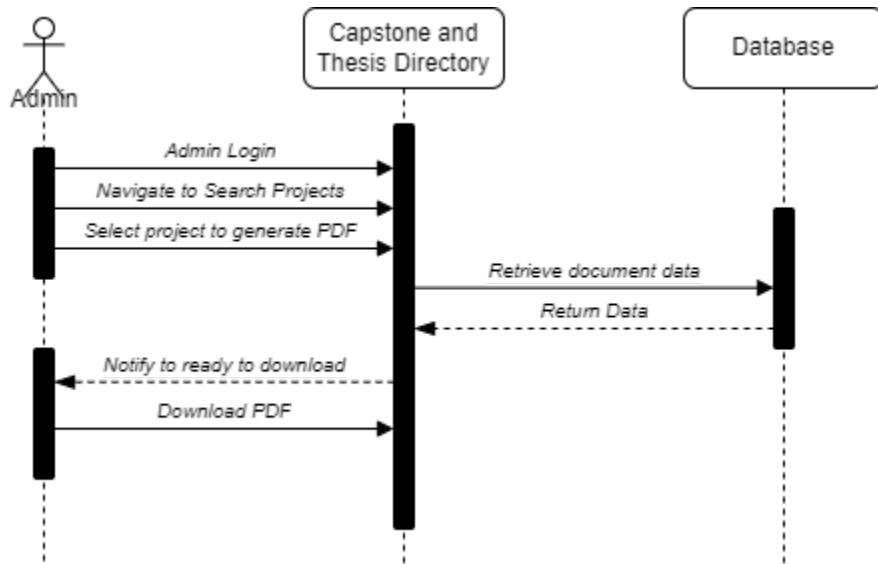


Figure 4.2.1.9 - Admin PDF Generation

Figure 4.2.1.9 focuses on the process of "PDF Generation". In this process, the admin logs into the system and navigates to the "Search Projects" page to find a project they wish to generate a PDF for. Once the project is selected, the system retrieves the project's document data and notifies the admin that the PDF is ready for download. The admin can then download the generated PDF to their local system.

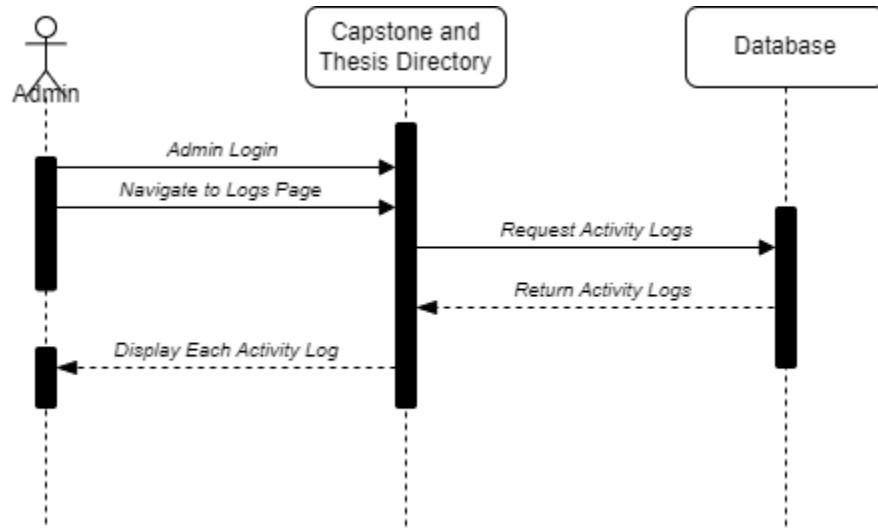


Figure 4.2.1.10 - Admin System Activity Logs

Figure 4.2.1.10 focuses on the process of different users displaying the activity logs within the system. In this process, the admin logs into the system and navigates to the "Logs" page to find the activity logs. Once inside the page, each activity log that has been made by different users is shown and displayed in a table format for usage tracking.

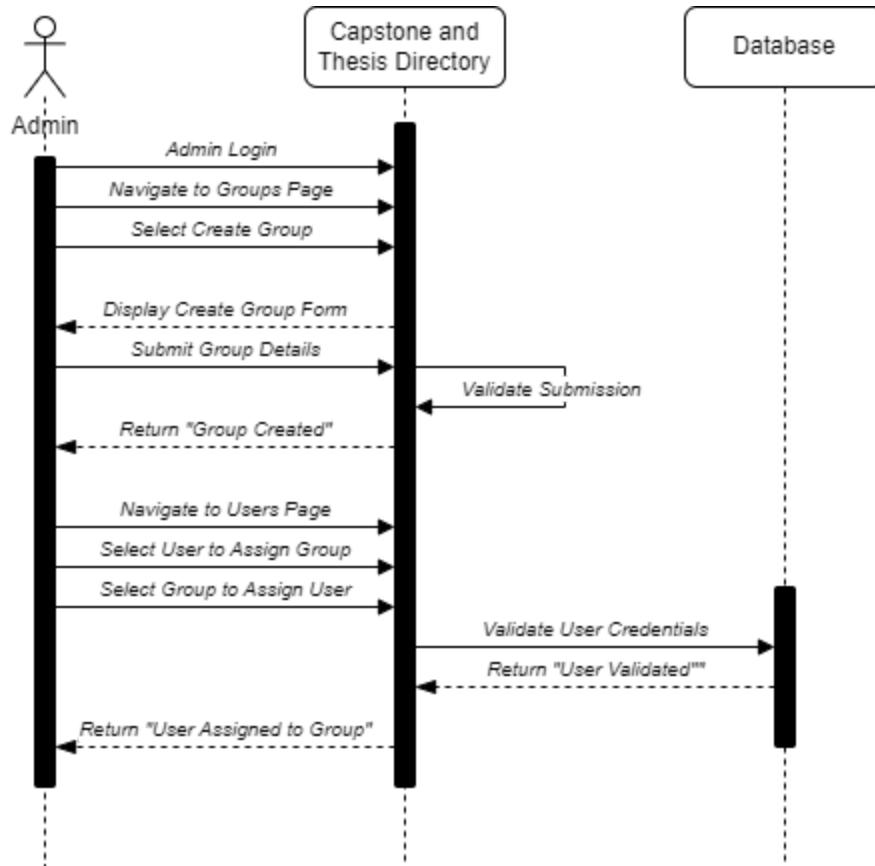


Figure 4.2.1.11 - Admin Group Creation and Group Assignment

Figure 4.2.1.11 focuses on the process of Admin Group Creation and Group Assignment, where the Admin initiates the creation of a new group, the system validates and stores the group information, and then the Admin selects users to assign to the group. The system validates the user selection and updates the database, before confirming the successful creation and assignment to the Admin.

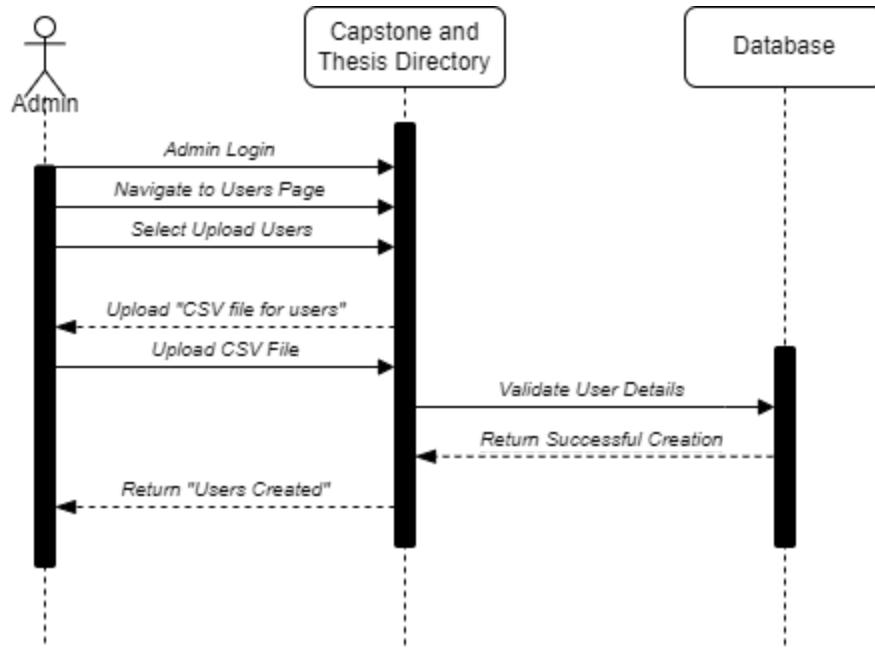


Figure 4.2.1.12 - Admin Batch User Creation

Figure 4.2.1.12 focuses on the process of Admin Batch User Creation, where the Admin initiates the creation of multiple user accounts by uploading a batch file. The system validates the data in the file, checks for any errors or missing information, and creates the users in the database. If the validation is successful, the system stores the user details, and if any issues are found, an error message is sent back to the Admin for correction. Once the process is complete, the system sends a confirmation to the Admin indicating that the users have been successfully created.

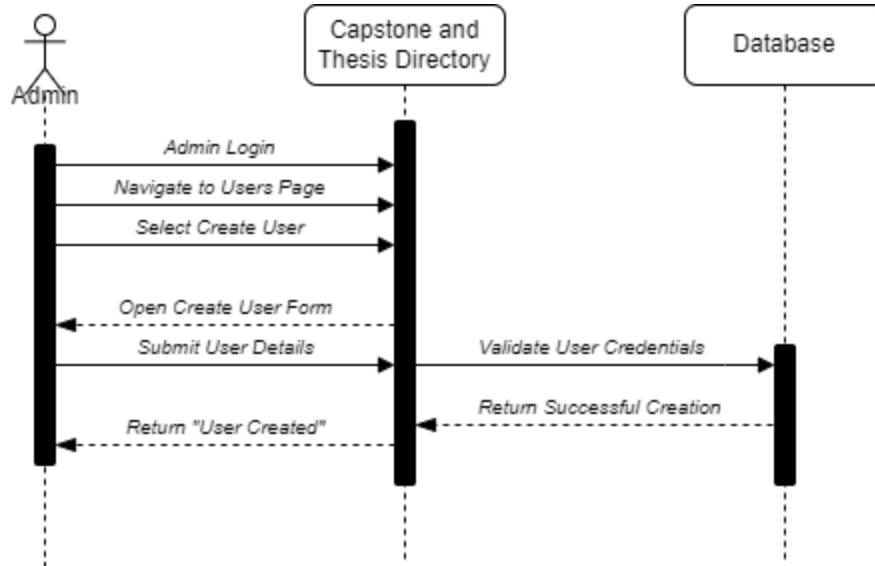


Figure 4.2.1.13 - Admin Users Creation

Figure 4.2.1.13 focuses on the process of Admin Users Creation, where the Admin initiates the creation of a new user by providing the necessary user information. The system validates the input data for correctness and checks if any required fields are missing or incorrect. If the data is valid, the system creates the user account and stores the user details in the database. Once the user is successfully created, the system sends a confirmation to the Admin indicating the user has successfully created it. If any issues arise during the validation process, an error message is returned to the Admin for resolution.

II. Faculty System Sequence Design Diagrams

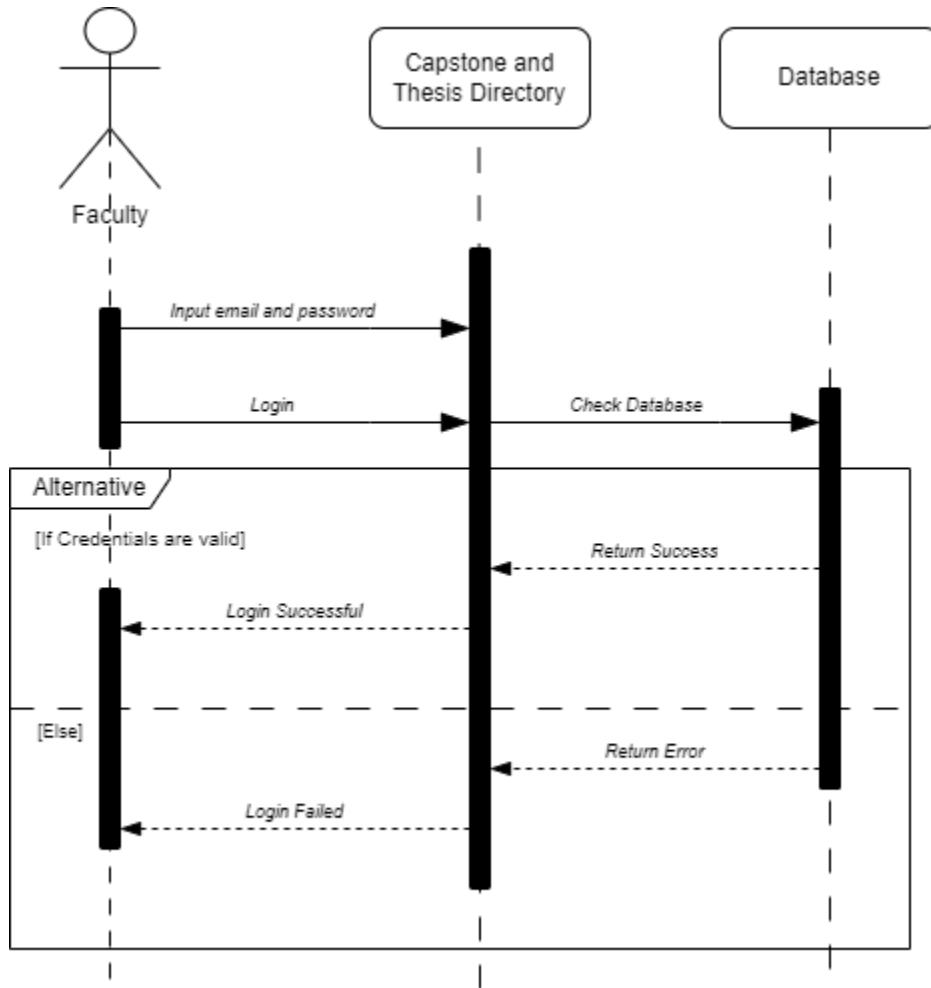


Figure 4.2.1.14 - Faculty Login System Sequence Diagram

Figure 4.2.1.14 focuses on the process of "Faculty Login". In this diagram, the faculty member logs into the system by entering their email and password. The system checks the database for the correct credentials. If the credentials are valid, the login is successful. If not, an error message is displayed, and the login fails.

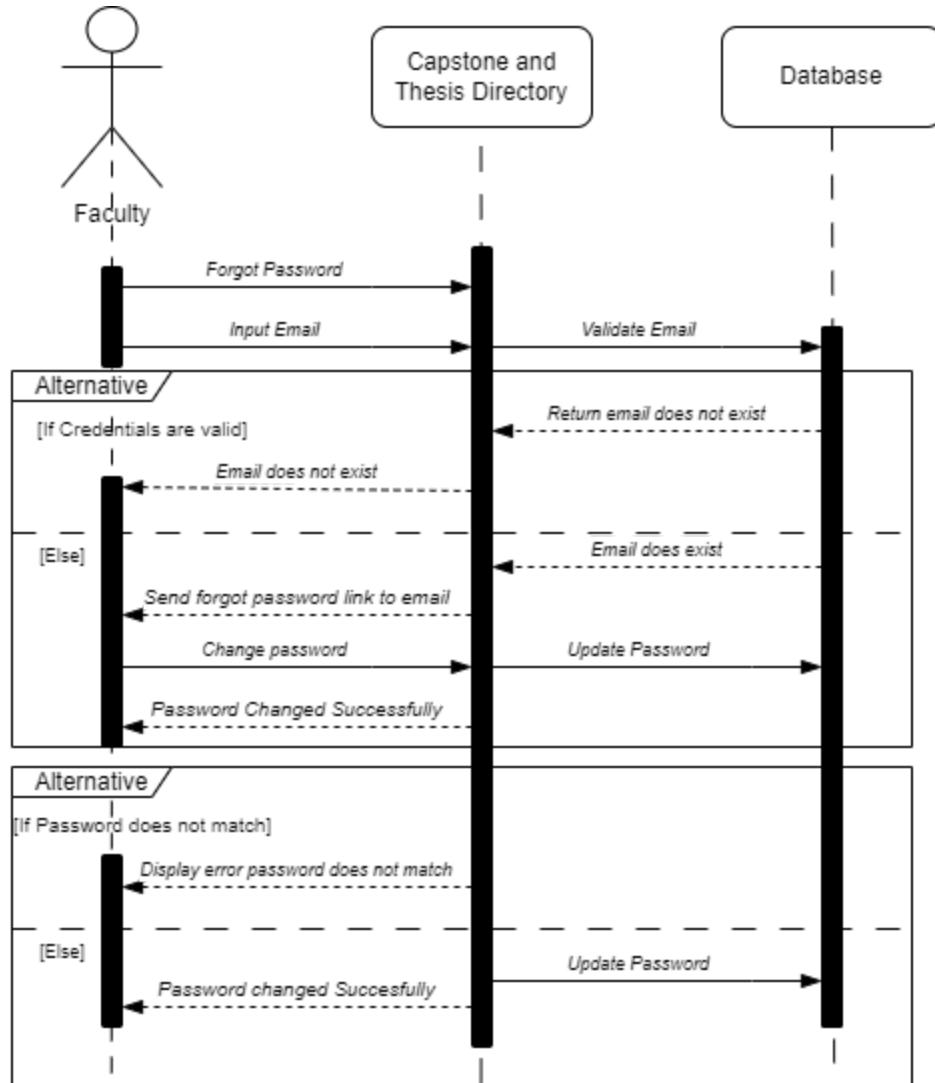


Figure 4.2.1.15 - Faculty Forgot Password

Figure 4.2.1.15 focuses on the process of "Faculty Forgot Password." This sequence begins when a faculty member selects the "Forgot Password" option. The system prompts the faculty member to enter their email address. If the email does not exist in the database, the system returns an error message. If the email is valid, a password reset link is sent to the email, and the faculty member can proceed to change their password.

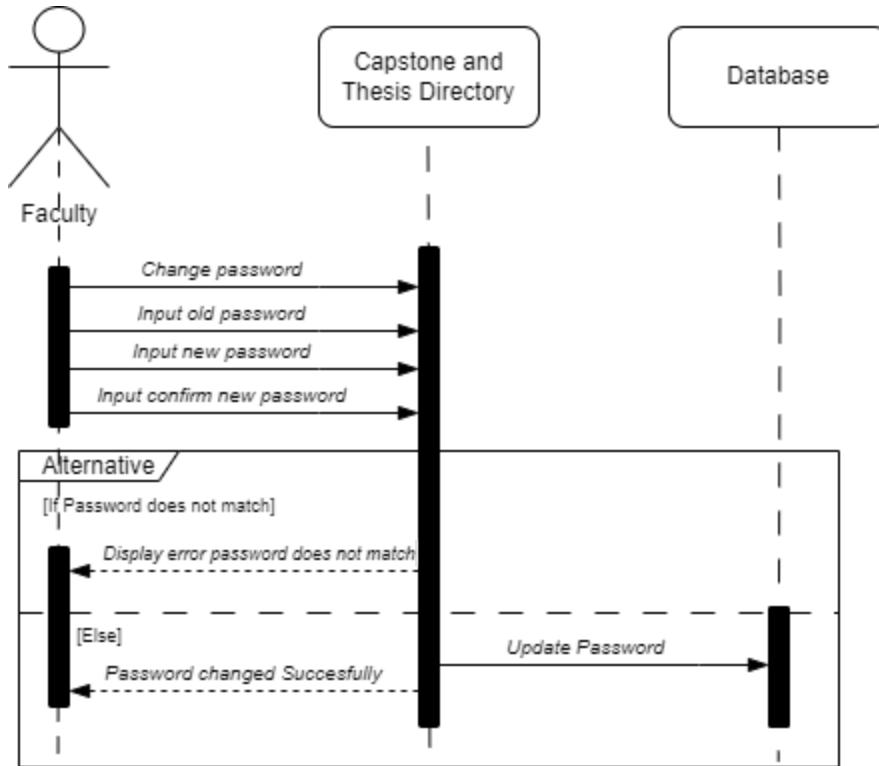


Figure 4.2.1.16 - Faculty Change Password

Figure 4.2.1.16 focuses on the process of "Faculty Change Password". In this diagram, the faculty member logs into the Capstone and Thesis Directory system and navigates to the "Change Password" option. The faculty member is required to input their old password, then enter a new password and confirm it. If the passwords do not match, an error is displayed. Once the correct new password is confirmed, the system updates the password successfully and notifies the faculty member.

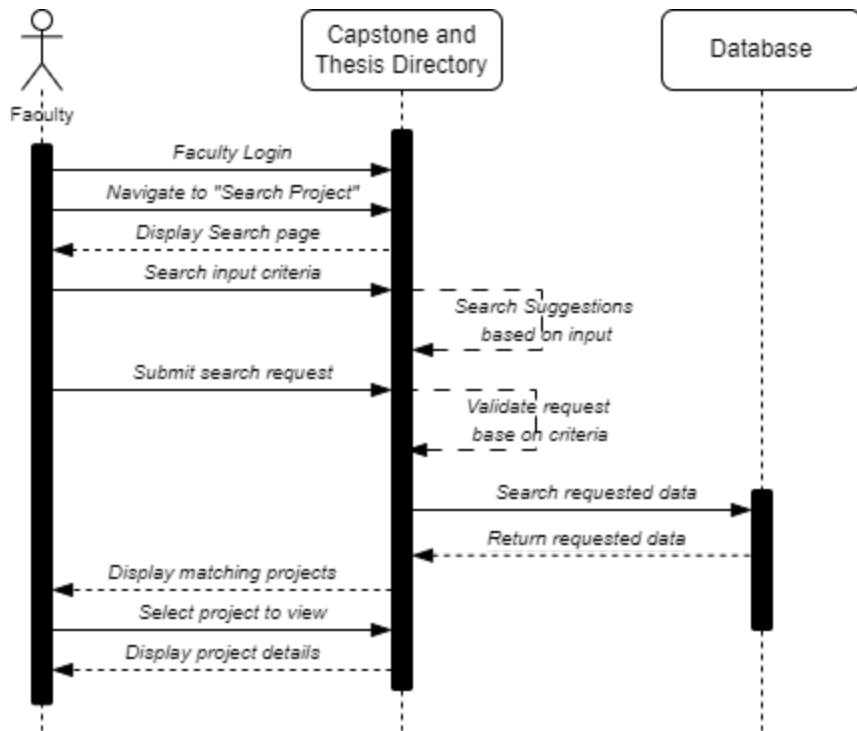


Figure 4.2.1.18 - Faculty Search Projects

Figure 4.2.1.18 focuses on the process of "Faculty Search Projects". The faculty user logs into the system and navigates to the "Search Projects" page. After entering the search criteria, such as project title or author, the faculty member submits the search request. The system retrieves and displays matching projects from the database. The faculty can then select a project from the list to view its details.

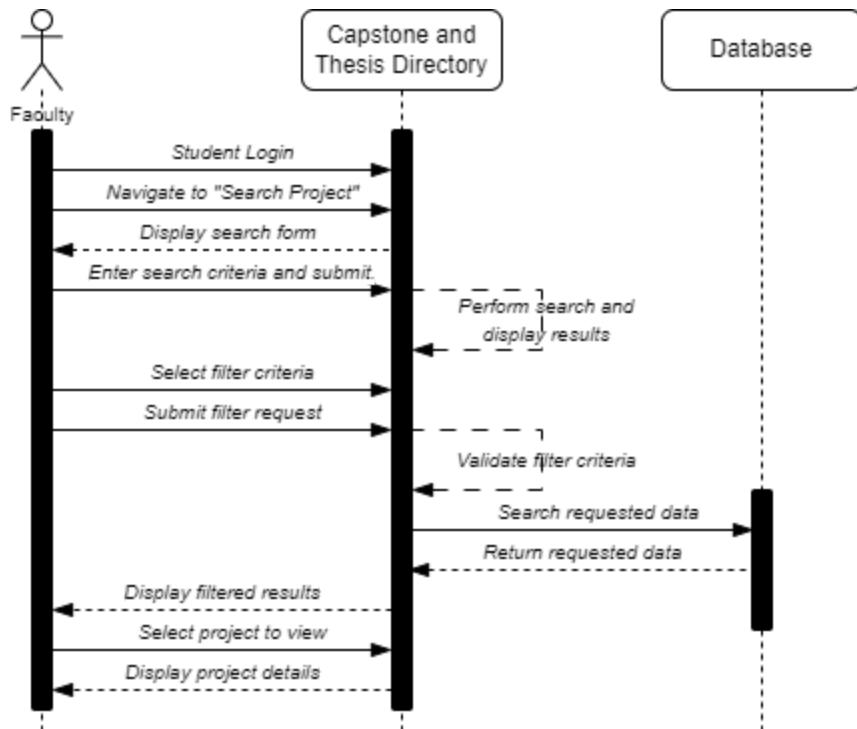


Figure 4.2.1.19 - Faculty Filter Projects

Figure 4.2.1.19 focuses on the process of "Faculty Filter Projects". In this diagram, the faculty member logs into the system and navigates to the "Filter Projects" page. The faculty enters the desired filter criteria, such as publication year or specialization, and submits the filter request. The system processes the request, retrieves the filtered project data, and displays the results for the faculty to review.

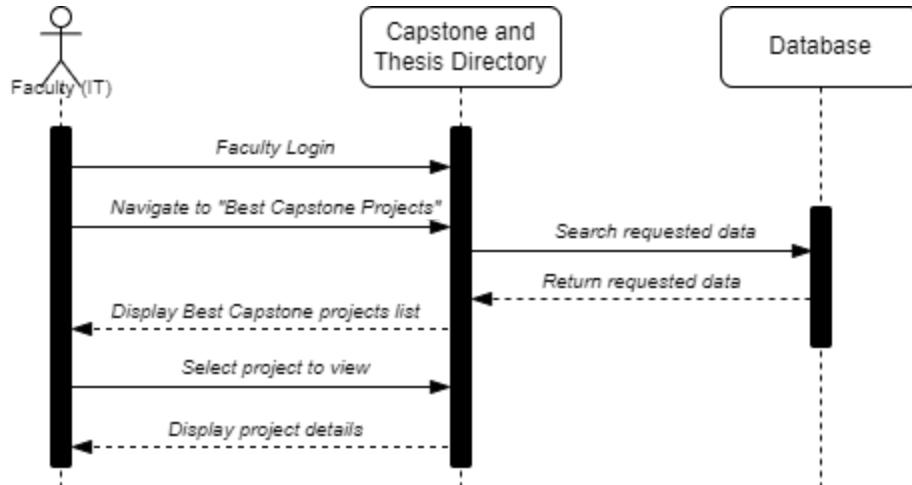


Figure 4.2.1.20 - Faculty View Best Capstone (IT)

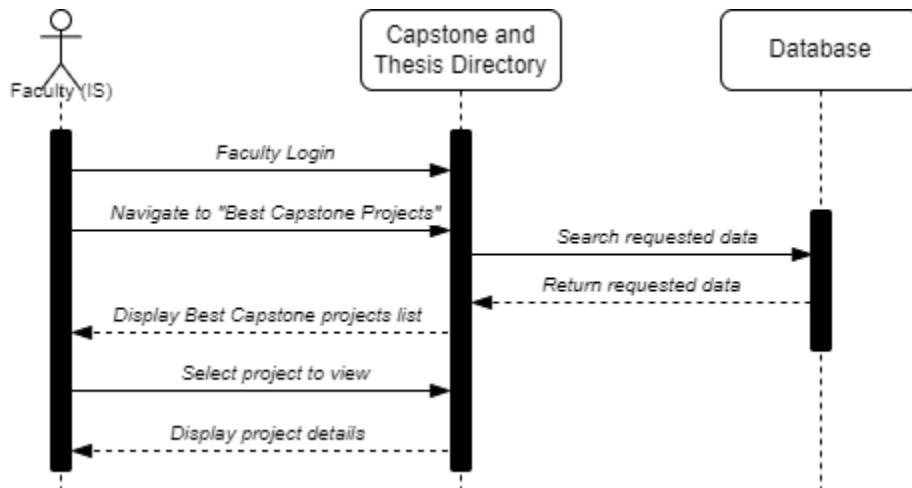


Figure 4.2.1.21 - Faculty View Best Capstone (IS)

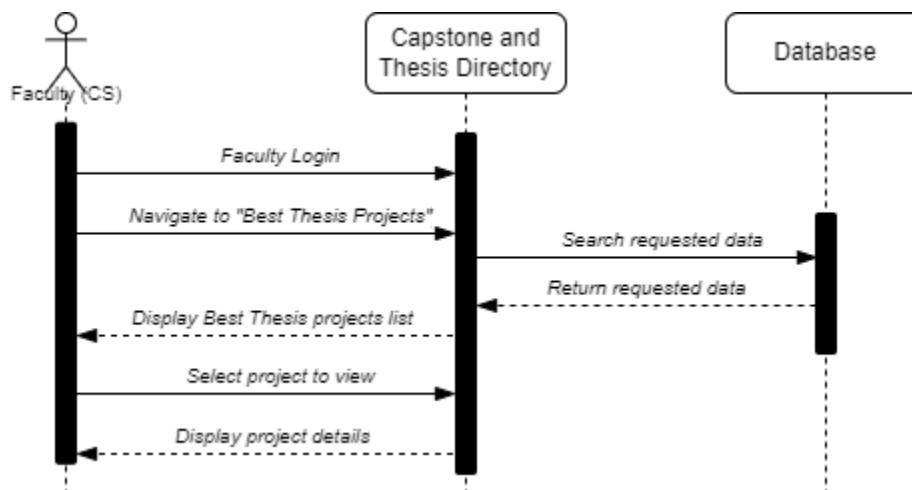


Figure 4.2.1.22 - Faculty View Best Capstone (CS)

Figures 4.2.1.20 - 4.2.1.22 focuses on the process of "Viewing Best Capstone and Thesis Projects". In this sequence, a faculty member logs into the Capstone and Thesis Directory and navigates to their respective Best Capstone or Thesis section, depending on the department they are assigned in (IT, IS, or CS). The system requests the data for the best projects from the database. Once the data is retrieved, the system displays a list of the best capstone or thesis projects available. The faculty member can then select a specific project from the list to view more detailed information about that project.

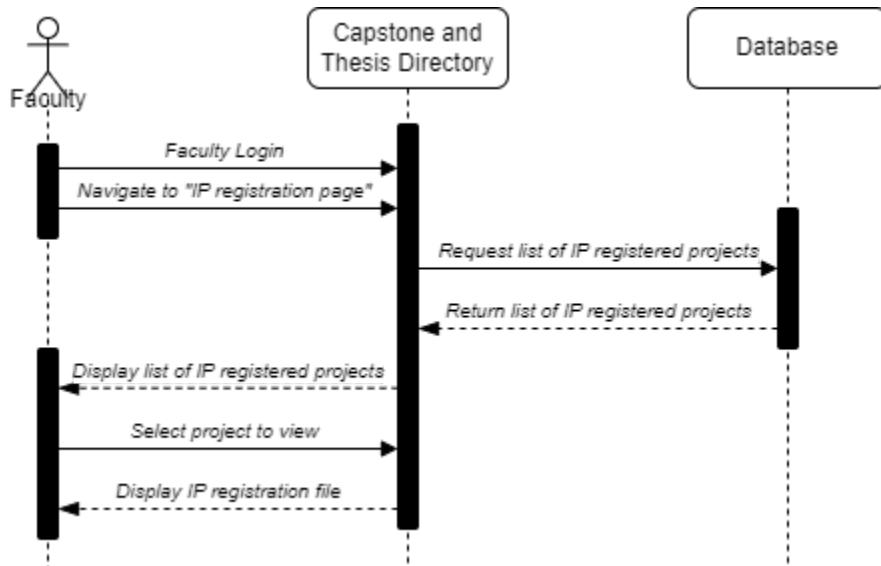


Figure 4.2.1.23 - Faculty View IP Registered Projects

Figure 4.2.1.23 focuses on the process of "Faculty View IP Registration". In this process, the faculty user logs into the system and navigates to the "IP Registration" page. The system retrieves and displays a list of projects with IP registrations. The faculty can then select a specific project to view its IP registration file, which is returned from the database.

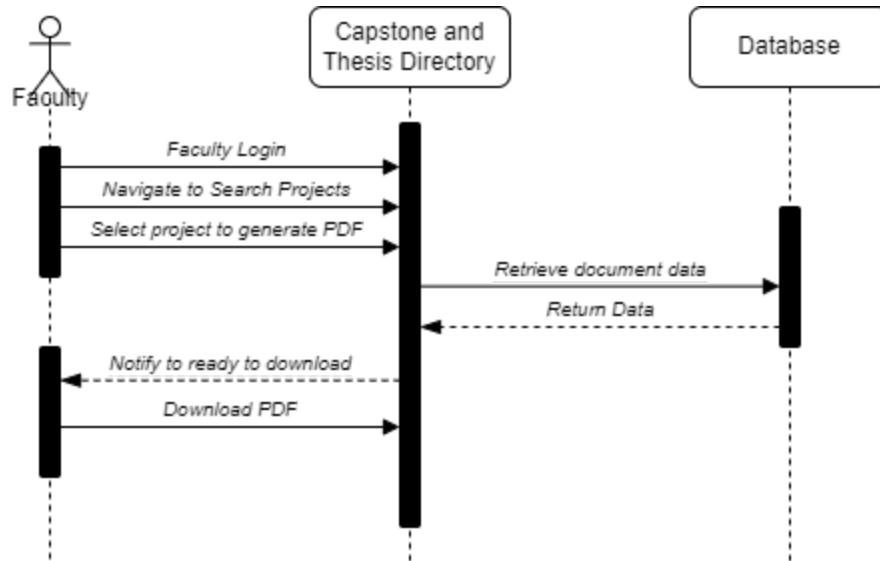


Figure 4.2.1.24 - Faculty PDF Generation

Figure 4.2.1.24 focuses on the process of "Faculty PDF Generation." This diagram outlines the steps a faculty member takes to generate a PDF for a specific project. After logging in, the faculty member navigates to the "Search Projects" page, selects a project for which they wish to generate a PDF, and submits the request. The system retrieves the project's document data, and once the PDF is ready, the faculty member is notified and can download the document.

III. Student System Sequence Design Diagrams

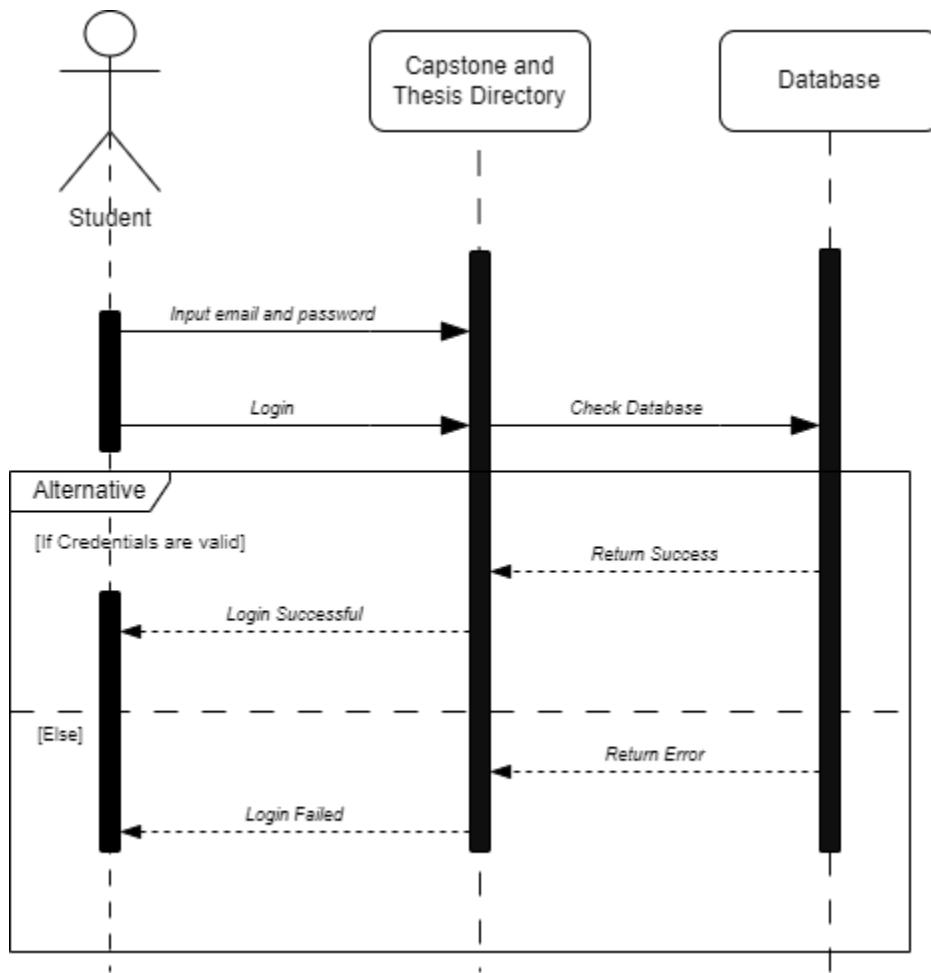


Figure 4.2.1.25 - Student Login System Sequence Diagram

Figure 4.2.1.25 focuses on the process of "Student Login". This diagram outlines the steps involved when a student logs into the system. The student enters their email and password, and the system verifies the credentials against the database. If the credentials are valid, the login is successful, and the student gains access to the system. If not, an error message is displayed, and the login fails.

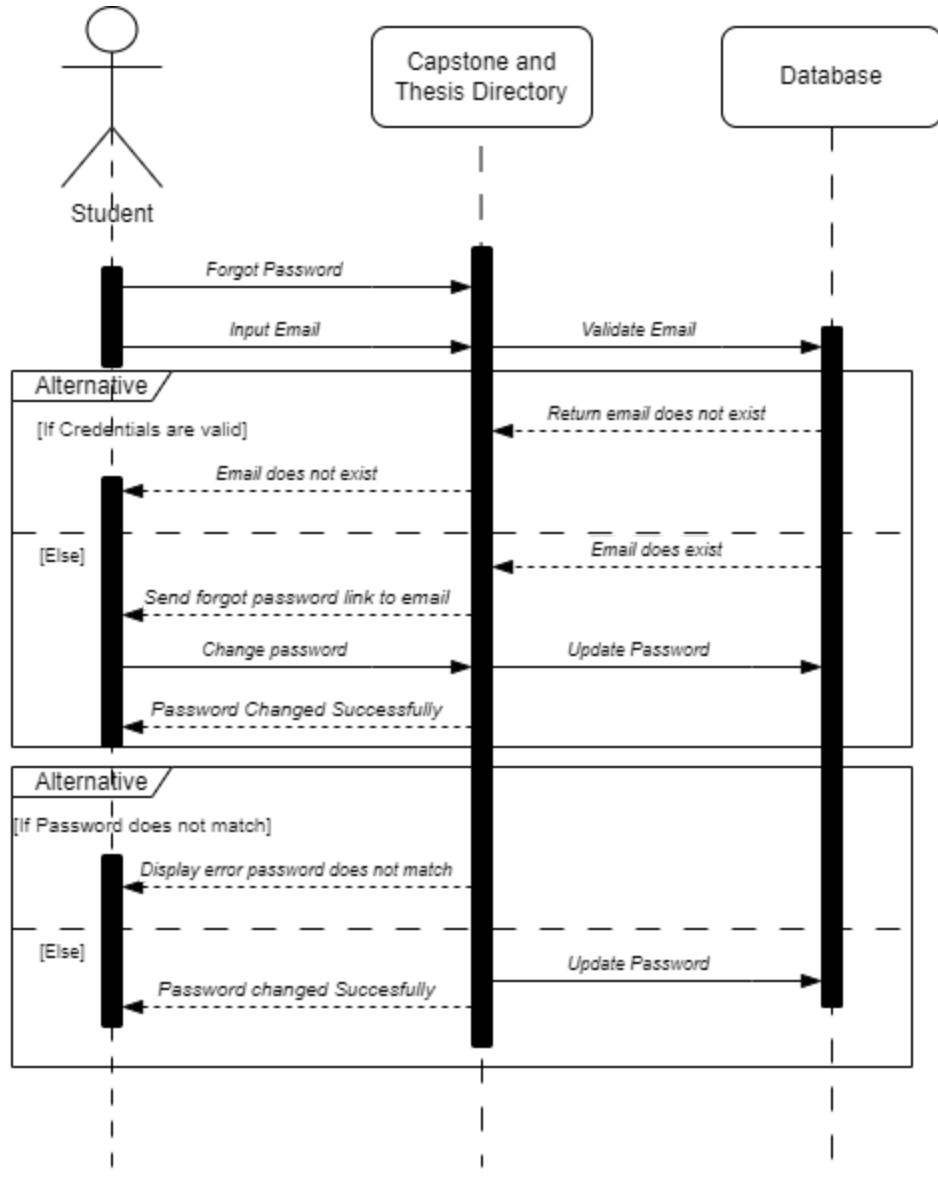


Figure 4.2.1.26 - Student Forgot Password

Figure 4.2.1.26 focuses on the process of "Student Forget Password". When a student selects the "Forgot Password" option, they are prompted to input their email. The system checks the database for the email. If the email does not exist, an error is returned. If valid, a password reset link is sent to the email, allowing the student to reset their password.

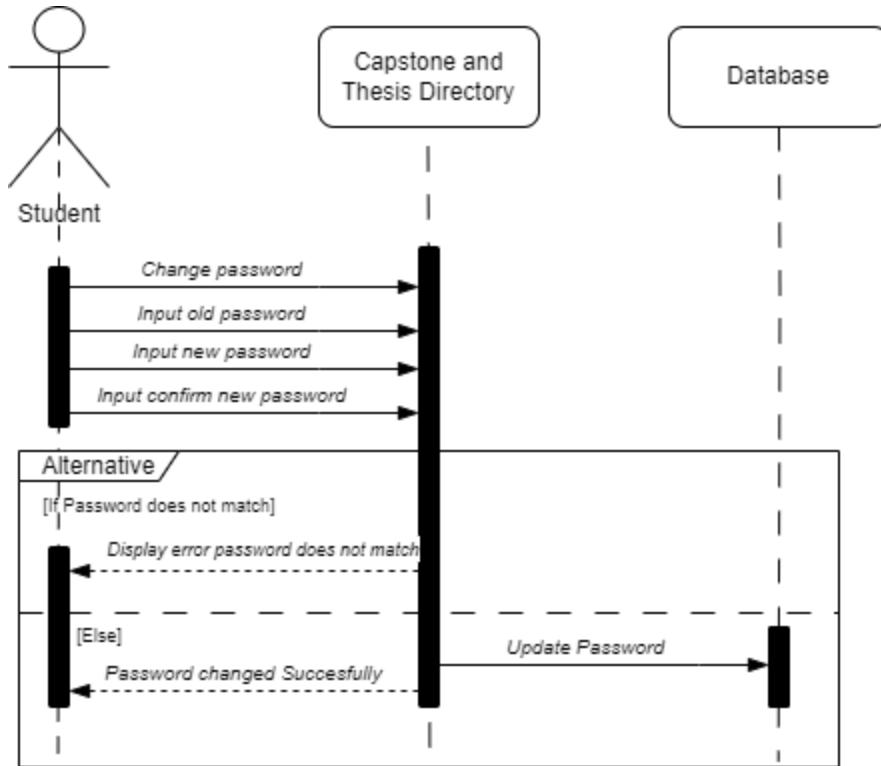


Figure 4.2.1.27 - Student Change Password

Figure 4.2.1.27 focuses on the process of "Student Change Password". In this process, the student logs into the Capstone and Thesis Directory system and navigates to the "Change Password" option. The student inputs their old password, then enters and confirms a new password. If the confirmation does not match, an error message is displayed. Upon successful confirmation, the system updates the password and notifies the student.

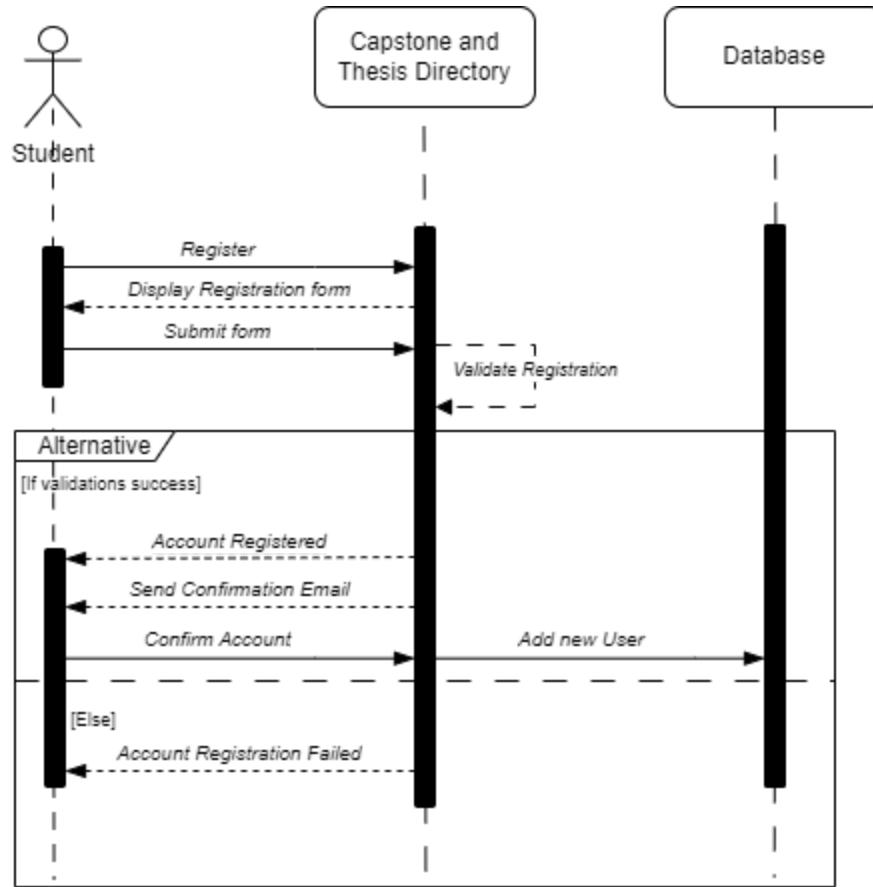


Figure 4.2.1.28 - Student Account Registration

Figure 4.2.1.28 focuses on the process of "Student Registration". In this process, the student fills out the registration form with their details and submits it. The system validates the information and, if successful, registers the account and sends a confirmation email. In case of failure, the system returns an error, and the registration is not completed.

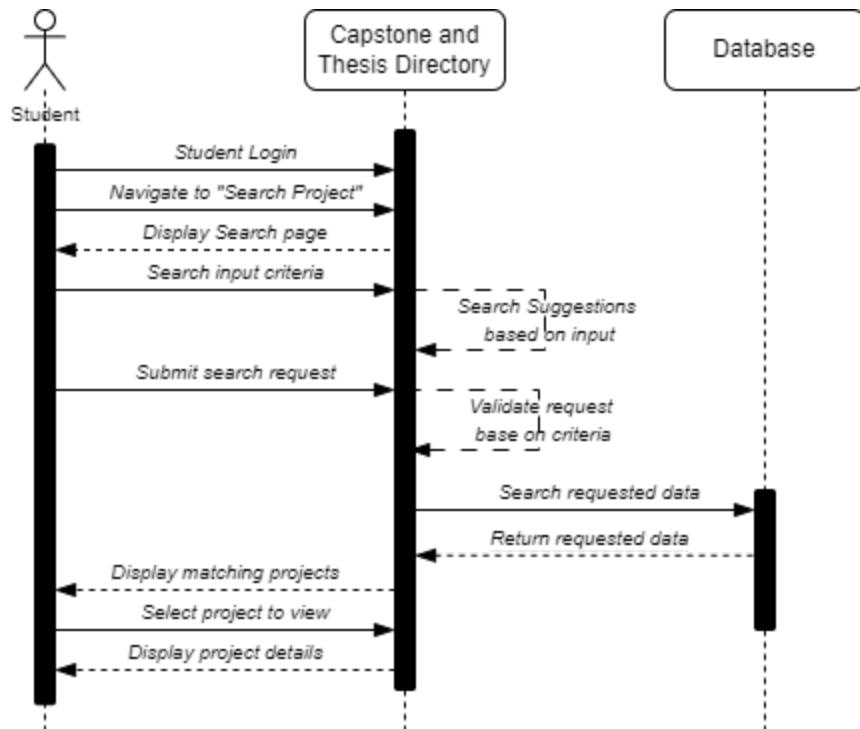


Figure 4.2.1.29 - Student Search Projects

Figure 4.2.1.29 focuses on the process of "Student Search Projects". The student logs into the system and navigates to the "Search Projects" page. After entering the search criteria, the student submits the request. The system retrieves and displays matching projects from the database for the student to view.

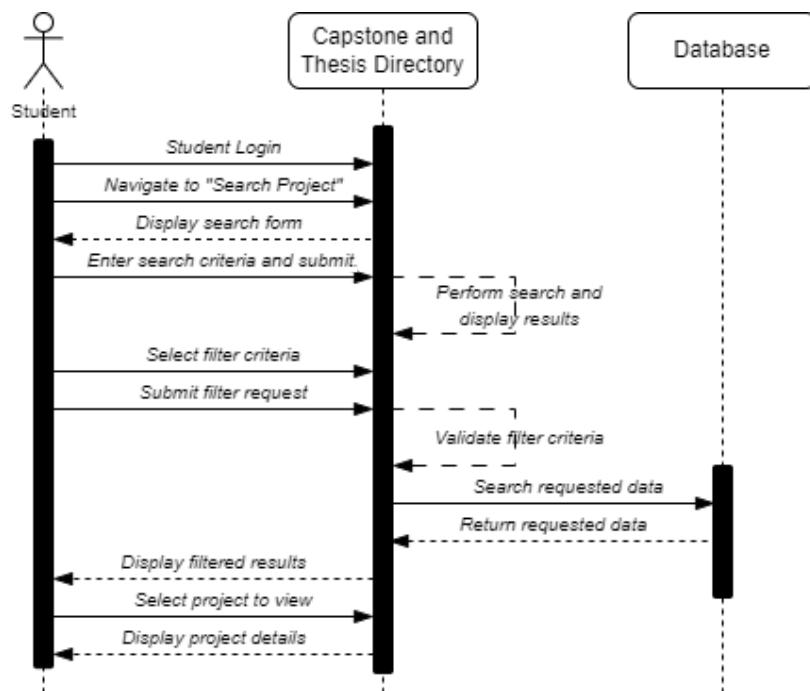


Figure 4.2.1.30 - Student Filter Projects

Figure 4.2.1.30 focuses on the process of "Student Filter Projects". The student logs into the system and navigates to the "Search Project" page. After entering their search criteria, the student can apply specific filters (e.g., year or specialization) and submit the request. The system retrieves and displays the filtered project data for the student to view.

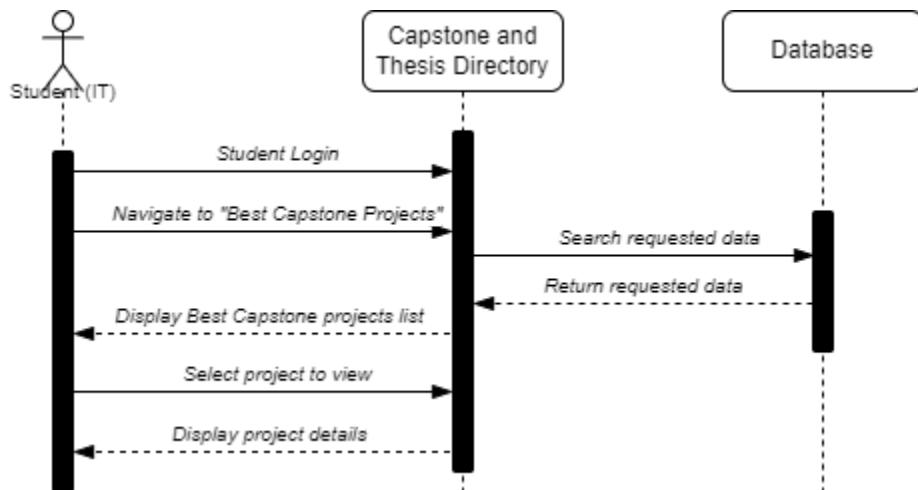


Figure 4.2.1.31 - Student View Best Capstone (IT)

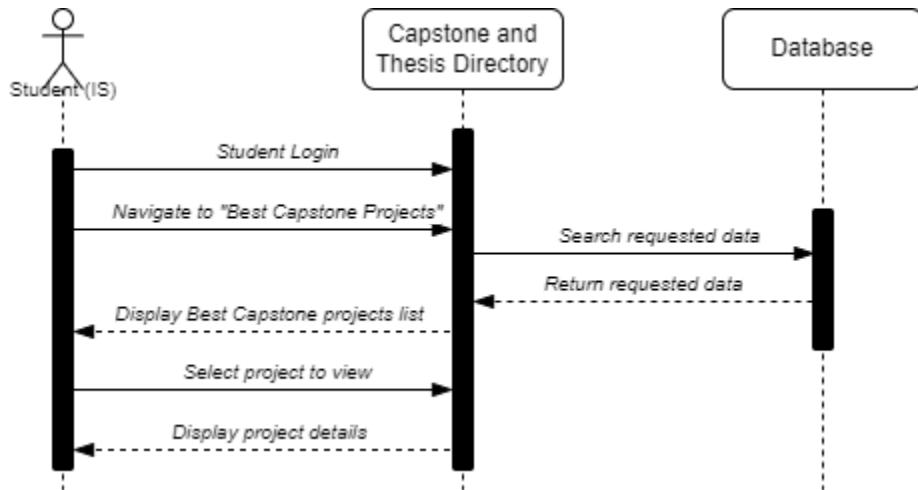


Figure 4.2.1.32 - Student View Best Capstone (IS)

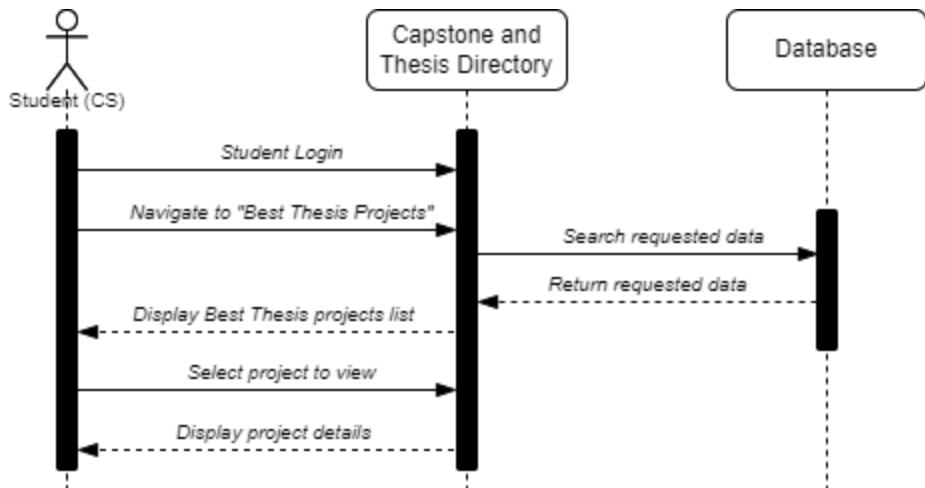


Figure 4.2.1.33 - Student View Best Thesis (CS)

Figures 4.2.1.31 - 4.2.1.33 focus on the process of "Viewing Best Capstone and Thesis Projects".

In this sequence, a student logs into the Capstone and Thesis Directory system and navigates to either the "Best Capstone Projects" or "Best Thesis Projects" section. The system requests data from the database for the best projects in the relevant category (Capstone or Thesis) and department (IT, IS, or CS). Once the data is retrieved, the system displays a list of the best projects. The student can then select a specific project from the list to view more detailed information.

This process is the same across different departments and project types, with only the specific category (Capstone or Thesis) and department (IT, IS, or CS) differing based on the student's department assignment.

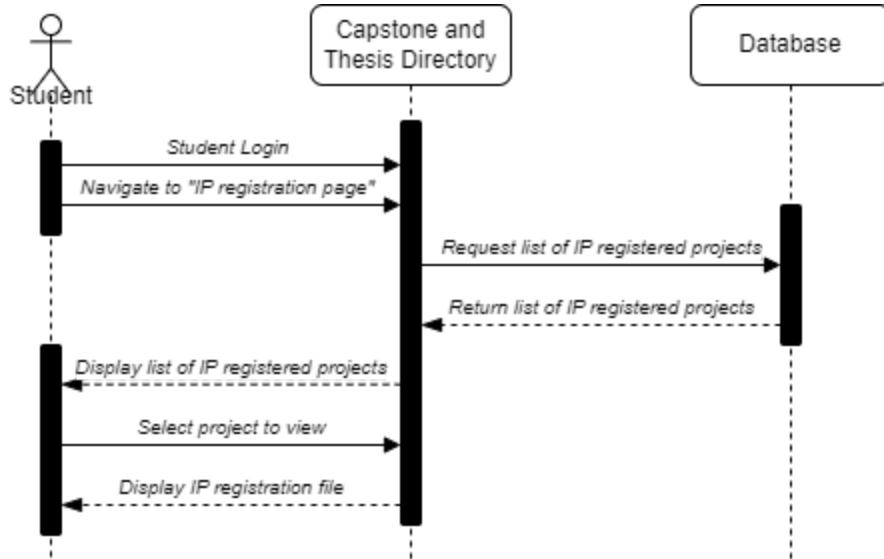


Figure 4.2.1.34 - Student View IP Registered Projects

Figure 4.2.1.34 focuses on the process of "Student View IP Registration". This diagram outlines the steps for viewing IP-registered projects. The student logs into the system and navigates to the "IP Registration" page. The system retrieves the list of IP-registered projects, and the student can select a specific project to view its registration file.

4.3 Testing and Results

In this part, the website will go through comprehensive testing to make sure each function operates as intended while ensuring there are no problems or issues that might come up later.

4.3.1 Test Case Analysis

4.3.1.1 Functional Requirements

The following section presents a summary of the findings from the analysis conducted by the team's quality assurance analyst. This part specifically addresses the functional requirements outlined in Chapter 3 of the document. The corresponding test cases are located in the appendix section.

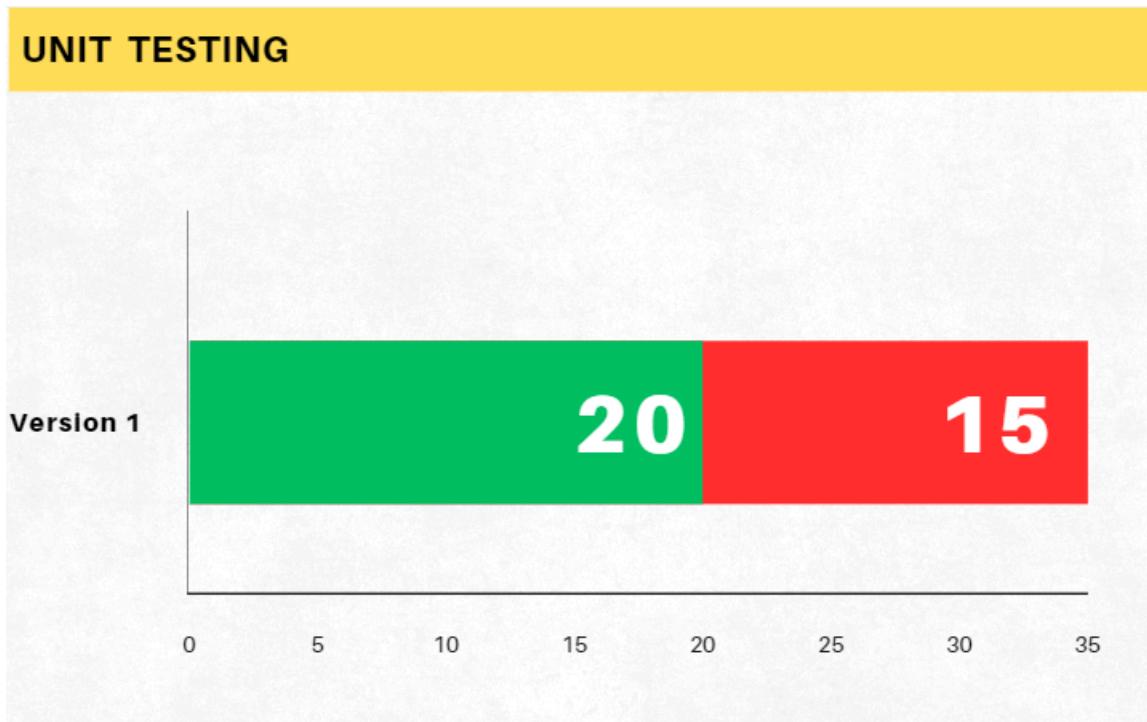


Figure 4.3.1.1.1 - Unit Testing for Capstone and Thesis Directory for UST CICS

Figure 4.3.1.1.1 discusses the results of the unit testing for Version 1 of the system, which evaluated the core functionalities such as Login, Register, Viewing Best Projects, Adding Best Projects, Change Password, Forgot Password, General Searching, Filtered Searching, and Document Submission for students, faculty, and admin users. Out of the 35 test cases conducted, 20 passed successfully (represented by the green section), while 15 failed (represented by the red section). This Version 1 testing serves as the initial evaluation of the system, highlighting areas that require further development. A Version 2 testing will follow, incorporating additional test cases to ensure system stability and performance improvements.

Summary of Test Cases for Unit Testing

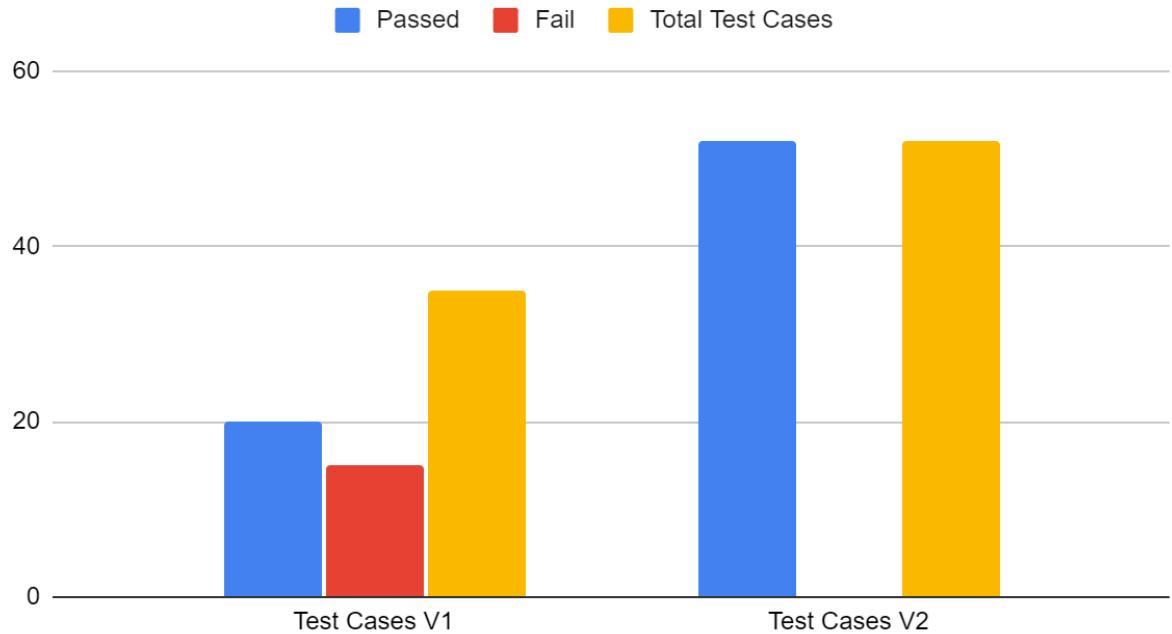


Figure 4.3.1.1.2 - Unit Testing for Capstone and Thesis Directory for UST CICS V2

Figure 4.3.1.1.2 illustrates the results of Version 1 and Version 2 of the test cases of the system, which evaluated the core functionalities such as Login, Register, Logout, Adding Best Projects, Change Password, Forgot Password, General Searching, Filtered Searching, View and Edit Capstone and thesis for Admin, View and Edit Best project for admin, grouping functionality for faculty, student and admin, role/user management for admin, notifications for faculty and student, and Document Submission for students, faculty, and admin users. Out of the 35 test cases conducted, 20 passed successfully (represented by the blue bar), while 15 failed (represented by the red bar). This Version 1 testing serves as the initial evaluation of the system, highlighting areas that require further development. Version 2 serves as the additional test cases that were created as well as the failed test cases from Version 1 were resolved during the second

iteration. During the second iteration of testing, out of the 52 test cases conducted, 52 passed successfully(represented by the yellow bar).

Summary of Test Cases for Integration Testing

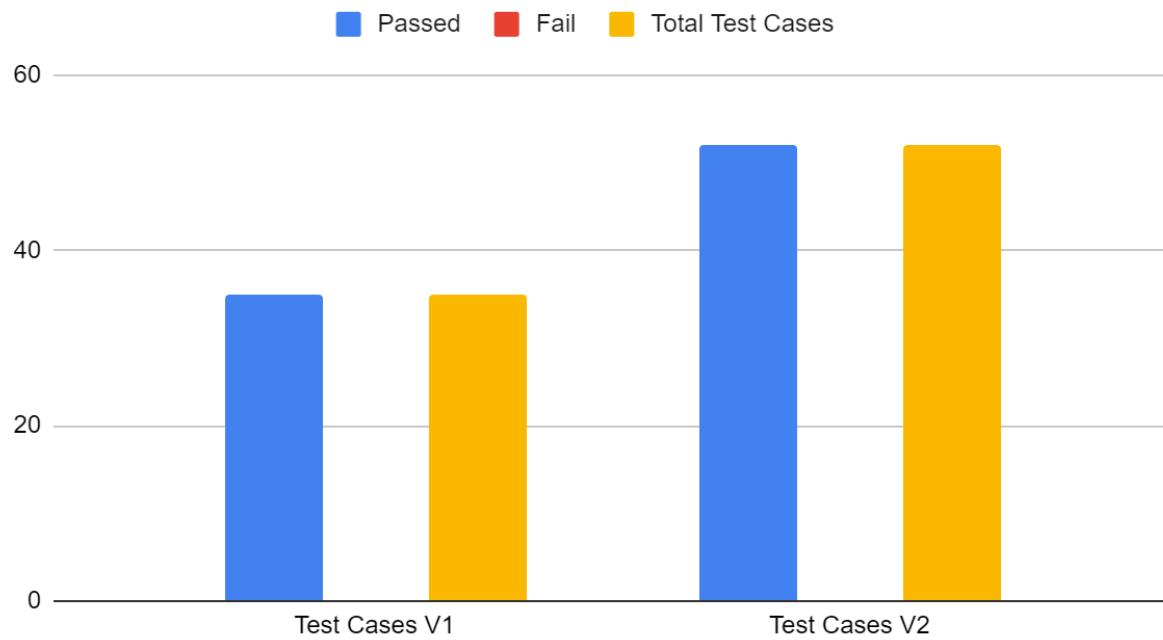


Figure 4.3.1.1.3 - Integration Testing for Capstone and Thesis Directory for UST CICS

Figure 4.3.1.1.3 illustrates the summary of test cases performed during the integration testing of the Capstone and Thesis Directory for UST CICS. After the issues were resolved from version 1 of the unit testing, 52 out of 52 test cases were marked as passed on all of the roles for Student, Faculty, and Admin that have been carefully tested and documented by the proponents.

4.3.1.2 Non-functional Requirements Testing

Usability

The proponents recently conducted a User Acceptance Test (UAT) after completing both unit and integration testing to assess the usability of the system. This test

involved a diverse group of administrators, faculty members, and students, who were encouraged to explore the platform freely. The UAT confirmed that users could easily access and use essential features, such as project submission, approval of projects, and search and filtering tools, without much guidance.

The proponents also evaluated the platform's mobile responsiveness and found that both the desktop and mobile versions of the system provided a consistent navigation experience. Overall, feedback was positive, with 90% of participants describing the platform as intuitive. A few minor suggestions were made to improve the guidance for first-time users, which the proponents are considering for future updates.

Reliability

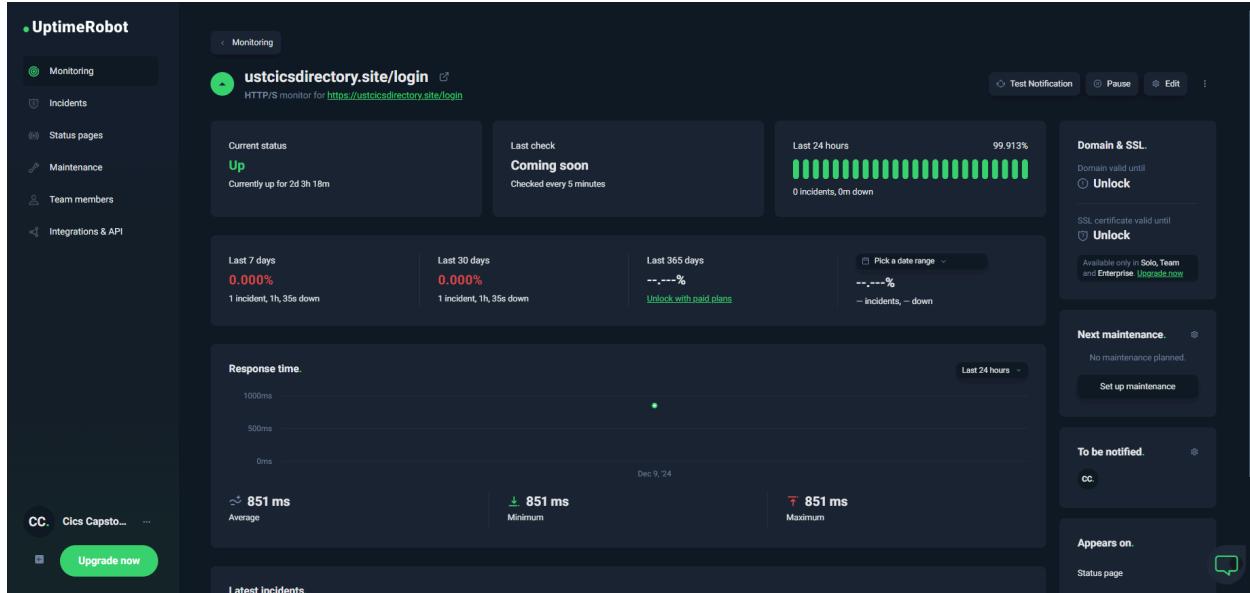


Figure 4.3.1.2.1 Reliability Testing from UptimeRobot

Based on **Figure 4.3.1.2.1**, the platform's performance over the last seven days shows outstanding reliability, with no incidents or downtime reported. The system achieved an average

response time of 851 milliseconds, with a minimum of 851 milliseconds and a maximum of 851 milliseconds. These figures indicate stable and dependable performance, though there is potential for improvement in response times to further elevate the user experience.

Security and Encryption

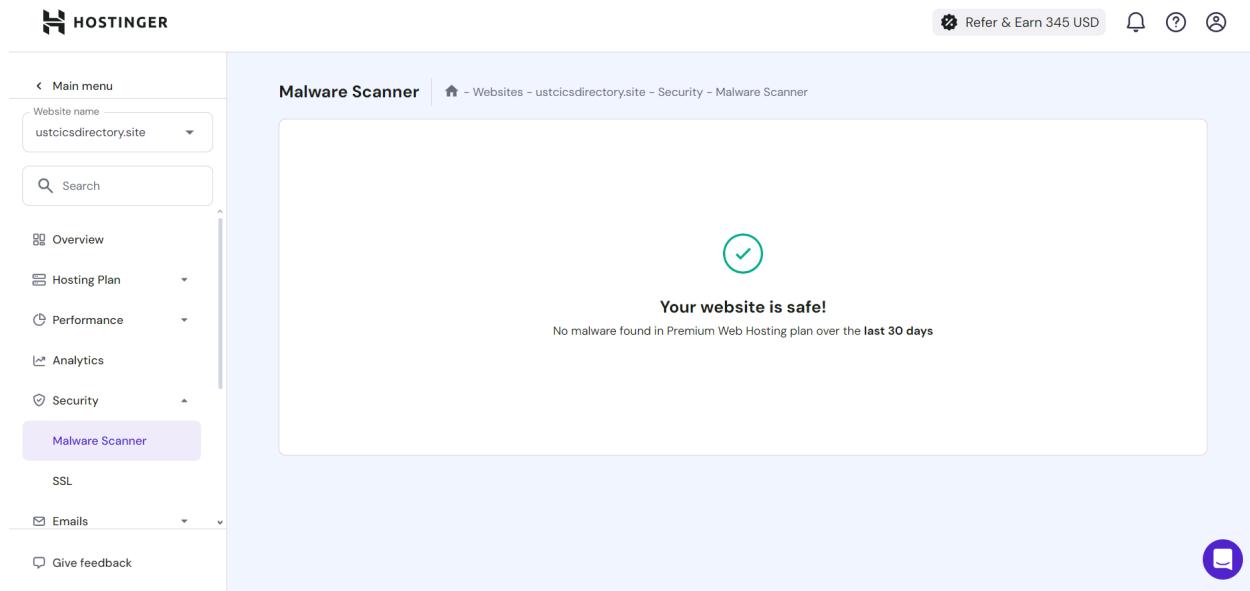


Figure 4.3.1.2.2 Malware Scanner Test from Hostinger

The application was subjected to a Malware Scanner Test conducted by Hostinger to verify its security and ensure it is free from malicious scripts, unauthorized code injections, or vulnerabilities that might compromise its integrity. The scanner performed a comprehensive analysis of the website's files, databases, and configurations to detect any signs of malware or suspicious activity. The results confirmed that the application is secure, with no traces of harmful code, trojans, or compromised files.

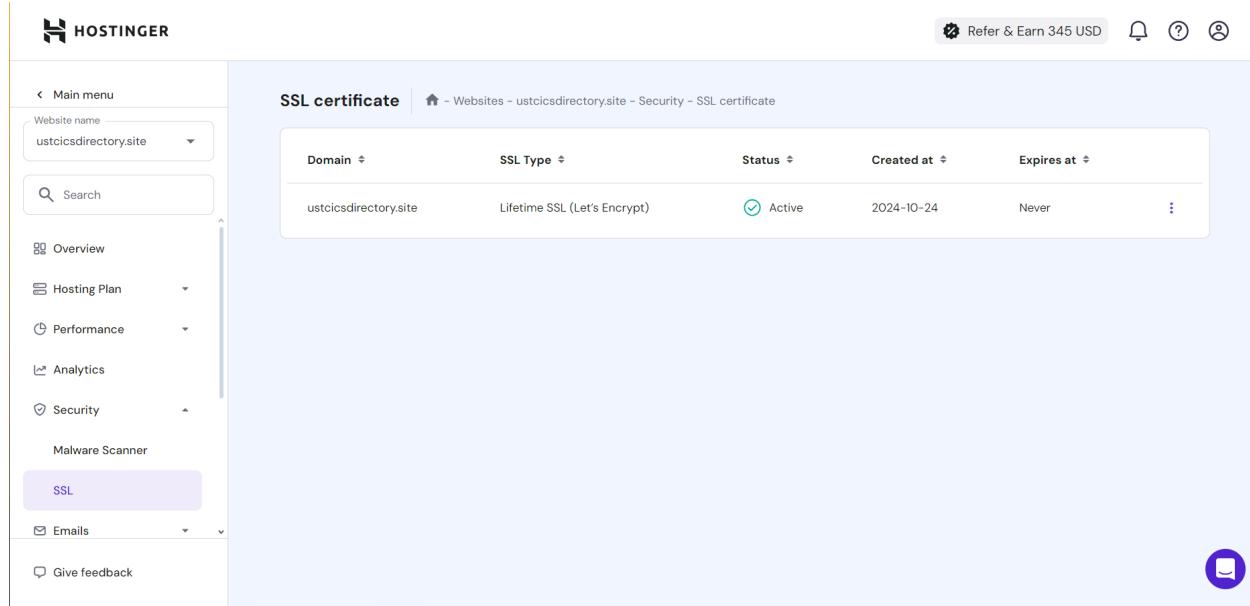


Figure 4.3.1.2.3 Secure Sockets Layer provided by Hostinger

The application is protected with a Secure Sockets Layer (SSL) certificate provided by Hostinger, ensuring that all data exchanged between the user's browser and the server is encrypted. This safeguards sensitive information, such as login credentials and personal details, from interception or unauthorized access. The SSL certificate also builds user trust by enabling the HTTPS protocol and displaying a padlock icon in the browser's address bar, indicating a secure connection. This encryption standard meets modern security requirements and is crucial for maintaining data integrity and defending against man-in-the-middle (MITM) attacks.

Performance

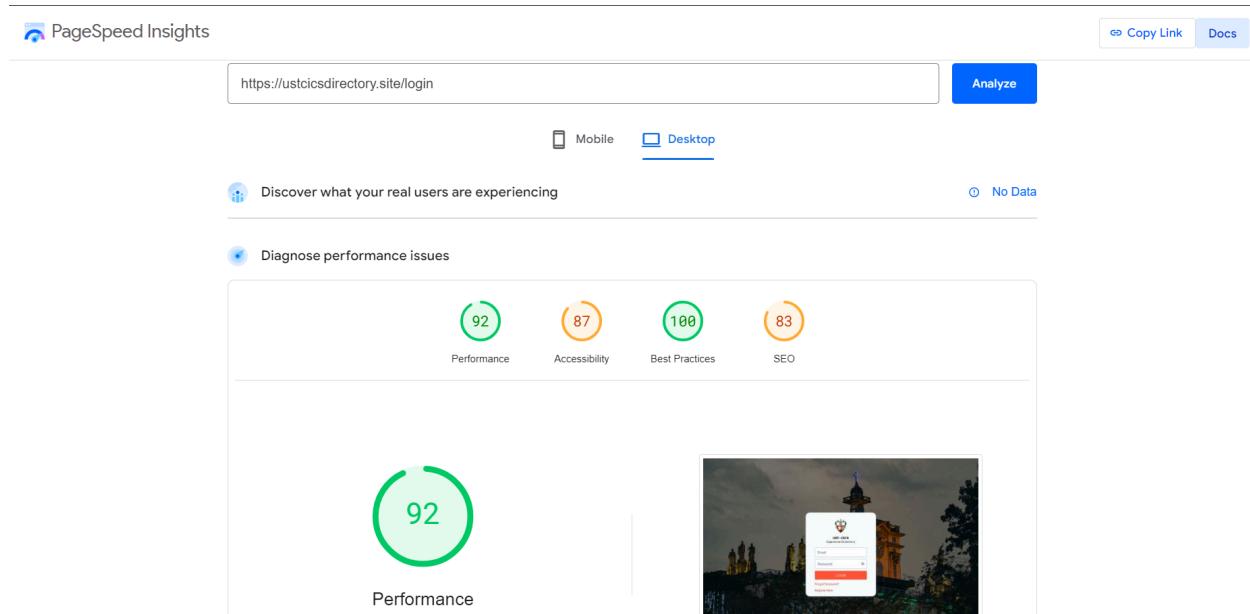


Figure 4.3.1.2.X Desktop Performance Testing from Google Insights

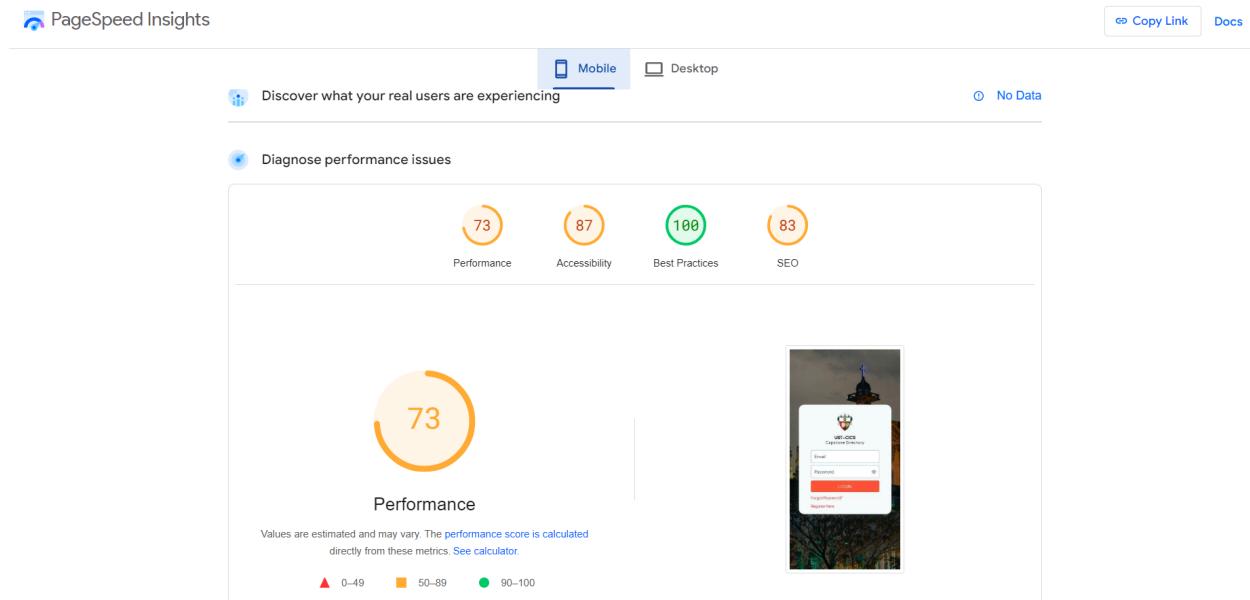


Figure 4.3.1.2.X Mobile Performance Testing from Google Insights

The proponents performed performance testing on both the site's desktop and mobile platforms. On the performance test results from Google Page Insights, the

proponents evaluated the system's responsiveness under varying conditions. The platform achieved a Google Lighthouse performance score of 73 for mobile and 92 for desktop, with accessibility scores of 87 and best practices rated at a perfect 100 for both environments. Additionally, the SEO score was consistent at 83 across devices. These metrics demonstrate that the system is well-optimized for both mobile and desktop users, ensuring a reliable and smooth user experience. This level of performance meets the required standards, even during periods of high demand.

Manageability

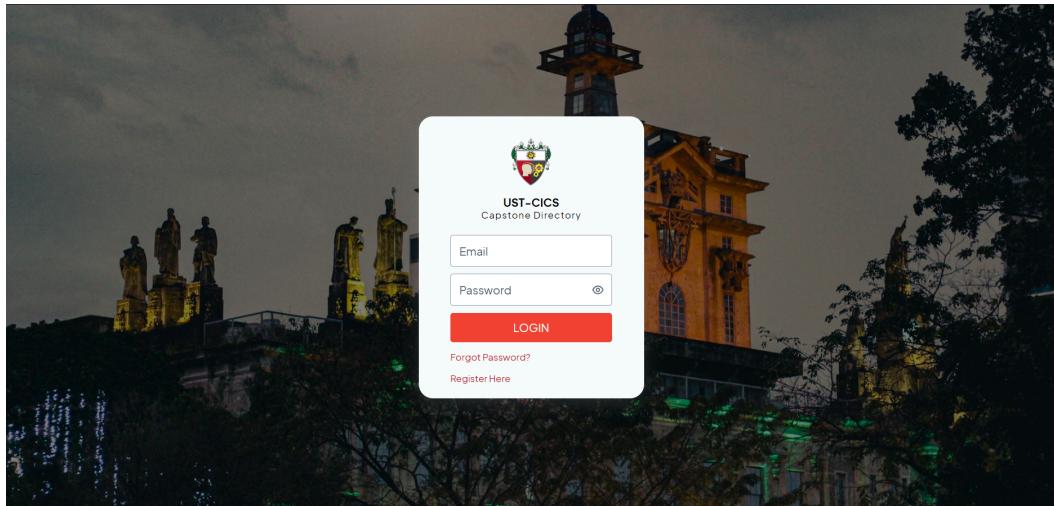
The proponents tested the administrative tools for user and project management to ensure they were efficient and user-friendly. Administrators successfully assigned roles, deactivated accounts, and tracked system activity through detailed audit logs. Faculty members also tested group management features, such as creating and modifying student groups and assigning projects.

Additionally, the system's configuration tools allowed administrators to adjust settings and workflows without any downtime, demonstrating that the platform is both manageable and flexible for real-world use. Overall, these tests confirm that the administrative features support efficient, smooth management of users and projects.

UI Functionality and Design

The proponents reviewed the platform's interface for consistency and alignment with university branding guidelines. Every UI component—such as buttons, dropdowns, and forms—was tested to ensure it functioned correctly and responded well across devices. Error messages were crafted to be clear and helpful, offering users specific steps to resolve issues. Feedback from testers was highly positive, noting the platform's professional design and intuitive navigation. Testers also praised its accessibility features, which comply with WCAG 2.1 standards, making the system more inclusive and easy to use for everyone.

Responsiveness & Portability



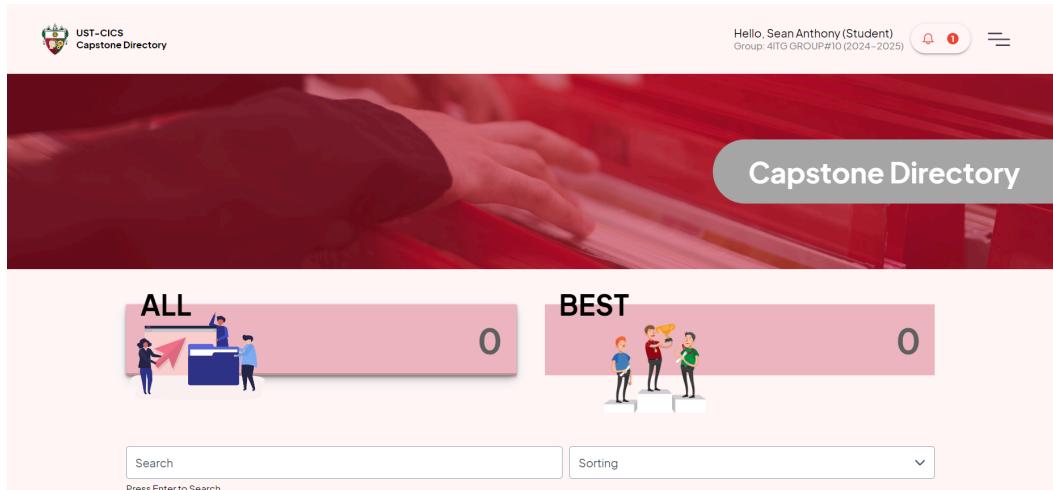


Figure 4.3.1.2.4-5 Site Desktop View for Responsiveness and Portability

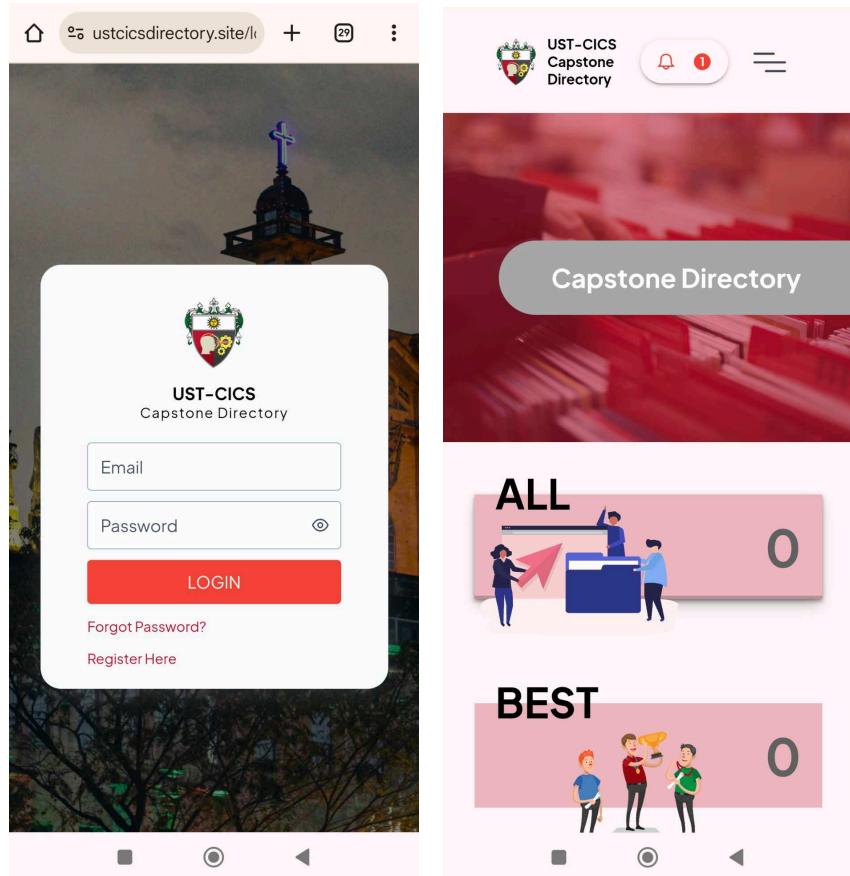


Figure 4.3.1.2.6-7 Site Mobile View for Responsiveness and Portability

The proponents conducted cross-device and cross-browser testing to verify the platform's responsiveness and compatibility. The system was evaluated on desktops, tablets, and mobile phones and tested across popular browsers, including Chrome, Firefox, Safari, and Edge. All features adjusted smoothly to different screen sizes, with the mobile version operating seamlessly. Testers reported no issues with touch interactions or navigation, confirming that the platform provides a consistent and user-friendly experience across devices and browsers. These results underscore the platform's adaptability and reliability, ensuring users can access it smoothly from any device or browser.

Data Integrity

Data integrity was assessed using rigorous input validation and error-handling methods. The system successfully prevented invalid submissions, such as incomplete or poorly formatted project details, and ensured that only accurate and complete data was retained. Database rollback mechanisms were evaluated to recover from simulated transaction mistakes, and no data corruption was detected. Scheduled backups helped to ensure the preservation of all supplied files, meeting the platform's data reliability standards.

4.3.2 User Acceptance Test Summary

4.3.2.1 Admin User Acceptance Test Results

Summary of Answers per Quantitative Questions for Admin UAT

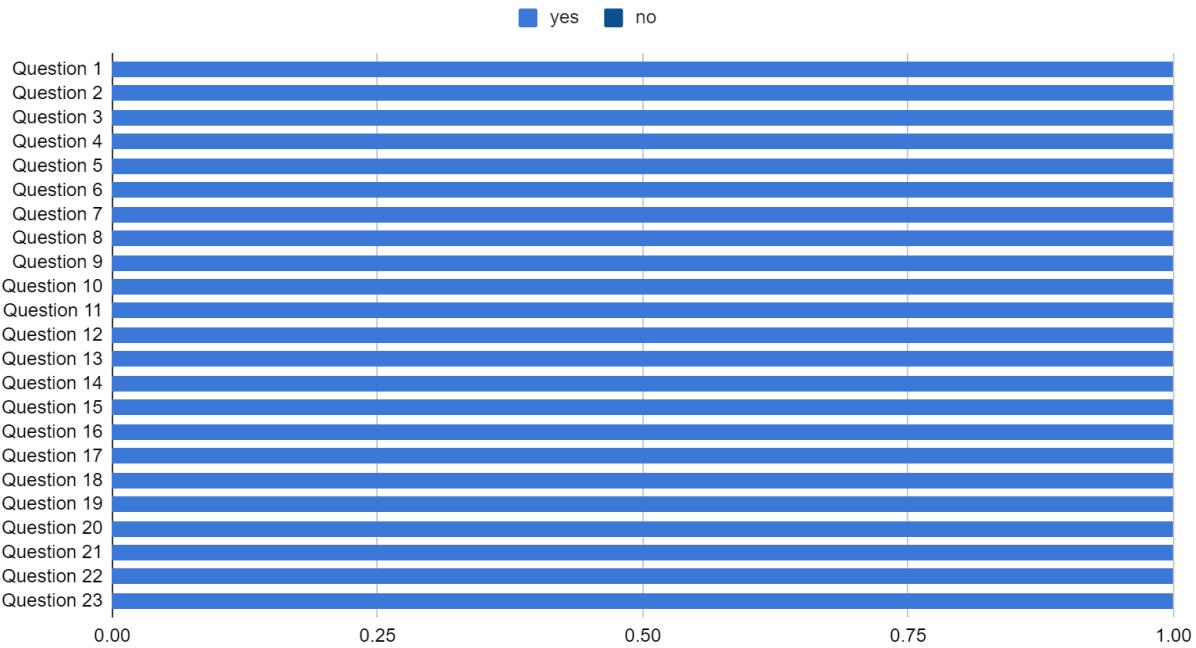


Figure 4.3.2.1.1: Summary of Answers per Quantitative Questions for Admin

Based on the result of the UAT of the Admin side, all the answer was Yes. This indicates that all the functionalities worked on their side when they tested the application and no problems were encountered during the testing

Were you able to log in to the system using your admin credentials without any issues?

 Copy chart

1 response

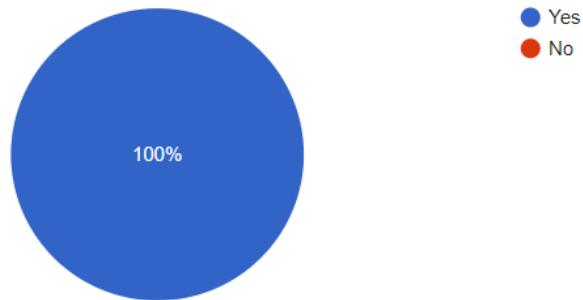


Figure 4.3.2.1.2: Admin Result for UAT Question 1

The UAT question indicates that the Admin answered yes and that they were able to log in to the system using their admin credentials without any issues

Is the logout process functioning correctly?

 Copy chart

1 response

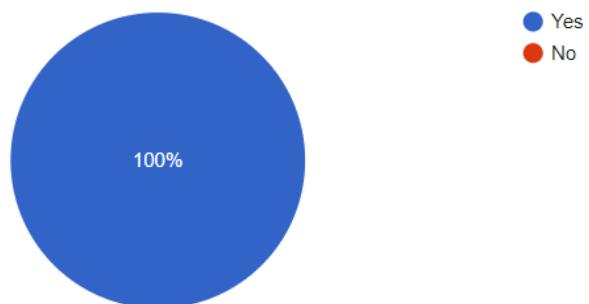


Figure 4.3.2.1.3: Admin Result for UAT Question 2

The UAT question indicates that the Admin answered yes and that they were able to log out of the system properly and correctly.

Can you view the complete list of all IP-registered capstone projects and thesis papers?

1 response

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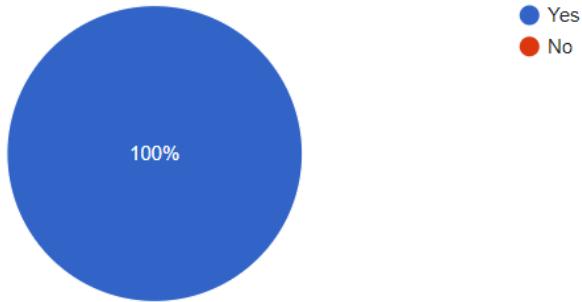


Figure 4.3.2.1.4: Admin Result for UAT Question 3

The UAT question indicates that the Admin answered yes and that they were able to view the complete list of all IP-registered capstone projects and thesis papers while logged in with their admin accounts.

Are you able to add a new capstone project or thesis paper to the system easily?

1 response

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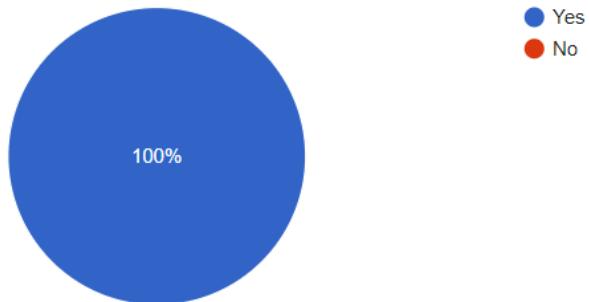


Figure 4.3.2.1.5: Admin Result for UAT Question 4

The UAT question indicates that the Admin answered yes and that they were able to add new capstone projects or thesis papers easily using the uploading functionality on the admin side.

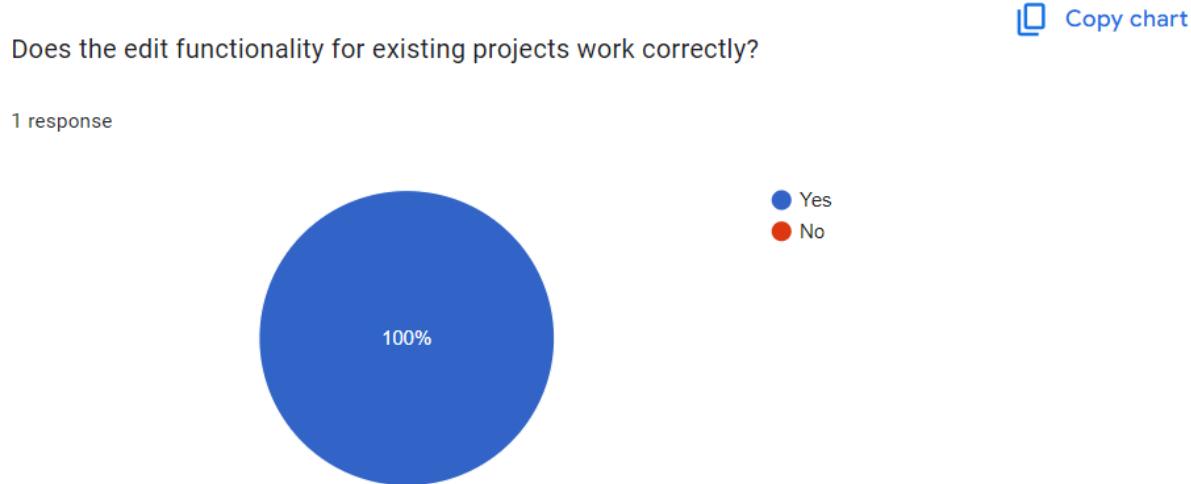


Figure 4.3.2.1.6: Admin Result for UAT Question 5

The UAT question indicates that the Admin answered yes and that they were able to edit the existing submitted projects within the system while logged in using their admin account.

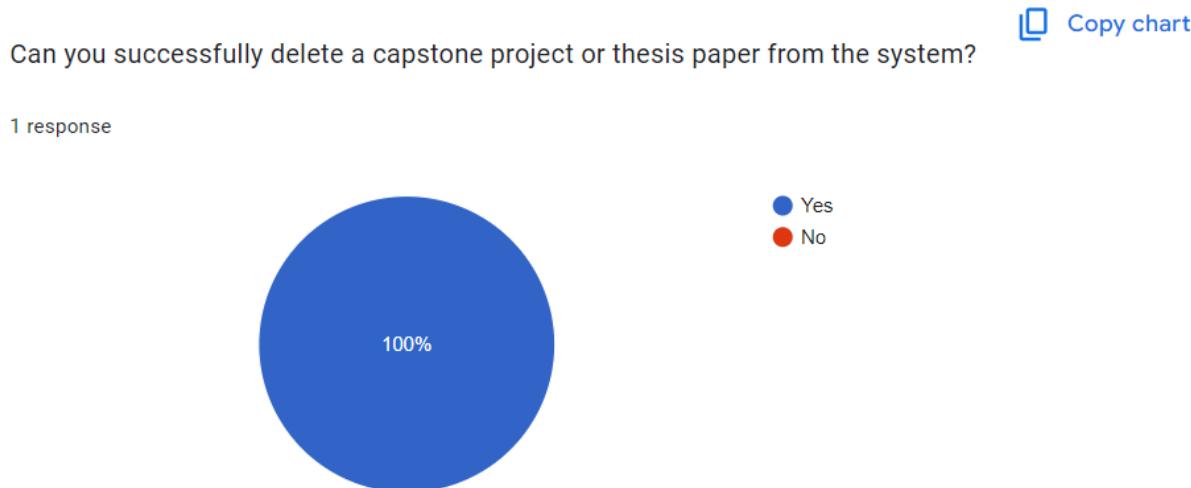


Figure 4.3.2.1.7: Admin Result for UAT Question 6

The UAT question indicates that the Admin answered yes and that they were able to delete the existing submitted projects within the system while logged in using their admin account.

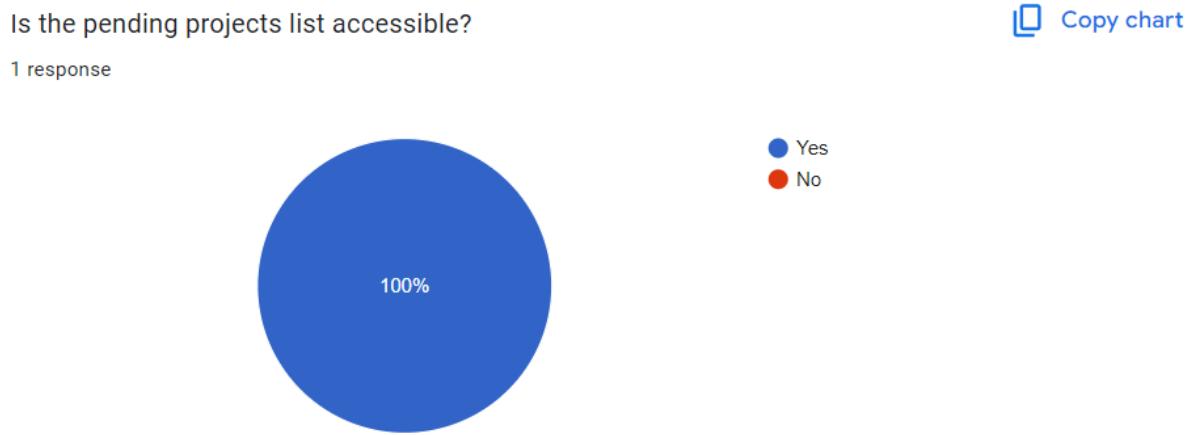


Figure 4.3.2.1.8: Admin Result for UAT Question 7

The UAT question indicates that the Admin answered yes and that they were able to view the list of pending or subject-for-approval projects that were submitted by the student on the approvals page on the admin side.

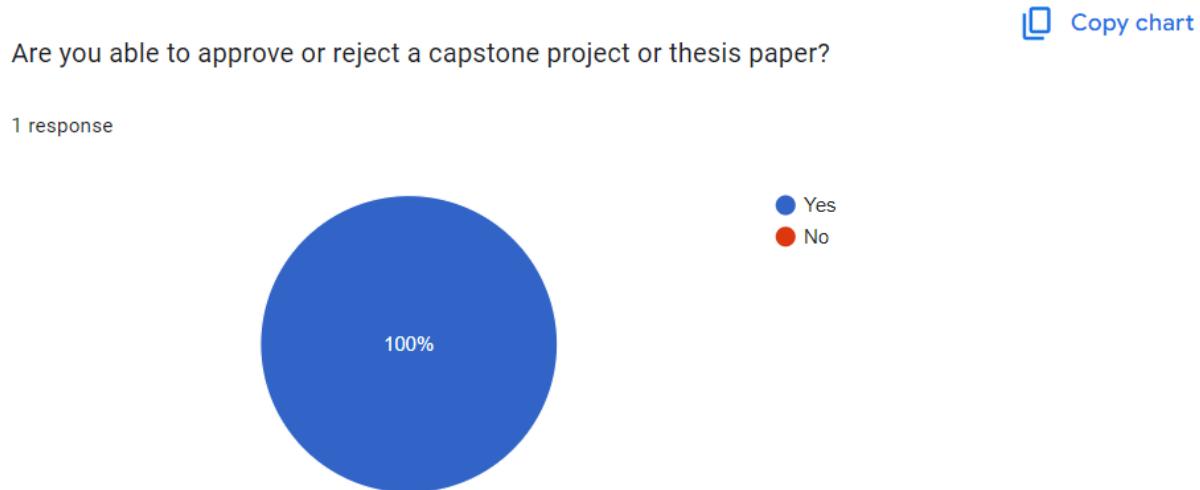


Figure 4.3.2.1.9: Admin Result for UAT Question 8

The UAT question indicates that the Admin answered yes and that they were able to approve or reject the submission of capstone projects or thesis papers on the approvals page of the admin side.

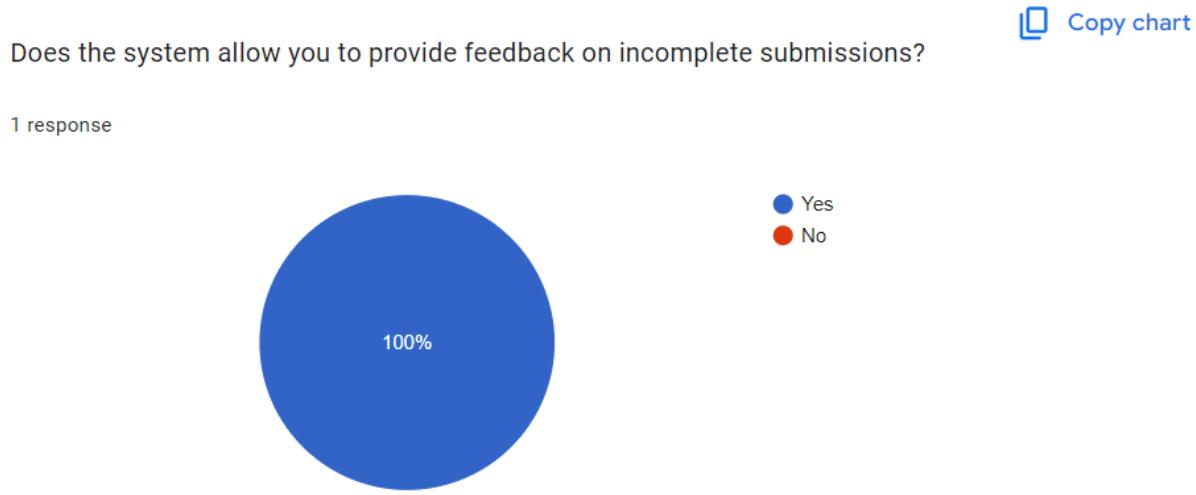


Figure 4.3.2.1.10: Admin Result for UAT Question 9

The UAT question indicates that the Admin answered yes and that they were able to view the list of pending or subject-for-approval projects that were submitted by the student on the approvals page on the admin side.

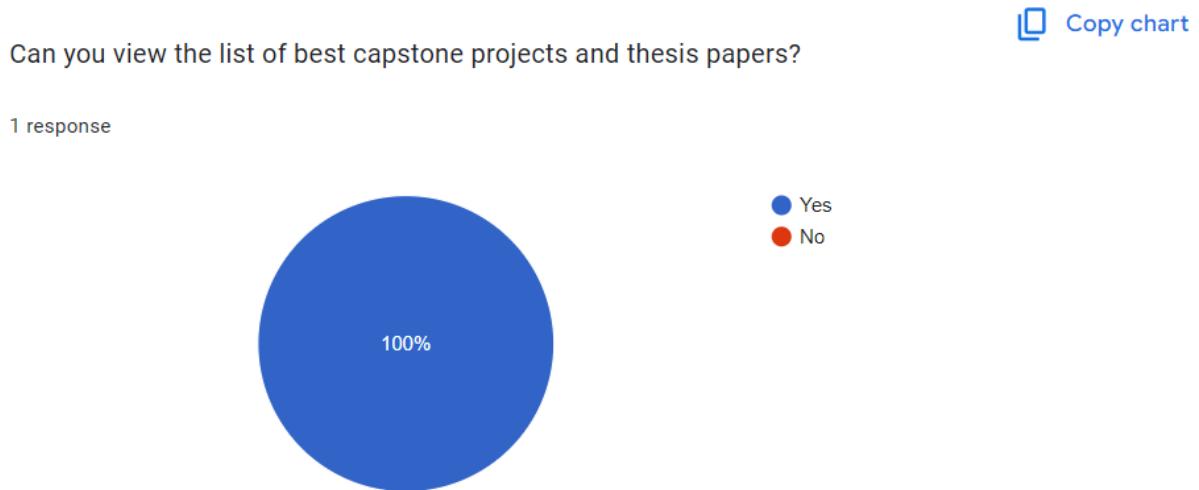


Figure 4.3.2.1.11: Admin Result for UAT Question 10

The UAT question indicates that the Admin answered yes and that they were able to view the list of best capstone projects and thesis papers based on their departmental role by using the filter for best projects.

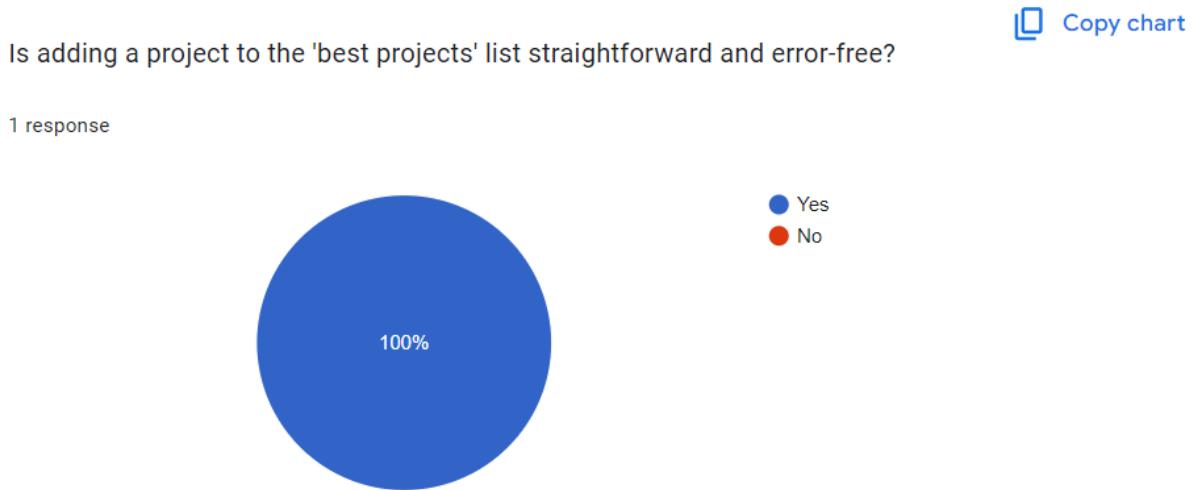


Figure 4.3.2.1.12: Admin Result for UAT Question 11

The UAT question indicates that the Admin answered yes and that they were able to promote submitted projects with ease and with no errors.

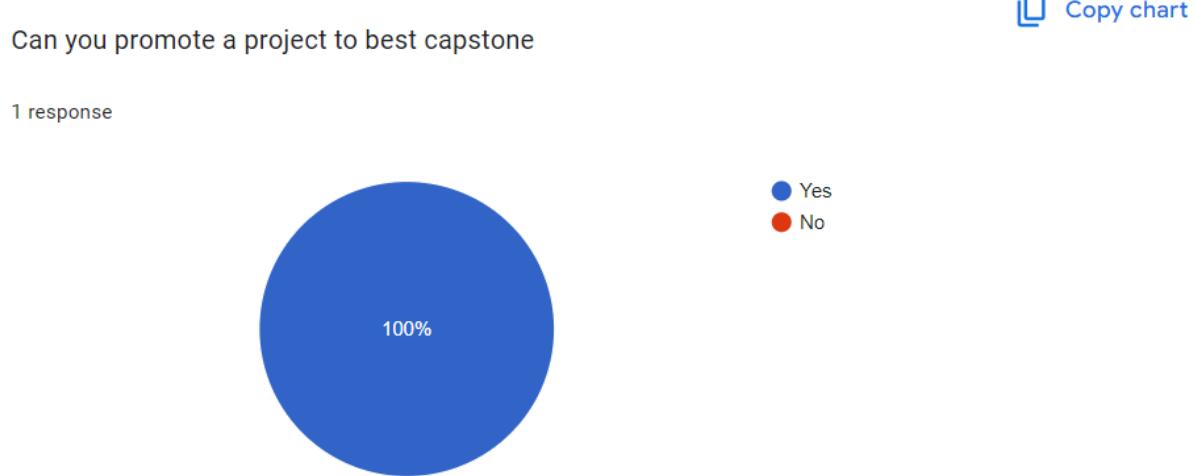


Figure 4.3.2.1.13: Admin Result for UAT Question 12

The UAT question indicates that the Admin answered yes and that they were able to promote submitted projects to be the best projects for each specialization for each department.

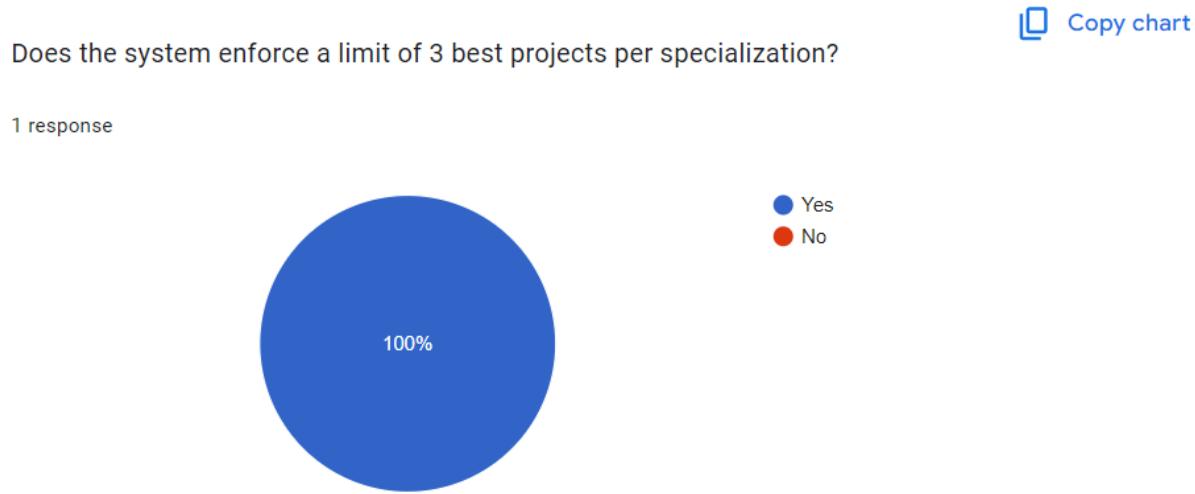


Figure 4.3.2.1.14: Admin Result for UAT Question 13

The UAT question indicates that the Admin answered yes and that the system limits the promotion of projects to “best project” up until to 3 projects for each specialization in each department.

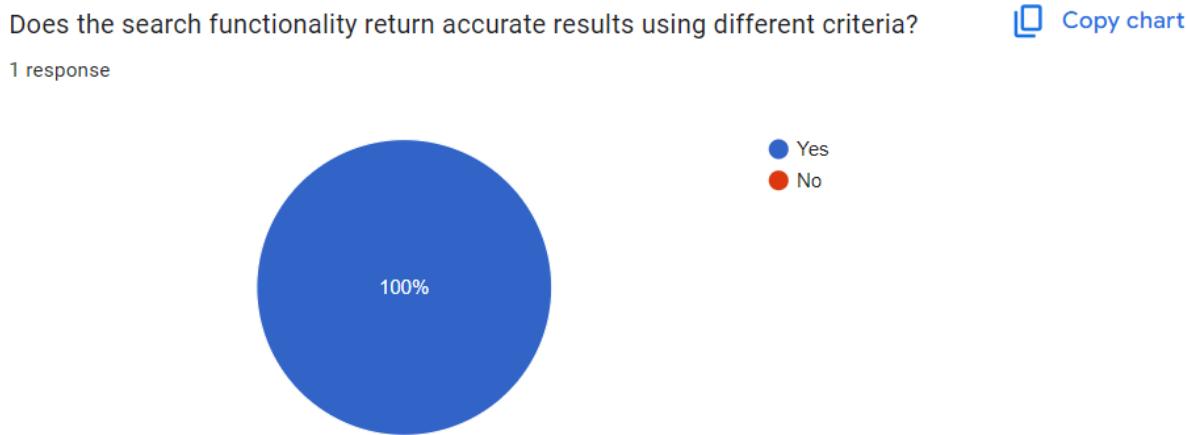


Figure 4.3.2.1.15: Admin Result for UAT Question 14

The UAT question indicates that the Admin answered yes and that they were able to search for projects within their department role using different criteria with accurate results

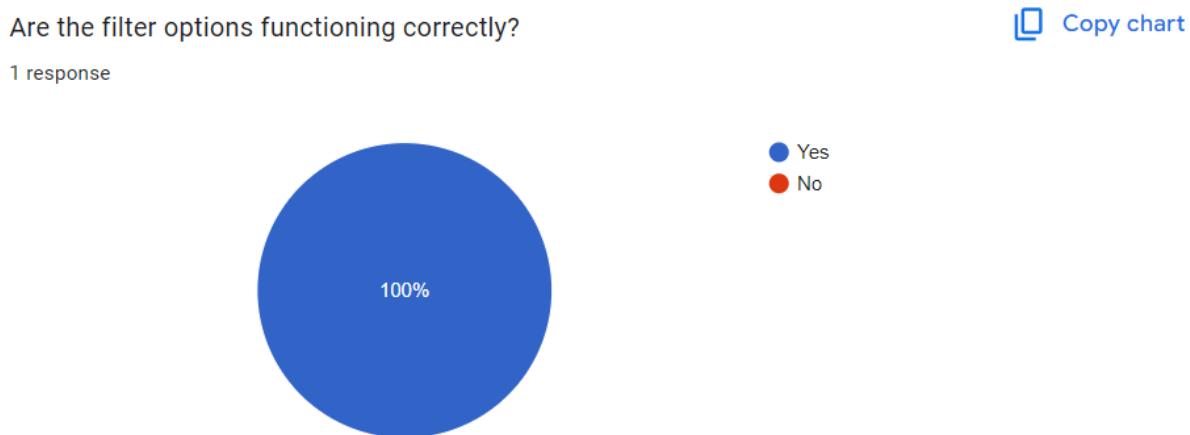


Figure 4.3.2.1.16: Admin Result for UAT Question 15

The UAT question indicates that the Admin answered yes and that they were able to search for projects within their department role while also using it with the filter options for searching.

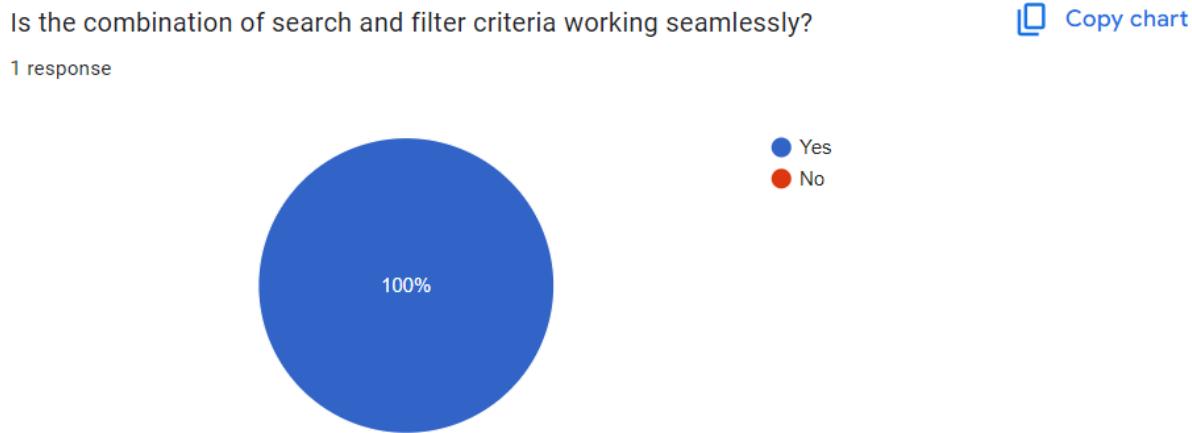


Figure 4.3.2.1.17: Admin Result for UAT Question 16

The UAT question indicates that the Admin answered yes that they were able to combine their searching with different filtering criteria and that it worked seamlessly.

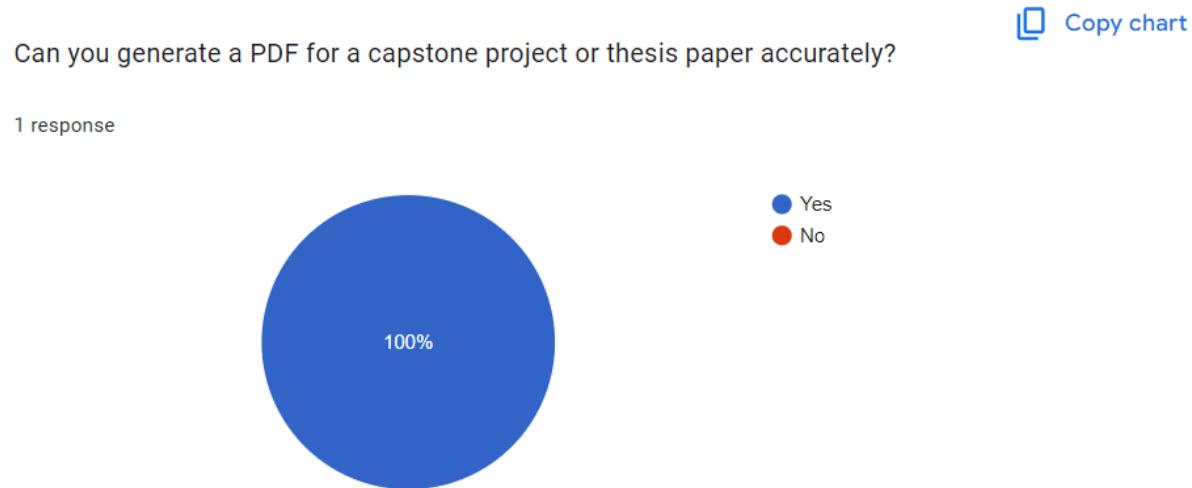


Figure 4.3.2.1.18: Admin Result for UAT Question 17

The UAT question indicates that the Admin answered yes and that they were able to generate the PDF file of the chosen project they wanted to generate.

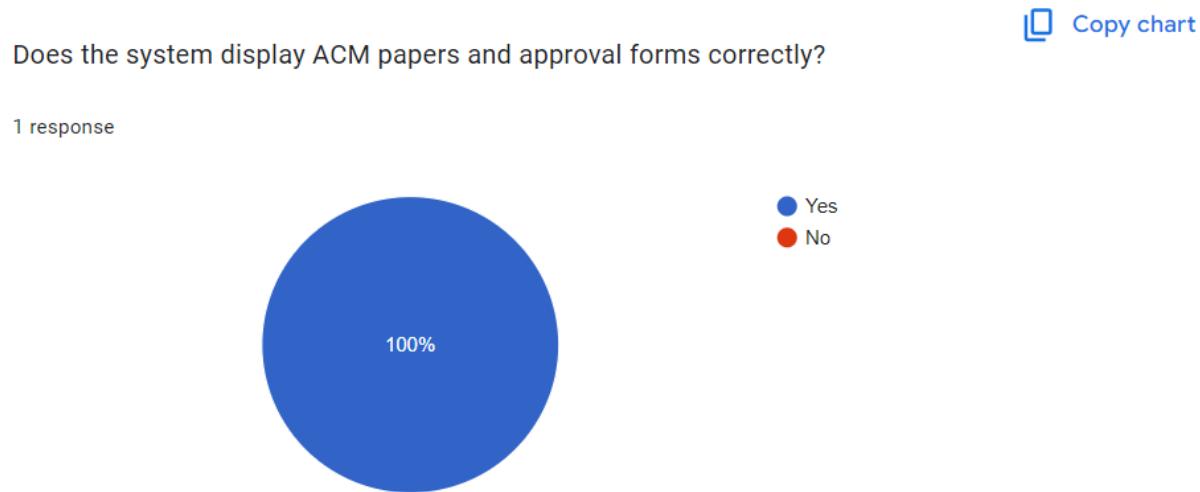


Figure 4.3.2.1.19: Admin Result for UAT Question 18

The UAT question indicates that the Admin answered yes and that the system was able to display to them the ACM papers and approval forms submitted by the students for their projects correctly.

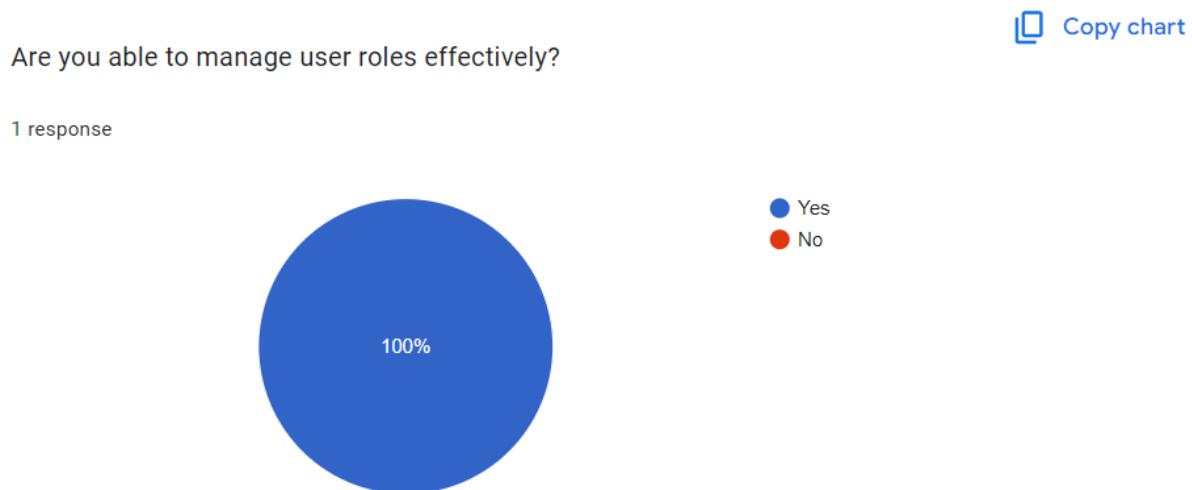


Figure 4.3.2.1.20: Admin Result for UAT Question 19

The UAT question indicates that the Admin answered yes and that they were able to manage and manipulate the registered user's roles.

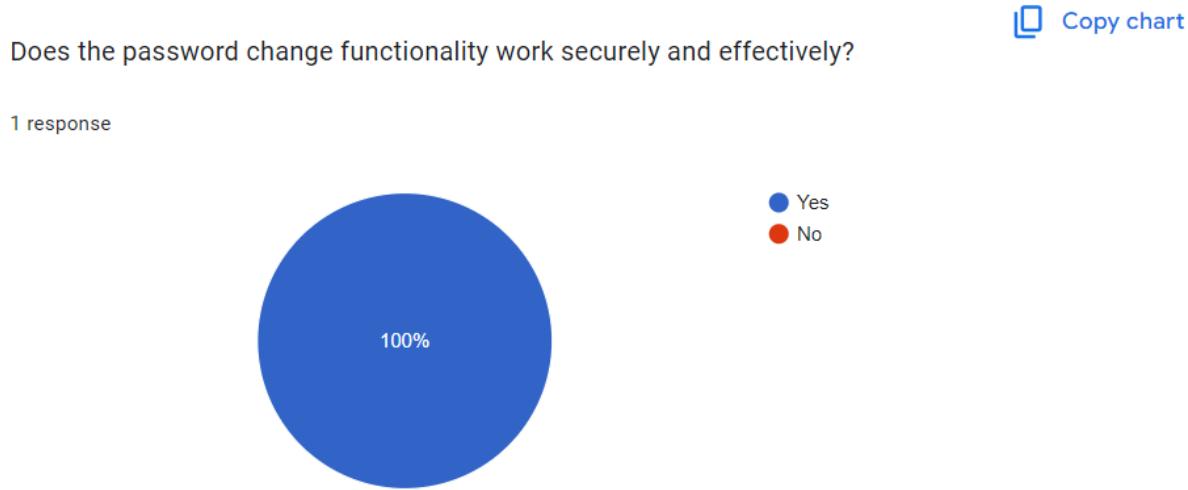


Figure 4.3.2.1.21: Admin Result for UAT Question 20

The UAT question indicates that the Admin answered yes and that they were able to change their passwords using the change password functionality securely and effectively.

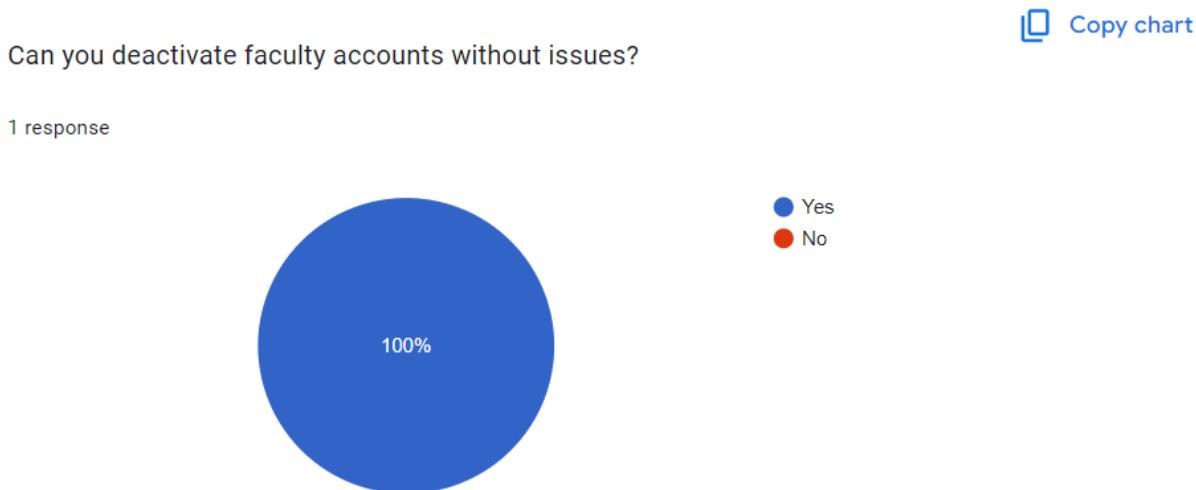


Figure 4.3.2.1.22: Admin Result for UAT Question 21

The UAT question indicates that the Admin answered yes and that they were able to deactivate faculty accounts for accounts that are not used anymore.

Did you not experience any system crashes, slow responses, or unexpected behaviors during testing?

 Copy chart

1 response

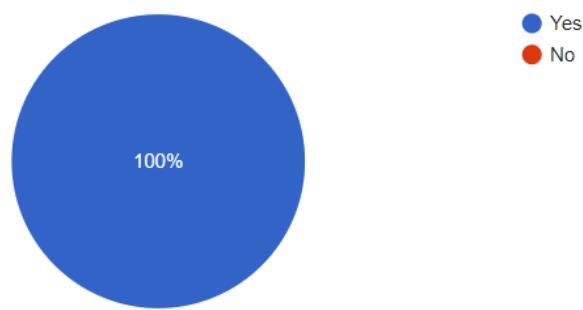


Figure 4.3.2.1.23: Admin Result for UAT Question 22

The UAT question indicates that the Admin answered yes and that during their testing, they did not experience any system crashes, slow responses, and/or unexpected behaviors.

Is the overall navigation within the admin interface intuitive?

 Copy chart

1 response

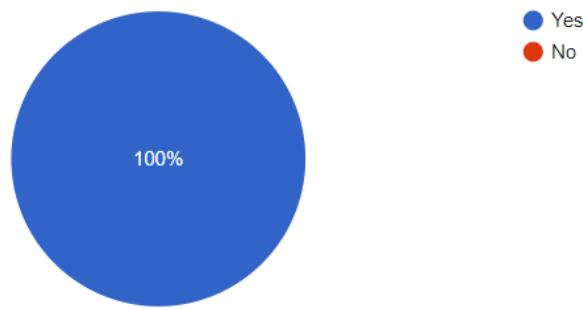


Figure 4.3.2.1.24: Admin Result for UAT Question 23

The UAT question indicates that the Admin answered yes and that the overall system navigation within the admin interface was intuitive and simple.

4.3.2.2 Faculty User Acceptance Test Results

Summary of Answers for Faculty UAT

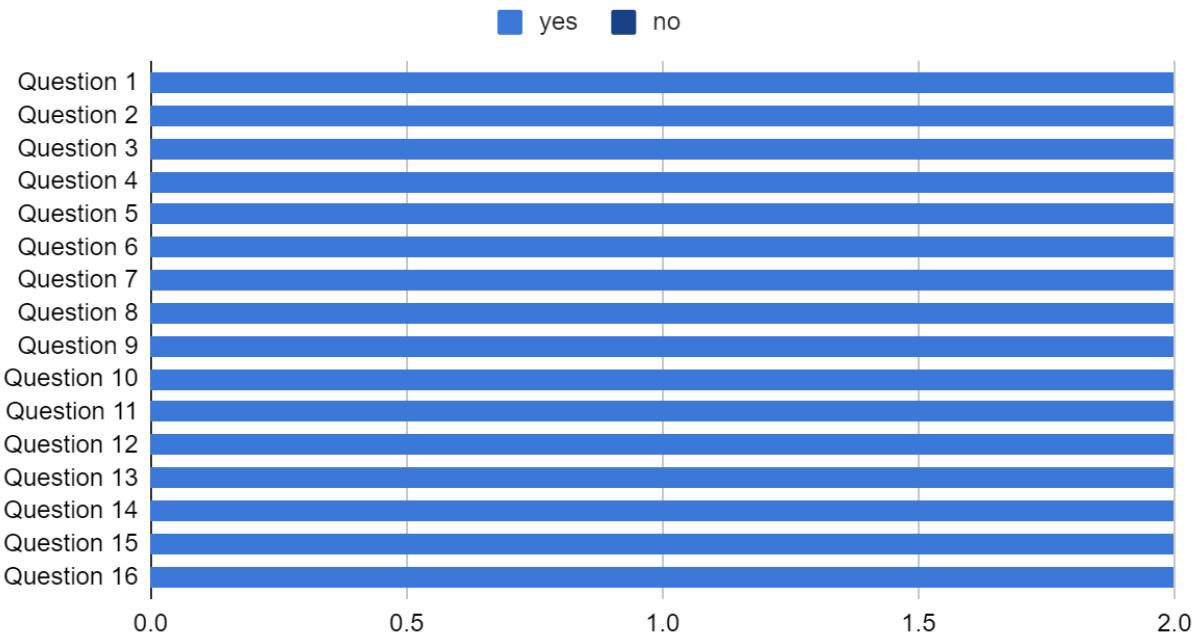


Figure 4.3.2.2.1: Summary of Answers per Quantitative Question for Faculty UAT

Based on the result of the UAT of the Faculty side, all the answer was Yes. This indicates that all the functionalities worked on their side when they tested the application and no problems were encountered during the testing

Were you able to log in to the system using your faculty credentials without any issues?

 Copy chart

2 responses

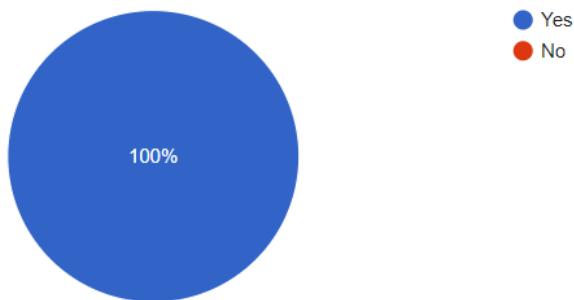


Figure 4.3.2.2: Faculty Result for UAT Question 1

The UAT question indicates that the Faculty answered yes and that they were able to log in to the system using their admin credentials without any issues

Does the system ensure secure access through authentication measures (e.g., password requirements, two-factor authentication)?

 Copy chart

2 responses

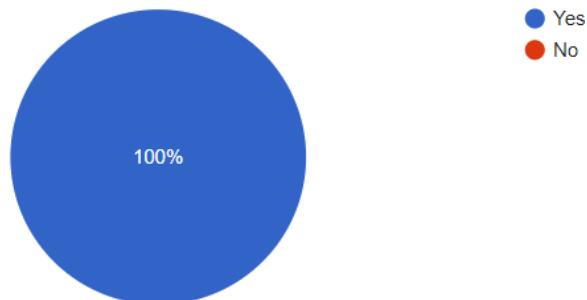


Figure 4.3.2.3: Faculty Result for UAT Question 2

The UAT question indicates that the Faculty answered yes and that the system ensures secure access while logging in through the use of their account credentials securely.

[Copy chart](#)

Is the logout process functioning correctly?

2 responses

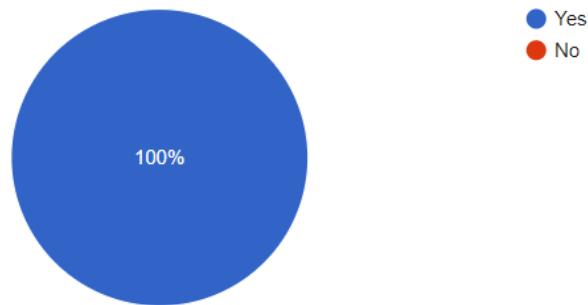


Figure 4.3.2.2.4: Faculty Result for UAT Question 3

The UAT question indicates that the Faculty answered yes and that they were able to log out of the system properly and correctly.

[Copy chart](#)

Can you view the list of all IP-registered capstone projects and thesis papers?

2 responses

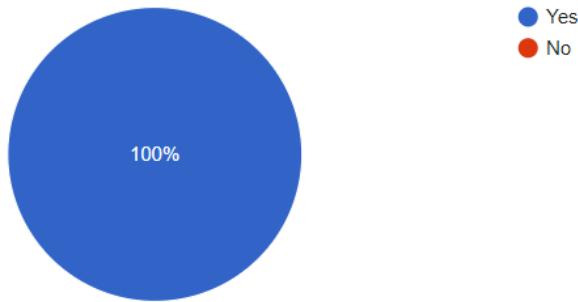


Figure 4.3.2.2.5: Faculty Result for UAT Question 4

The UAT question indicates that the Faculty answered yes and that they were able to view the complete list of all IP-registered capstone projects and thesis papers while logged in with their faculty accounts.

As a Capstone Coordinator, are you able to add new capstone projects or thesis papers to the system?

 Copy chart

2 responses

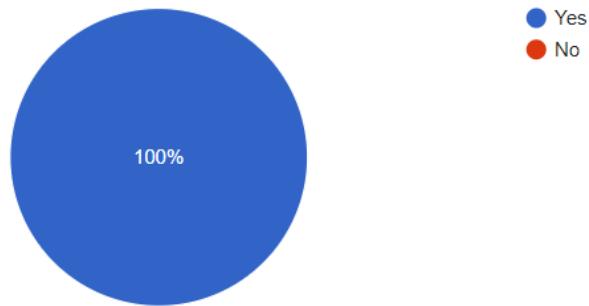


Figure 4.3.2.2.6: Faculty Result for UAT Question 5

The UAT question indicates that the Faculty that was promoted to capstone coordinator answered yes and that they were able to upload or add new capstone projects or thesis to the system to be saved digitally.

Can you edit existing capstone projects or thesis papers?

 Copy chart

2 responses

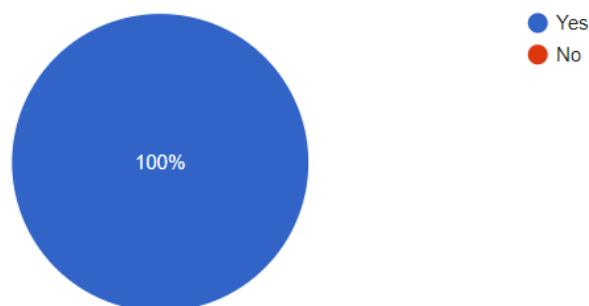


Figure 4.3.2.2.7: Faculty Result for UAT Question 6

The UAT question indicates that the Faculty answered yes and that they were able to edit the existing submitted projects within the system while logged in using their faculty account.

[!\[\]\(d4a1ab10cd6b92aad382f899f01759a0_img.jpg\) Copy chart](#)

Do you have the capability to download or view documents associated with the projects, such as ACM papers and approval forms?

2 responses

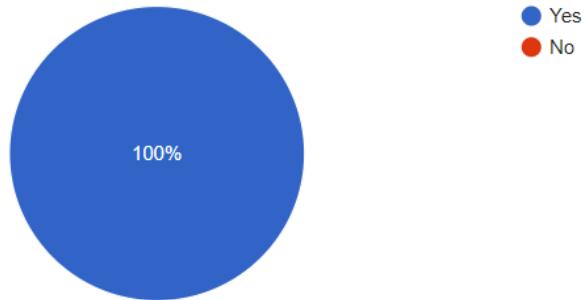


Figure 4.3.2.2.8: Faculty Result for UAT Question 7

The UAT question indicates that the Faculty answered yes and that the system was able to display to them the ACM papers and approval forms submitted by the students for their projects correctly.

Can you create groups for student collaboration within the system?

[!\[\]\(a18cf2318a7e71b28229476523cb7c67_img.jpg\) Copy chart](#)

2 responses

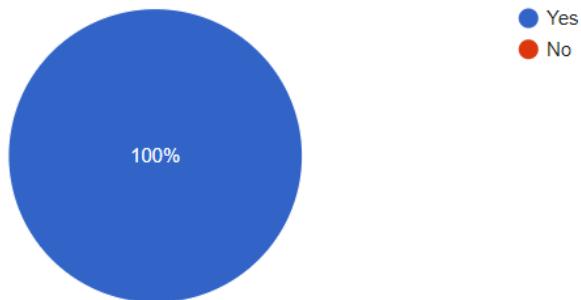


Figure 4.3.2.2.9: Faculty Result for UAT Question 8

The UAT question indicates that the Faculty answered yes and that they were able to create groups for students to represent their capstone project and group in the system.

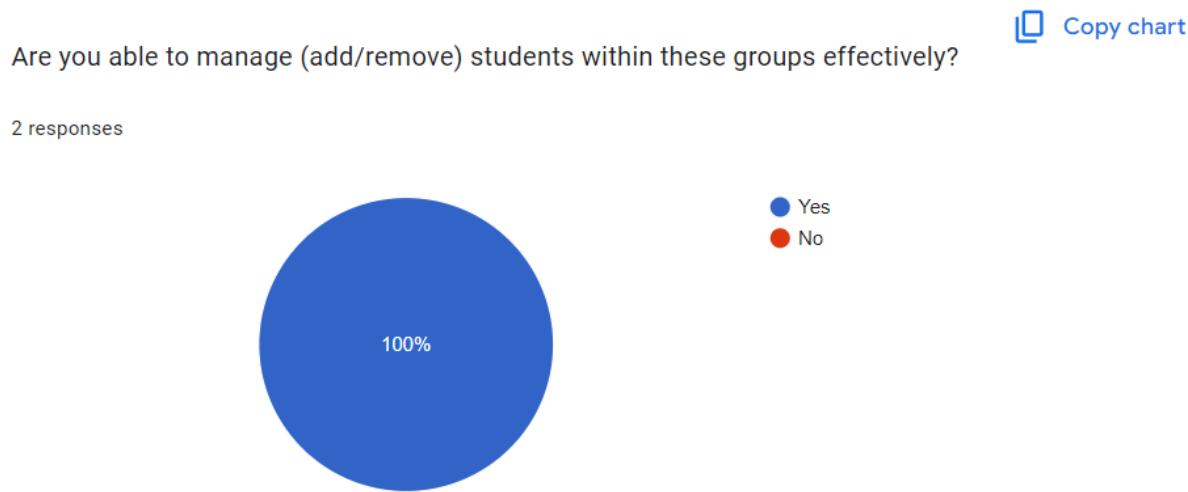


Figure 4.3.2.2.10: Faculty Result for UAT Question 9

The UAT question indicates that the Faculty answered yes and that they were able to add or remove students within the groups that were created.

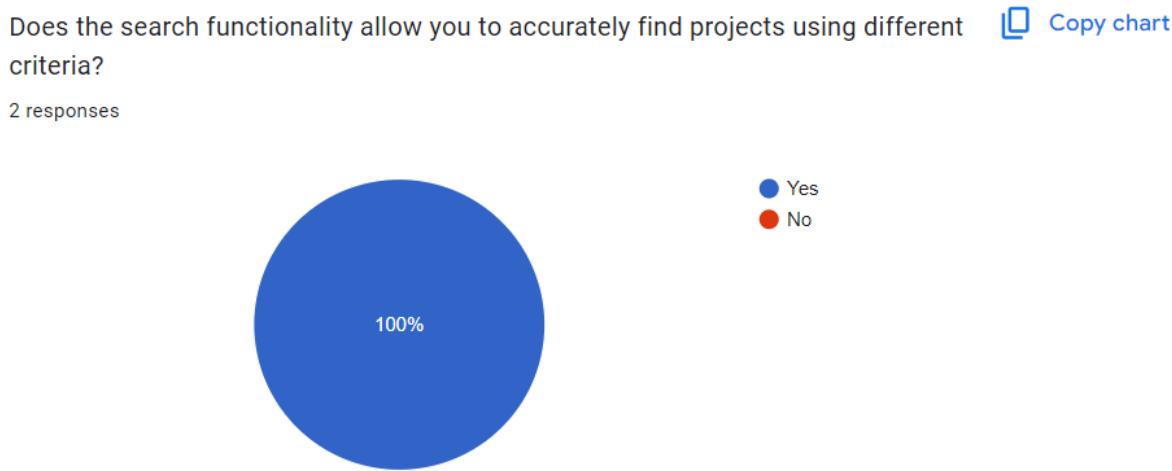


Figure 4.3.2.2.11: Faculty Result for UAT Question 10

The UAT question indicates that the Faculty answered yes and that they were able to search for projects within their department role using different criteria with accurate results

Are the filter options working correctly, allowing you to organize projects based on status, type, or specialization?

 Copy chart

2 responses

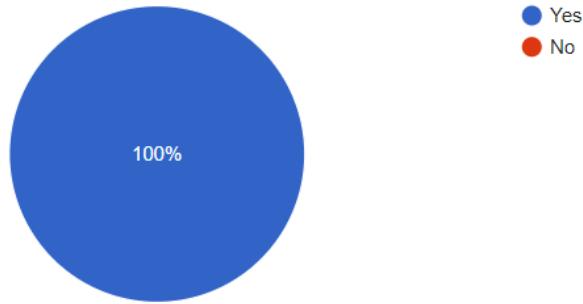


Figure 4.3.2.2.12: Faculty Result for UAT Question 11

The UAT question indicates that the Faculty answered yes and that they were able to search for projects within their department role using different filters that allowed them to display or organize projects based on the parameters.

Can you combine search and filter criteria to refine results effectively?

 Copy chart

2 responses

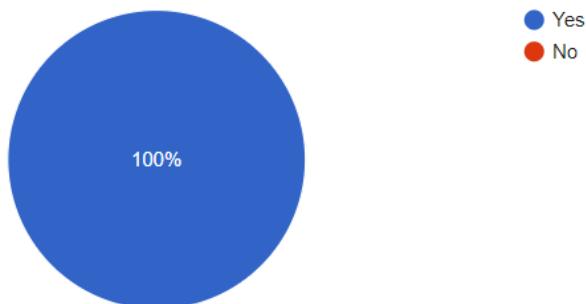


Figure 4.3.2.2.13: Faculty Result for UAT Question 12

The UAT question indicates that the Faculty answered yes that they were able to combine their searching with different filtering criteria and that it worked seamlessly.

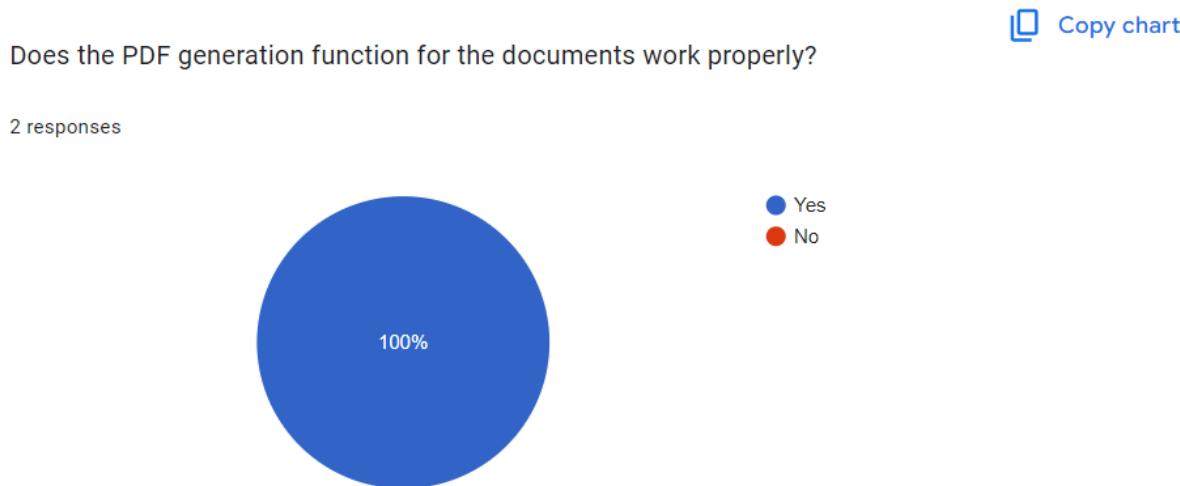


Figure 4.3.2.2.14: Faculty Result for UAT Question 13

The UAT question indicates that the Faculty answered yes and that they were able to generate the PDF file of the chosen project they wanted to generate.

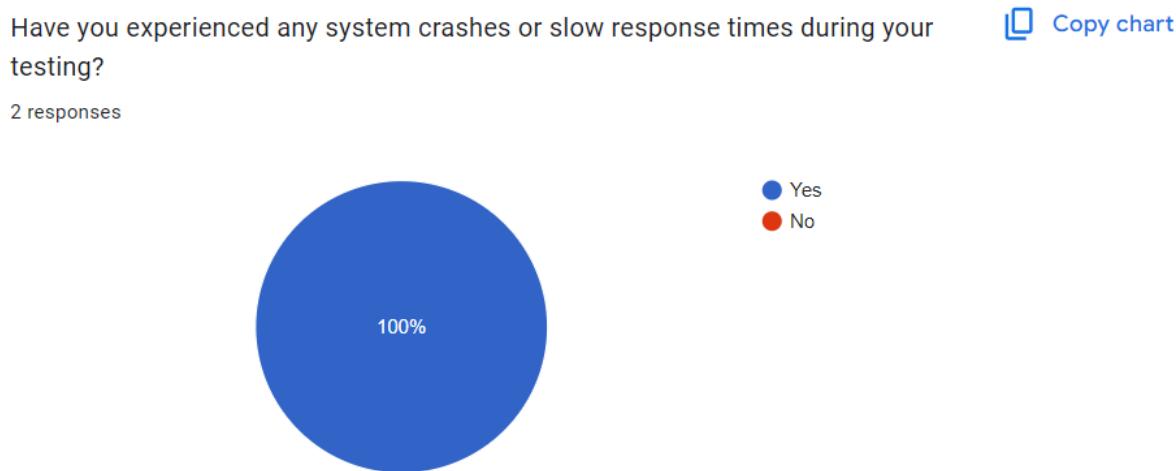


Figure 4.3.2.2.15: Faculty Result for UAT Question 14

The UAT question indicates that the Faculty answered yes and that during their testing, they did not experience any system crashes, slow responses, and/or unexpected behaviors.

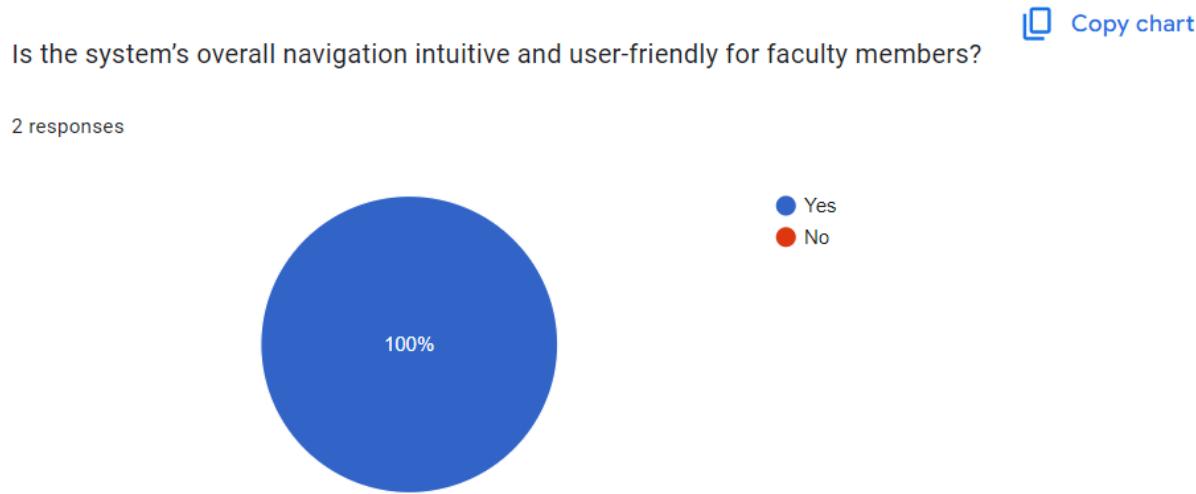


Figure 4.3.2.2.16: Faculty Result for UAT Question 15

The UAT question indicates that the Faculty answered yes and that the overall system navigation within the admin interface was intuitive and simple.

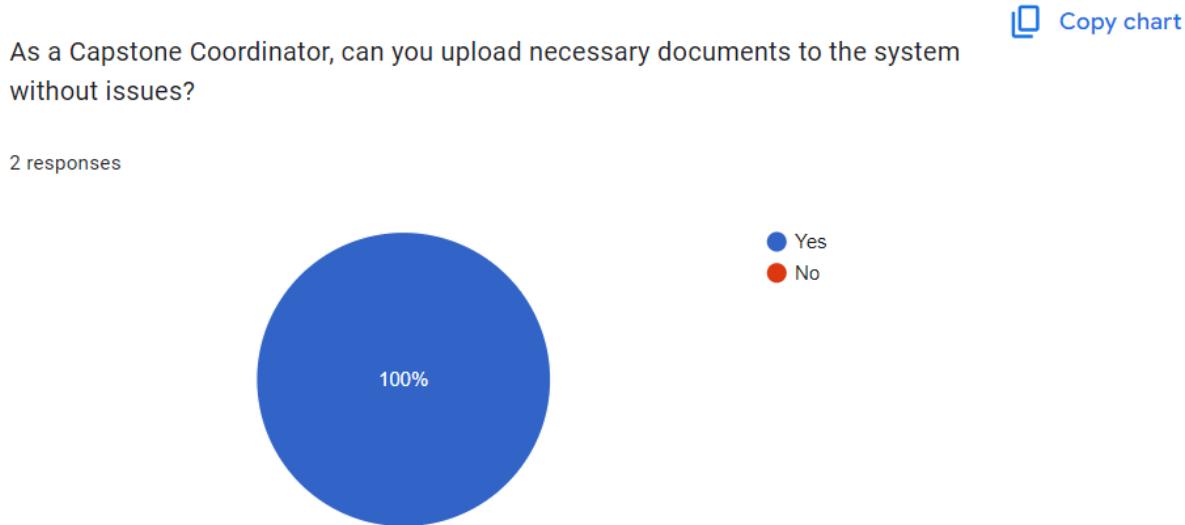


Figure 4.3.2.2.17: Faculty Result for UAT Question 16

The UAT question indicates that the Faculty, promoted to a capstone coordinator role, answered yes and that they were able to upload necessary documents to the system without issues

4.3.2.3 Student User Acceptance Test Results

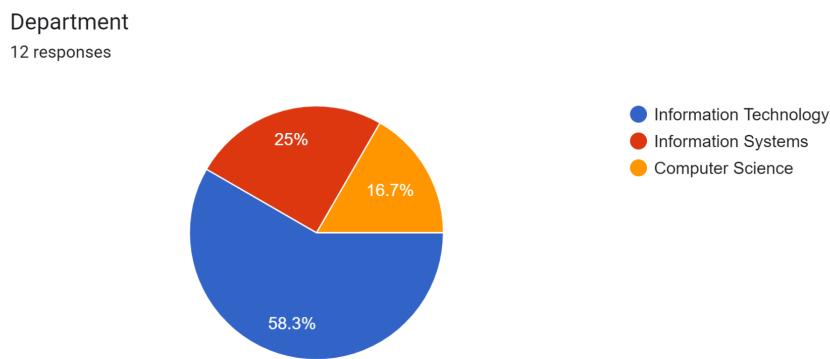


Figure 4.3.2.3.1 Summary of Student Respondents from each Department

Based on the result of the UAT of the student side, this chart shows the number of responses gathered from students across different departments. It highlights the level of engagement from each department, with some contributing more feedback than others. This distribution helped the proponents identify the experience of different department students in using the system

Summary of Answers per Quantitative Questions for Student

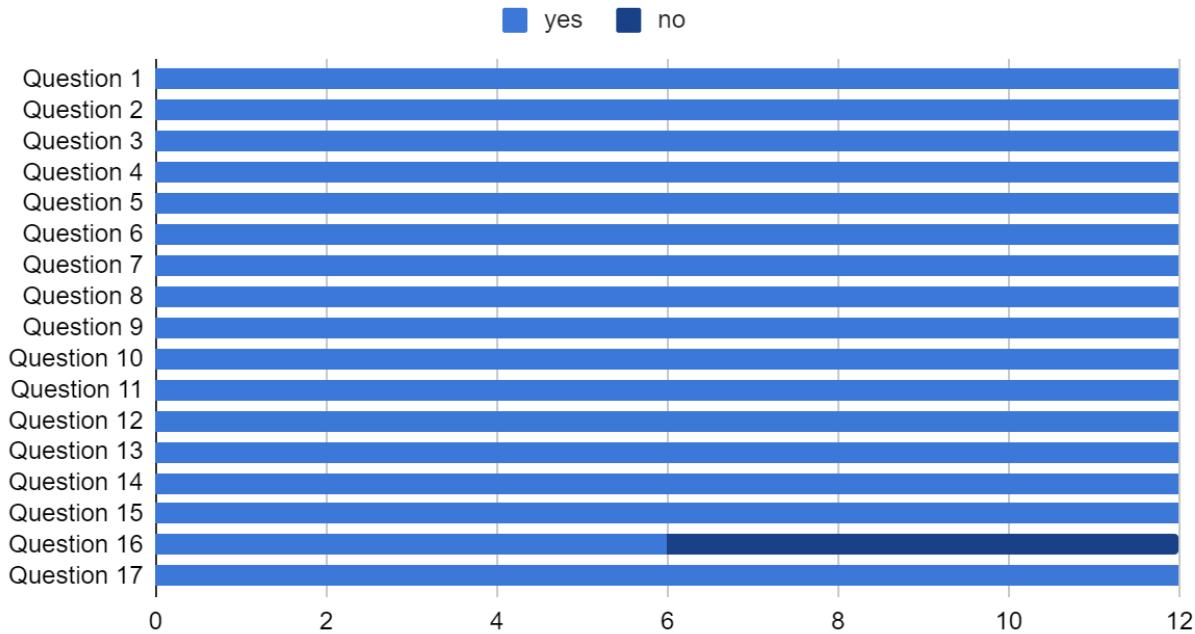


Figure 4.3.2.3.2 Summary of Answers per Quantitative Questions for Student

Based on the result of the UAT for the Student side, most of the answers to each question are “Yes.” Question 16 asks about having system crashes or slow response time when testing the site which 6 respondents responded “No”, while 6 responders responded “Yes”. This is due to the fact that the system was not yet optimized, but the proponents fixed this problem right after conducting UAT.

Was the creation of your account using your UST gmail successful?
12 responses

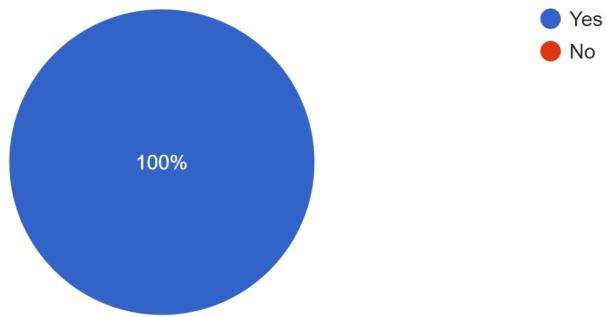


Figure 4.3.2.3.3: Student Result for UAT Question 1

The UAT question indicates that the Student answered yes and that their account to the system was successfully created by using their UST gmail domain.

Are you able to view the login page clearly?
12 responses

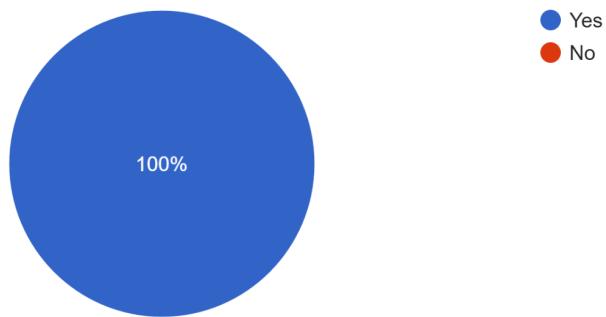


Figure 4.3.2.3.4: Student Result for UAT Question 2

The UAT question indicates that the Student answered yes and that they were able to view the login page of the system.

Are you able to log in to the system using your student credentials without any issues?
12 responses

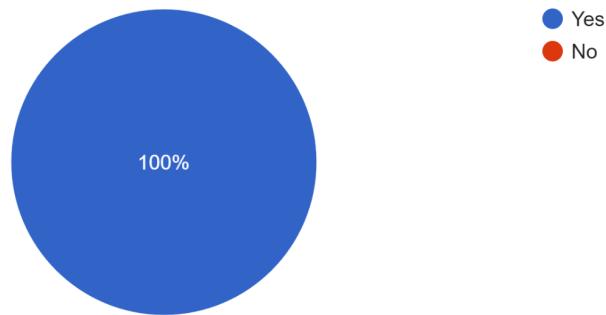


Figure 4.3.2.3.5: Student Result for UAT Question 3

The UAT question indicates that the Student answered yes and that they were able to log in to the system using their student credentials without any issues

Are you able to receive an auto-generated password for logging into your account?
12 responses

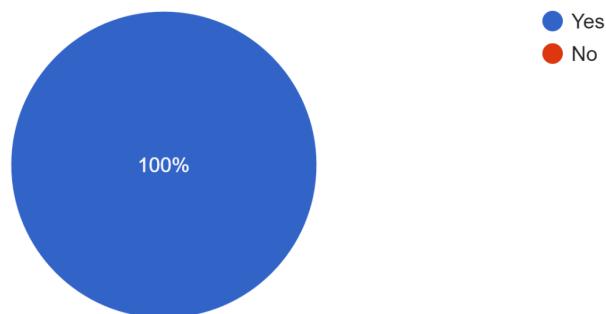


Figure 4.3.2.3.6: Student Result for UAT Question 4

The UAT question indicates that the Student answered yes and that they were able to receive an auto-generated password if their account was created successfully by the admin in the user creation tab in the admin side.

Is the logout process functioning correctly?

12 responses

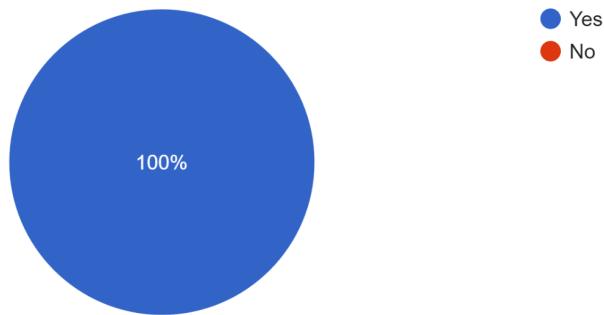


Figure 4.3.2.3.7: Student Result for UAT Question 5

The UAT question indicates that the Student answered yes and that they were able to log out of the system properly and correctly.

Can you view the list of all IP-registered capstone projects and thesis papers?

12 responses

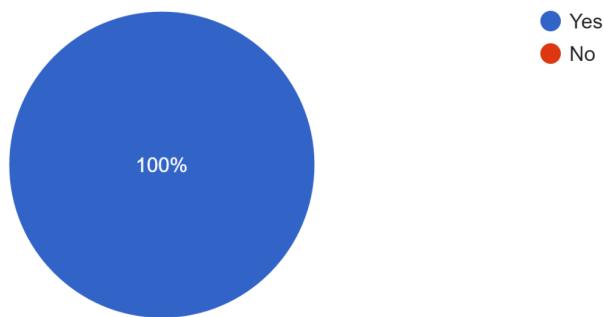


Figure 4.3.2.3.8: Student Result for UAT Question 6

The UAT question indicates that the Student answered yes and that they were able to view the complete list of all IP-registered capstone projects and thesis papers while logged in with their student accounts.

Are you able to submit your capstone project or thesis paper through the system?
12 responses

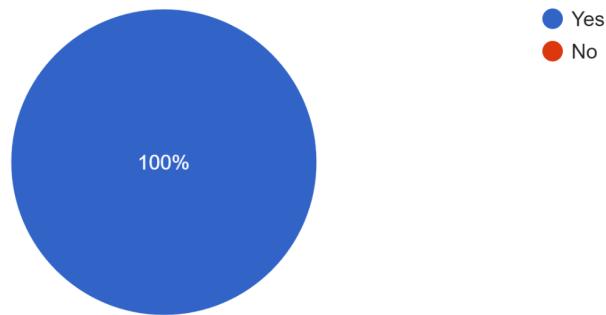


Figure 4.3.2.3.9: Student Result for UAT Question 7

The UAT question indicates that the Student answered yes and that they were able to submit their capstone project documents on the upload page on the student side of the system.

After submission, is your project correctly reflected in the pending projects list for approval?
12 responses

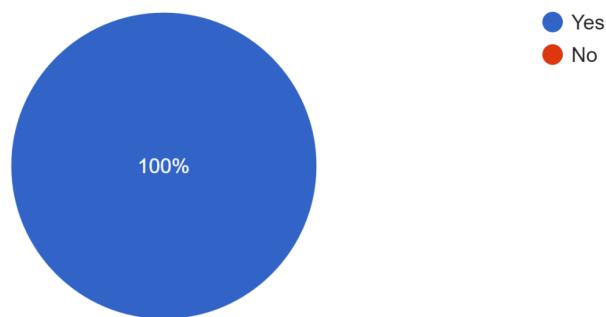


Figure 4.3.2.3.10: Student Result for UAT Question 8

The UAT question indicates that the Student answered yes and that they were able to view their submitted project documents on the approval page while it is still not approved yet.

Can you access and view the best capstone projects and thesis papers?
12 responses

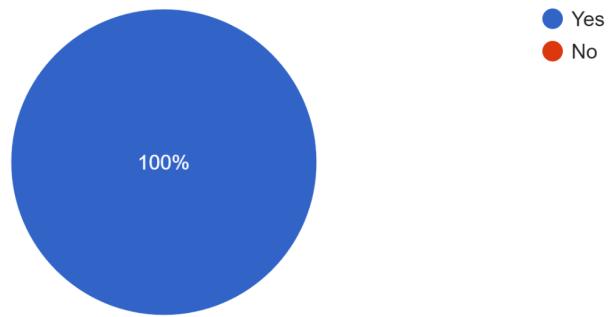


Figure 4.3.2.3.11: Student Result for UAT Question 9

The UAT question indicates that the Student answered yes and that they were able to submit their capstone project documents on the upload page on the student side of the system.

Are you notified when your submitted project's status changes (e.g., Approved, Rejected)?
12 responses

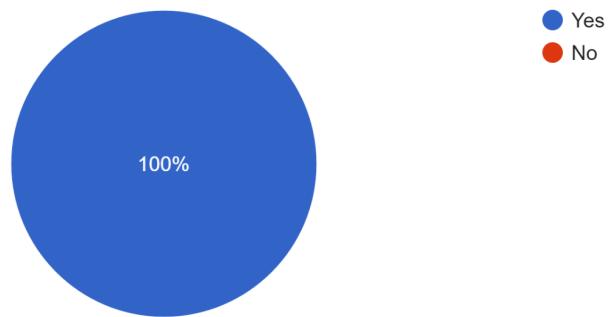


Figure 4.3.2.3.12: Student Result for UAT Question 10

The UAT question indicates that the Student answered yes and that they were able to receive notifications for the status changes of their submitted projects.

Are you able to view documents like the ACM paper and approval forms associated with projects?
12 responses

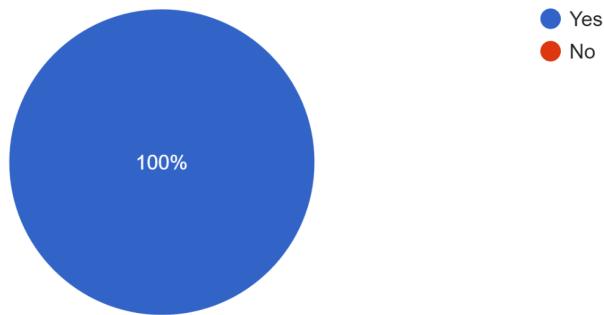


Figure 4.3.2.3.13: Student Result for UAT Question 11

The UAT question indicates that the Student answered yes and that the system was able to display to them the ACM papers and approval forms submitted by the students for their projects correctly.

Does the PDF generation function for the documents work properly without errors?
12 responses

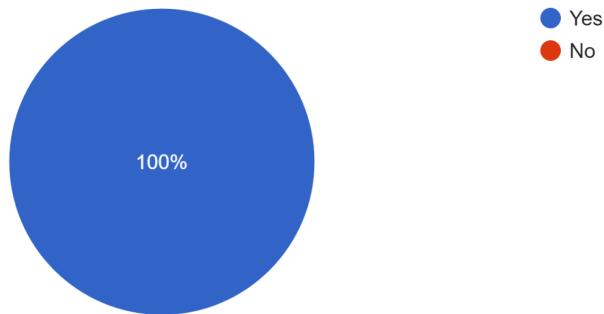


Figure 4.3.2.3.14: Student Result for UAT Question 12

The UAT question indicates that the Student answered yes and that they were able to generate the PDF file of the chosen project they wanted to generate.

Does the search functionality allow you to find projects accurately using different criteria such as title or year?

12 responses

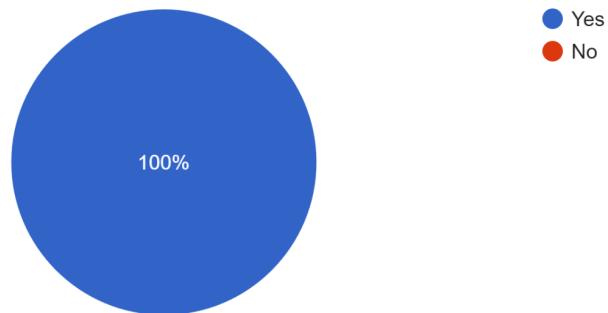


Figure 4.3.2.3.15: Student Result for UAT Question 13

The UAT question indicates that the Student answered yes and that they were able to search for projects within their department role using different criteria with accurate results

Are the filter options working correctly, allowing you to sort projects based on status, type, or specialization?

12 responses

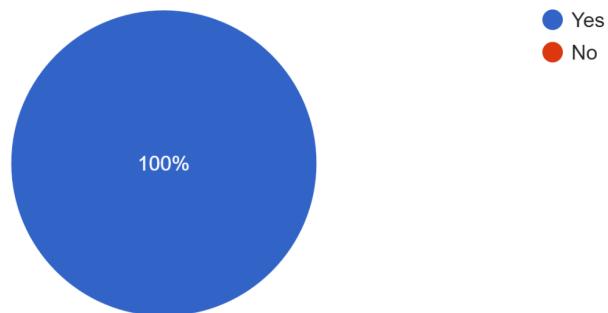


Figure 4.3.2.3.16: Student Result for UAT Question 14

The UAT question indicates that the Student answered yes and that they were able to search for projects within their department role while also using it with the filter options for searching and it was working properly.

Can you use multiple criteria (e.g., specialization and year) to refine your search?
12 responses

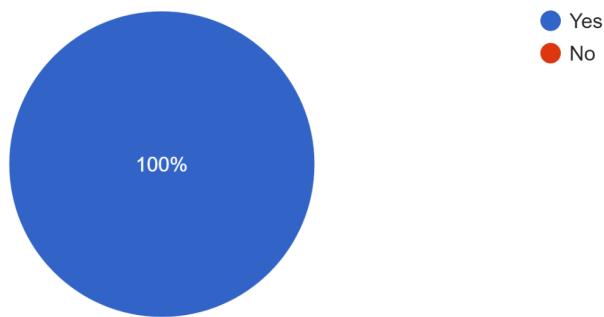


Figure 4.3.2.3.17: Student Result for UAT Question 15

The UAT question indicates that the student answered yes and that they were able to search for projects within their department role while using the filter options as well as other criteria.

Have you experienced any issues with system crashes or slow response times during your testing?
12 responses

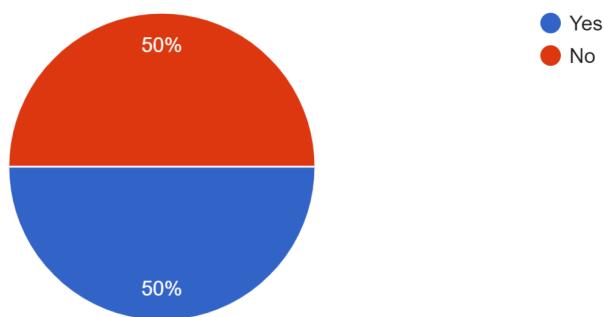


Figure 4.3.2.3.18: Student Result for UAT Question 16

The UAT question indicates that half of the Student responders answered yes, and the other half answered no. The other half experienced either system crashes or slow responses during their testing while the other half did not experience any issues.

Is the system's overall navigation intuitive and user-friendly?

12 responses

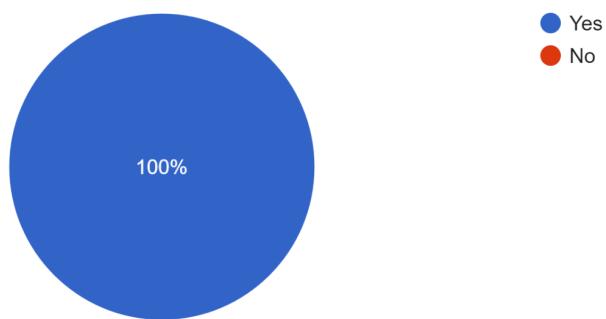


Figure 4.3.2.3.19: Student Result for UAT Question 17

The UAT question indicates that the Student answered yes and that the overall system navigation within the admin interface was intuitive, simple, and user-friendly.

Chapter 5: Conclusion and Recommendations

I. Conclusion

The development of the mobile-responsive web application successfully achieved its general objective of creating a second version of a web-based platform that managed, organized, and facilitated the sharing of capstone projects and thesis papers for UST CICS students and faculty. The system implemented authentication through UST Gmail for students and faculty, with accounts also created for the admin. This ensured that only verified users or those created by the admin could access the platform. Additionally, role-based access control was implemented, granting different levels of access for students, faculty, and administrators, ensuring a structured and secure platform.

The system efficiently navigates through the distinct departments within the college, only displaying and interacting with data related to each user's assigned department (e.g., IT, IS, and CS). This approach provided a more secure and efficient way to access department-specific data. Text and content analysis were implemented as backend processes to generate keywords, simplifying the search process within the system. Grouping functions were also implemented to track internal activities within the platform.

Finally, the platform enabled students to browse, search, submit, discover, and reference past capstone and thesis projects. This feature greatly assisted students in creating proposals by offering examples that help avoid duplication and project similarity.

Overall, the web application successfully addressed most of the specific objectives, providing an effective solution to meet the needs of the students and faculty of the College of Information and Computing Sciences.

II. Recommendations

1. System Wise

- Seek help or provide big storage for the system

2. Admin Side

- add option to manually add Track Specialization options for each department for future changes in program tracks

3. Improved User Navigation

- Create a more intuitive or well-designed navigation system
- Provide a well structured and designed notification system

4. Visual and Layout Adjustment

- Enhance the website's aesthetic by providing more structured design and well organized appeal

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APPENDIX B: Approved Proposal

UNIVERSITY OF SANTO TOMAS
College of Information and Computing Sciences
Department of Information Technology
Special Term, AY2023- 2024

INFORMATION TECHNOLOGY CAPSTONE PROJECT PROPOSAL

Proposed Title: Capstone and Thesis Project Directory for UST CICS (Version 2)

Proponents:

1. *Capistrano, Sean Anthony N.*
2. *Lee, Keane Joshua C.*
3. *Mangahas, Stephanie Leigh*
4. *Malagayo, Mary Julia Sharina A.*

I. Short Description of the Study:

College of Information and Computing Sciences students develop numerous valuable capstone projects across its three departments each year. However, due to a recent change in the college's Learning Management System, many previously developed projects have become difficult to locate, lost, or left behind in the old system. This situation significantly hampers the ability to find references and save the projects developed in the past.

We propose a dedicated system for each department chair within the College of Information and Computing Sciences to address this issue. This system will allow students to easily submit their capstone project files and ensure that these files are readily accessible by administrators and department chairs. By centralizing the submission and storage process, this system will streamline project management, enhance accessibility, and preserve valuable academic work for future reference and use.

The proposed project will be version 2 of the “Capstone Project Directory System for UST IT Department” system. In this new version, we aim to apply the recommendations from the last project and expand the current system, which stores the project information from the IT, IS, and CS departments.

The general objective of version 1 of this project was to develop a web application for managing and storing UST-IT capstone projects. Additionally, the proponents sought to achieve the following specific objectives:

1. To create a centralized repository of UST-IT capstone projects where users can access information by logging in using their UST G-Suite Account.
2. To manage the IP Registry of different IT specialization capstone projects.
3. To facilitate the uploading of capstone files for IP registration and panel review.
4. A hashing function is used to secure the database content.

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II. Identify possible areas that you see as having problems or issues.

Problems/Challenges/Issues Regarding Capstone Project Accessibility

1. Numerous capstone projects accumulate annually, making monitoring and storing all projects efficiently difficult.
2. Hard-bound copies are stored in the faculty room; some are in the Research Library. In contrast, soft copies of abstracts are stored on the IT Community Blackboard course site, and full papers and abstracts are shared with faculty coordinators in a common Google Drive.
3. Disparate storage methods lead to inefficiencies and difficulties accessing past capstone projects for reference.

Solution Provided by Version 1

The Capstone Project Directory System was developed to address these issues by providing a centralized repository. Key features of Version 1 include:

1. **Centralized Repository:** Stores capstone projects for the IT department in a single location accessible by faculty and students.
2. **User Accounts:** Admin, Faculty, and Student accounts with specific permissions.
3. **Project Submission and Approval:** Students can submit their projects, and administrators can approve or reject them.
4. **IP Registry Management:** Tracks and manages IP registration numbers for capstone projects.
5. **Security:** Utilizes hashing functions to secure the database and requires UST G-Suite accounts for access.
6. **Sorting and Searching:** Allows sorting and searching of projects by IP registration number, title, specialization, year published, technical adviser, and keywords.

Provided Recommendations

Based on feedback and testing, as well as the recommendations by the proponents themselves, the following recommendations were made:

1. **User Interface (UI) Enhancements:** Improve the UI for better usability and navigation.
2. **Advanced Search and Filtering:** Enhance search functionality with advanced queries and filters.
3. **Document Version Control:** Implement robust version control and tracking for documents.
4. **Security Enhancements:** Continuously update security measures and consider two-factor authentication.
5. **Feedback and Collaboration Tools:** Integrate feedback mechanisms and discussion forums.
6. **Performance Optimization:** Optimize database queries and implement caching mechanisms.
7. **Reporting and Analytics:** Provide tools for usage statistics, project submission tracking, and activity logs.
8. **Scalability Planning:** Design the system to accommodate future growth.

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Our group will focus on the following additional features and improvements based on the recommendations:

- **Advanced Search and Filtering:**
 - ❖ Develop advanced search capabilities that can shortlist results based on keywords and include more filters (e.g., Year of submission, specialization, department) as well as search through the contents of a document. This is needed to help users quickly find the most relevant information, improve efficiency in locating specific projects, and enhance the overall user experience by providing precise and tailored search results.
- **Security Enhancements:**
 - ❖ Introduce two-factor authentication for added security. This is needed to protect user accounts from unauthorized access, ensuring that sensitive information and projects remain secure and reducing the risk of data breaches.
- **Document version control:**
 - ❖ Implement a function where users can submit and edit text through forms within the system, with each edit incrementing the document's version. This ensures systematic tracking of changes, enhancing collaboration and maintaining a clear history of revisions. It provides transparency and accountability, ensuring that the most current version of a document is always available.
- **Reporting and Analytics:**
 - ❖ Develop analytics tools for tracking activity logs. This feature provides valuable insights into user behavior and system usage, enabling better decision-making and system optimization. By monitoring activity, potential issues can be identified and addressed promptly, enhancing overall system performance and security.
- **Scalability Planning:**
 - ❖ To ensure scalability for future growth, implement a form for entering the required document in plain text. This form will store entries in the database and generate PDFs using MikTex/LaTeX functionalities. This approach supports efficient document management and mitigates storage concerns by optimizing data handling and formatting, thereby preparing the system for increased usage and expansion over time.
- **Batch File Handling:**
 - ❖ We plan to provide a function that facilitates batch file uploads, thereby streamlining the management of several documents simultaneously. This will greatly increase efficiency, particularly during the highest file uploads.
- **Panelist Edit/Comment Feature:**
 - ❖ We plan to incorporate a function that allows panelists to edit and comment on documents via the system immediately. This will boost teamwork, allow for thorough feedback, and raise the projects' general caliber.

Additional features we plan to implement are

1. storing capstone projects from the Information Technology and Information Systems Department
2. and storing thesis papers from the Computer Science Department.
3. To implement a function where students submit their text documents in a form, and upon submission, the inputted text can be exported into a structured PDF format when requested. This feature provides users with a convenient and efficient way to convert text into a professional, structured PDF without additional software. It ensures consistency in document format, enhancing readability and presentation.

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4. tags, labels, academic year of submission, and categorization for projects based on specialization for easy searching of papers

How Will You Implement It?

- To develop a web-based application that caters to the needs of the system and its functionalities. This application will include:
- Implement a responsive design to ensure usability on different devices and add visual aids like icons and tooltips for better navigation.
- To develop advanced search capabilities with more filters, such as project status, type, and owner, and integrate autocomplete and suggestion features.
- To implement document version control to track changes and maintain a history of document updates.
- To introduce two-factor authentication for added security and regularly update encryption and authentication methods.
- Add discussion forums and comment sections for each project to facilitate feedback and collaboration.
- To optimize database performance and implement caching mechanisms to enhance system performance.
- To develop analytics tools to track usage, project submission tracking, and activity log tracking.
- Design the system architecture to be scalable, accommodating future growth and additional features.

III. Identify possible solutions to these issues/problems.

To apply Version 1's Recommendations

- To add a feature of batch files in the system
- The ability of the system to assign panelists
- To have a feature where the panelists can edit/comment on the document through the system

Centralized Repository Development

- Create a centralized system for the whole college where department chairs can save their accumulated capstone and thesis projects for easy locating and storing.
- Ensure the centralized repository allows for role-based access controls so only authorized personnel can submit, edit, and view projects and include features that facilitate collaboration. This enhances collaboration and knowledge sharing across departments while maintaining data security and integrity.
- Create separate sections or repositories within the system for each department, and within each department, further categorize the capstone projects based on specialization.
- Both faculty and students will have access to the system with role-specific permissions: faculty members will oversee submissions, review and evaluate capstone and thesis projects, and moderate discussions to ensure they remain constructive and focused, while students will have access to view existing capstone projects for reference.

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- Include advanced search and filter options and require comprehensive metadata for submissions so that they will be organized and easily accessible.

Collaboration Tools and Platforms

- Create discussion forums or comment sections for projects where students and faculty with registered accounts can participate. Rules and regulations regarding discussions must be applied to avoid conflicting ideas and being uncourteous towards faculty members.
- Implement version control for project updates.
- Enable easy document sharing among users. As for the documents to be shared, ACM documents and the full capstone document could be shared to gather resources and references from upcoming CICS students who will also create their capstone projects.

Track-Specific Storage/Repository:

Re-establish a dedicated storage/repository for each department track. This ensures that all submissions related to a specific track are organized and easily retrievable. For each track, the repository should support the submission and storage of the following materials:

- ACM Documentation: The full project documentation following the ACM standards in PDF format.
- Full Documentation: The whole capstone project papers of the group in PDF format
- PubMat: Publicity materials related to the project, such as posters, brochures, and other promotional content.
- ITSO Form: Intellectual Property forms required by the institution to protect the ownership and rights of the project.
- AVP: The audio-visual presentation of the demonstration of the created project in MP4 file format.
- Source Code: to be submitted in a ZIP file format.

Enhanced Security Measures

- Implement data encryption for security.
- Require multi-factor authentication (MFA).
- Only UST G-Suite accounts are required to have access to the system.

Role-Based Access Control (RBAC):

Implement RBAC to enforce these access levels. Users will have permissions based on their role within the system:

- Students: Can view and upload their own project documents and also can view the documents that has been submitted by other students as well.
- Faculty: Can view and comment on all student submissions within their department and specialization.
- Administrators: Have full access to all documents for management and oversight purposes. these administrators would be the chairpersons of each department, and then they would be given unique accounts.

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Include existing projects, systems, and technologies that can help in identifying and creating the solution to your identified issue/problem

One of this proposal's main bases is version 1 of the system, which helped identify the first main problem and presented solutions to such problems.

- **Project Overview:** The Capstone Project Directory System is a web-based application designed to manage and organize various capstone projects efficiently.
- **Features and Benefits:** The application serves as a centralized repository for capstone projects, managing IP registries and facilitating panelist reviews of student submissions. Inspired by systems like Google Drive for file storage and Blackboard for academic course management, it aims to benefit faculty and students of UST's Information Technology Department.
- **Impact and Efficiency:** The Capstone Project Directory System prevents duplication of capstone topics, streamlines project management, and enhances the efficiency of document uploads for panel reviews. Technologies like Turnitin for plagiarism checking and SharePoint for document management informed the development of these features.

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6. Capstone Directory Project for UST IT Department version 1

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Area of Specialization: Web Development

Tools/Programming Language to be used: <ex. Java, Javascript, ReactJS, MySQL>

Reviewed by/date:

Comments/Remarks:

rctayuan
Asst. Prof. Ronina C. Tayuan, MSCS

ok-for dissemination (actual consultation)

EZhuo
Assoc. Prof. Eugenia R. Zhuo, DIT

GOOD AS SIGNED
Asst. Prof. Ronielle B. Antonio, DIT

APPROVED_04 July 2024_

LLintag
Asst. Prof. Leonid Lintag

fmedang
Asst. Prof. Maria Lourdes Edang

SMDomingo
Assoc. Prof. Mylene J. Domingo, DIT

APPENDIX C: Technical Adviser Form

UNIVERSITY OF SANTO TOMAS
College of Information and Computing Sciences
Department of Information Technology
 Special Term, AY 2023 - 2024

INFORMATION TECHNOLOGY CAPSTONE PROJECT PROPOSAL TECHNICAL ADVISER FORM

This is in acceptance of the Technical Adviser rights for the Capstone Project proposal **"Capstone and Thesis Directory Project for UST CICS (Version 2)"**.

As a Technical Adviser, the tasks include the following:

- Provide logistics analysis for the project.
- overseeing the project's development phase
- Provide input and critique on project documentation regarding technical content and descriptions.

A Technical Adviser also holds the title of Capstone Project co-author. Their names will be included in all documentation as co-authors. As such, they are obligated to ensure that student proponents defend their projects within the designated timeline and, if necessary, present them in a conference in place of the students if they have already graduated.

They must also oversee the transition from IT 2629 to IT 26211. Upon agreeing to be Technical Adviser in IT 2629, they also agree to be the group's Technical Adviser in IT 26211.

Student proponents will still need to do the project development on their terms. A Technical Adviser need not be part of the development aspect (i.e., writing program codes, implementing test case procedures, etc.); however, a Technical Adviser must be aware of the project's development process flow (i.e., what is the expected output of the given code, why that type of test case procedure was done, etc.).

Conforme:

Proponents:

1. *Capistrano, Sean Anthony N.*
2. *Lee, Keane Joshua C.*
3. *Malagayo, Mary Julia Sharina A.*
4. *Mangahas, Stephanie Leigh*

Signature

Technical Adviser: *Mr. Edwin S. De Guzman, MIT*

Date: July 07, 2024

Capstone Project Class Coordinator: *Asst. Prof. Ronina R. Caoili-Tayuan*

Date: July 07, 2024

APPENDIX D: Title Exams Endorsement Form

UNIVERSITY OF SANTO TOMAS
College of Information and Computing Sciences
Department of Information Technology
Special Term, AY2023- 2024

INFORMATION TECHNOLOGY CAPSTONE PROJECT PROPOSAL
TECHNICAL ADVISER FORM

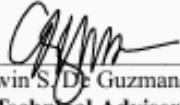
Project Title: Capstone and Thesis Project Directory for UST CICS (Version 2)

Proponents:

1. *Capistrano, Sean Anthony N.*
2. *Lee, Keane Joshua C.*
3. *Malagayo, Mary Julia Sharina A.*
4. *Mangahas, Stephanie Leigh*

Technical Adviser: *Mr. Edwin S. De Guzman, MSIT*

In partial fulfillment of the Bachelor of Science in Information Technology degree requirements, the proposed capstone project has been adequately prepared and submitted by the proponents. It is hereby endorsed by the undersigned for TITLE oral examinations.



Mr. Edwin S. De Guzman, MSIT
Technical Adviser

Date: July 13, 2024

Cc: *Asst. Prof. Ronina C. Tayuan*
Asst. Prof. Leonid Lintag, MIT
Mr. Gabriel Emanuel Montano, MIT
Asst. Prof. Ronina C. Tayuan, MSCS

APPENDIX E: Letter of Consultation to the Office of ICT



UNIVERSITY OF SANTO TOMAS
COLLEGE OF INFORMATION AND COMPUTING SCIENCES
Department of Information Technology



UST:A022-02-LE08
AY 2023-2024

August 23, 2024

ASST. PROF. JERRALYN T. PADUA, MSCS

Assistant to the Rector for Information and Communications Technology
Office of Information and Communications Technology
University of Santo Tomas

Dear Asst. Prof. Padua:

Greetings!

We are 4th year students pursuing B.S. Information Technology with a specialization in Web and Mobile App Development at the College of Information and Computing Sciences of the University of Santo Tomas, Manila. As part of our curriculum, we are currently enrolled in IT26211 (IT CAPSTONE PROJECT II) and would like to inquire about a server for our project.

The said project is a centralized directory system of capstone and thesis projects from the College of Information and Computing Sciences (covering CS, IT, and CS Departments). By centralizing these processes, the system will enhance project management and ensure that valuable academic work is preserved for future reference. This will help future capstone and thesis students develop new project titles, help avoid duplication of topics, and help coordinators monitor and double-check for duplication of topics.

With this in mind, we are writing to request a consultation with you to discuss a possible platform with hosting, domain, and a database that can be used with PHP, as it is the language we used for our project. This platform could be deployed on the university's server to ensure our project can be utilized in the coming years.

We would be grateful for the opportunity to meet with you to further discuss our project and explore other potential ways we can deal with this matter. We eagerly await your response and the possibility of working together to make a meaningful impact in the field of education.

If you have any questions, you may reach out to our project manager, **Sean Anthony Capistrano**, by email at seananthony.capistrano.cics@ust.edu.ph.

Thank you very much, and we look forward to your immediate response to this matter.

Sincerely yours,



UNIVERSITY OF SANTO TOMAS
COLLEGE OF INFORMATION AND COMPUTING SCIENCES
Department of Information Technology



Capistrano
 Sean Anthony N. Capistrano
 Project Manager

MJSM
 Mary Julia Sharina A. Malagayo
 Developer

KLee
 Keane Joshua C. Lee
 Developer

Steph
 Stephanie Leigh Mangahas
 Developer

Guzman
Inst. Edwin S. de Guzman, MSIT, MCP
 Technical Adviser

Noted by:

rctayuan
Asst. Prof. Ronina C. Tayuan, MSCS
 IT26211(4ITG) - Course Coordinator

LLintag
Asst. Prof. Leonid C. Lintag, MSIT
 Chairperson, Department of Information Technology
 College of Information and Computing Sciences

Endorsed By:

CDadao 04 Sept 2024
Asst. Prof. Christopher D. Ladao
 Acting Dean
 College of Information and Computing Sciences

APPENDIX F: Email Correspondence with the Office of Information and Communications Technology

9/11/24, 6:48 PM

University of Santo Tomas Mail - [CAPSTONE PROJECT - 4ITG] Request for Consultation for Capstone Project



SEAN ANTHONY CAPISTRANO <seananthony.capistrano.cics@ust.edu.ph>

[CAPSTONE PROJECT - 4ITG] Request for Consultation for Capstone Project

13 messages

SEAN ANTHONY CAPISTRANO <seananthony.capistrano.cics@ust.edu.ph>

Fri, Aug 23, 2024 at 3:28 PM

To: Assistant to the Rector for ICT UST <arict@ust.edu.ph>

Cc: EDWIN SANTOS DE GUZMAN <esdeguzman@ust.edu.ph>, RONINA C TAYUAN <rctayuan@ust.edu.ph>

Greetings, Ma'am Padua,

I am Sean Anthony Capistrano from 4-ITG and the project manager for our capstone project, Group# 10. We would like to formally request a consultation about a server for the deployment of our capstone project and discuss how we could utilize it in the upcoming years.

Attached below is a PDF letter requesting for the consultation together with details of the purpose of the said project. We look forward to hearing from you soon regarding this matter.

Thank you for your time and consideration.

Sincerely,
Sean Anthony Capistrano(4ITG)



4ITG-GRP#10-Letter of Request for Consultation.pdf

860K

Assistant to the Rector for ICT UST <arict@ust.edu.ph>

Tue, Aug 27, 2024 at 9:00 AM

To: SEAN ANTHONY CAPISTRANO <seananthony.capistrano.cics@ust.edu.ph>

Cc: EDWIN SANTOS DE GUZMAN <esdeguzman@ust.edu.ph>, RONINA C TAYUAN <rctayuan@ust.edu.ph>, Dean CICS

<dean.cics@ust.edu.ph>

Dear SEAN,

I acknowledge receipt of your email. However, we can only extend assistance if you could provide us with the project background, framework and/or detailed plan so we can match your inquiry with the correct staff to address your concerns. Additionally, requests of this kind require endorsement of the college dean for proper coordination and alignment.

Thank you.

Warm regards,

Asst. Prof. Jerralyn T. Padua

Assistant to the Rector for Information and Communications Technology

University of Santo Tomas

Office: +632-8-406-1611 local 8737

Email: arict@ust.edu.ph

Teaching Academic Staff

Networks and Security Track

Department of Information Technology

College of Information and Computing Sciences

University of Santo Tomas

Email: jtpadua@ust.edu.ph

[Quoted text hidden]

<https://mail.google.com/mail/u/0/?ik=ae037b2212&view=p&search=all&permthid=thread-a:r-8920740548668352482&simpl=msg-a:r72923940001633...> 1/6

9/11/24, 6:48 PM

University of Santo Tomas Mail - [CAPSTONE PROJECT - 4ITG] Request for Consultation for Capstone Project

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SEAN ANTHONY CAPISTRANO <seananthony.capistrano.cics@ust.edu.ph>

Fri, Aug 30, 2024 at 6:15 PM

To: Program Chair for the Department of Information Technology CICS <it-chair.cics@ust.edu.ph>

Cc: Assistant to the Rector for ICT UST <arict@ust.edu.ph>, Dean CICS <dean.cics@ust.edu.ph>, RONINA C TAYUAN <rctayuan@ust.edu.ph>, EDWIN SANTOS DE GUZMAN <esdeguzman@ust.edu.ph>

Greetings Asst.Prof. Lintag

I am Sean Anthony Capistrano from 4-ITG and the project manager for our capstone project, Group# 10. We were advised to seek your support and guidance in our letter of consultation to the Office of Information and Communication Technology for our capstone project titled "Capstone and Thesis Project Directory for UST CICS (Version 2)"

In line with this, we humbly ask for your signature to the letter of consultation for our capstone project that we will be sending to the Assistant to the Rector for Information and Communications Technology.

Attached below is the letter of request for consultation, together with a brief breakdown of our project details. We look forward to hearing from you soon.

Thank you for your time and consideration!

Best regards

Sean Anthony Capistrano (4-ITG)

[Quoted text hidden]

2 attachments

4ITG-GRP#10-Letter of Request for Consultation (1).pdf
861K

4ITG-GRP#10-CapstoneDirectoryV2.pdf
15194K

Program Chair for the Department of Information Technology CICS <it-chair.cics@ust.edu.ph>

Fri, Aug 30, 2024 at 8:10 PM

To: SEAN ANTHONY CAPISTRANO <seananthony.capistrano.cics@ust.edu.ph>

Hi before i sign,mukhang may mali sa letter nyo, saan galing yung iso number nyo? Sino nagissue nyan? I think you have to specify something about the server na need nyo ng hosting and domain for your project and anung klasing server like anung database ba gagamitin nyo, php ba cya and so on.

[Quoted text hidden]

SEAN ANTHONY CAPISTRANO <seananthony.capistrano.cics@ust.edu.ph>

Fri, Aug 30, 2024 at 9:38 PM

To: Program Chair for the Department of Information Technology CICS <it-chair.cics@ust.edu.ph>

9/11/24, 6:48 PM

University of Santo Tomas Mail - [CAPSTONE PROJECT - 4ITG] Request for Consultation for Capstone Project

Good Evening Asst. Prof. Lintag

I have added po your suggestions to the letter and revised it accordingly. And with regards to the ISO number, it was given to us po by our capstone course facilitator which is Asst. Prof. Tayuan po.

[Quoted text hidden]

 4ITG-GRP#10-Letter of Request for Consultation (1).pdf
862K

Program Chair for the Department of Information Technology CICS <it-chair.cics@ust.edu.ph>
To: SEAN ANTHONY CAPISTRANO <seananthony.capistrano.cics@ust.edu.ph>

Sun, Sep 1, 2024 at 9:36 PM

kindly change the ISO number to UST:A022-02-LE08

[Quoted text hidden]

SEAN ANTHONY CAPISTRANO <seananthony.capistrano.cics@ust.edu.ph>
To: Program Chair for the Department of Information Technology CICS <it-chair.cics@ust.edu.ph>

Mon, Sep 2, 2024 at 11:32 AM

Good Day, Asst. Prof. Lintag

ISO number changed, Thank you po

[Quoted text hidden]

 4ITG-GRP#10-Letter of Request for Consultation (2).pdf
862K

Program Chair for the Department of Information Technology CICS <it-chair.cics@ust.edu.ph>
To: SEAN ANTHONY CAPISTRANO <seananthony.capistrano.cics@ust.edu.ph>

Tue, Sep 3, 2024 at 10:08 AM

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 4ITG-GRP#10-Letter of Request for Consultation (2).pdf
871K

SEAN ANTHONY CAPISTRANO <seananthony.capistrano.cics@ust.edu.ph>

Tue, Sep 3, 2024 at 4:07 PM

To: Dean CICS <dean.cics@ust.edu.ph>
Cc: EDWIN SANTOS DE GUZMAN <esdeguzman@ust.edu.ph>, RONINA C TAYUAN <rctayuan@ust.edu.ph>, Assistant to the Rector for ICT UST <arict@ust.edu.ph>

Greetings, Acting Dean, Asst. Prof. Ladao,

I am Sean Anthony Capistrano from 4-ITG and the project manager for our capstone project, Group# 10. We were advised to seek your support and guidance in our letter of consultation to the Office of Information and Communication Technology for our capstone project titled "Capstone and Thesis Project Directory for UST CICS (Version 2)"

In line with this, we humbly request your endorsement by signing on the attached letter of consultation, which we will be sending to the Assistant to the Rector for Information and Communications Technology.

Attached is the letter of request for consultation, along with a brief breakdown of our project details. If you have any further inquiries, please don't hesitate to ask. We look forward to hearing from you soon.

Thank you for your time and consideration!

Best regards,
Sean Anthony Capistrano (4-ITG)

<https://mail.google.com/mail/u/0/?ik=ae037b2212&view=pt&search=all&permthid=thread-a:r:8920740548668352482&simpl=msg-a:r72923940001633...> 3/6

9/11/24, 6:48 PM

University of Santo Tomas Mail - [CAPSTONE PROJECT - 4ITG] Request for Consultation for Capstone Project

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2 attachments **4ITG-GRP#10-Letter of Request for Consultation (3).pdf**

871K

 **4ITG-GRP#10-CapstoneDirectoryV2.pdf**

15194K

Dean CICS <dean.cics@ust.edu.ph>

Wed, Sep 4, 2024 at 2:03 PM

To: SEAN ANTHONY CAPISTRANO <seananthony.capistrano.cics@ust.edu.ph>

Cc: Program Chair for the Department of Information Technology CICS <it-chair.cics@ust.edu.ph>

Attached is the signed letter.

[Quoted text hidden]

 **4ITG-GRP#10-Letter of Request for Consultation (3).pdf**

950K

SEAN ANTHONY CAPISTRANO <seananthony.capistrano.cics@ust.edu.ph>

Thu, Sep 5, 2024 at 6:00

AM

To: Assistant to the Rector for ICT UST <arict@ust.edu.ph>

Cc: EDWIN SANTOS DE GUZMAN <esdeguzman@ust.edu.ph>, RONINA C TAYUAN <rctayuan@ust.edu.ph>, Dean CICS <dean.cics@ust.edu.ph>, Program Chair for the Department of Information Technology CICS <it-chair.cics@ust.edu.ph>

Bcc: STEPHANIE LEIGH MANGAHAS <stephanieleigh.mangahas.cics@ust.edu.ph>, KEANE JOSHUA LEE <keanejoshua.lee.cics@ust.edu.ph>, MARY JULIA SHARINA MALAGAYO <maryjulia.malagayo.cics@ust.edu.ph>

Greetings, Asst. Prof. Padua,

I am Sean Anthony Capistrano from 4-ITG and the project manager for our capstone project, Group# 10. We would like to formally resend our request for a consultation about a hosting for the deployment of our capstone project and discuss how we could utilize it in the upcoming years. All proper admin has been contacted for the letter as well as requested for endorsement from the Dean for proper coordination. Together with the letter is the brief discussion of our plans for the system for our project.

Attached below is a PDF letter requesting for the consultation together with details of the purpose of the said project as well as the requested document with the project background, framework and/or detailed plan. We look forward to hearing from you soon regarding this matter.

Thank you for your time and consideration.

Sincerely,
Sean Anthony Capistrano(4ITG)

[Quoted text hidden]

2 attachments **4ITG-GRP#10-Letter of Request for Consultation (3).pdf**

950K

 **4ITG-GRP#10-CapstoneDirectoryV2.pdf**

15194K

Assistant to the Rector for ICT UST <arict@ust.edu.ph>

Thu, Sep 5, 2024 at 10:09 AM

To: SEAN ANTHONY CAPISTRANO <seananthony.capistrano.cics@ust.edu.ph>

9/11/24, 6:48 PM

University of Santo Tomas Mail - [CAPSTONE PROJECT - 4ITG] Request for Consultation for Capstone Project

Cc: EDWIN SANTOS DE GUZMAN <esdeguzman@ust.edu.ph>, RONINA C TAYUAN <rctayuan@ust.edu.ph>, Dean CICS <dean.cics@ust.edu.ph>, Program Chair for the Department of Information Technology CICS <it-chair.cics@ust.edu.ph>, ICT UST <office.ict@ust.edu.ph>

Dear SEAN,

I acknowledge receipt of your email and our EA, Dr. Balais will send a calendar invite to have a short meeting with your team on how we can go about your request.

Thank you.

Warm regards,

Asst. Prof. Jerralyn T. Padua

Assistant to the Rector for Information and Communications Technology
University of Santo Tomas
Office: +632-8-406-1611 local 8737
Email: arict@ust.edu.ph

Teaching Academic Staff

Networks and Security Track
Department of Information Technology
College of Information and Computing Sciences
University of Santo Tomas
Email: jtpadua@ust.edu.ph

[Quoted text hidden]

EDWIN SANTOS DE GUZMAN <esdeguzman@ust.edu.ph>
To: Mylene J Domingo <mjdomingo@ust.edu.ph>
Cc: RONINA C TAYUAN <rctayuan@ust.edu.ph>, GABRIEL EMANUEL MONTANO <gdmontano@ust.edu.ph>, MARIA LOURDES L EDANG <mledang@ust.edu.ph>, SEAN ANTHONY CAPISTRANO <seananthonycapistrano.cics@ust.edu.ph>

Mon, Sep 9, 2024 at 8:01 PM

Hi, Mam. This is duly noted. Thank you!

Best Regards,

Mr Edwin S de Guzman
Teaching Academic Staff
College of Information & Computing Sciences
University of Santo Tomas

On Mon, Sep 9, 2024 at 8:00 PM Mylene J Domingo <mjdomingo@ust.edu.ph> wrote:
Dear Sir Edwin,

Kindly request the group to kindly update their document. Please take note that they need to ensure that everything written in the document will be implemented in their capstone 2 once the validation form and revision matrix are sign.

Include in the document the copy of the letter and the email response of OICT in the appendices.

Thank you.

Sincerely,

Assoc. Prof. Mylene J. Domingo, DIT
Assistant Director for Faculty Classification
Office for Faculty Evaluation and Development
Office of the Vice-Rector for Academic Affairs
University of Santo Tomas

Faculty

Web and Mobile Group

9/11/24, 6:48 PM University of Santo Tomas Mail - [CAPSTONE PROJECT - 4ITG] Request for Consultation for Capstone Project

Department of Information Technology
Institute of Information and Computing Sciences

On Mon, Sep 9, 2024 at 7:52 PM EDWIN SANTOS DE GUZMAN <esdeguzman@ust.edu.ph> wrote:
Please see the attached letter. Thanks, Mam.

Best Regards,

Mr Edwin S de Guzman
Teaching Academic Staff
College of Information & Computing Sciences
University of Santo Tomas
[Quoted text hidden]
[Quoted text hidden]
[Quoted text hidden]

APPENDIX G: Test Cases

Test Case ID: Admin_Login_TC01	Test Designed by: Stephanie Leigh Mangahas					
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024					
Module Name: Authentication	Test Executed by:					
Test Title: Successful Admin Login	Test Execution date:					
Description: Ensure admin can log in with valid credentials.						
Pre-conditions:	Admin account must be registered.					
Dependencies:	User registration module					
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Navigate to the login page		The user will be redirected to the login page	Login page displayed successfully	PASS	
2	Enter a valid email address	john.doe@ust.edu.ph	The system will accept the users input	Email input accepted		
3	Enter correct password	correctpassword	The system will accept the users input	Password input accepted		
4	Click the "Log in" button		The user will be redirected to the homepage	User is logged in successfully		

Post Conditions:	Admin is logged in
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Test Case ID: Admin_Login_TC02	Test Designed by: Stephanie Leigh Mangahas					
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024					
Module Name: Authentication	Test Executed by:					
Test Title: Admin Unsuccessful Login with Incorrect Password	Test Execution date:					
Description: Ensure admin cannot log in with incorrect Password						
Pre-conditions:	Admin has a registered account					
Dependencies:	User registration module					
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Navigate to the login page		The user will be redirected to the login page	Login page displayed successfully	PASS	
2	Enter a valid email address	john.doe@ust.edu.ph	The system will accept the users input	Email input accepted		
3	Enter the incorrect password	wrong password	The system will not accept the users input	Incorrect password accepted		
4	Click the "Log in" button		The user will receive an error message indicating incorrect password	Login attempt is rejected		
Post Conditions:		Admin remains on the login page				

Test Case ID: Admin_Login_TC03	Test Designed by: Stephanie Leigh Mangahas
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024
Module Name: Authentication	Test Executed by:
Test Title: Admin Unsuccessful Login with non-UST email	Test Execution date:

Description: Ensure the system rejects admin login attempts when using a non-UST email address						
Pre-conditions:	Admin accounts must only use UST email addresses ending in @ust.edu.ph					
Dependencies:	User registration module					
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Navigate to the login page		The user will be redirected to the login page	Login page displayed successfully	PASS	
2	Enter a non-UST email address in the "Email" field	admin123@gmail.com	The system will accept the users input	Email input accepted		
3	Enter a valid password	password123	The system will not accept the users input	Incorrect password accepted		
4	Click the "Log in" button		The user will receive an error message indicating the email is not registered	Login attempt is rejected		
Post Conditions:		Admin remains on the login page				

Test Case ID: Student_Login_TC05	Test Designed by: Stephanie Leigh Mangahas
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024
Module Name: Authentication	Test Executed by:
Test Title: Successful Login	Test Execution date:
Description: Ensure students can log in with correct credentials	
Pre-conditions:	Student has a registered account
Dependencies:	User registration module

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes				
1	Navigate to the login page		The user will be redirected to the login page	Login page displayed successfully	PASS					
2	Enter a valid email address	john.doe.cics@ust.edu.ph	The system will accept the users input	Email input accepted						
3	Enter the correct password	password123	The system will accept the users input	Password input accepted						
4	Click the "Log in" button		The user will be redirected to the homepage	User is logged in successfully						
Post Conditions:		Student is logged in								
Test Case ID: Student_Login_TC06				Test Designed by: Stephanie Leigh Mangahas						
Test Priority (Low/Med/High): High				Test Designed date: 12/07/2024						
Module Name: Authentication				Test Executed by:						
Test Title: Student Unsuccessful Login with Incorrect Password				Test Execution date:						
Description: Ensure students cannot log in with incorrect Password										
Pre-conditions:		Student has a registered account								
Dependencies:		User registration module								
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes				
1	Navigate to the login page		The user will be redirected to the login page	Login page displayed successfully	PASS					
2	Enter a valid email address	john.doe.cics@ust.edu.ph	The system will accept the users input	Email input accepted						
3	Enter the incorrect password	wrong password	The system will not	Password input accepted						

			accept the users input							
4	Click the "Log in" button		The user will receive an error message indicating incorrect password	Login attempt is rejected						
Post Conditions:		Student remains on the login page								
Test Case ID: Student_Login_TC07			Test Designed by: Stephanie Leigh Mangahas							
Test Priority (Low/Med/High): High			Test Designed date: 12/07/2024							
Module Name: Authentication			Test Executed by:							
Test Title: Student Unsuccessful Login with non-UST email			Test Execution date:							
Description: Ensure the system rejects student login attempts when using a non-UST email address										
Pre-conditions:		Student accounts must only use UST email addresses ending in @ust.edu.ph								
Dependencies:		User registration module								
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes				
1	Navigate to the login page		The user will be redirected to the login page	Login page displayed successfully	PASS					
2	Enter a non-UST email address in the "Email" field	john.doe@ust.edu.ph	The system will accept the users input	Email input accepted						
3	Enter a valid password	password123	The system will not accept the users input	Password input accepted						
4	Click the "Log in" button		The system checks the email domain and identifies it as invalid	Login attempt is rejected						

Post Conditions:	Student remains on the login page					
Test Case ID: Student_Login_TC08	Test Designed by: Stephanie Leigh Mangahas					
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024					
Module Name: Authentication	Test Executed by:					
Test Title: Student Unsuccessful Login with non-UST email	Test Execution date:					
Description: Ensure the system limits invalid login attempts						
Pre-conditions:	Registered student account, valid credentials					
Dependencies:	User registration module					
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Navigate to the login page		The user will be redirected to the login page	Login page displayed successfully	PASS	
2	Enter UST email address in the "Email" field	john.doe@ust.edu.ph	The system will accept the users input	Email input accepted		
3	Enter incorrect password	wrongpassword123	The system will not accept the users input	Password input accepted		
4	Click the "Log in" button		Login attempt is rejected	An error message "Invalid Password" will show		
5	Enter incorrect password again	wrongpassword12345	The system will not accept the users input	Password input accepted		
6	Click the "Log in" button		Login attempt is rejected	An error message "Invalid Password" will show		

7	Enter incorrect password again	wrongpassword1234567	The system will not accept the users input	Password input accepted		
8	Click the "Log in" button		Account will be disabled	Account is disabled and student is required to reset password		
Post Conditions:		Student cannot login with multiple invalid login attempts				

Test Case ID: Faculty_Login_TC09		Test Designed by: Stephanie Leigh Mangahas									
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024									
Module Name: Authentication		Test Executed by:									
Test Title: Successful Faculty Login		Test Execution date:									
Description: Ensure faculty can log in with valid credentials.											
Pre-conditions:		Faculty account must be registered.									
Dependencies:		User registration module									
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes					
1	Navigate to the login page		The user will be redirected to the login page	Login page displayed successfully	PASS						
2	Enter a valid email address	john.doe@ust.edu.ph	The system will accept the users input	Email input accepted							
3	Enter the correct password	correctpassword	The system will accept the users input	Password input accepted							
4	Click the "Log in" button		The user will be redirected to the homepage	User is logged in successfully							
Post Conditions:		Faculty is logged in									
Test Case ID: Faculty_Login_TC10				Test Designed by: Stephanie Leigh Mangahas							

Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024				
Module Name: Authentication		Test Executed by:				
Test Title: Faculty Unsuccessful Login with Incorrect Password		Test Execution date:				
Description: Ensure faculty cannot log in with incorrect Password						
Pre-conditions:		Faculty has a registered account				
Dependencies:		User registration module				
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Navigate to the login page		The user will be redirected to the login page	Login page displayed successfully	PASS	
2	Enter a valid email address	john.doe@ust.edu.ph	The system will accept the users input	Email input accepted		
3	Enter the incorrect password	wrong password	The system will not accept the users input	Password input accepted		
4	Click the "Log in" button		The user will receive an error message indicating incorrect password	Login attempt is rejected		
Post Conditions:		Faculty remains on the login page				
Test Case ID: Faculty_Login_TC11			Test Designed by: Stephanie Leigh Mangahas			
Test Priority (Low/Med/High): High			Test Designed date: 12/07/2024			
Module Name: Authentication			Test Executed by:			
Test Title: Faculty Unsuccessful Login with non-UST email			Test Execution date:			
Description: Ensure the system rejects faculty login attempts when using a non-UST email address						
Pre-conditions:		Faculty accounts must only use UST email addresses ending in @ust.edu.ph				

Dependencies:		User registration module				
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Navigate to the login page		The user will be redirected to the login page	Login page displayed successfully	PASS	
2	Enter a non-UST email address in the "Email" field	john.doe@ust.edu.ph	The system will accept the users input	Email input accepted		
3	Enter a valid password	password123	The system will not accept the users input	Password input accepted		
4	Click the "Log in" button		The system checks the email domain and identifies it as invalid	Login attempt is rejected		
Post Conditions:		Faculty remains on the login page				

Test Case ID: Student_Register_TC12		Test Designed by: Stephanie Leigh Mangahas									
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024									
Module Name: Authentication		Test Executed by:									
Test Title: Successful Student Register		Test Execution date:									
Description: Ensure student can register with valid credentials											
Pre-conditions:		Valid student credentials									
Dependencies:		User registration module									
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes					
1	Navigate to the registration page		The user will be redirected to the registration page	Login page displayed successfully	PASS						

2	Enter first name	Stephanie Leigh	The system will accept the users input	Email input accepted		
3	Enter last name	Mangahas	The system will accept the users input	Last name input accepted		
4	Enter student number	2021160635	The system will accept the users input	Student number accepted		
5	Enter UST email	stephanieleigh.mangahas.cics@ust.edu.ph	The system will accept the users input	Email input accepted		
6	Select a program	IT	The system will accept the users input	Program selected is accepted		
7	Select a specialization	Web and Mobile App Development	The system will accept the users input	Specialization selected is accepted		
8	Enter a password	password123	The system will accept the users input	Password input accepted		
9	Confirm password	password123	The system will accept the users input	Password input accepted		
10	Click the "Register" button		The user will be redirected to the homepage	Register attempt is accepted		
Post Conditions:		Student is successfully registered				
Test Case ID: Student_Register_TC13				Test Designed by: Stephanie Leigh Mangahas		
Test Priority (Low/Med/High): High				Test Designed date: 12/07/2024		
Module Name: Authentication				Test Executed by:		
Test Title: Unsuccessful Student Register				Test Execution date:		

Description: Ensure student cannot register with an already registered account						
Pre-conditions:		Valid student credentials				
Dependencies:		User registration module				
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Navigate to the registration page		The user will be redirected to the registration page	Login page displayed successfully	PASS	
2	Enter first name	Stephanie Leigh	The system will accept the users input	Email input accepted		
3	Enter last name	Mangahas	The system will accept the users input	Last name input accepted		
4	Enter student number	2021160635	The system will accept the users input	Student number accepted		
5	Enter UST email	stephanieleigh.mangahas.cics@ust.edu.ph	The system will accept the users input	Email input accepted		
6	Select a program	IT	The system will accept the users input	Program selected is accepted		
7	Select a specialization	Web and Mobile App Development	The system will accept the users input	Specialization selected is accepted		
8	Enter a password	password123	The system will accept the users input	Password input accepted		

9	Confirm password	password123	The system will accept the users input	Password input accepted		
10	Click the "Register" button		The register attempt is rejected	An error shows that the email is already registered		
Post Conditions:		Student cannot register with an already registered email				

Test Case ID: ForgotPass_TC14	Test Designed by: Mary Julia Sharina A. Malagayo
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024
Module Name: Authentication	Test Executed by:
Test Title: Successful Password Recovery	Test Execution date:
Description: Ensures that a user can successfully reset their password using the "Forgot Password" feature, which sends a password reset link to their registered email address.	
Pre-conditions:	User has a registered account in the system
	User has access to registered email
Dependencies:	User registration module

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Navigate to the login page		The user will be redirected to the login page	Login page displayed successfully		
2	Click the "Forgot Password" link under the password input field		The user will be redirected to the password recovery page.	User redirected to the password recovery page.	FAIL	
3	Enter registered email	john.doe@ust.edu.ph	The system checks if the email is registered	Email input is accepted		

4	Click the "Submit" button		The user will receive an email containing a password reset link	Email containing the reset link is sent successfully					
5	Click the password reset link provided in the user's email		The user will be redirected to the "Enter new password" page	Link does not redirect user to change password					
6	Enter new password	newpassword123	The system will accept the user's input	User is unable to enter new password					
7	Click the "Save" button		The system will save the user input	The password is not updated successfully					
Post Conditions:		The user successfully reset their password and can login using the new one							
Test Case ID: ForgotPass_TC16				Test Designed by: Mary Julia Sharina A. Malagayo					
Test Priority (Low/Med/High): High				Test Designed date: 12/07/2024					
Module Name: Authentication				Test Executed by:					
Test Title: Unsuccessful Password Recovery				Test Execution date:					
Description: Ensures that the system will not be able to proceed if the email submitted is not registered									
Pre-conditions:		User has no registered account in the system							
Dependencies:		User registration module							
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes			
1	Navigate to the login page		The user will be redirected to the login page	Login page displayed successfully					

PASS

2	Click the "Forgot Password" link under the password input field		The user will be redirected to the password recovery page	User redirected to the password recovery page.		
3	Enter registered email	unregistered@ust.edu.ph	The system checks if the email is registered	Email input is accepted		
4	Click the "Reset Password" button		The system will show an "Email is not registered" alert	An error message "Something went wrong" shows		
Post Conditions:		The system will show an "Email is not registered" alert				

Test Case ID: ForgotPass_TC15	Test Designed by: Mary Julia Sharina A. Malagayo
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024
Module Name: Authentication	Test Executed by:
Test Title: Successful Password Recovery	Test Execution date:
Description: Ensures that a user can successfully reset their password using the "Forgot Password" feature, which sends a password reset link to their registered email address.	
Pre-conditions:	User has a registered account in the system
	User has access to registered email
Dependencies:	User registration module

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Navigate to the login page		The user will be redirected to the login page	Login page displayed successfully		
2	Click the "Forgot Password" link under the password		The user will be redirected to the password recovery page.	User redirected to the password recovery page.	PASS	

	input field		page			
3	Enter registered email	john.doe@ust.edu.ph	The system checks if the email is registered	Email input is accepted		
4	Click the "Submit" button		The user will receive an email containing a password reset link	Email containing the reset link is sent successfully		
5	Click the password reset link provided in the user's email		The user will be redirected to the "Enter new password" page	Link redirects user to change password		
6	Enter new password	newpassword123	The system will accept the user's input	New password entered successfully		
7	Click the "Save" button		The system will save the user input	System saves the new password and confirms success		
Post Conditions:		The user successfully reset their password and can login using the new one				

Test Case ID: ForgotPass_TC17	Test Designed by: Mary Julia Sharina A. Malagayo
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024
Module Name: Authentication	Test Executed by:
Test Title: Successful Password Recovery	Test Execution date:
Description: Ensures that a user can successfully reset their password using the "Forgot Password" feature, which sends a password reset link to their registered email address.	
Pre-conditions:	User has a registered account in the system
	User has access to registered email
Dependencies:	User registration module

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Navigate to the login page		The user will be redirected to the login page	Login page displayed successfully	FAIL	
2	Click the "Forgot Password" link under the password input field		The user will be redirected to the password recovery page	User redirected to the password recovery page.		
3	Enter registered email	john.doe@ust.edu.ph	The system checks if the email is registered	Email input is accepted		
4	Click the "Reset Password" button		The user will receive an email containing a password reset link	Email containing the reset link is sent successfully		
5	Click the password reset link provided in the user's email		The user will be redirected to the "Enter new password" page	Link does not redirect user to change password		
6	Enter new password	newpassword123	The system will accept the user's input	User is unable to enter new password		
7	Click the "Save" button		The system will save the user input	The password is not updated successfully		
Post Conditions:		The user successfully reset their password and can login using the new one				

Test Case ID: ForgotPass_TC18	Test Designed by: Mary Julia Sharina A. Malagayo
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024

Module Name: Authentication		Test Executed by:		
Test Title: Successful Password Recovery		Test Execution date:		
Description: Ensures that a user can successfully reset their password using the "Forgot Password" feature, which sends a password reset link to their registered email address.				
Pre-conditions:		User has a registered account in the system		
		User has access to registered email		
Dependencies:		User registration module		
Step	Test Steps	Test Data	Expected Result	Actual Result
1	Navigate to the login page		The user will be redirected to the login page	Login page displayed successfully
2	Click the "Forgot Password" link under the password input field		The user will be redirected to the password recovery page	User redirected to the password recovery page.
3	Enter registered email	john.doe@ust.edu.ph	The system checks if the email is registered	Email input is accepted
4	Click the "Reset Password" button		The user will receive an email containing a password reset link	Email containing the reset link is sent successfully
5	Click the password reset link provided in the user's email		The user will be redirected to the "Enter new password" page	Link redirects user to change password
6	Enter new password	newpassword123	The system will accept the user's input	New password entered successfully

7	Click the "Save" button		The system will save the user input	System saves the new password and confirms success		
Post Conditions:		The user successfully reset their password and can login using the new one				

Test Case ID: ForgotPass_TC19		Test Designed by: Mary Julia Sharina A. Malagayo									
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024									
Module Name: Authentication		Test Executed by:									
Test Title: Unsuccessful Password Recovery		Test Execution date:									
Description: Ensures that the system will not be able to proceed if the email submitted is not registered											
Pre-conditions:		User has no registered account in the system									
Dependencies:		User registration module									
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes					
1	Navigate to the login page		The user will be redirected to the login page	Login page displayed successfully	PASS						
2	Click the "Forgot Password" link under the password input field		The user will be redirected to the password recovery page	User redirected to the password recovery page.							
3	Enter registered email	unregistered@ust.edu.ph	The system checks if the email is registered	Email input is accepted							
4	Click the "Reset Password" button		The system will show an "Email is not registered" alert	An error message "Something went wrong" shows							

Post Conditions:	The system will show an "Email is not registered" alert
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Test Case ID: ChangePass_TC20		Test Designed by: Mary Julia Sharina A. Malagayo				
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024				
Module Name: Authentication		Test Executed by: Mary Julia Sharina A. Malagayo				
Test Title: Successful Password Change		Test Execution date: 05/12/2024				
Description: Ensures that a user cannot successfully change their password when an invalid current password is provided						
Pre-conditions:		The user is registered in the system				
		The user is logged in				
Dependencies:		User Profile				
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click the sidebar		The user will be have access to the sidebar	The sidebar expanded upon hover	FAIL	
2	Click "Change Password"		A modal for change password would appear	A modal did appear for changing the password		
3	Enter invalid current password	wrongpassword123	The system validates the current password.	The system failed to validate the current password		
4	Enter new valid password	newpassword123	The system checks that the new password meets the required criteria	New password entered successfully and validated		

5	Enter new password again	newpassword1 23	The system checks that both entered passwords match.	New password entered successfully and validated		
6	Click the "Change" button		The system will not update the user's password in the database	The system updates the user's password in the database		
Post Conditions:		The user can log in with the new password and cannot login with the former password.				

Test Case ID: ChangePass_TC21		Test Designed by: Mary Julia Sharina A. Malagayo				
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024				
Module Name: Authentication		Test Executed by:				
Test Title: Successful Password Change		Test Execution date:				
Description: Ensures that a user cannot successfully change their password when an invalid current password is provided						
Pre-conditions:		The user is registered in the system				
		The user is logged in				
Dependencies:		User Profile				
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click the sidebar		The user will be have access to the sidebar	The sidebar expanded upon hover	PASS	
2	Click "Change Password"		A modal for change password would appear	A modal did appear for changing the password		
3	Enter current password	wrongpassword123	The system validates the current password.	The system successfully validates the current		

				password		
4	Enter new valid password	newpassword 123	The system checks that the new password meets the required criteria	New password entered successfully and validated		
5	Enter new password again	newpassword 123	The system checks that both entered passwords match.	New password entered successfully and validated		
6	Click the "Change" button	The system will not update the user's password in the database	The system does not update the user's password in the database	An error message shows that the current password is incorrect		
Post Conditions:		The user can log in with the new password and cannot login with the former password.				

Test Case ID: ChangePass_TC22	Test Designed by: Mary Julia Sharina A. Malagayo
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024
Module Name: Authentication	Test Executed by: Mary Julia Sharina A. Malagayo
Test Title: Successful Password Change	Test Execution date: 05/12/2024
Description: Ensures that a user can successfully change their password when valid credentials and a new password are provided.	
Pre-conditions:	The user is registered in the system
	The user is logged in
Dependencies:	User Profile

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click the sidebar		The user will be have access to the	The sidebar expanded upon hover	PASS	

			sidebar			
2	Click "Change Password"		A modal for change password would appear	A modal did appear for changing the password		
3	Enter current password	password123	The system validates the current password.	The system successfully validates the current password		
4	Enter new valid password	newpassword123	The system checks that the new password meets the required criteria	New password entered successfully and validated		
5	Enter new password again	newpassword123	The system checks that both entered passwords match.	New password entered successfully and validated		
6	Click the "Change" button		The system updates the user's password in the database and a success message is displayed, indicating that the password has been changed successfully	The system updates the user's password in the database		
Post Conditions:		The user can log in with the new password and cannot login with the former password.				

Test Case ID: ChangePass_TC20	Test Designed by: Mary Julia Sharina A. Malagayo
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024

Module Name: Authentication		Test Executed by: Mary Julia Sharina A. Malagayo				
Test Title: Successful Password Change		Test Execution date: 05/12/2024				
Description: Ensures that a user cannot successfully change their password when an invalid current password is provided						
Pre-conditions:		The user is registered in the system				
		The user is logged in				
Dependencies:		User Profile				
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click the sidebar		The user will be have access to the sidebar	The sidebar expanded upon hover	FAIL	
2	Click "Change Password"		A modal for change password would appear	A modal did appear for changing the password		
3	Enter invalid current password	wrongpassword123	The system validates the current password.	The system failed to validate the current password		
4	Enter new valid password	newpassword123	The system checks that the new password meets the required criteria	New password entered successfully and validated		
5	Enter new password again	newpassword123	The system checks that both entered passwords match.	New password entered successfully and validated		
6	Click the "Change" button		The system will not update the user's password in	The system updates the user's password in the database		

			the database			
Post Conditions:	The user can log in with the new password and cannot login with the former password.					

Test Case ID: ChangePass_TC21			Test Designed by: Mary Julia Sharina A. Malagayo							
Test Priority (Low/Med/High): High			Test Designed date: 12/07/2024							
Module Name: Authentication			Test Executed by:							
Test Title: Successful Password Change			Test Execution date:							
Description: Ensures that a user cannot successfully change their password when an invalid current password is provided										
Pre-conditions:		The user is registered in the system								
		The user is logged in								
Dependencies:		User Profile								
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes				
1	Click the sidebar		The user will be have access to the sidebar	The sidebar expanded upon hover	PASS					
2	Click "Change Password"		A modal for change password would appear	A modal did appear for changing the password						
3	Enter current password	wrongpassword123	The system validates the current password.	The system successfully validates the current password						
4	Enter new valid password	newpassword123	The system checks that the new password meets the required criteria	New password entered successfully and validated						

5	Enter new password again	newpassword 123	The system checks that both entered passwords match.	New password entered successfully and validated		
6	Click the "Change" button	The system will not update the user's password in the database	The system does not update the user's password in the database	An error message shows that the current password is incorrect		
Post Conditions:		The user can log in with the new password and cannot login with the former password.				

Test Case ID: ChangePass_TC22		Test Designed by: Mary Julia Sharina A. Malagayo				
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024				
Module Name: Authentication		Test Executed by: Mary Julia Sharina A. Malagayo				
Test Title: Successful Password Change		Test Execution date: 05/12/2024				
Description: Ensures that a user can successfully change their password when valid credentials and a new password are provided.						
Pre-conditions:		The user is registered in the system				
		The user is logged in				
Dependencies:		User Profile				
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click the sidebar		The user will be have access to the sidebar	The sidebar expanded upon hover	PASS	
2	Click "Change Password"		A modal for change password would appear	A modal did appear for changing the password		

3	Enter current password	password123	The system validates the current password.	The system successfully validates the current password		
4	Enter new valid password	newpassword123	The system checks that the new password meets the required criteria	New password entered successfully and validated		
5	Enter new password again	newpassword123	The system checks that both entered passwords match.	New password entered successfully and validated		
6	Click the "Change" button		The system updates the user's password in the database and a success message is displayed, indicating that the password has been changed successfully	The system updates the user's password in the database		
Post Conditions:		The user can log in with the new password and cannot login with the former password.				

Test Case ID: EditList_TC23	Test Designed by: Mary Julia Sharina A. Malagayo
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024
Module Name: Administrators	Test Executed by:
Test Title: Edit capstone projects and thesis papers	Test Execution date:
Description: Ensure administrators and capstone coordinators can view and edit the projects and papers.	

Pre-conditions:		User is logged in as administrator or as a capstone coordinator					
Dependencies:		Project data in the database					
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes	
1	Navigate to the list of IP-registered capstone projects and thesis papers page		The user will be redirected to the list of IP-registered capstone projects and thesis papers page	The user was successfully redirected to the list of IP-registered capstone projects and thesis papers page	FAIL		
2	Click the "Update" Button of a project/paper		The user will be redirected to the edit page	The user was redirected to the upload page			
3	Input new specialization, title, author/s, technical adviser, year published, and/or keywords	Specialization: IT automation	The system will accept the user's input				
4	Click the "Save" button		The system overrides the previous information with the new one				
Post Conditions:		The project/paper has the updated information.					

Test Case ID: EditList_TC24	Test Designed by: Mary Julia Sharina A. Malagayo
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024
Module Name: Administrators	Test Executed by:

Test Title: Edit capstone projects and thesis papers		Test Execution date:					
Description: Ensure administrators and capstone coordinators can view and edit the projects and papers.							
Pre-conditions:		User is logged in as administrator or as a capstone coordinator					
Dependencies:		Project data in the database					
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes	
1	Navigate to the list of IP-registered capstone projects and thesis papers page		The user will be redirected to the list of IP-registered capstone projects and thesis papers page	User successfully redirected to the list page	PASS		
2	Click the "Edit" Button of a project/paper		The user will be redirected to the edit page	User redirected to the project edit page			
3	Input new specialization , title, author/s, technical adviser, year published, and/or keywords	Specialization : IT automation	The system will accept the user's input	New data input (Specialization: IT automation) is accepted by the system			
4	Click the "Save" button		The system overrides the previous information with the new one	System saves the updated information and confirms the changes			
Post Conditions:		The project/paper has the updated information.					

Test Case ID: StudentViewList_TC25	Test Designed by: Mary Julia Sharina A. Malagayo
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Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024				
Module Name: Student View		Test Executed by:				
Test Title: View capstone projects and thesis papers' ACM papers (student)		Test Execution date:				
Description: Ensure students can view the projects and papers' ACM paper						
Pre-conditions: User is logged in as a student						
Dependencies: Project data in the database						
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Navigate to the list of IP-registered capstone projects and thesis papers page		The user will be redirected to the list of IP-registered capstone projects and thesis papers page	The user is redirected to the IP-registered page	PASS	
2	Click the "View ACM" Button of a project/paper		The project/paper's ACM file will pop up via a modal	ACM file displayed successfully		
3	Student is redirected to the web display of the ACM paper		The student will be redirected to the web display of the ACM paper	Student redirected to the web display		
Post Conditions: The ACM paper for a project/paper will be shown for the students						
Test Case ID: FacultyViewList_TC10			Test Designed by: Mary Julia Sharina A. Malagayo			
Test Priority (Low/Med/High): High			Test Designed date: 12/07/2024			
Module Name: Faculty View			Test Executed by:			
Test Title: View capstone projects and thesis papers' ACM papers (faculty)			Test Execution date:			
Description: Ensure faculty members can view the projects and papers' ACM paper						

Pre-conditions:	User is logged in as a faculty member							
Dependencies:	Project data in the database							
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes		
1	Navigate to the list of IP-registered capstone projects and thesis papers page		The user will be redirected to the list of IP-registered capstone projects and thesis papers page	The user is redirected to the IP-registered page	PASS			
2	Click the "View ACM" Button of a project/paper		The project/paper's ACM file will pop up via a modal	ACM file displayed successfully				
3	Student is redirected to the web display of the ACM paper		The student will be redirected to the web display of the ACM paper	Student redirected to the web display				
Post Conditions:		The ACM paper for a project/paper will be shown for the faculty members.						
Test Case ID: FacultyViewList_TC11					Test Designed by: Mary Julia Sharina A. Malagayo			
Test Priority (Low/Med/High): High					Test Designed date: 12/07/2024			
Module Name: Faculty View					Test Executed by:			
Test Title: View capstone projects and thesis papers' approval form (faculty)					Test Execution date:			
Description: Ensure faculty members can view the projects and papers' approval form								
Pre-conditions:	User is logged in as a faculty member							
Dependencies:	Project data in the database							

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Navigate to the list of IP-registered capstone projects and thesis papers page		The user will be redirected to the list of IP-registered capstone projects and thesis papers page	User is redirected to the correct page listing projects and papers		
2	Click the "Details" button		The user will be directed to the project/paper's detailed view page	User is redirected to the detailed view of the selected project/paper	PASS	
3	Click the "View approval form" Button of a project/paper		The user will be redirected to the project/papers approval form page.	User is redirected to the approval form page for the selected project/paper.		
Post Conditions:		The approval form for a project/paper will be shown for the faculty members.				

Test Case ID: Submission_TC26		Test Designed by: Stephanie Leigh Mangahas									
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024									
Module Name: Project Submission		Test Executed by:									
Test Title: Successful Project Submission		Test Execution date:									
Description: Ensure students can submit their projects											
Pre-conditions:		User is logged in as a student									
Dependencies:		User login module									
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes					

1	Navigate to "Submit Project" page		Project submission page is displayed	The user was successfully redirected to the submission page	PASS	
2	Enter project title	Capstone Project 2024	The user will be able to input on the title field	The user was successfully able to input the title		
3	Upload project files	capstone2024.pdf	The files will be uploaded successfully	The user was successfully able to upload the project files		
4	Click the "Submit" button		Project is submitted successfully and confirmation message is displayed	The project was successfully submitted		
Post Conditions:		Project is stored on the database				

Test Case ID: EditBest_TC27		Test Designed by: Stephanie Leigh Mangahas				
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024				
Module Name: Administrator		Test Executed by:				
Test Title: Edit best capstone projects		Test Execution date:				
Description: Ensure administrators and capstone coordinators can view and edit the list of best projects.						
Pre-conditions:	User is logged in as administrator or as capstone coordinator					
Dependencies:	Project data in the database					
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Enter valid email	stephanieleigh.mangahas.	The system will accept	The system accepted the	FAIL	

		cics@ust.edu.ph	the users input	email input		
2	Enter valid password	password123	The system will accept the users input	The system accepted the password input		
3	Navigate to the "Best Projects" page		The user will be redirected to the "Best Projects" page	User redirected to the "Best Projects" page		
4	Click on the "Edit List" button		Checkboxes will appear beside each capstone project	No "Edit List" button is displayed		
5	Select the capstone project	Capstone Project 2024	The selected project is highlighted for editing	No option to select or edit the project		
6	Click on the "Save" button		The selected capstone is added to the list	No "Save" button available		
Post Conditions:		The best capstone and thesis list will be updated				

Test Case ID: EditBest_TC28	Test Designed by: Stephanie Leigh Mangahas					
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024					
Module Name: Administrator	Test Executed by:					
Test Title: Edit best capstone projects	Test Execution date:					
Description: Ensure administrators and capstone coordinators can view and edit the list of best projects.						
Pre-conditions:	User is logged in as administrator or as capstone coordinator					
Dependencies:	Project data in the database					
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes

1	Enter valid email	stephanieleigh.h.mangahas.cics@ust.edu.ph	The system will accept the users input	The system accepted the users input	PASS	
2	Enter valid password	password123	The system will accept the users input	The system accepted the users input		
3	Navigate to the "Best Projects" page		The user will be redirected to the "Best Projects" page	The user was indeed redirected to the "Best Projects" page		
4	Click on the "Edit List" button		Checkboxes will appear beside each capstone project	There is a "Best Project" button on each project		
5	Select the capstone project	Capstone Project 2024	The selected project is highlighted for editing	There is an "Best Project" button underneath each project for editing		
6	Click on the "Save" button		The selected capstone is added to the list	Once the "Best Project" button is clicked, the project will be added to the "Best Projects" list		
Post Conditions:		The best capstone and thesis list will be updated				

Test Case ID: DeleteBest_TC29	Test Designed by: Stephanie Leigh Mangahas
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024
Module Name: Administrator	Test Executed by:
Test Title: Delete best capstone projects	Test Execution date:
Description: Ensure administrators and capstone coordinators can delete projects of best projects.	

Pre-conditions:		User is logged in as administrator or as capstone coordinator				
Dependencies:		Project data in the database				
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Enter valid email	stephanieleigh.mangahas.cics@ust.edu.ph	The system will accept the users input	The system accepted the email input	FAIL	
2	Enter valid password	password123	The system will accept the users input	The system accepted the password input		
3	Navigate to the "Best Projects" page		The user will be redirected to the "Best Projects" page	User redirected to the "Best Projects" page		
4	Select the capstone project	Capstone Project 2024	The selected project is highlighted for editing	No option to select or edit the project		
5	Click "Remove"		The selected capstone is deleted from the list	No "Remove" button available		
6	Confirm the removal in the prompts		The selected capstone is deleted from the list	No prompt shown		
7	Click on the "Save" button		The selected capstone is deleted from the list	No "Save" button available		
8	Verify that the project is no longer in the "Best Projects" list but remains in the		The best capstone list is updated	The project remains in both lists		

	"Approved Projects" list					
Post Conditions:	The project is successfully removed without affecting its approved status					

Test Case ID: DeleteBest_TC30		Test Designed by: Stephanie Leigh Mangahas				
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024				
Module Name: Administrator		Test Executed by:				
Test Title: Delete best capstone projects		Test Execution date:				
Description: Ensure administrators and capstone coordinators can delete projects of best projects.						
Pre-conditions:		User is logged in as administrator or as capstone coordinator				
Dependencies:		Project data in the database				
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Enter valid email	stephanieleigh.mangahas.cics@ust.edu.ph	The system will accept the users input	The system accepted the users input	PASS	
2	Enter valid password	password123	The system will accept the users input	The system accepted the users input		
3	Navigate to the "Best Projects" page		The user will be redirected to the "Best Projects" page	The user was indeed redirected to the "Best Projects" page		
4	Select the capstone project	Capstone Project 2024	The selected project is highlighted for editing	There is a "X Best Project" button on each project		

5	Click "Remove"		The selected capstone is deleted from the list	Clicking the "X Best Project" will prompt the user to confirm if they want to have the project removed		
6	Confirm the removal in the prompts		The selected capstone is deleted from the list	Clicking "Confirm" in the prompt will successfully remove the project from the "Best Capstone" list		
7	Click on the "Save" button		The selected capstone is deleted from the list	The selected capstone is deleted from the list		
8	Verify that the project is no longer in the "Best Projects" list but remains in the "Approved Projects" list		The best capstone list is updated	The best project list does not contain the project that was removed		
Post Conditions:		The project is successfully removed without affecting its approved status				

Test Case ID: AddBest_TC31	Test Designed by: Stephanie Leigh Mangahas
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024
Module Name: Administrator	Test Executed by:
Test Title: Add best capstone projects	Test Execution date:
Description: Ensure administrators and capstone coordinators can add to the list of best projects.	
Pre-conditions:	User is logged in as administrator or as capstone coordinator

Dependencies:		Project data in the database							
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes			
1	Enter valid email	stephanieleigh.mangahas.cics@ust.edu.ph	The system will accept the users input	The system accepted the email input					
2	Enter valid password	password123	The system will accept the users input	The system accepted the password input					
3	Navigate to "Home" page		The user will be redirected to the "Best Projects" page	User redirected to the "Home" page	PASS				
6	Select the capstone project	Capstone Project 2024	The selected project is highlighted for addition	Capstone is selected					
7	Click on the "Best Capstone" button		The selected capstone is added to the list	The selected capstone was added to the list					
Post Conditions:		The project is added to the "Best Projects" list without errors							
Test Case ID: LimitBest_TC32				Test Designed by: Stephanie Leigh Mangahas					
Test Priority (Low/Med/High): High				Test Designed date: 12/07/2024					
Module Name: Administrator				Test Executed by:					
Test Title: Limit best capstone projects				Test Execution date:					
Description: Ensure the system enforces the limit of 3 "Best Projects" per specialization									
Pre-conditions:		User is logged in as administrator or as capstone coordinator, existing 3 "Best Projects" tagged for the selected specialization							
Dependencies:		Project data in the database							

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Enter valid email	stephanieleigh.mangahas.cics@ust.edu.ph	The system will accept the users input	The system accepted the email input		
2	Enter valid password	password123	The system will accept the users input	The system accepted the password input		
3	Navigate to the "Best Projects" page		The user will be redirected to the "Best Projects" page	User redirected to the "Best Projects" page	FAIL	
4	Attempt to tag a fourth project as "Best" for the same specialization	Capstone Project 2024	The system prevents tagging the fourth project and displays an error message: "Maximum of 3 Best Projects per specialization allowed."	No error message displayed, project added successfully		
Post Conditions:		The system enforces the maximum limit correctly				

Test Case ID: LimitBest_TC33	Test Designed by: Stephanie Leigh Mangahas
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024
Module Name: Administrator	Test Executed by:
Test Title: Limit best capstone projects	Test Execution date:
Description: Ensure the system enforces the limit of 3 "Best Projects" per specialization	
Pre-conditions:	User is logged in as administrator or as capstone coordinator, existing 3 "Best Projects" tagged for the selected specialization
Dependencies:	Project data in the database

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Enter valid email	stephanieleigh.mangahas.cics@ust.edu.ph	The system will accept the users input	The system accepted the users input		
2	Enter valid password	password123	The system will accept the users input	The system accepted the users input		
3	Navigate to the "Best Projects" page		The user will be redirected to the "Best Projects" page	The user was indeed redirected to the "Best Projects" page	PASS	
4	Attempt to tag a fourth project as "Best" for the same specialization	Capstone Project 2024	The system prevents tagging the fourth project and displays an error message: "Maximum of 3 Best Projects per specialization allowed."	The system prevents the user to add another project if there are already three projects on the same program, prompting an error display.		
Post Conditions:		The system enforces the maximum limit correctly				

Test Case ID: Search_TC34	Test Designed by: Stephanie Leigh Mangahas
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024
Module Name: Search	Test Executed by: Mary Julia Sharina A. Malagayo
Test Title: Successful Search by Title	Test Execution date: 05/12/2024
Description: Ensure users can search for projects by title	

Pre-conditions:		User is logged in								
Dependencies:		Project data in the database								
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes				
1	Navigate to the search page		Search page is displayed	The user can directly access the search bar	PASS					
2	Enter project title in the search bar	Capstone Project 2024	Project title is entered in the search bar	The title is entered in the search bar						
3	Click on the "Search" button		Projects matching the title are displayed	The results shows the title searched						
Post Conditions:		Search results are displayed								
Test Case ID: SearchYear_TC35				Test Designed by: Stephanie Leigh Mangahas						
Test Priority (Low/Med/High): High				Test Designed date: 12/07/2024						
Module Name: Search				Test Executed by:						
Test Title: Successful Search by Year				Test Execution date:						
Description: Ensure users can search for projects by year										
Pre-conditions:		User is logged in								
Dependencies:		Project data in the database								
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes				
1	Navigate to the search page		Search page is displayed	The user can directly access the search bar	FAIL					
2	Enter "2024" in the year search field.	2024	Project title is entered in the search bar	The year is entered in the search bar						

3	Click on the "Search" button		Projects matching the year are displayed	There were no results		
4	Verify that only projects published in 2024 are displayed		Only projects published in 2024 are displayed	No results were returned for the year 2024		
Post Conditions:		The search feature retrieves projects based on the year of publication				

Test Case ID: SearchYear_TC36		Test Designed by: Stephanie Leigh Mangahas									
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024									
Module Name: Search		Test Executed by:									
Test Title: Successful Search by Year		Test Execution date:									
Description: Ensure users can search for projects by year											
Pre-conditions:		User is logged in									
Dependencies:		Project data in the database									
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes					
1	Navigate to the search page		Search page is displayed	The user can directly access the search bar	PASS						
2	Enter "2024" in the year search field.	2024	Project title is entered in the search bar	The year is entered in the search bar							
3	Click on the "Search" button		Projects matching the year are displayed	Projects uploaded at year 2024 is displayed							
4	Verify that only projects published in 2024 are		Only projects published in 2024 are displayed	Only 2024 projects are shown; no other years							

	displayed			appear		
Post Conditions:	The search feature retrieves projects based on the year of publication					

Test Case ID: GroupingsFaculty_TC37		Test Designed by: Mary Julia Sharina A. Malagayo									
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024									
Module Name: Faculty		Test Executed by:									
Test Title: Grouping of capstone students		Test Execution date:									
Description: Ensure that the faculty member can group students based on their capstone groups.											
Pre-conditions:		User is logged in as faculty									
Dependencies:		Project and user data in the database									
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes					
1	Navigate to the groups tab		The groups tab is displayed.	The groups tab is displayed successfully	PASS						
2	Click on the "Create Group" button		A "Create Group" modal will appear.	The "Create Group" modal appeared correctly							
3	Select the group name	Group 1	Group name is entered in the text box	"Group 1" was entered successfully selected							
4	Add Members		The student will be added as members to the group.	The students were added as members to the group							
5	Click the "Save" button		The group will be saved	The group was saved and successfully added to the groups list							

Post Conditions:	The group has been successfully created.
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Test Case ID: GroupingStudent_TC38		Test Designed by:				
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024				
Module Name: Student		Test Executed by:				
Test Title:		Test Execution date:				
Description: Ensure that students can be assigned to groups						
Pre-conditions:	User is logged in as student					
Dependencies:	Project and user data in the database					
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Navigate to the homepage		The homepage of the system is displayed.	Homepage displayed successfully	PASS	
2	Click on the notification indicating that a group was assigned		Student will be able to view the group number under their account name	The notification allows the group number is displayed		
3	Verify if the group members and number are correct		The group members and number should match the data stored in the system	The group number and members are displayed correctly		
Post Conditions:		The student successfully views their correct group number once assigned				

Test Case ID: NotificationsFaculty_TC39	Test Designed by: Mary Julia Sharina A. Malagayo
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024

Module Name: Faculty		Test Executed by:				
Test Title: Notifications for Faculty		Test Execution date:				
Description: Ensure that the faculty member will receive a notification once promoted to a 'Capstone Coordinator' role.						
Pre-conditions:		User is logged in as faculty				
Dependencies:		Project and user data in the database				
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click on the notification indicating that the faculty is promoted to a 'Capstone Coordinator' role.		The user will be redirected to the user profile.	The notification is displayed successfully	PASS	
2	Verify that the 'Capstone Coordinator' role is written on the profile		There will be a "Hello, Capstone Coordinator!" written on top of the profile.	"Hello, Capstone Coordinator!" displayed at the top of the profile.		
Post Conditions:		The faculty member has now the role of 'Capstone Coordinator'.				

Test Case ID: NotificationStudent_TC40		Test Designed by: Stephanie Leigh Mangahas
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024
Module Name: Student		Test Executed by:
Test Title:		Test Execution date:
Description: Ensure that students can receive a notification when added to a group		
Pre-conditions:		User is logged in as student
Dependencies:		Project and user data in the database

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Student should receive a notification		Notification is received upon being added to a group	No notification received	FAIL	
2	Click on the notification indicating the group status		The notification opens, showing group details	There is no notification to click)		
3	Verify if the group members are correct		Group members are displayed accurately in the notification details	There is no notification to verify)		
Post Conditions:		The student receives a notification confirming their group assignment				

Test Case ID: NotificationStudent_TC41		Test Designed by: Stephanie Leigh Mangahas				
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024				
Module Name: Student		Test Executed by:				
Test Title:		Test Execution date:				
Description: Ensure that students can be receive a notification when added to a group						
Pre-conditions:		User is logged in as student				
Dependencies:		Project and user data in the database				
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Student should receive a		Notification is received upon being	Notification received successfully	PASS	

	notification		added to a group			
2	Click on the notification indicating the group status		The notification opens, showing correct group details	The notification opens showing correct group details		
3	Verify if the group members are correct		Group members are displayed accurately in the notification details	The displayed group members match the database information		
Post Conditions:		The student receives a notification confirming their group assignment				

Test Case ID: GroupingStudent_TC42	Test Designed by: Stephanie Leigh Mangahas					
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024					
Module Name: Student	Test Executed by:					
Test Title:	Test Execution date:					
Description: Ensure that students can receive a notification when project is accepted						
Pre-conditions:	User is logged in as student					
Dependencies:	Project and user data in the database					
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click on the notification indicating that the project status is updated	Project Title: "IT WebDEV"	Project is marked as "Approved" and a notification is triggered.	Notification triggered successfully	PASS	
2	Navigate to submissions page		Notification displays that the project is	Notification received with the correct		

			approved	content		
3	Verify that the project was accepted		The notification contains the correct project title, group, and status.	Notification shows: "IT WebDEV by Group#Group Test (2024-2025) of IT - WebDEV has been APPROVED."		
Post Conditions:		Student is able to receive notification when project is accepted				

Test Case ID: GroupingStudent_TC43	Test Designed by: Stephanie Leigh Mangahas					
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024					
Module Name: Student	Test Executed by:					
Test Title:	Test Execution date:					
Description: Ensure that students can receive notifications when project is rejected						
Pre-conditions:	User is logged in as student					
Dependencies:	Project and user data in the database					
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Click on the notification indicating that the project status is updated	Project Title: "IT WebDEV"	Project is marked as "Approved" and a notification is triggered.	Notification triggered successfully	PASS	
2	Navigate to submissions page		Notification displays that the project is rejected	Notification received with the correct content		

3	Verify the project status is rejected	The notification contains the correct project title, group, and status.	Notification shows: "IT WebDEV by Group#Group Test (2024-2025) of IT - WebDEV has been REJECTED."			
Post Conditions:		Student is able to receive notification when project is rejected				

Test Case ID: Approval_TC44		Test Designed by: Stephanie Leigh Mangahas									
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024									
Module Name: Project Approval		Test Executed by:									
Test Title: Approve a Project		Test Execution date:									
Description: Ensure administrators can approve pending projects											
Pre-conditions:		User is logged in as administrator									
Dependencies:		Project submission module									
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes					
1	Login using the admin account	john.doe@ust.edu.ph, password123	The user will be redirected to the homepage with the admin dashboard visible	The user was successfully redirected to the homepage	PASS						
2	Navigate to the "Pending Projects" page		Pending Projects are displayed	The user was successfully redirected to the approvals page							

3	Select a project from the list	Capstone Project 2024	Project details are displayed	The title of the project is displayed with a button to show full details						
4	Click on the Approve button		Project status is updated to "Approved"	Project is successfully approved						
Post Conditions:		Project is marked as approved.								
Test Case ID: Approval_TC45			Test Designed by: Stephanie Leigh Mangahas							
Test Priority (Low/Med/High): High			Test Designed date: 12/07/2024							
Module Name: Project Rejection			Test Executed by:							
Test Title: Approve a Project			Test Execution date:							
Description: Ensure administrators can reject pending projects										
Pre-conditions:		User is logged in as administrator								
Dependencies:		Project submission module								
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes				
1	Login using the admin account	john.doe@ust.edu.ph, password123	The user will be redirected to the homepage with the admin dashboard visible	The user was successfully redirected to the homepage						
2	Navigate to the "Pending Projects" page		Pending Projects are displayed	The user was successfully redirected to the approvals page	PASS					

3	Select a project from the list	Capstone Failed Project 2024	Project details are displayed	The title of the project is displayed with a button to show full details						
4	Click on the Reject button		Project status is updated to "Reject"	Project is successfully rejected						
Post Conditions:		Project is marked as rejected.								
Test Case ID: Approval_Notification_TC46			Test Designed by: Stephanie Leigh Mangahas							
Test Priority (Low/Med/High): High			Test Designed date: 12/07/2024							
Module Name: Project Notifications			Test Executed by:							
Test Title: Notification for Project Approval			Test Execution date:							
Description: Ensure students can receive a notification when their project status is updated to "Approved"										
Pre-conditions:		Student must have a submitted project								
Dependencies:		Project submission module								
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes				
1	Admin approves a project from the "Pending Projects" list	Capstone Project 2024	The project status is updated to "Approved"	The project is moved to the list of projects						
2	Student receives a notification in their account		The student receives a notification with the correct project name and status	The student successfully received a notification that the project was approved	PASS					

3	Verify the content of the notification displays the correct project name and approval status		The notification displays "Capstone Project 2024" and "Approved".	The notification displays "The project title has been approved"		
Post Conditions:		The notification system accurately informs students of project status updates				

Test Case ID: Rejection_Notification_TC47		Test Designed by: Stephanie Leigh Mangahas				
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024				
Module Name: Project Notifications		Test Executed by:				
Test Title: Notification for Project Approval		Test Execution date:				
Description: Ensure students can receive a notification when their project status is updated to "Rejected"						
Pre-conditions:		Student must have a submitted project				
Dependencies:		Project submission module				
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Admin rejects a project from the "Pending Projects" list and provides feedback	Capstone Project 2024 Feedback: "Please revise your methodology section."	The project status is updated to "Rejected"	The project is rejected but the admin was not able to provide feedback	FAIL	
2	Student receives a notification in their account		The student receives a notification with the rejection status and feedback			

3	Verify the content of the notification displays the correct project name, rejection status, and feedback	The notification displays "Capstone Project 2024," "Rejected," and admin feedback				
Post Conditions:		The notification system accurately informs students of project rejection status and provides the admin's feedback				

Test Case ID: Rejection_Notification_TC48		Test Designed by: Stephanie Leigh Mangahas				
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024				
Module Name: Project Notifications		Test Executed by:				
Test Title: Notification for Project Approval		Test Execution date:				
Description: Ensure students can receive a notification when their project status is updated to "Rejected"						
Pre-conditions:		Student must have a submitted project				
Dependencies:		Project submission module				
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Admin rejects a project from the "Pending Projects" list and provides feedback	Capstone Project 2024 Feedback: "Please revise your methodology section."	The project status is updated to "Rejected" successfully.	The project status is updated to "Rejected" successfully.		
2	Student receives a notification in their account		The student receives a notification with the rejection status and feedback	The student successfully received a notification with a feedback	PASS	

	Verify the content of the notification displays the correct project name, rejection status, and feedback		The notification displays "Capstone Project 2024," "Rejected," and admin feedback	The notification displayed the correct project title, group name, program and specialization, as well as a feedback stating that the project must've been incomplete.		
Post Conditions:		The notification system accurately informs students of project rejection status and provides the admin's feedback				

Test Case ID: Generate_PDF_TC49		Test Designed by: Stephanie Leigh Mangahas									
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024									
Module Name: Document Generation		Test Executed by:									
Test Title: Generate PDF of a project		Test Execution date:									
Description: Ensure users can generate a PDF of a project											
Pre-conditions:		User is logged									
Dependencies:		Project details page									
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes					
1	Navigate to the Capstones page		Capstones page is displayed	Capstones page displayed successfully							
2	Click on "Full Paper" of a project	Capstone Project 2024	Title and description of the project will be displayed	Title and description of the project displayed	PASS						

3	User is redirected to the browser display of the project		Project details are displayed on the screen.	Project details displayed correctly		
4	Click on the "Download" button		PDF of the project is generated and available for download	PDF is generated and available for download		
Post Conditions:		PDF of the project is available for download				

Test Case ID: TAC_Analysis_TC50		Test Designed by: Keane Joshua Lee				
Test Priority (Low/Med/High): Med		Test Designed date: 13/07/2024				
Module Name: Text and Content Analysis		Test Executed by:				
Test Title: Keyword Searching		Test Execution date:				
Description: Verify the keyword searching functionality by searching for a specific keywords from existing projects.						
Pre-conditions:		User is logged in a viewing a project				
Dependencies:		Project data in the database				
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Navigate to the search bar		The user will be redirected to the search page	Search bar is accessible	PASS	
2	Enter a title in the search bar	"title"	All results containing the word searched will be suggested to the user	Search suggestions include the word "title"		
3	Click the search button		The system will show all results containing the keyword	Results containing "title" are shown		

4	Verify that search results are relevant		All displayed results contain the keyword.	All results correctly display the keyword "title."		
Post Conditions:		Search results of files containing the keyword are displayed				

Test Case ID: TAC_Analysis_TC51	Test Designed by: Keane Joshua Lee
Test Priority (Low/Med/High): Med	Test Designed date: 13/07/2024
Module Name: Text and Content Analysis	Test Executed by:
Test Title: Keyword Searching	Test Execution date:

Description: Verify the keyword searching functionality by inputting a year in the search bar

Pre-conditions:	User is logged in a viewing a project
Dependencies:	Project data in the database

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Navigate to the search bar		The user will be redirected to the search page	Search bar is accessible		
2	Enter a year in the search bar	2024	All results containing the word searched will be suggested to the user	Search bar is displayed successfully	FAIL	
3	Click the search button		The system will show all results containing the year	"No Capstone Projects Fetched" is displayed		
4	Verify that search results are relevant		All displayed results contain the keyword.	The message "No Capstone Projects Fetched"		

				appeared		
Post Conditions:	Search results of files containing the keyword are displayed					

Test Case ID: TAC_Analysis_TC52		Test Designed by: Keane Joshua Lee									
Test Priority (Low/Med/High): Med		Test Designed date: 13/07/2024									
Module Name: Text and Content Analysis		Test Executed by:									
Test Title: Keyword Searching		Test Execution date:									
Description: Verify the keyword searching functionality by inputting a year in the search bar											
Pre-conditions:		User is logged in a viewing a project									
Dependencies:		Project data in the database									
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes					
1	Navigate to the search bar		The user will be redirected to the search page	Search bar is accessible	PASS						
2	Enter a year in the search bar	2024	All results containing the word searched will be suggested to the user	Search bar is displayed successfully							
3	Click the search button		The system will show all results containing the year	The system shows results of capstones uploaded in the year 2024							
4	Verify that search results are relevant		All displayed results contain the keyword.	All displayed results contain projects uploaded in 2024							
Post Conditions:		Search results of files containing the keyword are displayed									

Test Case ID: Role_Management_TC53		Test Designed by: Stephanie Leigh Manghas									
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024									
Module Name: User Management		Test Executed by:									
Test Title: Change User Role		Test Execution date:									
Description: Ensure administrators can change faculty roles											
Pre-conditions:		User is logged in as an administrator									
Dependencies:		User accounts									
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes					
1	Navigate to the "Users" page		Users page is displayed	Manage roles page displayed successfully	PASS						
2	Select a member from the list	John Doe	Faculty member details are displayed	John Doe's details displayed successfully							
3	Click "Update" button		The system allows editing of the selected faculty member's role	"Update" button clicked successfully							
4	Choose a new role from the dropdown	Capstone Coordinator	New role is selected from the dropdown	"Capstone Coordinator" selected correctly							
5	Click on the "save" button		Role of the selected faculty member is	Role updated successfully							

			updated successfully			
Post Conditions:	Faculty members' role is updated					
Test Case ID: Role_Management_TC54	Test Designed by: Mary Julia Sharina A. Malagayo					
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024					
Module Name: User Management	Test Executed by:					
Test Title: Change User Role	Test Execution date:					
Description: Ensure administrators can delete retired/resigned faculty members						
Pre-conditions:	User is logged in as an administrator					
Dependencies:	User accounts					
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Navigate to the "Users" page		Users page is displayed successfully	Users page displayed successfully	PASS	
2	Select a retired/resigned faculty member from the list	John Doe	Faculty member details are displayed	John Doe's details displayed correctly		
3	Press the "Delete" button		The system will ask the user to confirm the decision	Confirmation prompt appeared successfully		
4	Click on the "Yes" button		The retired/resigned faculty member will	John Doe removed from the list successfully		

			be deleted from the list			
Post Conditions:	The list of faculty members are successfully updated					
Test Case ID: Role_Management_TC55	Test Designed by: Stephanie Leigh Mangahas					
Test Priority (Low/Med/High): High	Test Designed date: 12/07/2024					
Module Name: User Management	Test Executed by:					
Test Title: Change User Role	Test Execution date:					
Description: Ensure admins can deactivate accounts successfully						
Pre-conditions:	User is logged in as an administrator, student accounts must exist					
Dependencies:	User accounts, database connection					
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Navigate to the "Users" page		Users page is displayed	Users page displayed successfully	PASS	
2	Select a student account	John Doe	Faculty member details are displayed	John Doe's account details displayed		
3	Press the uncheck "Is Active" checkbox		The system will ask the user to confirm the decision	No prompt was shown		
4	Click on the "Update" button		The student will be updated from the list	Student account was updated (deactivated)		

5	Verify that the student can no longer log in		Student can no longer log in	Student cannot log in after deactivation		
Post Conditions:		The account is securely deactivated				

Test Case ID: Logout_TC56		Test Designed by: Stephanie Leigh Mangahas									
Test Priority (Low/Med/High): High		Test Designed date: 12/07/2024									
Module Name: Authentication		Test Executed by:									
Test Title: Successful Logout		Test Execution date:									
Description: Ensure users can logout of the system											
Pre-conditions:		User is logged in									
Dependencies:		User login module									
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes					
1	Click on the "Logout" button		User is logged out and redirected to the login page	The user is logged out successfully and was redirected to the login page	PASS						
Post Conditions:		User is logged out of the system									