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RIZAL TECHNOLOGICAL UNIVERSITY
Cities of Mandaluyong and Pasig
INSTITUTE OF COMPUTER STUDIES



**Online Student Application for Expanded Tertiary Education Equivalency
and Accreditation Program (ETEEAP) for Rizal Technological University**

**A Capstone Project Presented to the Faculty
of the Institute of Computer Studies
Rizal Technological University**

**In Partial Fulfillment of the Requirements for the Degree of
Bachelor of Science in Information Technology**

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APPROVAL SHEET

This Capstone Project 1 entitled, "**Online Student Application for Expanded Tertiary Education Equivalency and Accreditation Program (ETEEAP) for Rizal Technological University**", prepared and submitted by CONCEPCION MICHELLE, DAHUNOG SWEET HEART, GATONGAY AARON, SANDAGAN CHRISTIAN JEDH, and VALENZUELA KARL LOUISE, in partial fulfillment of the course requirements for the degree of **BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY**, has been examined and recommended for acceptance and approval for Oral Examination.

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Director, Institute of Computer Studies

Date: _____



DEDICATION

This capstone project is dedicated to the staff and admins of the Institute of Flexible Learning and Digital Education (IFLDE) of Rizal Technological University at Mandaluyong City, whose commitment contributed with us to enhance their document tracking efficiency through a web-based process project. With the approach of digitalizing document management for applicants that are applying for credentials.

We also dedicate this capstone project to our families and loved ones whose unwavering support has inspired us to thrive in this field and follow through our dreams. Your love, encouragement and guidance have been our strength through the challenges of our academic journey. To our parents, we extend our deepest gratitude to the sacrifices you've made, all in the hope of a brighter and promising future for us. Thank you for walking beside us every step of the way.

We hope this project serves as a meaningful step toward improve their document tracking system and reducing the vulnerabilities in manual applications. Providing tools and solutions in managing documents securely in better conditions, supported by IT students associated within the development and design of this project to achieve the goal of completing the ETEEAP document tracking system.



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CHAPTER I PROJECT BACKGROUND

Introduction

The Expanded Tertiary Education Equivalency and Accreditation Program (ETEEAP), established by Executive Order 330 in 1996 and administered by Commission on Higher Education (CHED) under CMO No. 29, Series of 2021, grants college credits or degrees based on work experience. Partnering with institutions like Rizal Technological University (RTU) and its Institute of Flexible Learning and Digital Education (IFLDE), ETEEAP evaluates prior learning through the Credit for Learning from Competencies and Skills (CLCS) mechanism, reducing the time and effort needed to earn academic credentials.

To qualify for ETEEAP, applicants must be Filipino citizens at least twenty-three (23) years old, possess a minimum of five (5) years of work experience in a field related to the academic program for which they seek equivalency, and be able to prove their expertise through relevant training and certifications obtained from their professional experiences.

To modernize the application and accreditation process, this research proposes the development of a web-based ETEEAP Tracking System for Rizal Technological University-IFLDE. This system will facilitate online tracking of applications, submission of required documents, and online assessments, thereby enhancing productivity, accessibility, and transparency within the program.



Project Background

The Expanded Tertiary Education Equivalency and Accreditation Program (ETEEAP) offers individuals a path to earn degrees by accrediting prior learning and professional experience. At Rizal Technological University's (RTU) Institute of Flexible Learning and Digital Education (IFLDE), the program plays a key role in providing accessible education to working professionals, including Overseas Filipino Workers (OFWs). However, the current reliance on email and in-person submissions for document tracking is inefficient, leading to delays and difficulties in managing documents for both staff and students.

These challenges are especially impactful for OFWs and local applicants in long distances, who face distance, time zone differences, and limited access to campus resources. The lack of a streamlined system causes delays in processing, insufficient real-time updates, and an increased risk of document mismanagement, undermining the program's goal of accessibility and inclusivity.

To resolve these issues, the proposed web-based document tracking system will automate and digitize submission and tracking processes. It will include features like real-time status updates, electronic submissions, and automated notifications for missing or incomplete documents. A centralized database will allow administrators to manage records more efficiently, reducing delays and enhancing transparency.



RTU's ETEEAP focuses on non-board courses such as Business Administration, Public Administration, Office Administration and Information Technology. By automating document processing, the program can better support students in these fields, ensuring a smoother and more efficient accreditation process.

Several universities in the Philippines also offer the ETEEAP program, including Pangasinan State University - Asingan Campus, Don Mariano Marcos Memorial State University (DMMMSU), Central Luzon State University, Baguio Central University, Our Lady of Fatima University, and De La Salle-College of Saint Benilde. These institutions contribute to the recognition of prior learning, helping students from diverse backgrounds achieve their educational goals.

The new system will improve application processing, especially for OFW Applicants, by providing an efficient, accessible solution for managing documents from abroad. This will set a benchmark for other ETEEAP-offering institutions, fostering a more inclusive and effective accreditation process for all learners.



Objectives of the Study

The study aims to develop a web-based application for ETEEAP at Rizal Technological University, enhancing document tracking and management for applicants and supporting IFLDE staff. This study is set:

To Implement an intuitive and user-friendly website that displays the set of guidelines regarding ETEEAP application, that will provide simplicity and clarity for potential applicants aspiring to attain academic degree.

To Implement digital document submission and tracking website platform to allow applicants to efficiently submit and track their application in real-time.

To Improve accreditation and document process for IFLDE staff specifically that contain applicants work experiences and skills.

To implement clear and consistent communication and connection between applicants, assessors, and administrators, allowing for easy access to relevant information and updates.

To Improve document administration for staff from Institute of Flexible Learning and Digital Education at Rizal Technological University Boni Campus



Significance of the Study

This study aims to improve the Expanded Tertiary Education Equivalency and Accreditation Program (ETEEAP) at Rizal Technological University (RTU) by implementing a web-based document tracking system. The system will streamline the document review process, reducing manual handling and improving efficiency.

By enabling applicants to submit and track their applications online, the system will speed up processing times and provide greater transparency. It will also enhance accessibility for individuals unable to obtain a degree through traditional means, offering them an efficient way to apply for tertiary education equivalency.

The proposed system will not only benefit applicants but also reduce the administrative workload, minimizing errors and improving overall service delivery. This study is significant in modernizing the ETEEAP, ensuring a more efficient and accessible process for all stakeholders.



Applicants

ETEEAP Document Tracking System for applicants lies in its ability to streamline the application process, making it more efficient and accessible. To be eligible, applicants must be Filipino citizens aged 23 or older, and employed applicants must have at least five years of experience in a field related to the academic degree program. The proposed system will allow these applicants to submit and track their applications online, reducing delays and uncertainties. By enhancing the accessibility and speed of processing, the system will provide a smoother experience for applicants, enabling them to demonstrate their qualifications more effectively.

IFLDE Administrators

The ETEEAP Document Tracking System is its potential to simplify the overall administration of the program. The system will allow administrators to coordinate the entire ETEEAP process with CHED more efficiently, ensuring compliance with institutional and regulatory standards. With automated tracking and streamlined communication, administrators can better monitor the progress of applications, reduce manual errors, and ensure that all stages of the equivalency and accreditation process align with the necessary guidelines. This improved efficiency will contribute to a smoother, more transparent operation of the program.



The College ETEEAP Coordinator plays a vital role in the success of the program, particularly for non-board courses, by overseeing the recruitment, selection, and admission of applicants. The ETEEAP Document Tracking System will enhance this role by offering a centralized platform to manage and monitor applications. This system will streamline processing, improve communication with applicants, and facilitate better coordination between the college and administrative bodies. By automating these tasks, the system will allow the coordinator to focus on ensuring the smooth selection and support of applicants throughout the program.

Assessors

The role of the Assessors is to ensure that applicants meet the established standards, resulting in a high-quality and credible program. This solidifies academic qualifications by aligning them with industry needs from both academic and industry perspectives, thereby elevating the program's relevance and usefulness.

Internal Assessors, primarily college IFLDE faculty members, are responsible for evaluating applicants in line with internal standards and policies. The ETEEAP Document Tracking System will support them by providing a streamlined process for tracking and managing evaluations. This will ensure consistency in assessments and improve alignment with the institution's goals, making the evaluation process more efficient and transparent.



External Assessors from Commission on Higher Education (CHED) offer an independent perspective, ensuring impartiality and credibility in the evaluation process. The proposed tracking system will help external assessors access relevant documents and track the status of assessments, facilitating a more organized and transparent evaluation process. This enhances the credibility of the program while ensuring compliance with external regulatory standards.

Scope and Limitations

This study focuses on the development of a Document Tracking System, accessible to Applicants for the Expanded Tertiary Education Equivalency and Accreditation Program at the Institute of Flexible Learning and Digital Education.

Scope

Applicants

The system will facilitate digital submission and tracking of required documents, enabling applicants to efficiently manage their applications and monitor progress remotely in real-time.

An intuitive homepage will provide clear guidelines and requirements for ETEEAP applications, simplifying the process for potential applicants seeking to earn an academic degree.



The Google account log-in feature in the ETEEAP Tracking System streamlines user authentication by integrating a secure and familiar platform. This feature allows users, such as applicants, assessors, and administrators, to access the system using their existing Google credentials, eliminating the need for additional account creation.

The ETEEAP Tracking System's application timeline feature gives applicants a clear view of their progress, covering key stages like document submission, portfolio completion, admin approval, assessor review, evaluation, and final results. With timestamped milestones and real-time updates, it ensures transparency, clarity, and reduces uncertainties.

Admins

A secure administrative dashboard will be developed, enabling administrators and assessors to oversee application status, manage workflows, and carry out tasks related to document review and approval.

Role-based access permissions will be established, ensuring secure and appropriate access for different user groups, including administrators, assessors, and applicants.

The admin in the ETEEAP Tracking System is responsible for approving the initial screening of the applicants whether their supporting documents claims that they are qualified for the ETEEAP Program and also the course they applied for.



The admin can access and view the list of applicants, assessors, users and activity logs, enable them to efficiently monitor application progress, track assessor's assigned applicants and review system activities for better document management and transparency.

Admins can manage academic information by adding, editing, or updating departments, courses, and subjects, ensuring the system stays current and aligned with institutional needs. This supports a structured framework for organizing academic offerings and integrates program details into the tracking and evaluation processes.

Enabling administrators to add new document categories and archive records within the ETEEAP Tracking System. This feature allows for customized document classification, better organization, and archiving securely stores inactive or completed records, ensuring data preservation and maintaining an efficient system for active processes.

Submitted documents will be processed and stored in a centralized digital database, providing authorized users with streamlined access and efficient workflow management.



Assessors

Assessors can evaluate applicants by rating and commenting on their educational qualifications, work experience, professional achievements and interview, which also determines whether the applicant is approved for ETEEAP program based on their score, lastly, assessors can accredit applicant's prior learning experiences and competency into credited units.

For All Users

The secure login feature ensures that all users, including administrators, faculty assessors, and applicants, can access the ETEEAP tracking system safely. Each user is assigned unique login credentials to protect their accounts and prevent unauthorized access.

Real-time tracking and notification features will keep applicants, administrators, and assessors updated on the receipt, review, and approval of documents, ensuring transparency throughout the process.

Provide Chat system for all users in the ETEEAP Tracking System includes enabling real-time communication between students, coordinators, and administrators, facilitating quick resolution of queries, and enhancing overall efficiency in document processing.



Limitations

The lack of a mobile user interface (UI) in the current system limits the accessibility and usability for applicants, administrators, and assessors. The absence of a mobile-friendly platform hinders the ease of managing and tracking documents while on the go.

No-payment method for ETEEAP Tracking System is limited by its reliance on institutional resources for maintenance. It is tailored to the IFLDE at Rizal Technological University, limiting its generalizability to other institutions.

The ETEEAP Tracking System focuses on managing applications and documents but does not include an enrollment feature. This limitation ensures the system remains streamlined and avoids the complexities of handling enrollment processes, which are managed by the university's existing systems.

The system might only support specific file formats (e.g., PDF or Word), limiting its ability to accommodate diverse document types, such as multimedia files, spreadsheets, or interactive forms. This restriction could hinder users from submitting certain types of documents, such as presentations, images, or complex data sets, which are essential in some cases for the ETEEAP process.



Definition of Terms.

Applicants – Refers to Individuals applying for ETEEAP accreditation who use the system to submit documents, track application progress, and receive updates and guidance throughout the process.

Assessor - refer to a assessor supports and assesses students working towards a vocational qualification within a college, training centre, or workplace.

Automated - refers to the use of technology to streamline processes like document submission, categorization, tracking, notifications, and updates, reducing the need for manual intervention.

College ETEEAP Coordinator – refers to a faculty or staff member who facilitates ETEEAP processes by organizing documents, tracking progress, ensuring CHED compliance, and addressing student concerns.

Document Management – refers to a system or process used to capture, track and store electronic documents such as PDFs, word processing files and digital images of paper-based content.



Document Tracking – refers to the process of maintaining a record of a document's life cycle.

End-User - refers to a person or other entity that consumes or makes use of the goods or services produced by businesses

External Assessors - refers to an expert who is not an employee of the University but who is appointed by the University to assess students' work.

ETEEAP - A government program in the Philippines that allows professionals to earn a college degree by accrediting their work experience, skills, and prior learning as equivalent to formal education.

IFLDE Administrators – refers to Institutional members that oversees the handling of documents, including receiving, filing and storing office documents and paperwork, assigning applicants regards of their document process.

Internal Assessors – refers to College faculty members responsible for evaluating documents and processes to ensure alignment with internal standards and policies, maintaining consistency with the institution's goals.



Monitoring – refers to a continuous process of collecting, analyzing, and using information to track the progress of a project, program, or policy toward its intended objectives.

Role-Based Access Control – is a security model that restricts system access based on a user's role, granting permissions specific to their responsibilities.

Scalability – refers to the ability of a computer application or product, hardware or software, to continue to function well when its context, is changed in size or volume in order to meet a user need.

Transparency – refers to a condition where the material facts of an enterprise are made available in a timely, and preferably reusable, manner.



CHAPTER II

REVIEW OF RELATED LITERATURE AND SYSTEMS

The ETEEAP Document Tracking System was designed to enhance the management process and tracking of documents for students in the Expanded Tertiary Education Equivalency and Accreditation Program, which includes overseas Filipino workers as adult learners. Ensuring higher the security and management of documents by transferring its processing from manual to digital submission and tracking. From related literature review, insights on similar systems and digital solutions in education could be drawn to provide the best practices that can support an efficient document tracking system for ETEEAP.

Related Literature

Document Tracking System

According to Bala and Muhammad (2020), file tracking has been one of the significant difficulties that organizations have faced for years. Schools are among such educational institutions, which handle a lot of data. Therefore, in regard to administrative staff that manages files in manual systems, searching through them is always time-consuming and tiresome. Throughout the years, studies have been aimed at finding solutions by developing effective file monitoring systems, which ensure easier access to various documents and other data.



A document tracking system that promotes administrative efficiency based on real-time location updates, access, and traceable history of interactions. The system increases accountability and reduces the risk of misplaced documents while streamlining document handling and enhancing organizational workflow (Flynn, Quilon ,& Arruejo,2022).

The proposed system centralized document management, enabling departments to share and track documents efficiently through a unique tracking code, supporting workflow transparency and archiving. The system ensures adaptability and alignment with user needs, facilitating collaboration and timely adjustments. (Hermosa, 2023).

Baranova (2024) explores how digitalizing document management in medical organizations can streamline workflows, lower costs, and improve overall efficiency. The study's content analysis shows that document management systems play a key role in supporting electronic patient records, boosting data security, and reducing the risk of losing important documentation.

Automated Document Management

Panfilova et al. (2024) consider the impact of the implementation of automated platforms on electronic document management and systems analysis in the organization. The primary outcomes of their study include the following: such implementations simplify document processing, minimize errors, reduce



manual tasks, enhance efficiency, reduce personnel costs, and scale of the operation.

Puri and Selokar (2023) discussed the benefits of file monitoring systems in the organization's management of information flow. For instance, they pointed out that such systems could centralize document storage, automate tasks, and even security since every document is assigned a unique identifier for easy retrieval.

Accreditation Document Tracking System (ADTS), is a web-based tool that tracks documents departmentally. This is done with regards to the status and progress of documents because it significantly reduces delays and dislocation. The system develops efficiency and adequate tracking of document location, which allows for implementation, and the submission timeline will satisfy any informed requirements-it's a pragmatic solution for effective management of documentation (Salleh et al., 2020).

Security of Document Management

Information security is crucial in document management, as breaches can damage a company's reputation and competitive edge. Traditional storage faces access and compliance issues, while electronic systems like Athento provide secure digital access, full auditing, and streamlined compliance. With businesses going digital, a robust DMS is essential for strengthening data protection, simplifying management, and maintaining customer trust (Aguirre, 2023).



Related Systems

ETEEAP Document Tracking Systems

The DepEd Zamboanga Document Tracking System and the DepEd Enterprise Human Resource Information System (eHRIS) are web-based, making them efficient within the Department of Education. The tracking system allows users to monitor the documents electronically, thus saving much space outside and with fewer chances of losing specific files. Some of the main features of the system include a document submission and approval process, followed by tracking and monitoring, electronic storage and retrieval, and automated notification messages (DepEdzn, 2023).

The Document Tracking System (DTS) at the University of the Philippines (UP) provides an efficient way to manage and track documents across its various offices. Its features include a document registry that sorts and stores documents and a submission tool for documents which includes templates as well as metadata, along with a task monitor used for managing assignments and keeping track of progress. Real-time Document Tracking tracks from the moment that the document is submitted until it reaches the approval stage and is archived. This can be accessed based on a role-based permission in administration as well as users. One of the features of Document Approval to simplify multiple levels of approval is an auto-notification feature. System Announcement keeps everyone posted on updates and events as well (UPIITDC, 2022).



The CHED ETEEAP website is very accessible to those who are interested in other alternative education routes because it provides information on Expanded Tertiary Education Equivalency and Accreditation Program (ETEEAP), including its benefits and eligibility, and contains detailed procedures for application. Simple yet responsive design has made the site accessible, wherein applicants could fill out, upload, and make payments on their applications, track their application status, and there are FAQs and a support contact in guiding users through the process.

The Benilde ETEEAP Document Tracking System is a web-based tool that enables applicants to manage their application process by submitting required personal and educational information, uploading documents, and tracking the status of their applications. It includes automated notifications that keep applicants updated about deadlines as well as the results of their evaluations; this provides a smooth interface for the management of tasks along with tracking of pending items. Thus, authorized personnel can manage, store and review documents efficiently, cut down on paperwork, and become transparent throughout the process of application as well as during the evaluation.

The CLSU ETEEAP Tracker is an online application system, where students, faculty and administrators could apply for the ETEEAP process. Applicants could upload documents and check the status of their evaluation,



authorized persons could view and even feed comments on the applications, and administrators can manage user accounts and generate reports of the processing at each level of the journey of the applications. Automated notifications are also offered to ensure smooth communication and efficient processing along the entire application journey.

The DepEd Cotabato Document Tracking System website has logged in without the availability of a login access facility for the user. Features of the website include Accessibility Features with different browsers' shortcuts by which the users can quickly navigate around the site. Users can quickly access different sections of the site like the Home Page, Main Content, FAQ, Contact, Feedback, Site Map, and Search pages by using shortcut key combination.

Advancements in Automated Document Tracking Systems

Bala and Muhammad (2020) discuss the issues associated with manually tracking files in institutions. They point out that large volumes of data make searching for files time-consuming and labor-intensive. Their research work aims to propose an automated file tracking system that improves efficiency. The work has been developed based on staff feedback, modeled through UML diagrams and database design tools. This system would indeed allow for streamlining the flow of files with reportable tracking on decisions and requests together with location histories allowing timely access to needed information.



Syamsuddin and Yunianta (2021) present DocManS, a document management system that they have developed to address some major shortcomings in currently used systems, especially regarding security and social media functionality. The authors test DocManS with respect to usability by applying SUS, which scored in the B range, meaning that it would be used well. Authors propose changes that would make this system more palatable to the user. Changes will include making the system more user-friendly by allowing for secure information sharing while enhancing the standards of privacy.

Imeri et al. (2024) introduce EzDesk, a Document Management System (DMS) tailored to streamline conference-related document handling at the University of Tetova. The system aids users in managing pre-conference tasks like registration and document verification, using a UX-focused RMS (Recognize, Materialize, Scrutinize) design approach to meet usability standards. With roles for both conference organizers and administrators, the system facilitates efficient conference validation and publication, enhancing document control and visualization.

Almacen and Cabaluna (2021) explore the potential of an Electronic Document Management System (EDMS) in enhancing healthcare in the Philippines, especially in the wake of digital transformation accelerated by COVID-19. They discuss the benefits of EDMS for consistent patient record



keeping but highlight concerns about sustainability and the adaptability of such systems in a developing healthcare infrastructure.

Synthesis

Introducing technology in document management is something very essential in modern organizations. Many researchers have proven and actual systems wherein the tracking of documents by streamlining and automating could significantly benefit them. Efficiencies and controls in institutions are greatly enhanced, with fewer errors and improved overall performance. Studies like those of Bala and Muhammad (2020) illustrate how streamlining systems put critical information at one's fingertips while also reducing operational loads.

Some recurring themes in different implementations are user accessibility and system adaptability, which could be seen in Benilde ETEEAP Document Tracking System and CLSU ETEEAP Tracker. That system includes advance intuitive interfaces and automated notifications to the user, which gives a user-friendly interface, and lets updating on the status of their different documents, hence making academia and admin responses better and even faster.

Another critical area of document management is security, as pointed out by Aguirre (2023) through access control and digital protection of data. The tracking of documents through the UP Document Tracking System and other



DepEd platforms emphasizes assignment levels to make sure the sensitive data remains protected, thus reducing the compliance risks and supporting accountability among users.

Centralized digital document systems enable access while also supporting accountability in documents but also increase productivity and streamline workflows across departments. Further development is possible about the adoption of automated document management, even including artificial intelligence and machine learning for optimal handling of documents and a further simplification of user experience. These system studies and the features as mentioned in such works will form the basis of the development of the Expanded Tertiary Education Equivalency and Accreditation Program for Rizal Technological University.



CHAPTER III

DESIGN AND METHODOLOGY

Technical Background

This chapter provides an overview of the technical aspects and technologies used in developing the Web-based System for the Expanded Tertiary Education Equivalency and Accreditation Program (ETEEAP) at Rizal Technological University.

Technicality of the Project

The Web-based System for the ETEEAP of Rizal Technological University allows for manageable, recorded applicants for the ETEEAP program to ensure smooth interaction among all staff, administrators, and applicants in providing an easy-to-use interface for handling applicant records, tracking development, and ensuring easy accreditation.

A web-based system for the ETEEAP at Rizal Technological University would modernize and simplify processes in making an application and accreditation, bringing it to efficiency, transparency, and accessibility among all stakeholders concerned. Utilizing technology will therefore enable Rizal Technological University to be more efficient in its services of working



professionals yearning to complete their equivalency in tertiary and acquire credentials for career advancement.

Web-based System for the Expanded Tertiary Education Equivalency and Accreditation Program (ETEEAP) at Rizal Technological University, implementing Role-Based Access Control (RBAC) would help ensure that users can only access the features and data they are authorized for based on their role. The applicant is a student or an adult learner with usually prior learning or experience that he wants to get accredited. The student can apply by filling up the ETEEAP application form. They can thus apply to submit all the required papers, track their applications' status- pending, approved, or declined; see an overview of application procedures and requirements, and seek help support if needed.

Admins are users who have been given the full management of the ETEEAP website. Can be university personnel or system administrators. They deal with data about applicants, which include: viewing, editing and deleting applicant profiles; Approving/Rejecting applicants' applications; Assigning Assessors for the candidates' submissions; Determining the time and practice standards of the process of application submission. Manage roles- add, remove, and assign responsibility. Beyond maintaining the system so that it is functional and secure, you will be able to view and generate reports on the application and approval data, Inform applicants of changes in status.



The assessors have a right to assess the portfolio submitted by the applicant among other documents. Consider the qualifications and evaluate them based on the set rules or rubrics. Approve or decline or request the applicant to revise the submission. Provide feedback about the applicant's submission. Upload any report or evaluation. Look at the applicants that have been assigned to him and evaluate, then forward them and any final recommendations for approval by the administrator.

Table 1

Minimum System Specification

Minimum System Specification	
Processor	2.0 GHz dual-core processor
Memory	4 GB RAM
Storage	20 GB of available disk space
Operating System	Windows 10
Device Type	Laptop or computer
Internet Connection	25mbp/s internet
Web Browser	Chrome, Firefox, or Edge

Note. The Minimum System Specification outlines the essential hardware and software requirements to ensure the efficient performance of the ETEEAP Document Tracking System.



Table 2.

Required System Specification

Required System Specification	
Processor	2.5 GHz quad-core or higher
Memory	8 GB RAM or more
Storage	50 GB of available disk space (SSD recommended for better performance)
Operating System	Windows 10 or 11
Device Type	Modern Laptop or computer
Internet Connection	100mbp/s
Web Browser	Latest versions of Chrome, Firefox, or Edge (with JavaScript enabled)

Note. The Required System Specification defines the optimal hardware and software setup for the seamless operation of the ETEEAP Document Tracking System.

Backend

The ETEEAP Document Tracking System utilizes a backend built with Node.js for handling asynchronous tasks such as user authentication, document management, and real-time updates. Upon login, the system securely validates user credentials and manages session control, ensuring authorized access to system features. The backend integrates with MongoDB, storing flexible, unstructured document data such as metadata, status updates, and user



interactions. For document uploads, the system securely stores files and tracks document statuses, ensuring that only authorized users can access or modify specific documents based on their roles. The system also enforces Role-Based Access Control (RBAC) to manage user permissions and ensure secure access to the system's features.

Frontend

The frontend of the ETEEAP system uses HTML, CSS, and JavaScript to create a dynamic, responsive, and interactive user interface. Users can securely log in and upload documents through intuitive forms. Document statuses are displayed in real-time on the user's dashboard, with notifications for status changes or comments. The system ensures secure session management and efficient document tracking, providing a seamless experience for applicants.

Functional and Non-Functional Requirements

The **functional requirements** of the ETEEAP Document Tracking System include the ability for applicants to submit and track their applications digitally, allowing them to monitor their progress remotely. The system must provide clear guidelines and requirements through an intuitive homepage, with Google login integration for secure authentication. It should also feature an application timeline with real-time updates and milestone tracking to ensure transparency. For administrators, the system must provide a secure dashboard



to manage application statuses, workflows, tasks, and ensure role-based access control for different user levels (admins, assessors, and applicants).

Admins should have tools for screening applicants' qualifications, course selection, and managing applicants, assessors, users, and activity logs. There should also be features for managing departments, courses, and subjects, as well as options to categorize and archive documents for better organization. Assessors should be able to evaluate applicants' qualifications, provide ratings, and accredit prior learning into academic credits. For all users must have real-time notifications for document progress updates, and a chat system for communication among applicants, administrators, and assessors.

Search and filtering capabilities enhance document management efficiency. Users can locate specific submissions by searching with identifiers such as Document ID or User ID. Advanced filtering options, including date, status, and category, improving productivity by making it faster and easier to find relevant materials from large collections.

The **non-functional requirements** of the system include ensuring scalability to accommodate varying numbers of applicants, assessors, and administrators. The system should be highly available, ensuring uninterrupted access for all users, with minimal downtime. It must also prioritize data security, including secure user authentication through Google login and secure storage of personal and academic records.



The system should be responsive and optimized for desktop platforms to support users computer devices. Additionally, it should have high performance, capable of handling multiple users simultaneously without significant delays in processing or communication. Usability is also crucial, as the interface must be intuitive for users of varying technical backgrounds, ensuring ease of use for applicants, administrators, and assessors. Lastly, the system must be reliable, offering accurate and Compliance with data privacy laws, especially those of Rizal Technological University, is essential for protecting user privacy and supporting the ETEEAP's integrity. The system's document workflow ensures clear submission and approval steps, improving efficiency, while robust error handling guides users through common issues.



Design of Software, System and Processes

The ETEEAP Document Tracking System is structured on a client-server infrastructure, ensuring the smooth management of documents within a streamlined and secure environment for the users to access the system. System Architecture is developed with the three-tier architecture, with obvious cleavage: the client interface, the server-side application, and the database layer.

For the client layer, the web-based user interface has been developed using HTML, CSS, and JavaScript such that the student, the faculty member, and the staff can work with the system from any other device. It is also supported by a PHP backend when dealing with requests, processing the business logic, and applying the principles of Object-Oriented Programming for code reusability and modularity. Role-based access as well as secure session management protocols are applied to ensure only authorized users will have an access to or modify documents according to their designated roles.

For data security layer, the server layer entails password management protocols, session handling, and user authentication in preventing unauthorized access. This database layer thus organizes, stores, and track all ETEEAP documents and metadata in an efficient way in order to allow streamlined tracking and data management capabilities.



A set of diagrams—the Use Case, Data Flow, and Entity-Relationship Diagrams (ERD)—elaborate further on the system architecture, capturing user interaction, process within the system, and data relationship, thus preparing for the future scalability and maintainability of the design.

Table 3.

UI Interface Design Specification

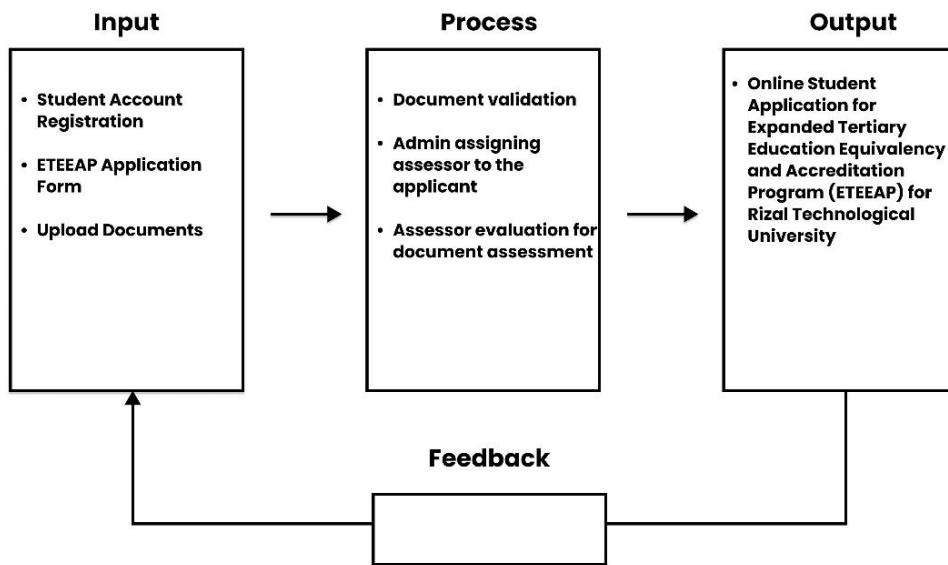
Look and Feel	Minimal and User-Friendly Interface
Color Palette	IFLDE Color Scheme (Purple, White and Light Purple Shades)
Theme	Following modern web designs principle.
Desktop Environment	Windows Desktop
Chatbox Design	Typical chatbox with chat header
Repository	GitHub
Security Features Notification	Toastify for error alerts and successful messages.

Note. The UI Interface Design Specification outlines the standards and principles for creating a user-friendly and intuitive interface for the ETEEAP Document Tracking System. The design should prioritize simplicity and accessibility, ensuring seamless navigation for users of varying technical expertise.



Figure 1

Conceptual Framework



Requirements Modeling

The proposed system is intended to replace the traditional way of applications and submission of requirements where applications and document submission were primarily paper-based. Applicants would fill out physical forms, often requiring multiple copies and submit them in person or by email.

Input

The system enables student account registration, allowing users to create profiles with accurate information. It offers an online ETEEAP application form to collect applicant details and qualifications. Applicants can upload supporting



documents, such as transcripts and certificates, which are validated for authenticity and completeness. The system includes document ranking based on set criteria and provides real-time status tracking for applicants to monitor their progress. Administrators can assign applicants to assessors for review, while both administrators and assessors have access to view, evaluate, and download documents. Additionally, the system supports report generation for administrative purposes.

Process

The document validation process ensures all input data and documents are accurate, complete, and compliant with requirements. After validation, administrators assign assessors to specific applicants for structured evaluation. Assessors thoroughly review applications, approving or rejecting documents based on their assessments. The system supports real-time status updates, allowing administrators and assessors to make dynamic changes instantly visible to applicants. Submitted documents are securely stored for organized access and reference, while robust data security measures safeguard sensitive information from unauthorized access, maintaining the integrity of the tracking process.



Output

The system provides real-time status updates, keeping applicants informed about the progress of their applications and the status of their submitted documents. A document action log is maintained to track every action performed on documents, including viewing, acceptance, and rejection, ensuring transparency and accountability. Additionally, the system supports the generation of approved applicant lists, which can be exported in various formats such as CSV or Excel, streamlining reporting and administrative tasks.

Feedback Loop

The system includes a feedback loop to support continuous improvement. User feedback on usability and functionality is collected, analyzed, and used to identify areas for enhancement. This allows the system to adapt to user needs, streamlining the ETEEAP application process, improving efficiency, and increasing user satisfaction.

User-Interface

The researchers used Figma to design a user-friendly UI for the ETEEAP Document Tracking System, focusing on intuitive navigation for easy access to key features like document submission and status tracking. Modern design principles ensure usability, while Figma's collaborative tools allowed real-time feedback for a cohesive, functional interface.



Prototype of ETEEAP Document Tracking System

Figure 2

Applicant Log In Page

Rizal Technological University
Institute of Flexible Learning & Digital Education

ETEEAP ONLINE ADMISSION
Rizal Technological University

Login

Email

Password

[Forgot your email or password?](#)

Login

Continue with Google

[Register Here](#)

Figure 2.1

Applicant Registration Page

Rizal Technological University
Institute of Flexible Learning & Digital Education

ETEEAP Tracking System
Rizal Technological University

Register

Email

Password

Retype password

[Data Privacy Notice:](#)
Rizal Technological University is dedicated to protecting your privacy information as required by Data Privacy Act of 2012.

Submit

Continue with Google



Figure 2.1.2

Recover Account Page

The screenshot shows a web page titled "ETEEAP Tracking System" for Rizal Technological University. At the top, there are two logos: the official university logo and the logo for the Institute of Flexible Learning & Digital Education. A navigation menu includes links for Home, About Us, Downloads, Services, and News. The main content area features a large banner image of a city skyline at night. Overlaid on this is a white rectangular form with a purple header that reads "Recover Account". The form contains a single input field labeled "Email" with the placeholder "Enter your email" and a purple "Send" button below it. A small back arrow icon is located at the bottom left of the form.



Figure 2.2

Home Page

The screenshot shows the homepage of the ETEEAP program. At the top, there are two small logos: "BAONG PILIPINAS" and the "Rizal Technological University Institute of Flexible Learning & Digital Education". The main title "Rizal Technological University" is displayed prominently. Below it, the program title "Expanded Tertiary Education Equivalency and Accreditation Program" is shown. A banner at the top features a cityscape background and the text "MERGING SKILLS WITH ACADEMICS" and "Rizal Technological University (RTU) offers the Expanded Tertiary Education Equivalency and Accreditation Program (ETEEAP) to help start or continue your educational journey with ETEEAP at RTU! Apply now online!" with a "APPLY NOW" button.

WHAT IS ETEEAP?

Expanded Tertiary Education Equivalency and Accreditation Program is a comprehensive educational assessment program at the tertiary level that recognizes, accredits and gives equivalencies to knowledge, skills and competencies of individuals who have completed their education through non-formal, informal and out-of-school learning and is implemented through designated higher education institutions that shall award the appropriate college degree.

Beneficiaries must be Filipinos who are at least high school graduates. They must also be able to demonstrate their proficiency and relatedness to the academic program they are claiming on equivalency. They must also be able to show proof of proficiency, capability and thorough knowledge in the field applied for equivalency.

Degrees offered by ETEEAP

Note: RTU ETELAP currently offers undergraduate programs and non-board courses.

Institute of Computer Studies
Bachelor of Science in Information Technology

College of Business, Entrepreneurship and Accountancy
Bachelor of Science in Entrepreneurship
Bachelor of Science in Office Administration
Bachelor of Science in Business Administration major in Operations Management
Bachelor of Science in Business Administration major in Marketing Management
Bachelor of Science in Business Administration major in Financial Management
Bachelor of Science in Business Administration major in Human Resource Management

College of Arts and Science
Bachelor of Arts in Political Science
Bachelor of Science in Statistics
Bachelor of Science in Biology
Bachelor of Science in Meteorology

Am I Qualified for ETEEAP?

1. Must be a Filipino Citizen preferably Overseas Filipino Workers (OFW).
2. Must be at least 23 years old.
3. Must be qualified to proceed to college as proven by high school diploma or PHT/ALS ACT results.
4. Must have at least a minimum of 5 years of employment in a field or industry related to academic degree program.

What do I need to submit?

For Initial Screening:

- Accomplished ETECAP Application Form from CHED Website
- Transcript of Records (TOR)
- 1x1 ID Picture
- Resume
- Barangay Clearance or NBI Clearance or Passport
- Certificate of Employment (Notarized)
- Letter of Motivation
- Other supporting documents that qualifies your application in the ETELAP Program.

Additional documents to submit for those currently unemployed:

- Income Tax Return (ITR)
- SSS
- PhilHealth
- Sag-IRIC

How do I apply for ETEEAP?

- Download and fill up the ETECAP application from www.rtu.edu.ph/itide or from www.ched.gov.ph.
- Go to ETECAP Tracking System www.rtu.edu.ph/ctecep. Register or download and submit the accomplished ETECAP application form along with the supporting documents that qualifies your application as well as the receipt of payment of fee. [Click here to view the fee](#)
- Once all submitted documents are reviewed by the RTU ETELAP office, you will be invited on interview to further assess your suitability for the program.
- After the interview, you will be formally notified in writing regarding the outcome of your interview, the following writing material will be sent to you via email: [Click here to view the ETECAP](#) along with your portfolio as instructed by the ETECAP office.
- Once submitted, your portfolio will be forwarded to qualified panels of assessors. The evaluation may include: Interviews from the internal assessor, demonstrations of skills, written examinations and oral presentations.
- After evaluation, you will be notified of the real time result of your application including the subjects you need to enroll if you are qualified in the ETECAP Program. Confirm by paying the enrollment fee. [Click here to view the enrollment fee](#).

Can I learn a degree overseas?

Yes, RTU ETECAP offers Online Learning through an Learning Management System (LMS), and various learning pathways such as Modular or Blended learning, you can select the mode of learning you want when you are enrolled through RTU ETECAP.

CONTACT US!

<https://www.facebook.com/rtuifde> | Room 6021, Main Academic Building, RTU Main Campus, Boni Ave., Mandaluyong.

Room 6021, Main Academic Building, RTU Main Campus, Boni Ave., Mandaluyong.

(02) 8534-8267 local 1240 | itide@rtu.edu.ph

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Figure 2.3

About Us Page

The screenshot shows the 'About us' section of the Rizal Technological University website. At the top, there's a navigation bar with links for Home, About Us, Downloads, Services, News, Login, and Sign Up. The main content area has a purple header with the university's name and a cityscape background. Below the header, the title 'Purpose' is followed by a detailed paragraph about the Expanded Tertiary Education Equivalency and Accreditation Program (ETEEAP). It discusses the need for more educational pathways for professionals and the alignment with the university's mission. Another paragraph follows, detailing how ETEEAP advances the university's mission and contributes to national development. A section titled 'About ETEEAP' provides information about the program's purpose, which is to recognize prior learning and award college degrees. It highlights the gap between employment experience and academic qualifications and how ETEEAP aims to bridge this gap. A 'Benefits of ETEEAP' section explains how it allows individuals to earn credits for their work experience and how these credits can be used towards a degree. A 'ETEEAP Mechanism' section describes the CLCS (Credit for Learning from Competencies and Skills) mechanism. The bottom of the page features a 'CONTACT US!' section with icons for Facebook, location, phone, and email, along with the university's address and contact number.



Figure 2.4

Application Form Page

The screenshot shows the 'Rizal Technological University ETEEAP Initial Screening' application form. At the top, there is a 'Data Privacy Notice' stating: 'Rizal Technological University is dedicated to protecting your privacy information as required by Data Privacy Act of 2012.' Below this, the form is divided into several sections:

- Personal Information:** Fields for Firstname, Middlename, Lastname, Suffix, Sex (Male/Female), Occupation, Nationality, and Civil Status.
- Birth Date / Place:** Fields for Month, Day, Year, and Birthplace.
- Contact Information:** Fields for Mobile Number, Telephone Number, and Email Address.
- Home Address:** Fields for Country, State / Province, Street Address, City, and Zip Code.
- Course:** Fields for 1st Priority, 2nd Priority, and 3rd Priority course choices.
- Documents Required for Initial Screening:** A list including: 1. Diploma or Transcript of Records (TOR), 2. Ix ID Picture, 3. Resume, 4. Birth Certificate, 5. Barangay Clearance or NBI Clearance or Passport, 6. Certificate of Employment (Notarized), 7. Certificates of Training, and 8. Other supporting documents that qualifies your application in the ETEEAP Program.
- For unemployed applicants, submit one of the following:** A list including: • Income Tax Return (ITR), • SSS, • PhilHealth, and • Pag-IBIG records.
- Initial Screening:** A section with a dashed area for dragging files, a cloud icon with an upward arrow, and a button labeled 'Drag and Drop Files here Max of 25mb file size UPLOAD'.
- Uploaded Files:** A section showing a placeholder for uploaded files.
- Submit:** A blue button at the bottom right.



Figure 2.5

Applicant Profile Page

The screenshot shows the 'Applicant Profile Page' for Aaron P. Gatongay. At the top, there are two small circular icons: one for the Republic of the Philippines and another for Rizal Technological University. To the right of these are the university's name and logo. On the far right, there is a user profile icon and the name 'Aaron Gatongay'. Below this header, there are two main sections: a 'Profile' section on the left and a 'Credentials' section on the right. The 'Profile' section contains a placeholder user icon, the user's name 'Aaron P. Gatongay', and several input fields for personal information like User ID, Mobile Number, Email Address, Application Status, Course applied to, and three choices. An 'Edit' button is at the bottom of this section. The 'Credentials' section lists the user's Age (26), Gender (Male), Nationality (Filipino), Occupation (Overseas Filipino Worker), Country (United Arab Emirates), Home Address (35, Abu Al Bukhoush Street, Al Danah City), and Date of Birth (08/26/2002). There is also an 'Edit' button at the bottom of this section.

Figure 2.5.1

Applicant Change Password Page

The screenshot shows the 'Applicant Change Password Page'. At the top, there are two small circular icons: one for the Republic of the Philippines and another for Rizal Technological University. To the right of these are the university's name and logo. On the far right, there is a user profile icon and the name 'Aaron Gatongay'. Below this header, there are two main sections: a 'Home' section on the left and a 'Portfolio' section on the right. In the center, there is a large white rectangular form titled 'Change Password'. This form contains three input fields: 'Current Password', 'New Password', and 'Re-type new password'. At the bottom of the form is a blue 'Confirm' button. The background of the page features a blurred image of a city skyline.



Figure 2.5.2

Applicant Notification Tab

The screenshot shows a mobile application interface for Rizal Technological University's Institute of Flexible Learning & Digital Education. At the top, there are navigation tabs for 'Home' and 'Portfolio'. On the right, there are icons for messaging, notifications, and user profile. The main content area is titled 'Notifications' and lists four entries:

- Thank you for applying for RTU ETEEAP! Verify your email to proceed. 02/21/24
- Intsr. Jedd is assigned as your assessor. 02/21/24
- Intsr. Jedd has viewed your certificate of training file. 02/21/24
- Intsr. Jedd rejected your certificate of training file. 02/25/24

Figure 2.5.3

Chatbox Feature

The screenshot shows a mobile application interface for Rizal Technological University's Institute of Flexible Learning & Digital Education. At the top, there are navigation tabs for 'Home' and 'Portfolio'. On the right, there are icons for messaging, notifications, and user profile. The main content area shows a chat interface between two users:

- Faith Balbin-Abenes (Admin) sent a message at 12:47 PM: "Kindly attend the virtual in..."
- Jedh Sandagan (Internal Assessor) responded at 3:47 PM: "Hi, please attend the interv..."
- Faith Balbin-Abenes responded at 5:00PM: "Good day! I am Dr. Faith Balbin-Abenes the RTU ETEEAP Chief. Kindly attend the virtual interview at February 19, 2024, 3:30pm to further assess your suitability for the program. A google meet link will send at the exact date and time. Ensure you will be able to attend the interview, let me know if you will not be able to attend at the given date and time."
- A message from the user "Noted po doc, Thank you!" is visible.

At the bottom, there is a text input field labeled "Write Message..." and a "Send" button.



Figure 2.6

Applicant Upload Page – First Time

The screenshot shows a dashboard titled "My Portfolio". On the left, there is a sidebar with a list of document types and their counts: Initial Screening (7), Updated Resume / CV (1), Certificates of Training (3), Awards (5), Interview Form (1), and Others (1). The main area of the dashboard has a purple background featuring a city skyline.

Figure 2.7

Applicant Dashboard – First Time

The screenshot shows the "Application Timeline" section of the dashboard. It displays a horizontal timeline with five stages: "Application", "Qualified", "Evaluated", "Interview", and "Approved". Each stage has a corresponding circular marker and a description. The "Application" stage is marked with a purple circle and says "You applied and submitted your document(s.)". The "Qualified" stage is marked with a grey circle and says "You are qualified to undergo the ETEEAP Program". The "Evaluated" stage is marked with a grey circle and says "Your application is evaluated by the assessor.". The "Interview" stage is marked with a grey circle and says "You are invited to an virtual interview. By the ETEEAP Chief". The "Approved" stage is marked with a grey circle and says "Your application is approved by the Assessor!". Below the timeline, it says "Total score: 0" and "Last update: 02/21/24".



Figure 2.7.1

Applicant Dashboard – Timeline Accomplished

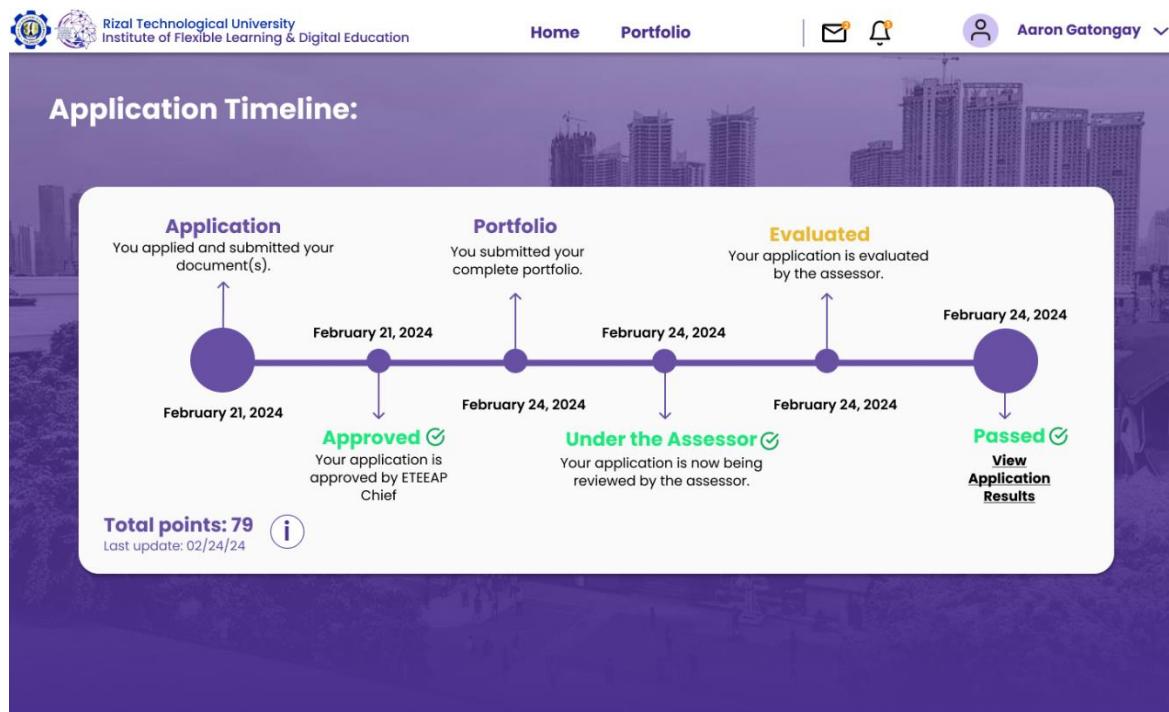




Figure 2.7.2

Application Result Page

The screenshot shows the application result page for Aaron P. Gatongay. At the top, there are two small logos: one for the Republic of the Philippines and another for Rizal Technological University. The university logo features a blue shield with yellow and white elements, and the text "BAONG PILIPINAS" below it.

The main header includes the university's name, "CITIES OF MANDALUYONG AND PASIG", and "INSTITUTE OF COMPUTER STUDIES". On the right side of the header, there is a user profile icon for "Aaron Gatongay" with a dropdown arrow.

The page has a purple header bar with the title "Results:" and the student's name "Aaron P. Gatongay". Below this, there are four sections showing scores:

- Educational Qualifications: 20/20
- Work Experience: 40/40
- Professional Achievements: 9/25
- Interview: 10/15

Below these scores, the "Remarks" are listed as "Passed" in green text. To the right, the "Total Score" is shown as 79 with an information icon (i).

Further down, the "Department" is listed as "Institute of Computer Studies" and the "Course" as "Bachelor of Science in Information Technology".

The next section, "Subjects to Enroll:", contains a table with six rows of subjects and their details:

Description	Subject Code	Units
Data Algorithms Lecture	ITC110L	3.0
Data Algorithms Laboratory	ITC110	3.0
Integrative Systems Lecture	ITC221L	3.0
Integrative Systems Laboratory	ITC331	3.0
System and Architecture Laboratory	ITC412	2.0
System and Architecture Lecture	ITC412L	1.0

The total units for these subjects is 15 units.

The final section, "Credited Subjects:", contains a table with one row of subjects and their details:

Description	Subject Code	Units
Web Development	ITC311L	2.0

The total units for these subjects is 2 units.



Figure 2.8

Admin Login Page



Figure 2.9

Admin Dashboard

Status	Count
New Applicants	20
Approved	17
In-process	20
Evaluated	11

Total Number of Applicants: **60**

Activity Overview	
Aaron P. Gatongay	Scheduled for interview at 02/21/24
Aaron P. Gatongay	Approved at 02/12/24
Karl Valenzuela	3 Failed Login Attempts
Michelle Concep	Added new document category.
Jedh Sandagan	Evaluated Aaron P. Gatongay at 02/21/24
Swett Heart	You restricted this user.
Swett Heart	You unrestricted this user.



Figure 2.10

Admin – Manage Documents

The screenshot shows the 'Manage Documents' section of the admin interface. It features a grid of six document categories, each with a file icon and a summary table:

Category	Count	Action Buttons
Resume	176 Files	Edit Delete
Initial Screening	255 Files	Edit Delete
Certificate of Training	176 Files	Edit Delete
Awards	176 Files	Edit Delete
Others	176 Files	Edit Delete
Diploma	176 Files	Edit Delete

Figure 2.10.1

Admin – Manage Documents > Resume

The screenshot shows the 'Resume' sub-section of the document management interface. It displays a table of uploaded resume files:

File ID	File	Date Uploaded	File Owner	Size	Actions
7118	Resume - Gatongay.pdf	02/19/24 19:00:07	Aaron P. Gatongay ID:00002244	1.37mb	Archive
7119	Resume - Concepcion.pdf	02/19/24 19:00:27	Michelle Concepcion ID:00001222	1.37mb	Archive
7111	Resume - Valenzuela.pdf	02/19/24 20:00:20	Karl Valenzuela ID:00002233	1.37mb	Archive
7544	Sample Resume	02/19/24 21:00:42	Aaron P. Gatongay ID:00002244	1.37mb	Archive
7118	Sample Resume	02/19/24 19:00:07	Aaron P. Gatongay ID:00002244	1.37mb	Archive
7119	Sample Resume	02/19/24 19:00:27	Michelle Concepcion ID:00001222	1.37mb	Archive
7111	Sample Resume	02/19/24 20:00:20	Karl Valenzuela ID:00002233	1.37mb	Archive
7544	Sample Resume	02/19/24 21:00:42	Aaron P. Gatongay ID:00002244	1.37mb	Archive
7111	Sample Resume	02/19/24 20:00:20	Karl Valenzuela ID:00002233	1.37mb	Archive
7544	Sample Resume	02/19/24 21:00:42	Aaron P. Gatongay ID:00002244	1.37mb	Archive



Figure 2.10.2

Admin – Manage Documents > Manage Users

Name	User ID	Email	Status	Actions
Karl Valenzuela Applicant	00002233	karlval@gmail.com	Active	View Delete
Aaron Gatongay Administrator	00002244	aarongatongay@rtu.edu.ph	Active	View Delete
Jedh Sandagan External Assessor	00002212	jedhrtu@rtu.edu.ph	Active	View Delete
Michelle Concepcion Administrator	00001222	michellecon@rtu.edu.ph	Restricted	View Delete
Faith Abenes Balbin Applicant	00003222	faithbalbin@gmail.com	Inactive	View Delete
Hearrt Dahunog Administrator	00002322	swettheart@rtu.edu.ph	Inactive	View Delete

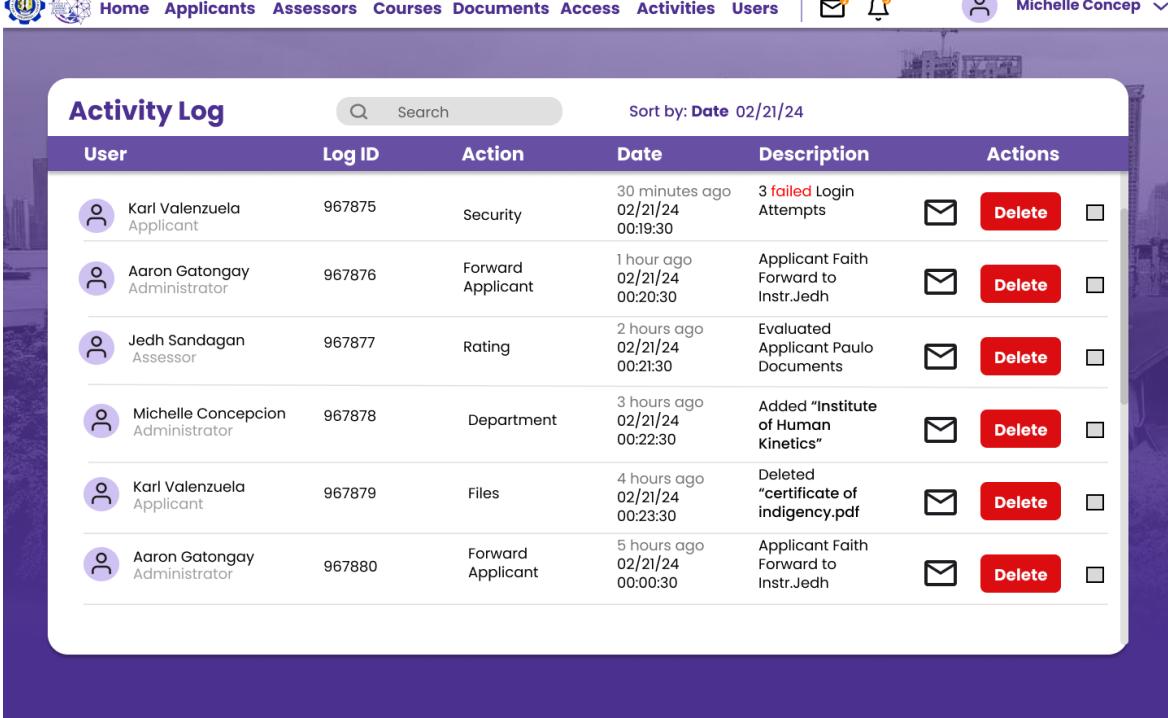
Figure 2.10.3

Admin – Role Based Access Control

Role ID	Role	Date Created	Recently Modified	Number of Users	Access Control
00001	Administrator	02/19/24 19:00:07	02/19/24 19:00:07	3	View
00002	Internal Assessor	02/19/24 19:00:27	02/19/24 19:00:27	15	View
00004	External Assessor	02/19/24 21:00:42	02/19/24 21:00:42	7	View
00005	Assistant Administrator	02/19/24 21:00:42	02/19/24 21:00:42	5	View
00006	College ETEEAP Coordinator	02/19/24 21:00:42	02/19/24 21:00:42	1	View
00006	Applicant	02/19/24 21:00:42	02/19/24 21:00:42	54	View

Figure 2.10.4

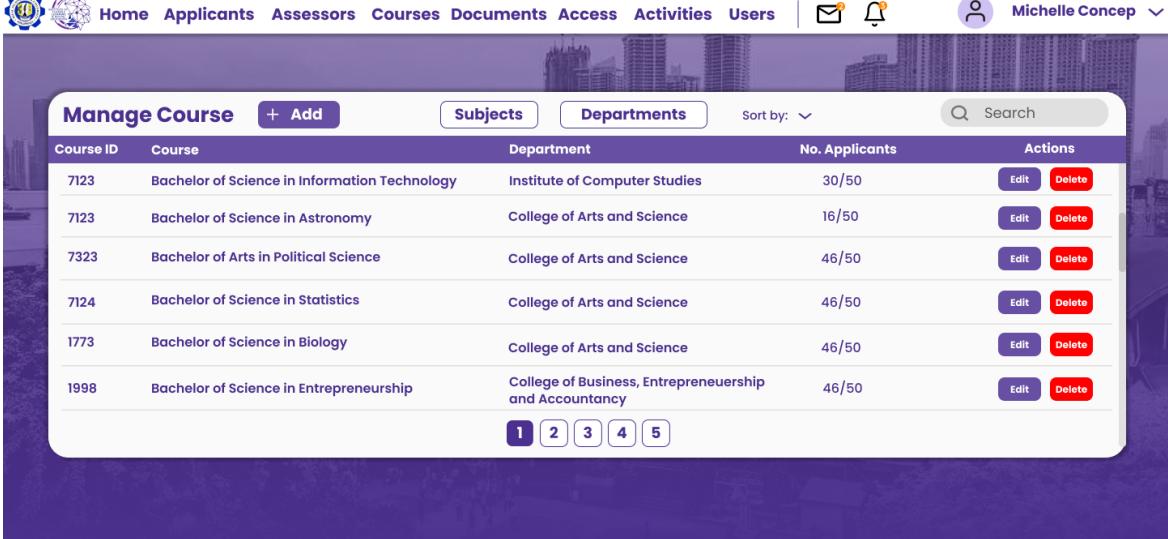
Admin – Activity Log



User	Log ID	Action	Date	Description	Actions
Karl Valenzuela Applicant	967875	Security	30 minutes ago 02/21/24 00:19:30	3 failed Login Attempts	Email Delete Edit
Aaron Gatongay Administrator	967876	Forward Applicant	1 hour ago 02/21/24 00:20:30	Applicant Faith Forward to Instr.Jedh	Email Delete Edit
Jedh Sandagan Assessor	967877	Rating	2 hours ago 02/21/24 00:21:30	Evaluated Applicant Paulo Documents	Email Delete Edit
Michelle Concepcion Administrator	967878	Department	3 hours ago 02/21/24 00:22:30	Added "Institute of Human Kinetics"	Email Delete Edit
Karl Valenzuela Applicant	967879	Files	4 hours ago 02/21/24 00:23:30	Deleted "certificate of indigency.pdf"	Email Delete Edit
Aaron Gatongay Administrator	967880	Forward Applicant	5 hours ago 02/21/24 00:00:30	Applicant Faith Forward to Instr.Jedh	Email Delete Edit

Figure 2.11

Admin – Courses



Manage Course		+ Add	Subjects	Departments	Sort by: ▼	Search
Course ID	Course		Department	No. Applicants		
7123	Bachelor of Science in Information Technology		Institute of Computer Studies	30/50	Edit	Delete
7123	Bachelor of Science in Astronomy		College of Arts and Science	16/50	Edit	Delete
7323	Bachelor of Arts in Political Science		College of Arts and Science	46/50	Edit	Delete
7124	Bachelor of Science in Statistics		College of Arts and Science	46/50	Edit	Delete
1773	Bachelor of Science in Biology		College of Arts and Science	46/50	Edit	Delete
1998	Bachelor of Science in Entrepreneurship		College of Business, Entrepreneurship and Accountancy	46/50	Edit	Delete



Figure 2.11.1

Admin – Department

The screenshot shows the 'Departments' section of the admin interface. The page title is 'Home > Courses > Departments'. A search bar at the top right has the placeholder 'Search'. Below it is a table with three rows:

Department Name	ID
Institute of Computer Studies	60032
College of Entrepreneurship	60031
College of Arts and Science	60033

A blue button labeled '+ Add' is located at the bottom right of the table.

Figure 2.11.2

Admin – Subjects

The screenshot shows the 'Manage Subjects' section of the admin interface. The page title is 'Home > Courses > Subjects'. A search bar at the top right has the placeholder 'Search'. Below it is a table with six rows of subject data:

ID	Subject Description	Subject Code	Units	Actions
00006	Data Algorithms Lecture 1	ITC110L	3.0	<button>Edit</button> <button>Delete</button>
00016	Data Algorithms Laboratory 1	ITC110	2.0	<button>Edit</button> <button>Delete</button>
00036	Integrative Systems 2 Lecture	ITC221L	1.0	<button>Edit</button> <button>Delete</button>
00046	System and Architecture 1	ITC331	1.0	<button>Edit</button> <button>Delete</button>
00116	System and Architecture 2 Laboratory	ITC412	1.0	<button>Edit</button> <button>Delete</button>
000556	System and Architecture 2 Lecture	ITC412L	2.0	<button>Edit</button> <button>Delete</button>

Pagination controls (1, 2, 3, 4, 5) are located at the bottom center of the table.



Figure 2.11.3

Admin – Add Course

The screenshot shows the 'Add Course' form. At the top, there are input fields for 'Course ID' (with placeholder '7123'), 'Course name' ('Bachelor of Science in Information Technology'), and 'Department' ('Institute of Computer Studies'). Below these is a table titled 'Subjects' with columns: ID, Subject Description, Subject Code, Units, and Actions. The table contains six rows of subject data, each with a 'Delete' button in the Actions column. A blue 'Add +' button is located at the bottom right of the table. A 'Save' button is at the bottom right of the form.

ID	Subject Description	Subject Code	Units	Actions
00006	Data Algorithms Lecture	ITC110L	3.0	<button>Delete</button>
00016	Data Algorithms Laboratory	ITC110	2.0	<button>Delete</button>
00036	Integrative Systems Lecture	ITC221L	1.0	<button>Delete</button>
00046	Object-Oriented-Programming	ITC331	1.0	<button>Delete</button>
00116	System and Architecture Laboratory	ITC412	1.0	<button>Delete</button>
000556	System and Architecture Lecture	ITC412L	2.0	<button>Delete</button>

Figure 2.11.4

Admin – Edit Course

The screenshot shows the 'Edit Course' form for course '7123'. The course name is 'Bachelor of Science in Information Technology' and the department is 'Institute of Computer Studies'. The 'Subjects' table is identical to the one in Figure 2.11.3, listing six subjects with their respective descriptions, codes, units, and delete buttons. A blue 'Add +' button is at the bottom right of the table.

ID	Subject Description	Subject Code	Units	Actions
00006	Data Algorithms Lecture	ITC110L	3.0	<button>Delete</button>
00016	Data Algorithms Laboratory	ITC110	2.0	<button>Delete</button>
00036	Integrative Systems Lecture	ITC221L	1.0	<button>Delete</button>
00046	Object-Oriented-Programming	ITC331	1.0	<button>Delete</button>
00116	System and Architecture Laboratory	ITC412	1.0	<button>Delete</button>
000556	System and Architecture Lecture	ITC412L	2.0	<button>Delete</button>



Figure 2.12

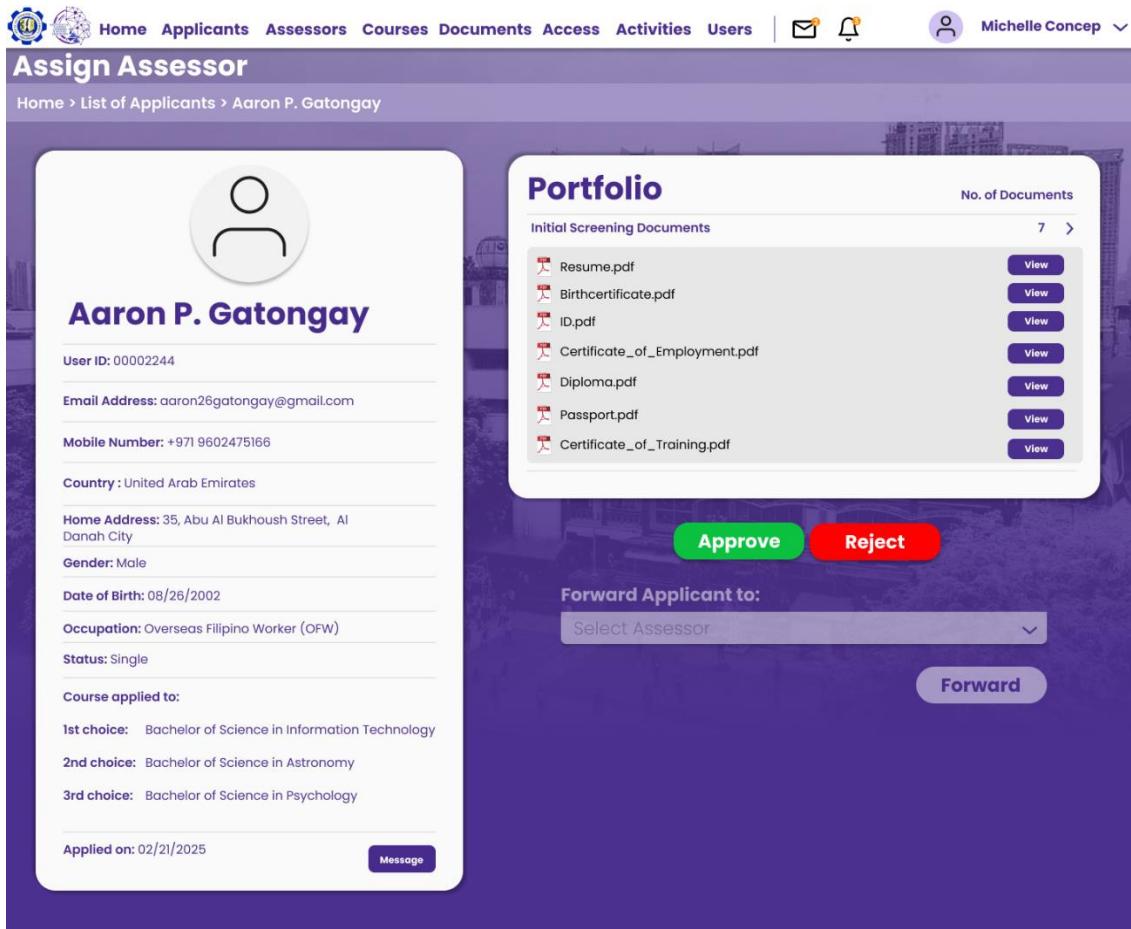
Admin – Applicant List

The screenshot shows a web-based application interface for managing applicant data. At the top, there is a navigation bar with icons for Home, Applicants, Assessors, Courses, Documents, Access, Activities, and Users. A user profile for "Michelle Concep" is visible on the right. Below the navigation bar, the page title is "Home > List of Applicants". The main content area is titled "Applicants (60)" and includes a search bar and an "Export" button. A table lists 12 applicants with the following details:

Name	Status	Current Score	Assessor	Course Applied	Actions
Aaron Gatongay ID:00002244	New Applicant	0	N/A	Bachelor of Science in Information Technology	<button>View</button> <button>Reject</button>
Aaron Gatongay ID:00002241	Evaluated	79	Jedh Sandagan	Bachelor of Science in Information Technology	<button>View</button> <button>Reject</button>
Karl Valenzuela ID:00002241	Approved	0	N/A	Bachelor of Science in Information Technology	<button>View</button> <button>Reject</button>
Dr.Faith Balbin ID:00002242	Passed	90	Dr.Faith Balbin	Bachelor of Science in Information Technology	<button>View</button> <button>Reject</button>
Dr.Faith Balbin ID:00002242	New Applicant	0	N/A	Bachelor of Science in Information Technology	<button>View</button> <button>Reject</button>
Dr.Faith Balbin ID:00002242	New Applicant	0	N/A	Bachelor of Science in Information Technology	<button>View</button> <button>Reject</button>
Dr.Faith Balbin ID:00002242	New Applicant	0	N/A	Bachelor of Science in Information Technology	<button>View</button> <button>Reject</button>
Dr.Faith Balbin ID:00002242	New Applicant	0	N/A	Bachelor of Science in Information Technology	<button>View</button> <button>Reject</button>
Dr.Faith Balbin ID:00002242	New Applicant	0	N/A	Bachelor of Science in Information Technology	<button>View</button> <button>Reject</button>
Dr.Faith Balbin ID:00002242	Failed	59	Dr.Faith Balbin	Bachelor of Science in Information Technology	<button>View</button> <button>Reject</button>
Dr.Faith Balbin ID:00002242	Evaluated	80	Dr.Faith Balbin	Bachelor of Science in Information Technology	<button>View</button> <button>Reject</button>

Figure 2.12.1

Admin – Applicant Profile



The screenshot shows the 'Assign Assessor' section of the application management system. On the left, the applicant's profile for Aaron P. Gatongay is displayed, including basic information like User ID, Email Address, Mobile Number, Country, Home Address, Gender, Date of Birth, Occupation, Status, and Course applied to (with three choices listed). On the right, a 'Portfolio' section shows a list of initial screening documents (Resume.pdf, Birthcertificate.pdf, ID.pdf, Certificate_of_Employment.pdf, Diploma.pdf, Passport.pdf, Certificate_of_Training.pdf) with 'View' buttons next to each. Below the portfolio are 'Approve' and 'Reject' buttons, and a 'Forward Applicant to:' dropdown menu with a 'Forward' button.



Figure 2.13

Admin – List of Assessors

The screenshot shows a web-based application interface for managing assessors. At the top, there is a navigation bar with icons for Home, Applicants, Assessors, Courses, Documents, Access, Activities, and Users. To the right of the navigation bar are icons for messaging and notifications, and a user profile for "Michelle Concep". Below the navigation bar, the page title is "Home > List of Assessors". The main content area is titled "Assessors (46)" and includes a sorting option "Sort by: No. Applicants". A search bar is also present. The table lists 13 rows of assessor information, each with a "Name" (including ID), "Role", "Field of Expertise", "No. of Applicants", and two buttons: "Applicants" and "Remove".

Name	Role	Field of Expertise	No. of Applicants	Actions
Jedh Sandagan ID:00002247	Internal Assessor	Information Technology	80	<button>Applicants</button> <button>Remove</button>
Dr.Faith Balbin ID:00002242	Internal Assessor	Entrepreneurship	67	<button>Applicants</button> <button>Remove</button>
Dr.Faith Balbin ID:00002242	Internal Assessor	Office Administration	62	<button>Applicants</button> <button>Remove</button>
Dr.Faith Balbin ID:00002242	Internal Assessor	Operations Management	59	<button>Applicants</button> <button>Remove</button>
Dr.Faith Balbin ID:00002242	External Assessor	Marketing Management	45	<button>Applicants</button> <button>Remove</button>
Dr.Faith Balbin ID:00002242	Internal Assessor	Financial Management	44	<button>Applicants</button> <button>Remove</button>
Dr.Faith Balbin ID:00002242	External Assessor	Human Resource Management	41	<button>Applicants</button> <button>Remove</button>
Dr.Faith Balbin ID:00002242	External Assessor	Political Science	39	<button>Applicants</button> <button>Remove</button>
Dr.Faith Balbin ID:00002242	Internal Assessor	Statistics	32	<button>Applicants</button> <button>Remove</button>
Dr.Faith Balbin ID:00002242	Internal Assessor	Biology	31	<button>Applicants</button> <button>Remove</button>
Dr.Faith Balbin ID:00002242	External Assessor	Astronomy	27	<button>Applicants</button> <button>Remove</button>
Dr.Faith Balbin ID:00002242	External Assessor	Information Technology	19	<button>Applicants</button> <button>Remove</button>



Figure 2.13.1

Admin – View Assessors' Applicants

The screenshot shows a web-based application interface for managing assessors' applicants. At the top, there are navigation links for Home, Applicants, Assessors, Courses, Documents, Access, Activities, Users, and a user profile for Michelle Concepcion. Below the navigation is a breadcrumb trail: Home > List of Assessors > Jedh Sandagan's Applicant. The main content area displays a table titled "Jedh Sandagan" with the following columns: Name, Score, Status, Date Assigned, and Action. The table lists ten applicants, each with a "View" and "Remove" button. The applicants are:

Name	Score	Status	Date Assigned	Action
Aaron Gatongay ID:00002244	79	Evaluated	02/24/25	<button>View</button> <button>Remove</button>
Sweet Heartt Dahunog ID:00002241	20	In-process	02/24/25	<button>View</button> <button>Remove</button>
Karl Valenzuela ID:00002241	20	Failed	02/24/25	<button>View</button> <button>Remove</button>
Dr.Faith Balbin ID:00002242	20	In-process	02/24/25	<button>View</button> <button>Remove</button>
Dr.Faith Balbin ID:00002242	20	In-process	02/24/25	<button>View</button> <button>Remove</button>
Dr.Faith Balbin ID:00002242	20	In-process	02/24/25	<button>View</button> <button>Remove</button>
Dr.Faith Balbin ID:00002242	20	In-process	02/24/25	<button>View</button> <button>Remove</button>
Dr.Faith Balbin ID:00002242	0	In-process	02/24/25	<button>View</button> <button>Remove</button>
Dr.Faith Balbin ID:00002242	59	In-process	02/24/25	<button>View</button> <button>Remove</button>
Dr.Faith Balbin ID:00002242	80	Passed	02/24/25	<button>View</button> <button>Remove</button>



Figure 2.13.2

Admin – Evaluated Applicants

The screenshot shows the 'Evaluated Applicants' section of a web application. At the top, there's a navigation bar with icons for Home, Applicants, Assessors, Courses, Documents, Access, Activities, Users, and notifications. A user profile for 'Michelle Concepcion' is also visible.

The main content area displays the details of an applicant named 'Aaron P. Gatongay'. On the left, there's a circular placeholder for a profile picture. Below it, the applicant's name is displayed in large blue text. To the right, there's a detailed 'Evaluation Result' section with a summary table:

Educational Qualification:	20
Work Experience:	40
Professional Achievement:	9
Interview:	10
Total Score:	79

Below the evaluation result, there's a section for 'Comments' which is currently collapsed. Further down, there's a 'Portfolio' section listing various documents with their counts:

	No. of Documents
Initial Screening	1
Updated Resume / CV	3
Certificate of Trainings	2
Awards	3
Interview Form	1
Others	1

At the bottom of the page, there are three buttons: 'Approve' (green), 'Edit Subjects' (white), and 'Reject' (red).



Figure 2.13.3

Admin – Assign Course to Applicants

The screenshot shows the 'Assign Course to Applicants' page. At the top, there are navigation links: Home, Applicants, Assessors, Courses, Documents, Access, Activities, Users, and a user profile for Michelle Concepcion. Below the navigation is a breadcrumb trail: Home > Courses > Add Course. The main content area is titled 'Select Course and Subjects:' and shows a student profile for Aaron P. Gatongay with an overall point total of 79.

Recommended Subjects to Enroll:

ID	Subject Description	Subject Code	Units	Actions
00006	Data Algorithms Lecture	ITC110L	3.0	<button>Remove</button>
00016	Data Algorithms Laboratory	ITC110	3.0	<button>Remove</button>
00036	Integrative Systems Lecture	ITC221L	3.0	<button>Remove</button>
00046	System and Architecture	ITC331	3.0	<button>Remove</button>
00116	System and Architecture Laboratory	ITC412	1.0	<button>Remove</button>
000556	System and Architecture Lecture	ITC412L	2.0	<button>Remove</button>

Total: 15 units Add +

Credited Subjects:

ID	Subject Description	Subject Code	Units	Actions
00006	Web Development	ITC311L	2.0	<button>Comment</button> <button>Delete</button>

Total Units: 2 + Add

Action Buttons:

Print Approve



Figure 2.14

Assessor LogIn Page

The screenshot shows the login interface for the Rizal Technological University ETEEAP Tracking System. At the top left is the university's logo and name. The main title "Rizal Technological University ETEEAP Tracking System" is centered above a white login form. The form contains fields for "Email" and "Password", a "Forgot your email or password?" link, and two buttons: "Login" and "Register". The background features a blurred image of a city skyline.

Figure 2.14.1

Assessor Registration Page

The screenshot shows the user account registration page. At the top left is the university's logo and name. A link "Already a member? Login here" is at the top right. The main title "User Account Registration" is centered above a white registration form. The form is divided into sections: "Personal Information" (with fields for Firstname, Lastname, and Assessor Type), "Login Credentials" (with fields for Email and Password), and a "Register" button. The background features a blurred image of a city skyline.



Figure 2.15

Assessor's Dashboard

The screenshot shows the 'Applicants Overview' section of the dashboard. It displays four categories of applicants with their counts and 'View' buttons:

Category	Count	Action
Assigned Applicants	80	View
In-progress	60	View
Evaluated	15	View
Failed	5	View

Figure 2.16

Assessor's List of Applicants

The screenshot shows a table titled 'Assigned Applicants (80)' with the following columns: Name, Status, Score, Date Assigned, and Actions. The table includes a search bar and an export button at the top right.

Name	Status	Score	Date Assigned	Actions
Aaron Gatongay ID:00002244	Evaluated	79	02/24/25	View Reject
Sweet Heartt Dahunog ID:00002245	Approved	15	02/24/25	View Reject
Karl Valenzuela ID:00002246	Rejected	15	02/24/25	View Reject
Dr.Faith Balbin ID:00002242	Evaluated	69	02/24/25	View Reject
Dr.Faith Balbin ID:00002242	In-process	15	02/24/25	View Reject
Dr.Faith Balbin ID:00002242	In-process	15	02/24/25	View Reject
Dr.Faith Balbin ID:00002242	In-process	15	02/24/25	View Reject
Dr.Faith Balbin ID:00002242	In-process	15	02/24/25	View Reject
Dr.Faith Balbin ID:00002242	New Applicant	0	02/24/25	View Reject
Dr.Faith Balbin ID:00002242	In-process	80	02/24/25	View Reject



Figure 2.16.1

Assessor – Before Evaluation

The screenshot shows the 'List of Applicants' section of the portal. On the left, the profile of Aaron P. Gatongay is displayed, including his user ID (00002244), email address (aaron26gatongay@gmail.com), mobile number (+63 9602475166), home address (35, Abu Al Bukhoush Street, Al Danah City), gender (Male), date of birth (08/26/2002), occupation (Overseas Filipino Worker (OFW)), status (Single), and course applied to (Bachelor of Science in Information Technology, Bachelor of Science in Astronomy, Bachelor of Science in Psychology). He applied on 02/21/2025. On the right, the 'Portfolio' section lists initial screening documents (Updated Resume / CV) containing a file named 'Resume.pdf' which can be viewed. Other sections include Certificate of Training (1 item), Awards (2 items), Interview Form (1 item), and Others (1 item). At the bottom right are 'Evaluate' and 'Reject' buttons.



Figure 2.16.2

Assessor – Document Accreditation

The screenshot shows a web application interface for document accreditation. At the top, there are two small icons: one for Bacong Pilipinas and another for Rizal Technological University. The university's name is also displayed in a banner. On the right side, there is a user profile for "Jedh Sandagan". The main content area displays a resume for "AARON P. GATONGAY" with the title "Information Technology Internship". The resume includes sections for EDUCATION, ABOUT ME, OBJECTIVE, AWARDS, CONTACT ME, and SEMINAR ATTENDED. Below the resume, a large modal window titled "Aaron P. Gatongay" contains four sections for evaluation: Educational Qualification, Work Experience, Professional Achievements, and Interview. Each section has an "Add Points" button, an "Accumulated Points" field (e.g., Max of 20 Points, Max of 40 Points, Max of 25 Points, Max of 15 Points), and a "Reset" button. At the bottom of the modal, it says "Overall Points: 60" and "Last updated: 02/21/24". At the very bottom, there is a table titled "Credited Subjects" with one row for "Web Development" (Subject ID: 00006, Subject Description: Web Development, Subject Code: ITC311L, Units: 2.0, Total: 2 units). There are buttons for "Comment", "Delete", "+ Add", and "Finalize".



Figure 2.16.3

Assessor – After Evaluation

The screenshot shows the 'Evaluation Result' page for applicant Aaron P. Gatongay. The page header includes the university's logo and name, along with navigation links for Home, Applicants, and a user profile for Jedh Sandagan. The main content area displays the applicant's profile on the left and the evaluation results on the right.

Evaluation Result

Category	Score
Educational Qualification	20
Work Experience	40
Professional Achievement	9
Interview	10
Total Score	79

Finalized on: 02/24/2024

Comments

Portfolio

Category	No. of Documents
Initial Screening	1
Updated Resume / CV	3
Certificate of Trainings	2
Awards	3
Interview Form	1
Others	1

Buttons at the bottom: Submit, Recommend Subjects (highlighted in red), Reject

Applied on: 02/21/2025



Figure 2.16.4

Assessor – Subject Recommendation

The screenshot shows a web application interface for recommending subjects. At the top, there are navigation links for Home, Applicants, and a user profile for Jedd Sandagan. The main content area displays the title "Reccomend Subjects" and the name "Aaron P. Gatongay". Below this, there are dropdown menus for Department (Institute of Computer Studies), Course (Bachelor of Science in Information Technology), and Course ID (7123). A summary box on the right indicates "Overall Points: 79" with a question mark icon. The "Recommended Subjects to Enroll:" section lists six subjects with their descriptions, subject codes, and units, each with a "Remove" button:

ID	Subject Description	Subject Code	Units	Actions
00006	Data Algorithms Lecture	ITC110L	3.0	<button>Remove</button>
00016	Data Algorithms Laboratory	ITC110	3.0	<button>Remove</button>
00036	Integrative Systems Lecture	ITC221L	3.0	<button>Remove</button>
00046	Object-Oriented-Programming	ITC331	3.0	<button>Remove</button>
00116	System and Architecture Laboratory	ITC412	1.0	<button>Remove</button>
000556	System and Architecture Lecture	ITC412L	2.0	<button>Remove</button>

Total: 15 units Add +

The "Credited Subjects:" section shows one subject with its description, subject code, and units, along with "Comment" and "Delete" buttons:

ID	Subject Description	Subject Code	Units	Actions
00006	Web Development	ITC311L	2.0	<button>Comment</button> <button>Delete</button>

Total Units: 2 + Add

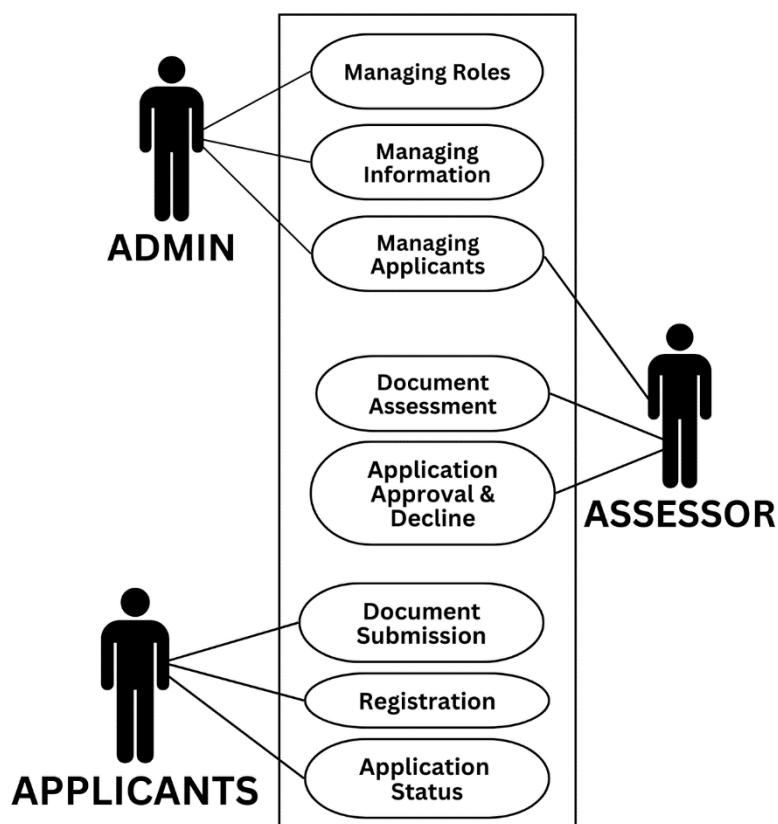
At the bottom right are "Print" and "Submit" buttons.



Data and Process Modelling

Figure 3:

Use Case Diagram

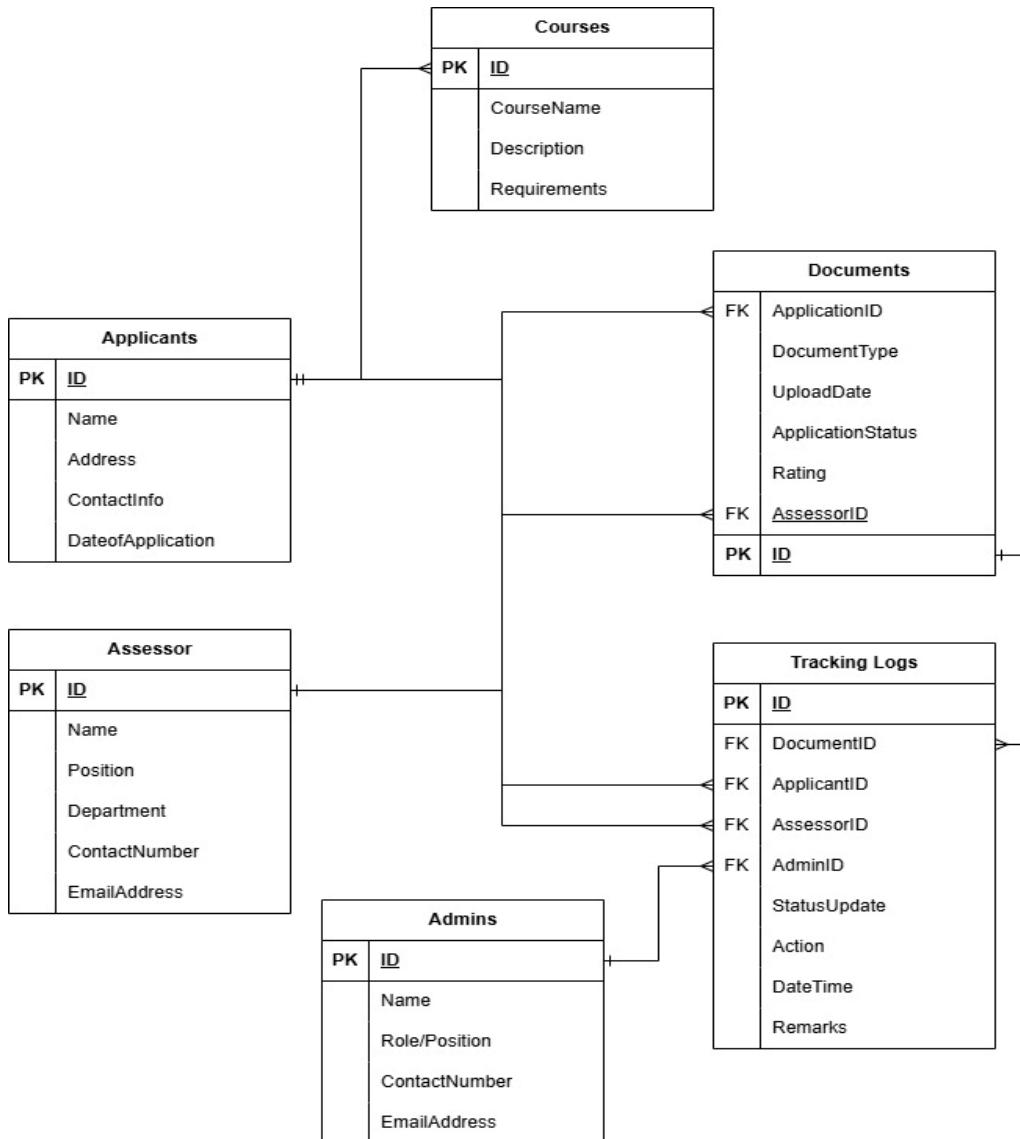


Note. The Use Case Diagram illustration represents interactions amongst different user roles of the ETEEAP Document Tracking System, including Admin, Assessor, and Applicant. It demonstrates the core functionalities and use cases attainable by these different user roles.



Figure 4:

Entity Relationship Diagram



Note. The ERD for the ETEEAP Document Tracking System is detailed illustration that shows the relationships of important elements within the system such as the courses, applicants, assessors, documents and tracking logs and the admins. The attributes for the ERD are also mentioned. For example, in



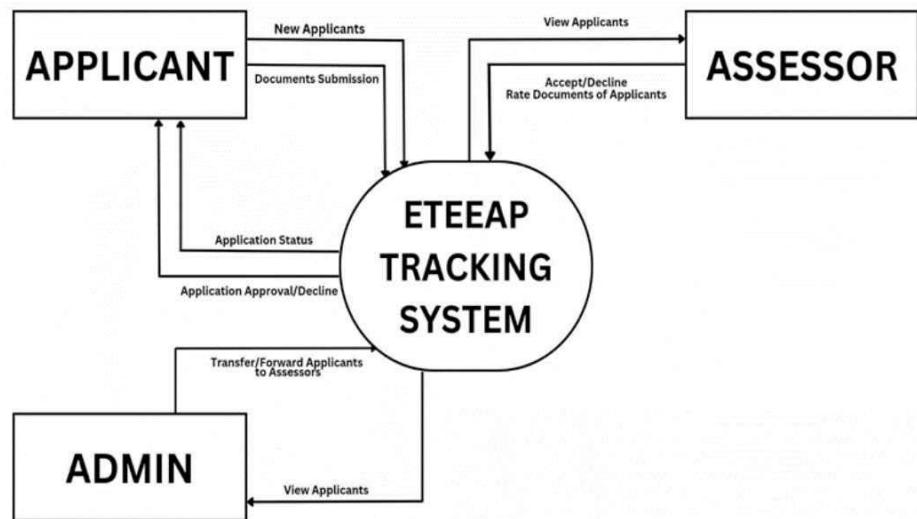
Employee, ID number, name, contact number, email address, Date/Time, and document status.

Overall, it has helped in visualizing the data relationships that exist within the ETEEAP Document Tracking System in such a way that one can have a better understanding of the system structure and flow of data. Providing a total view of relationships and dependency within the system. It gives a more efficient design for the system, ensures consistency in dealing with data management, and shows main processes through which enhancement, integration, or troubleshooting in the document workflow is much easier in the document tracking.



Figure 5:

Context Diagram

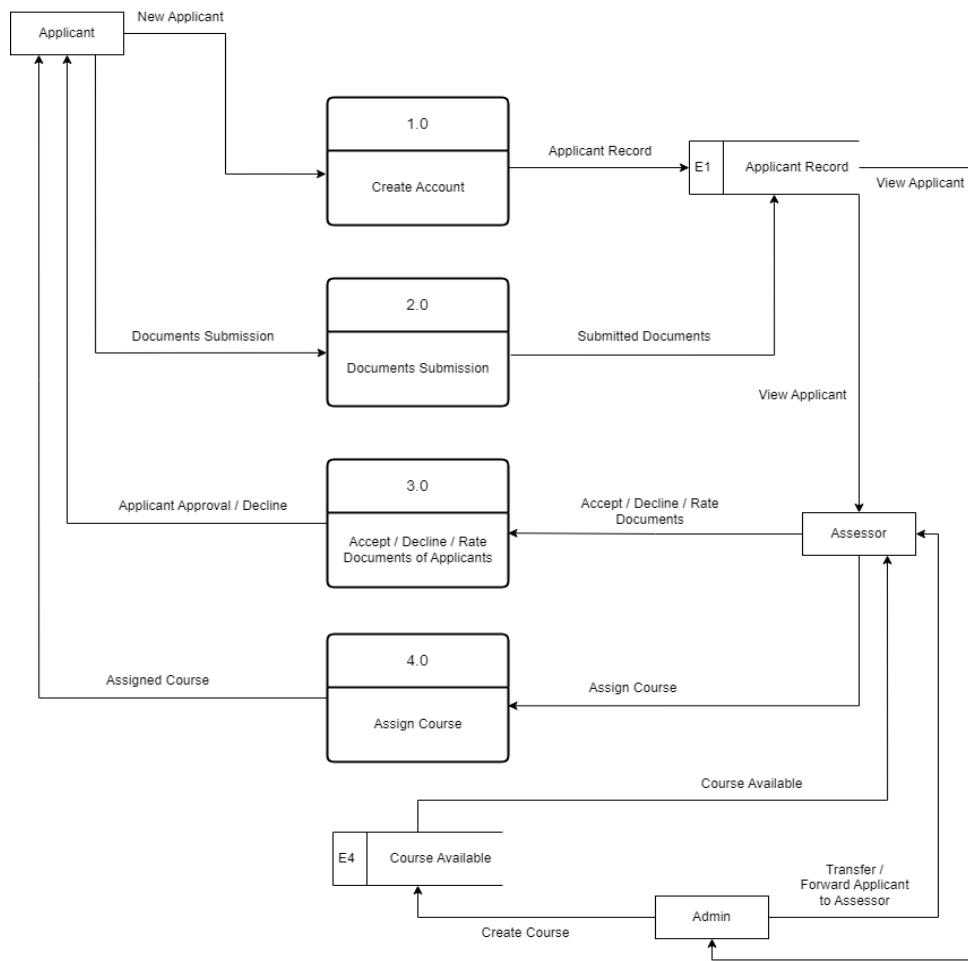


Note. This Context Diagram provides a high-level view of the ETEEAP Document Tracking System and its external entities. It illustrates the boundaries of the system and the interactions it has with the outside world. Effectively visualizes the scope of the ETEEAP Document Tracking System. It clearly defines the external entities that interact with the system and the data flows between them.



Figure 6:

Level 1 Data Flow Diagram



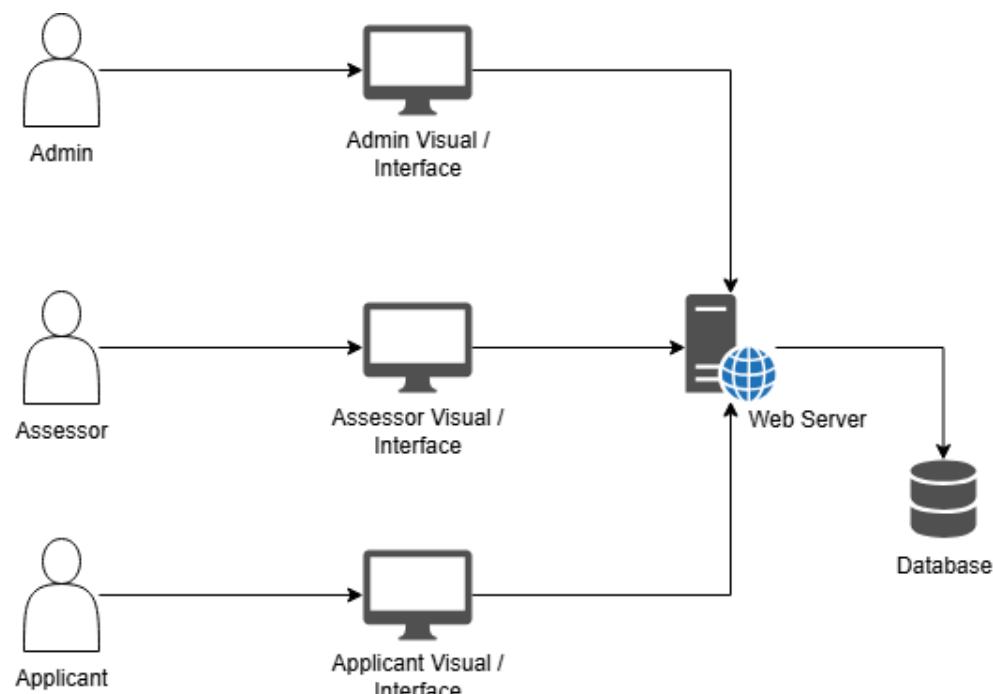
Note. This data flow diagram illustrates the overall process of document tracking within the ETEEAP system. It depicts how information flows between key entities, including Applicants, Admin, and Assessors. The diagram highlights the stages of document submission, assessment, and approval. Applicants initiate the process by submitting documents, which are then reviewed and rated by Assessors. Admins play a crucial role in managing the system, assigning courses, and potentially transferring applicants to Assessors for further



evaluation. The diagram provides a clear visual representation of the system's workflow and the interactions between its various components.

Figure 7:

System Architecture



Note. The ETEEAP Document Tracking System is a web-based application that intends to help streamline and minimize the lengthy process of document submission, evaluation, and approval. Below is the architecture diagram showing the major components and their interactions in the system.



User Interfaces are entry points for the different types of users: administrators, assessors, and applicants each with dedicated functionalities suited to their needs.

The **Admin Interface** is thus constructed to be the most complete system-administration tools where the administrators can manage the users, track system activities, and thus oversee the efficient running of the entire platform.

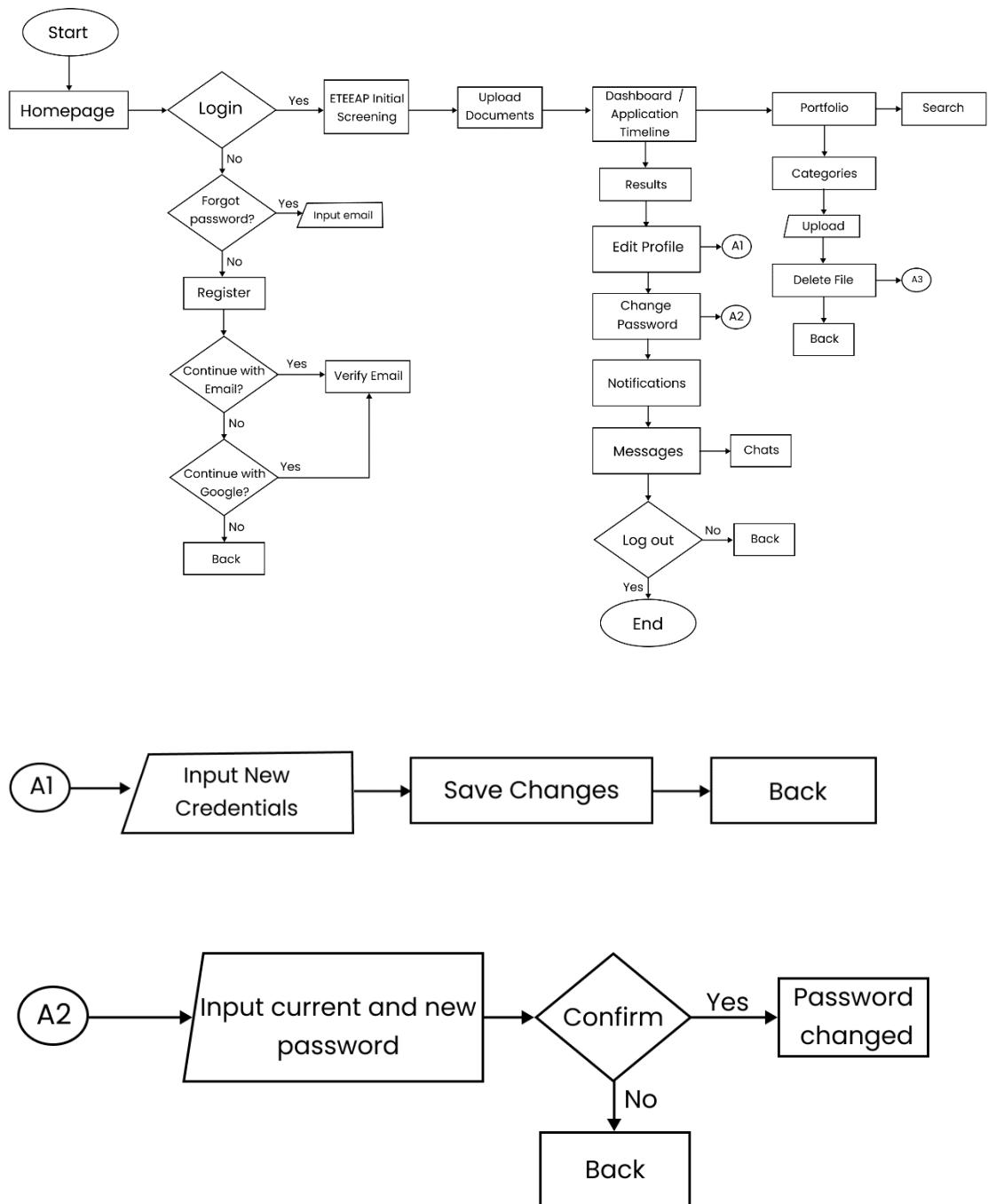
The **Assessor Interface** will help the assessors because it enables one to view the submitted documents, give actionable comments, and assign ratings according to set guidelines.

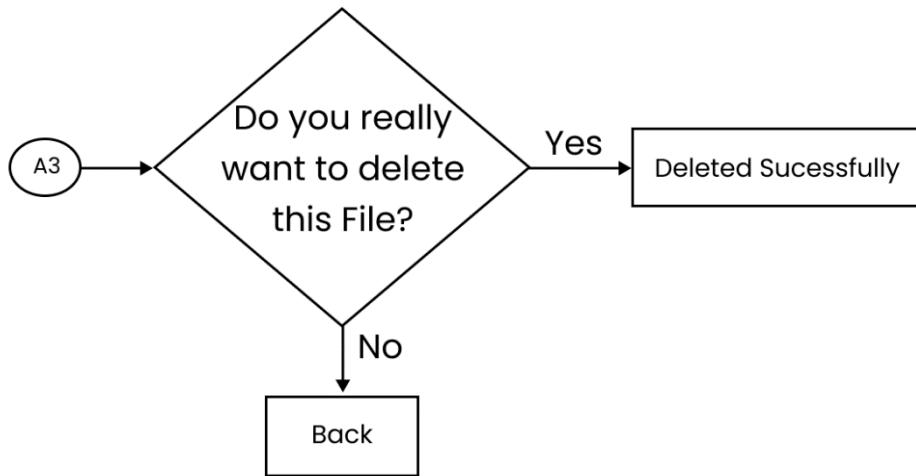
Overall, The ETEEAP Document Tracking System integrates all these components to build a robust system for application tracking and management of applications. With the use of multiple UI's, a super-strong web server coupled with a secure database, the system is optimized to meet and balance the unique needs of all the users and system administrators, ensuring that the tracking process is user-centered and operational.



Figure 8:

Program Flowchart





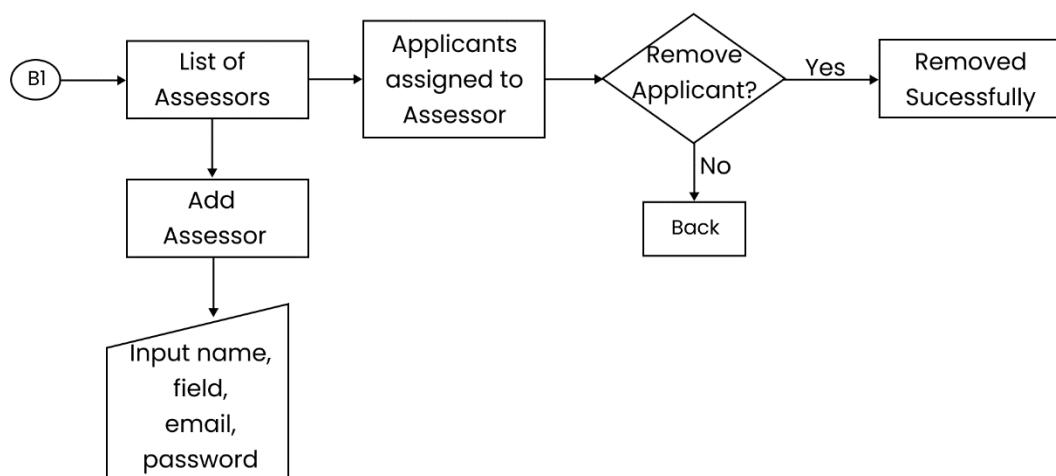
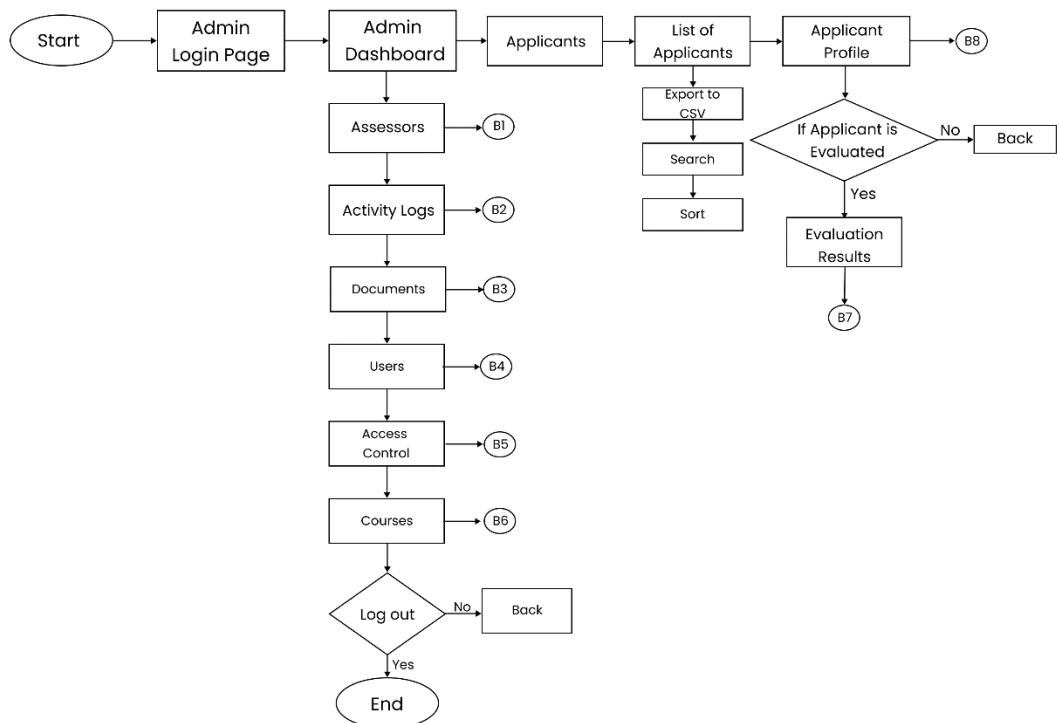
Note. The applicant system flowchart of the ETEEAP Document Tracking System highlights key user functions, starting with login and access to a dashboard. Applicants can upload documents, view application timelines, manage profiles, search for information, and communicate through messages. Features like registration, password recovery, social media login, and notifications ensure ease of use and accessibility.

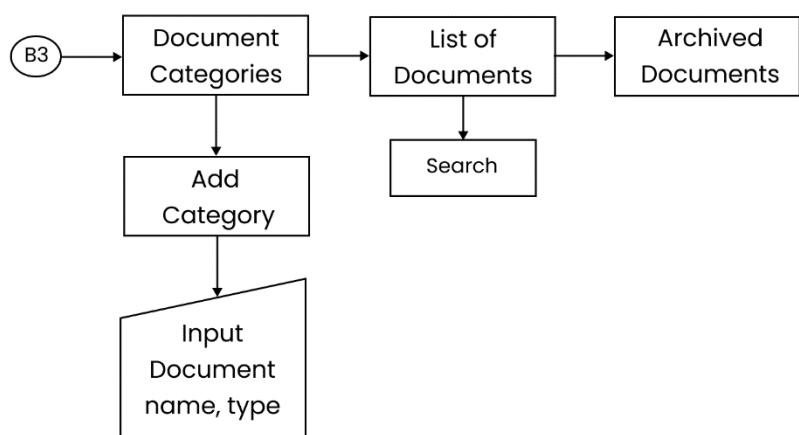
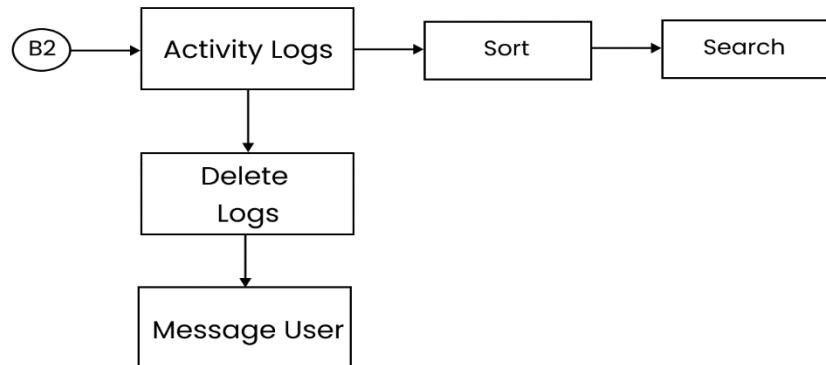
Additional workflows focus on managing account security and file handling. Applicants can change credentials or passwords through guided prompts and confirmation steps. File deletion includes a confirmation process to prevent errors, and users can easily navigate back to previous screens for flexibility. These workflows ensure a secure, efficient, and user-friendly experience.

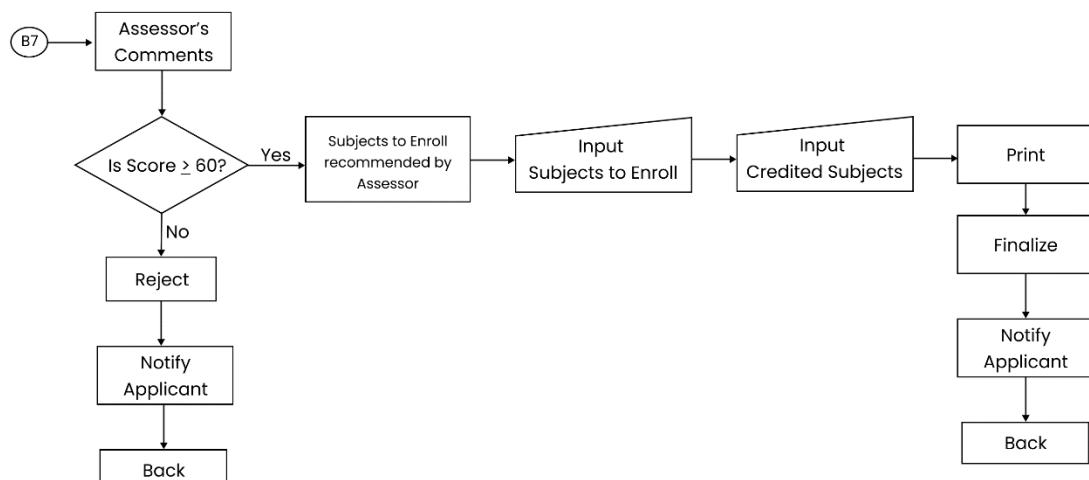
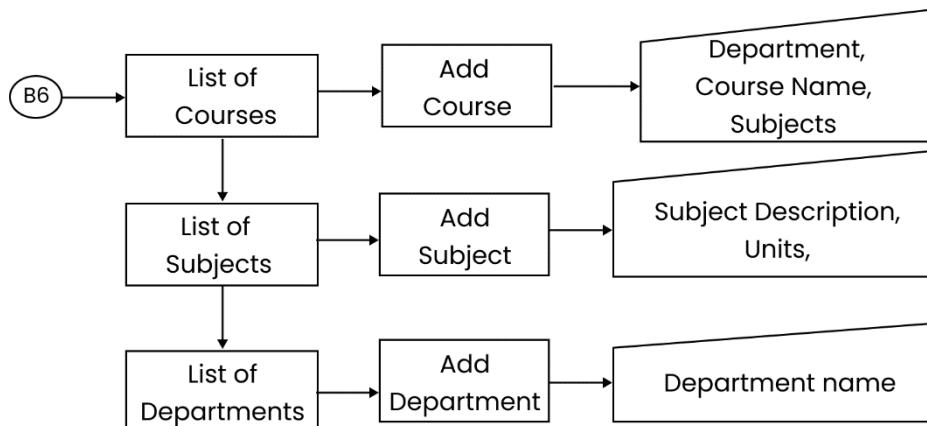
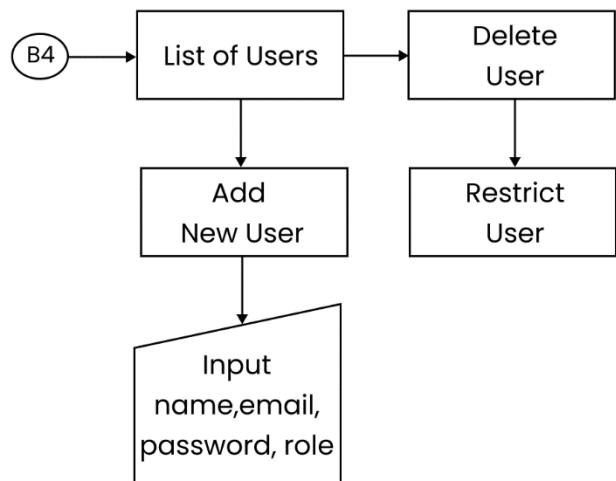


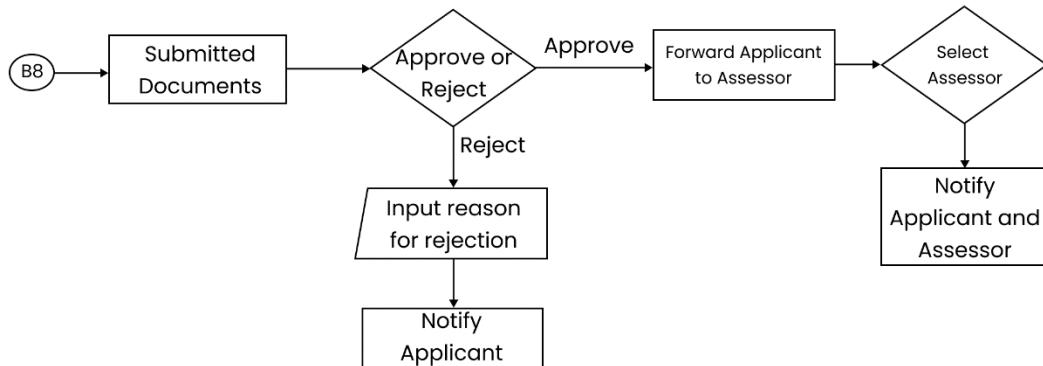
Figure 8.1:

Program Flowchart









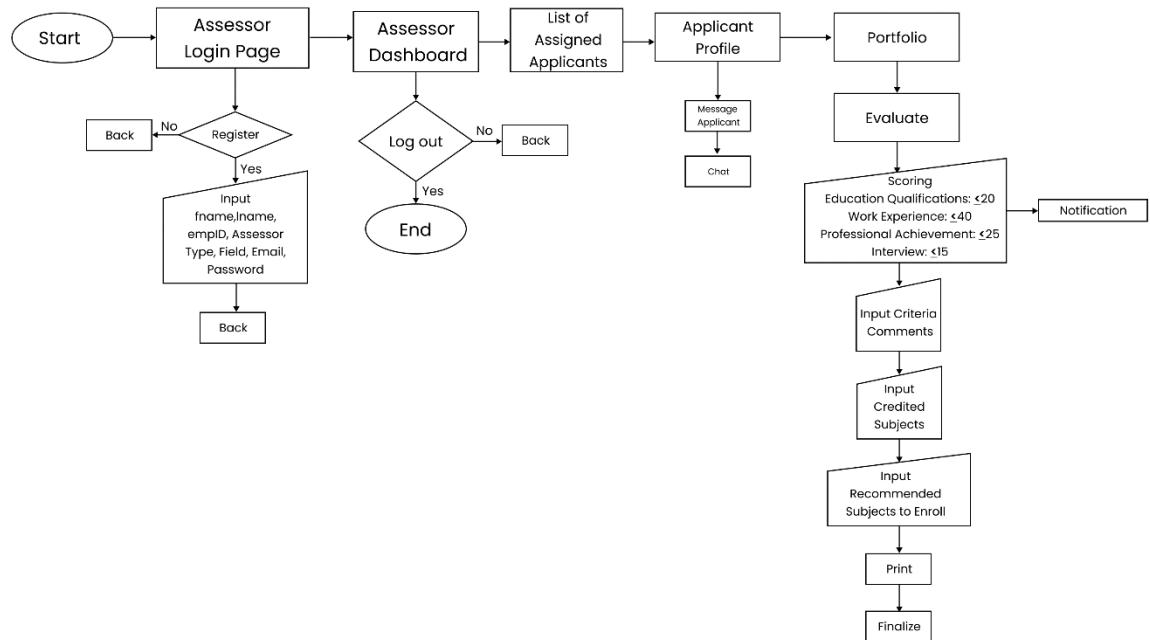
Note. The admin system flowchart of the ETEEAP Document Tracking System outlines streamlined workflows for managing applicants, assessors, activity logs, documents, users, roles, and courses. Administrators can review applications, approve or reject them, and forward approved cases to assessors for evaluation. The system also facilitates subject enrollment for qualified applicants based on assessor recommendations, with features like data searching, sorting, and exporting to ensure an efficient and transparent process.

Additionally, the system enables resource management by allowing the addition or removal of assessors, role-based privilege assignment, and course organization. Document workflows include categorizing, searching, and archiving, while activity logs can be sorted and used for messaging. With structured workflows and user-friendly features, the system ensures smooth and efficient ETEEAP administration.



Figure 8.2:

Program Flowchart



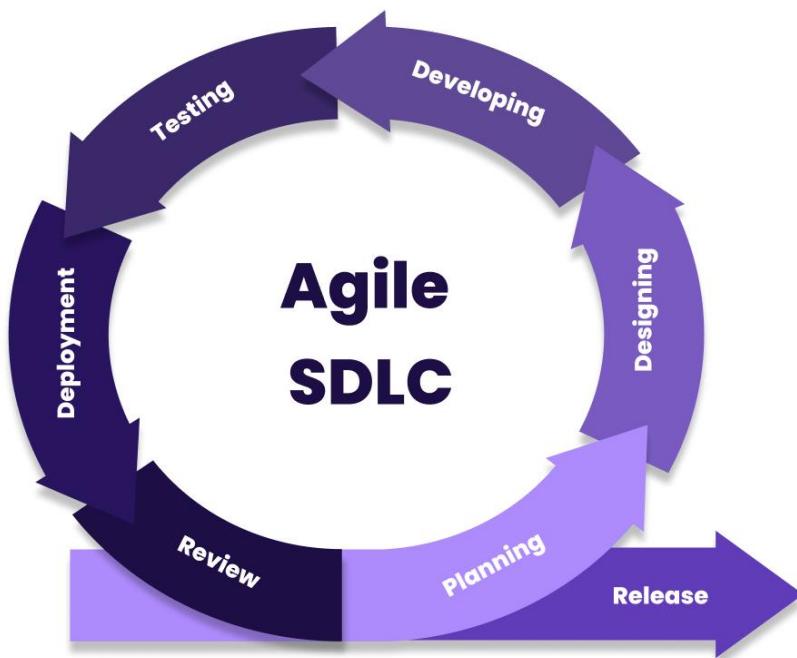
Note. The assessor system flowchart of the ETEEAP Document Tracking System outlines the workflow for assessors, starting with logging into the system. Assessors can view a list of assigned applicants, access their profiles, and evaluate their portfolios. The evaluation process includes scoring education qualifications, work experience, achievements, and interviews, followed by inputting criteria comments, credited subjects, and recommended subjects for enrollment. Additional features include messaging applicants, printing results, and finalizing evaluations. The system also supports registration for new assessors and logging out to complete the process.



Development Process

Figure 9

Agile SDLC Model



Note. The development of a Web-based System for the ETEEAP of Rizal Technological University will follow the agile system development life cycle methodology. Given the flexible and iterative approach of Agile SDLC, this will allow the researchers to break down the development of the system into smaller and iterative phases known as sprint. In context, collaborating with the ETEEAP staff will provide necessary feedback and information for each sprint cycle, ensuring the finalization of the system will meet the objective of the system and user satisfaction.



Starting with the planning phase, the researchers will assess the requirements of the system. The researchers will collaborate with the IFLDE Staff and administrators from RTU to gather and share ideas to analyze what features are necessary for the ETEEAP tracking system, such as role-based access controls, document uploading, document status tracking, and document accreditation, as well as to decide which programming languages and database are suited for this project.

Through open communication, the client can highlight the challenges faced in managing Applicants within the ETEEAP program. Based on these insights, the researchers will propose suitable solutions that address the client's needs, ensuring that the tracking system effectively supports the program's objectives. This planning phase sets the foundation for a well-tailored system that streamlines document processing and status monitoring for applicants.

After planning, the researchers will design the system's architecture and dataflow through diagrams and flowchart, next is the designing the prototype of the system's interface through Figma. This phase highlights how components of the system connect and interact, such as, login, registration, document uploading and status tracking, assessor assigning, document accreditation. The design ensures users to have a user-friendly interface for desktop experience.



Once the design is set, the researchers will develop the system's front-end and back-end. The frontend will focus solely on the visual and interactive components of the system, such as, step-by-step process ETEEAP process, Document Status Tracking and User Chat-box. Meanwhile, Backend will handle the data management, API, document uploading, account creation and registration and role-based access controls ensuring that user's accessibility are limited based on their role.

After the development of the system, testing will be conducted to every component of the system to ensure all of it are functioning correctly and met client expectations. This phase includes checking for potential errors and bugs that are present and immediately fixing it.

After intensive testing, the system will be deployed in a controlled environment wherein the ETEEAP program staff at RTU can utilize the initial version of the tracking system. This deployment of the capstone project would make the system have a configuration and is readily accessible for operation to realistically simulate actual practice. This deployment also offers the team to take note of the system performance in operational terms.

After deployment, a review stage will conduct feedback from users and ETEEAP staff, together with a sample group of users. These feedbacks would point to areas of potential problems or usability improvements needed to refine



the system to better meet the needs of end-users. Review is very important to refinement because it helps pinpoint functional and design adjustments made beforehand for a final release.

Upon final adjustment of the system, gotten from the review, the final release of the system will be completed. This stage of release in the capstone project is the last process of development that was achieved in culmination with the fully working, refined tracking system to be delivered to the ETEEAP program. Here, the system will now be opened for use by the RTU staff and the other authorized personnel, providing a robust tool for tracking, managing, and accrediting applicant documents.

Testing

To ensure that the ETEEAP Document Tracking System of Rizal Technological University is reliable, safe, and efficient, another form of testing will be conducted. In performing the test, an objective is for all portions and the entire system to meet the requirements in terms of functionality and non-functionality requirements. Different types and stages of testing are applicable for checking the thorough readiness and performance of the system. Some of the tests applied throughout the development lifecycle include the following:



User Acceptance Testing (UAT)

An essential activity in the ETEEAP Document Tracking System deployment is User Acceptance Testing—the system ensuring that the requirements and expectations of the end-users are met prior to its live operation. Participants in this testing stage will include academic and administrative personnel from the Rizal Technological University that will use the document tracking system. All routine tasks will be performed by selected users in an environment that closely replicates actual operational conditions, thus allowing for a very realistic usability, functionality, and workflow effectiveness check. In order to make it such that the system operates as expected and meets the expectations of all its users before it is rolled out in the wider environment, feedbacks gathered during this step are critical in identifying the required final changes. The following testing procedures are applicable for user testing, meeting expectation of users:

Interface Testing will ensure that all the elements of the user interface are available, correctly named, and sensibly laid out. This includes verification of adequate such elements as form, submit button, status indicators and track buttons by proper validation of labels, colors, font sizes, and alignment being consistent and have a clear view.



Usability testing will determine whether the layout and design of your prototype and navigation works well according to user expectations and clarity while understanding and interacting. We would let test users carry out normal tasks for us to get their feedback on how clear is your navigation, how user-friendly it is, and how beautiful your design looks when a person tries to upload his document or the status of uploading.

Navigation Flow Testing, it will be ensured that users are efficiently moving from one primary user flow of the web application to another-primary user flows such as document submission, status tracking, and going back to the home page. Thus, it is used to determine that there will be logically correct moving around in the system without getting lost as to which way to go. For Basic Functional Verification, we simulate as much of the prototype as we can regarding primary functionalities; we'll check whether the fields are there to be filled, if the "Submit" buttons respond visually, and if confirmation messages appear as placeholders to guide user interactions even if backend support isn't.

Feedback Collection, which is Prototype Review, where we collect impressions from the potential users among whom are the IFLDE ETEEAP staff and students who are going to use the prototype to give their response regarding functionality, usability, and how clear the features are. Preliminary feedback will help us discover areas which need improvement before moving on to further



development. Such tests will guarantee that the prototype serves the necessary requirements of its users and set a strong basis for further refinement.

Ethical Considerations

In the development of an ETEEAP, user rights should be ensured in various considerations having to do with ethical considerations. Some key aspects with regard to privacy and data protection should include educating the users about the data gathered and soliciting consent. Stronger security measures must be applied in order to avoid sensitive information and excessive collection of data to try to minimize risks involved.

There must be transparency so that users are able to understand what is happening inside the system and access their information. It should provide users with control over their information, meaning they should offer them options to delete or amend the information and more mechanisms to offer feedback.

Another important element is compliance with regulations such as GDPR (General Data Protection Regulation) and CPA (Consumer Privacy Act). Emphasis on these aspects can really help in the development of an effective ETEEAP while still showing respect to the rights of users.



REFERENCES

Access control in Document Management Systems (DMS) - Assai-Software. (n.d.). Assai-software. <https://assai-software.com/access-control-in-document-management-systems-dms/>

Admission for ETEEAP - Benilde. (n.d.). Benilde. <https://www.benilde.edu.ph/admissions/admission-for-eteepam/>

Aguirre, M., & Aguirre, M. (2023, November 27). Information Security in document management. Athento - Smart Digital Content Platform. <https://www.athento.com/the-importance-of-information-security-in-document-management/>

Almacen, A. M. B., & Cabaluna, A. Y. (2021). Electronic Document Management System (EDMS) Implementation: Implications for the future of Digital Transformation in Philippine healthcare. *Journal of Computer Science and Technology Studies*, 3(2), 82–90. <https://doi.org/10.32996/jcsts.2021.3.2.8>

Awati, R. (2022, June 2). document. WhatIs. <https://www.techtarget.com/whatis/definition/document>

Bala, U. M., & Muhammad, M. M. (2020). Analysis and design of file tracking system. *Journal of Applied Science Information and Computing*, 1(2), 71–77. <https://doi.org/10.59568/jasic-2020-1-2-10>

Commission on Higher Education (CHED). (2021, November 10). Expanded Tertiary Education Equivalency and Accreditation(ETEEAP) | Commission on Higher Education. Commission on Higher Education. <https://ched.gov.ph/expanded-tertiary-education-equivalency-accreditationeteeap/>

Contributor, T. (2024, July 10). scalability. Search Data Center. <https://www.techtarget.com/searchdatacenter/definition/scalability>

DepEd (2024) Human Resource Information System. Retrieved from <http://www.suresasur.online/>

EvalCommunity. (2024, October 8). What is Monitoring - EvalCommunity. <https://www.evalcommunity.com/career-center/what-is-monitoring/>

Flynn, C., Eileen, R., Quilon, A., & Arrejo, A. (2022). DocTrack: A Dynamic Document Tracking System for the University of Northern Philippines. *Journal of Information Technology and Computing*, 4(2). <https://doi.org/10.69478/jitc2022v4n2a03>



- Hanna, K. T., & Wigmore, I. (2022, November 23). transparency. WhatIs. <https://www.techtarget.com/whatis/definition/transparency#:~:text=Transparency%20is%20the%20quality%20of,others%20can%20make%20informed%20decisions>.
- Hayes, A. (2024, September 3). *End User: Definition, Examples, vs. Customer*. Investopedia. <https://www.investopedia.com/terms/e/end-user.asp>
- Hermosa, K. R. (2023). DOCUMENT MANAGEMENT SYSTEM WITH TRACKING AND MONITORING IN MANUEL S. ENVERGA UNIVERSITY FOUNDATION-CANDELARIA INC. International Journal of Advanced Research in Computer Science, 14(6), <https://doi.org/10.26483/ijarcs.v14i6.7038>
- How to become a document administrator: what it is and career path - Zippia. (2024, June 25). <https://www.zippia.com/document-administrator-jobs/>
- Ibm. (2024, August 23). Document Management. What is document management? <https://www.ibm.com/topics/document-management>
- Imeri, Florinda & Memeti, Agon & Sadiki, Flamure & Idrizi, Florim & Memeti, Ermira. (2024). Transforming document management: the integration of an automated system at the university of tetova. Journal of Natural Sciences and Mathematics of UT-JNSM. 9. 333-339. [10.62792/ut.jnsm.v9.i17-18.p2829](https://doi.org/10.62792/ut.jnsm.v9.i17-18.p2829).
- Joshua, Constantino., Rowel, John, Agustin., Renalyn, G., Tecson. (2020). User Acceptance On The E-Docs: Electronic Documents Location Tracking System. International Journal of Scientific & Technology Research, 9(3):791-795.
- login - Schools Division Office of Cotabato Document Tracking System. (n.d.). <https://www.dts.depedcotabato.org/>
- Murray, L. (2023, December 20). What is Role-Based Access Control | RBAC vs ACL & ABAC | Imperva. Learning Center. [https://www.imperva.com/learn/data-security/role-based-access-control-rbac#:~:text=Role%2Dbased%20access%20control%20\(RBAC\)%2C%20also%20known%20as,enable%20access%20to%20authorized%20users](https://www.imperva.com/learn/data-security/role-based-access-control-rbac#:~:text=Role%2Dbased%20access%20control%20(RBAC)%2C%20also%20known%20as,enable%20access%20to%20authorized%20users)
- Peneyra, T. (n.d.). DRTS v1.5 | Login. <https://tracker.clsu.edu.ph/>
- Salleh, S. F., Ujir, H., Sapawi, R., & Hashim, H. F. (2020). Accreditation document tracking system using Scrum approach. International Journal



- of Evaluation and Research in Education (IJERE), 9(1), 153.
<https://doi.org/10.11591/ijere.v9i1.20418>
- SeeWriteHear, LLC. (2020, October 15). What is Accessibility: An Introduction | SeeWriteHear. SeeWriteHear.
<https://www.seewritehear.com/learn/what-is-accessibility/>
- Shivani, Puri., Aditi, Selokar. (2023). Survey on File Trace: Efficient File Tracking System. 2(2):1-11. doi: 10.46610/jbdtba.2023.v02i02.001
- Syamsuddin, I., & Yunianta, A. (2021). Design and usability assessment of DocManS: A document management system with security and social media features. International journal of advanced and applied sciences, 9(1), 48–54. <https://doi.org/10.21833/ijaas.2022.01.007>
- Tamara, V., Baranova. (2024). Digitalization Of Document Management System In Medical Organizations: Theoretical Aspect. Zdorov'e megapolisa, doi: 10.47619/2713-2617.zm.2024.v.5i1;122-128
- Tatyana, Panfilova., B, C, Тынченко., Oksana, Kukartseva., Anastasia, Kozlova., Anna, Glinscaya. (2024). Modernization of electronic document management and systems analysis processes using an automated platform. E3S web of conferences, 549:09018-09018. doi: 10.1051/e3sconf/202454909018
- Team, G. C. (n.d.). What is an assessor? (Role, salary, duties). Go Construct.
<https://www.goconstruct.org/construction-careers/what-jobs-are-right-for-me/assessor/#:~:text=An%20assessor%20supports%20and%20assesses,involve%20both%20teaching%20and%20assessing.>
- The UP Document Tracking System (DTS) | University of the Philippines Information Technology Development Center. (n.d.).
<https://itdc.up.edu.ph/news/the-up-document-tracking-system-dt>
- Tilley, R. (2024, August 5). The Importance of Document Tracking | DocTech. The Importance of Document Tracking.
<https://www.doctech.co.uk/blog/the-importance-of-document-tracking-doctech#:~:text=A%20document%20tracking%20system%20records,on%20top%20of%20document%20versions.>
- Villanueva, G. (2023, June). 33-42. Development and Implementation of Document Management System for ILOCOS sur Polytechnic State College, Tagudin Campus.pdf. Google Drive.
<https://drive.google.com/file/d/1fFryE6VSKAFT9OcGptkFU5qgmqjSkCVJ/view>