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SCHOLARSHIP MANAGEMENT SYSTEM WITH CMS FOR LYCEUM OF THE PHILIPPINES CAVITE

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***Abstract*: The Scholarship Management System (SMS) with Content Management System (CMS) aims to provide students with an online platform to check their application status and receive automated updates. This system automates the entire scholarship lifecycle, from application to approval, and offers features such as eligibility quizzes to ensure compliance with requirements. Currently, Lyceum of the Philippines University - Cavite manages scholarships manually using Excel files and bulletin boards for information dissemination. Applicants must visit the administration office for forms and updates. The proposed web-based SMS will digitize this process, allowing students to apply online, track application status, and access scholarship details, while administrators can manage applications, generate reports, and maintain secure records. The system, developed using HTML, CSS, Bootstrap, JavaScript, PHP, and MySQL, will be accessible via various web browsers on computers and smartphones. It will enhance transparency, reduce administrative workload, and improve the overall efficiency of scholarship management. The development process includes requirements gathering, user design, construction, testing, and implementation. The system's functionality, security, and reliability will be evaluated through extensive testing. The evaluation tools are based on ISO/IEC 25010 standards, and initial tests show high acceptance and functionality rates among end-users and IT experts. The system includes roles for users, administrators, committee members, chairpersons, and IT maintenance, ensuring streamlined collaboration and approval processes. It will not offer chat support or email notifications, focusing solely on LPU- Cavite's official students and staff. The system's hardware requirements include a minimum Intel Core i3 processor and compatibility with web browsers like Chrome, Edge, and Safari.**

Keywords: **Scholarship Management System, Secure Records Management, Web Development, ISO/IEC 25010.**

I. INTRODUCTION

According to U.S. News & World Report, the average college student graduates with about $30,000 in student loans. That's nearly a 25% increase from a decade ago. Many of these student loans carry high interest rates and create a severe financial burden for young professionals. In contrast, scholarship programs can help students afford college without strings attached. As a result, scholarship recipients can pay off loans more quickly and use their extra income to start saving for the future. Following the COVID-19 pandemic, many public colleges and universities experienced significant budget cuts. When public schools experience a squeeze in funding, they generally pass these costs along to the student. The result is an increase in tuition fees and the rising cost of college that many students have noticed over the numerous scholarship opportunities that can help fill this gap in public funding.

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Scholarship management systems provide a wide range of organizational features that let you segregate your documents faster & more efficiently. The tagging feature allows you to add custom tags or keywords to documents which helps find them faster. Document types & stacks let you organize documents into different groups based on the applicant's name, scholarship, qualification, etc. Document linking lets you link related documents or stacks together for easier access [3].

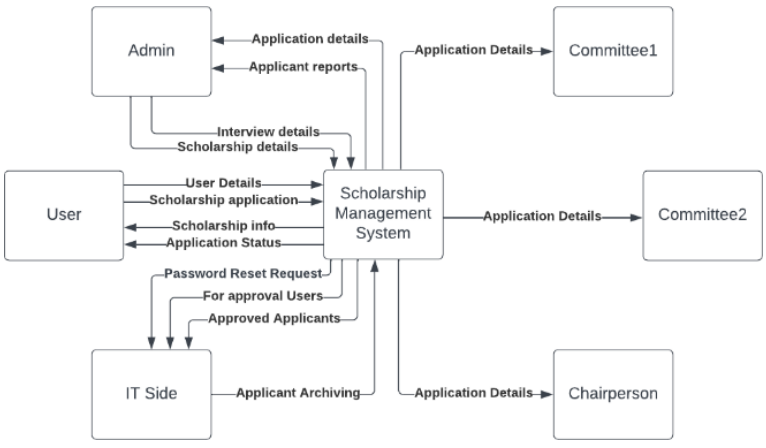
The Lyceum of the Philippines University – Cavite is experiencing a hard time for their students to have an approval with the scholarship and to manage their scholarship program. The university still using the manual process for posting the requirements, schedule and saving the data of the students who are part of the scholarship program. According to LPU-Cavite's Admin, manual process leads to the inaccurate and inefficient of data records and extra effort for applying the scholarship program in the University. LPU- Cavite offers 7 types of scholarship programs that are some of the students are not aware for the full details and most of the time the students missed the application schedule.

The implementation of a web-based scholarship management system will help the students to apply for scholarship program in a hassle –free way as there will be a full details of 5 types of scholarships and 2 discount type offer by the LPU-Cavite that will display the requirements, once the students choose the scholarship program the system will display the application form for fill up and apply, there will be a scholarship application status for the tracking in student modal. The scholarship management system will have an admin user to view the total students, total pending applicants, total approved applicants, and total rejected applicants in the dashboard. The admin user can also view and manage the scholarship applicants, there will be a generation of report for pending, approved, and rejected applicants. There will be 3 additional portal beside with admin and students, these are the committee 1, committee 2 and chairperson that will check specific requirements per application and needs approval from the 3 major roles, without the digital signature from the three said roles, it means that the application is rejected and students must comply with the missing requirements based on the reason provided either from the committee 1, committee 2 or chairperson. When the admin receives the application with 3 signatures, the admin can review and approve the application. There will be a add/update and delete function in admin side for managing the scholarship and requirements details. The admin can also set an interview for student with the help of setting up schedule via calendar and time, this is part of the scholarship program according to LPU- Cavite administration.

II. METHODOLOGY

A. Context Diagram

Figure 1: Context Diagram of SMS for LPU-C



The context diagram above outlines the project's key external entities: User, Admin, Committee 1, Committee 2, Chairperson, and IT Maintenance. Users interact with the system's user side, choosing scholarship types and checking application statuses. Admins manage applications, approve/reject them, generate reports, edit scholarship details, and schedule interviews. Committee 1 validates grades and Committee 2 validates good moral for approval or rejection. The Chairperson approves the application only if both Committee 1 and Committee 2 have signed it. The IT Maintenance approves/rejects user registrations, manages forgot password requests, and archives approved applicants. The simplified system ensures efficient collaboration and approval processes.

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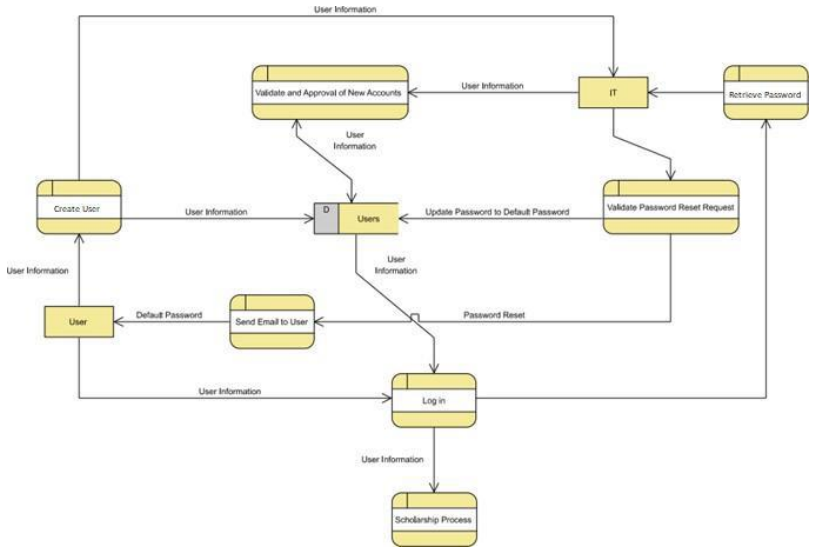
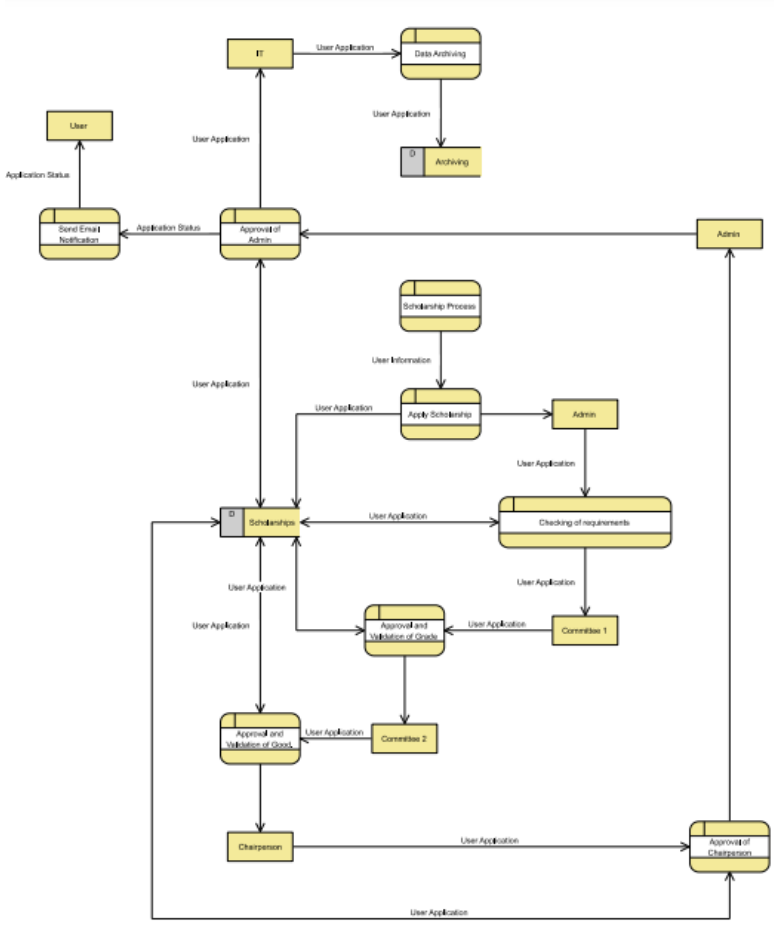
B. Data Flow Diagram

Figure 2: Data Flow Diagram 1.1 (Accounts)



In accounts data flow you can see how the data traveling to one process to one another related on user registration and user access on the system.

Figure 3: Data Flow Diagram 1.2 (Scholarships)



In scholarship data flow diagram as you can see here, this is a visual representation on how the data store, retrieve and update in scholarship application.

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C. Use-Case Diagram

Figure 4: Use-Case Diagram of SMS for LPU-C

Figure 4 shows the use–case diagram of scholarship management system, the system will have two main users which are admin and students. Admin can view dashboard, approve scholarships, view reports, approval list and student list while students can create an account, view scholarship type, apply scholarship, submit a form or requirements and view the application status. Committee 1, Committee 2 and Chairperson will view the specific requirements and approve or reject the application, if approve the 3 roles must provide digital signature, if rejected the 3 roles must provide reason. In an IT maintenance role, handling forgot password requests and archiving data from approved applicants are two distinct tasks.

D. Activity Diagram

Figure 5: Activity Diagram – Admin

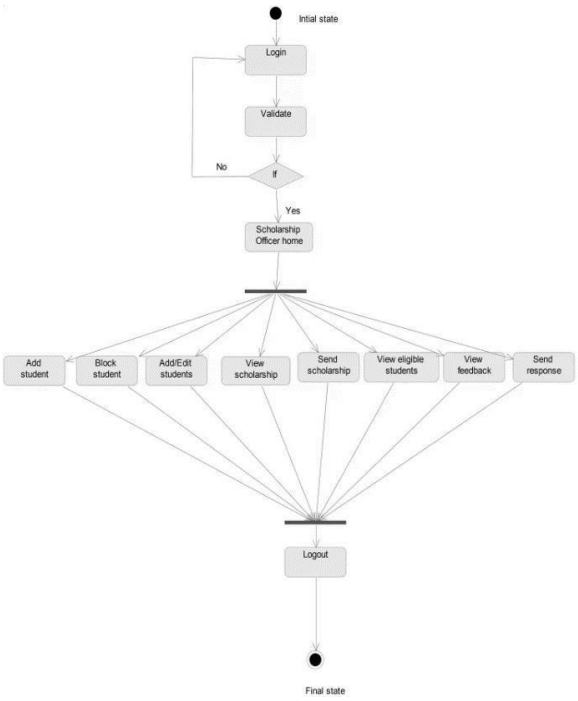

Figure 5 shows how the activity of an admin wherein the user can manage student, scholarship details, approval of eligible students and have feedback for application.

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Figure 6: Activity Diagram – Student

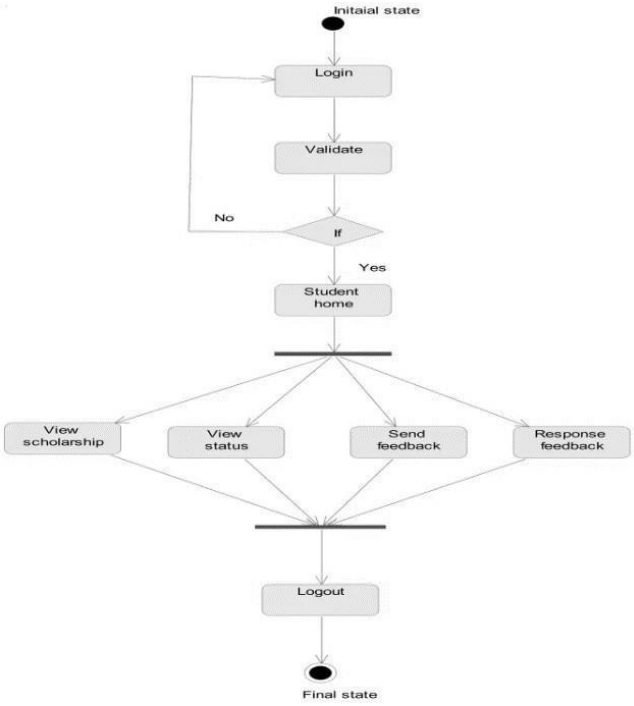

Figure 6 presents how the student activity happens from viewing the scholarship, application status and submission of forms.

E. System Flowchart

Figure 7: System Flowchart

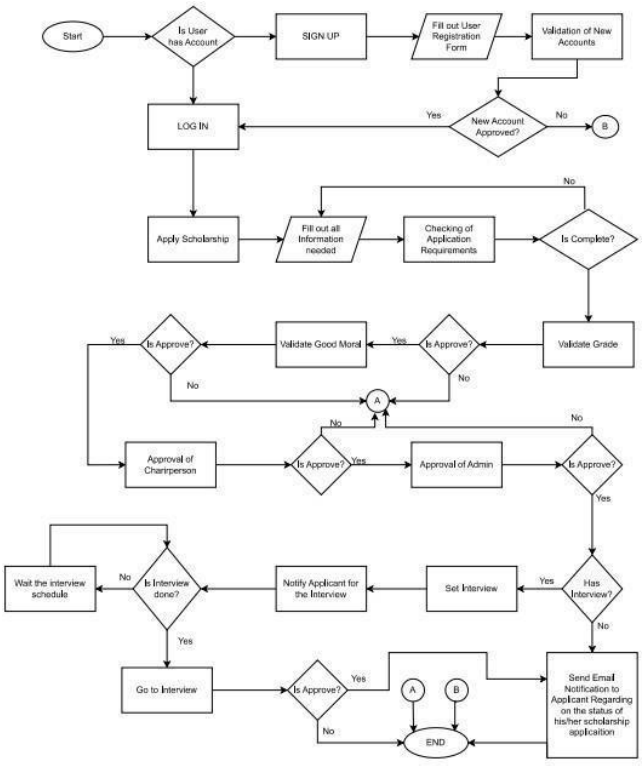

Figure 7 is the representation of the sequential steps and interactions within a system or process.

F. Agile Model

Figure 8: Agile Model of SMS for LPU-C

For the project, the proponents chose to use the Agile Methodology. This is a method that allows the researchers to have a collection of principles that value adaptability and flexibility. In the first loop, Stakeholders conduct an overall project assessment to determine the time and resources required for the development process. At the same stage, the owner assesses the risks and prioritizes the various functions depending on their business value. The second loop, the software owner meets with the software development and researcher team and introduces the researcher to the requirements outlined in the first step. The group then discusses the sequence for introducing functions and identifies the essential tools – the programming language, syntax libraries, and basic frameworks. At the same stage, software development teams can prototype the expected user interface. After agreeing on the plan with the beneficiary, the team develops the product itself. The product is delivered in stages, in separate sprints, each designed to improve the current version of the product. The initial release is likely to undergo many changes to provide improved functionality and new features. Each cycle includes testing, and the final product must also undergo final testing. For this phase, the researchers use Scrum and the Kanban methodology, the development process based on individual tasks. On the third loop, the product becomes available to consumers, so the the researcher team must conduct a series of tests to ensure that the software is fully functional. If potential bugs or flaws are found, the developer will fix them immediately. At this stage, they also collected consumer feedback. The software is now fully deployed and available to beneficiary. This action puts him in the maintenance phase. During this phase, the team provides ongoing support to keep the system running smoothly and fix any new bugs. Over time, further iterations are possible to update an existing product or add other functionality. On the final loop, the researchers present to the owner the result achieved in meeting the requirements. After that, the Agile software development phases start over – either with a new iteration or moving to the next stage and scaling Agile.

G. Test Plan

When testing the software to discover where the mistake arises in the system, a testing process is required. Program tests will be carried out in a certain order to ensure that a program and the system it controls can operate according to requirements. ISO 25010 defined the characteristics and sub-characteristics for the evaluation tool.

Table 1
Testing

Component/ Module	Test Conducted
Access the online scholarship management system in browser	a. Open Browser b. scholarship management system c. Home Page is display.

Table 1
Testing (Cont.)

Component/ Module	Test Conducted
Register an account	a. Click Register button
	b. Insert personal information to the required fields
	c. Create a username
	d. Create a password
	e. Click Register button
Sign-In Function	a. Click Sign-in
	b. Insert correct username
	c. Insert correct password
	d. Click Sign-in button
	e. home page display and account successfully sign in
Scholarship	a. Click the scholarship tab.
	b. choose preferred scholarship type.
	c. Verify if scholarship details is display.
Apply Scholarship	a. after choosing scholarship, click forms.
	b. verifies if there is ability to fill-up form.
	c. information summary is display.
	d. click submit
Log-out function	When you click the log-out button, the home page will display, and account is successfully log out

H. Evaluation Plan

The researcher prepares a survey questionnaire to determine whether the quality of the code is high enough for your needs, use statistical analysis tools to evaluate the software's reliability, or likelihood of running without failure for an extended period. Researcher, developer, and tester also check that the code is easy to maintain, test, and integrate with other software. By making this the stakeholder should keep an eye out for high numbers of defect reports or long defect identification times, which can demonstrate lower quality source code.

When evaluating the software to discover where the mistake arises in the system, a testing process is required. Program tests will be carried out in a certain order to ensure that a program and the system it controls can operate according to requirements. ISO 25010 defined the characteristics and sub-characteristics for the evaluation tool.

To determine whether the quality of the code is high enough for your needs, use statistical analysis tools to evaluate the software's reliability, or likelihood of running without failure for an extended period. Researcher, developer and tester also check that the code is easy to maintain, test, and integrate with other software. By making this the stakeholder should keep an eye out for high numbers of defect reports or long defect identification times, which can demonstrate lower quality source code.

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J. Evaluation tool

The evaluation tools that are used by the proponents are based on our system quality, and ISO/IEC 25010. The app was evaluated by Ten (10) IT experts, thirty (25) end-users.

The developers collected data from the questionnaire survey derived from respondents and scaled using the Likert Scale, and those data were used to calculate the mean and standard deviation. The computed weighted average would be scaled as the system met or failed to meet the expectations of the stakeholders. The formula and tables that follow will show the computations, scales, and ranges of each mean derived from respondents. The mathematical formula for the weighted arithmetic mean is shown below:

W = weighted average

n = number of terms to be averaged

wi = weights applied to x values Xi = data values to be averaged Where WM = weighted mean W = weight of each item

N = the number of terms (the total number of items or numbers averaged)

X = the averaged value of each individual item in the list of numbers The developers used the weighted arithmetic mean to calculate the expected feedback, each question has five (4) options, one for each item; namely, 4 (Highly Acceptable), 3 (Acceptable), 2 (Fairly Acceptable), 1 (Unacceptable).

Table 2.
Scales and Points of the Questionnaire Survey

Scale	Range	Descriptive Rating	Description
4	3.26 – 4.00	Highly Acceptable	The respondent believes the subject is of the highest level of acceptability, indicating strong approval or satisfaction
3	2.51 – 3.25	Acceptable	The respondent finds the subject acceptable, indicating approval or satisfaction
2	1.76 – 2.50	Fairly Acceptable	The respondent believes the subject is somewhat acceptable but may have reservations, indicating a moderate level of approval or satisfaction
1	1.0 - 1.75	Unacceptable	The respondent deems the subject unacceptable, indicating disapproval or dissatisfaction

The scoring system employs a numerical scale ranging from 1 to 4 to assess the acceptability of items. A rating of 4 signifies that the item is "Highly Acceptable," indicating exceptional quality and adherence to the highest standards. A rating of 3 deems the item "Acceptable," indicating that it meets satisfactory standards and is considered good. A score of 2 labels the item as "Fairly Acceptable," suggesting some acceptability but with noticeable shortcomings or areas for improvement. The lowest rating, 1, categorizes the item as "Unacceptable," indicating that it falls short of meeting the required standards and is considered inadequate. This scoring system provides a clear and concise method for qualitative evaluation, with each numerical rating

K. Statistical Treatment Data

The data were gathered from a total of thirty-five (35) evaluation respondents, mainly being twenty-six (25) Students, ten (10) IT experts,. The collected data were computed, and undergone data interpretation and validation based on the weighted mean and standard deviation. The following are the formulas used by the researchers.

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Weighted Mean Formula

The mean is the arithmetic average of the scores that were given by the test respondents. Σx is the summation of the total scores, while n is the total number of respondents. $\bar{x}$ is the mean, which is equals to the summation (Σ) of score of proper weight (x) divided by the total number of respondents (n). The formula used by the researchers for the weighted mean is: $\bar{x} = (\Sigma x) / n$. By employing the weighted mean computation, we enhance the precision and relevance of our evaluation process, aligning with the specific emphases outlined in ISO-25010.

Figure 9: Standard Deviation Formula

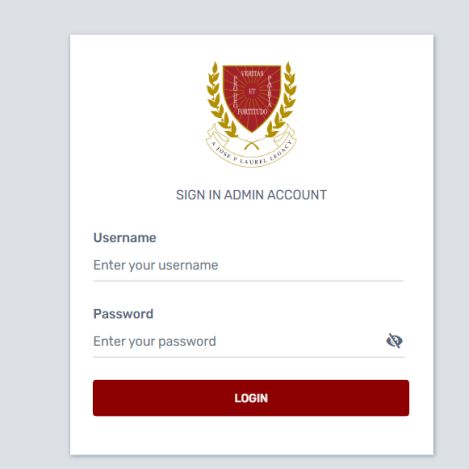
$$SD = \sqrt{\frac{\sum(X - \bar{X})^2}{N - 1}}$$

Where
$\bar{X}$ = *mean*
$\sum$ = *"summation of"*
X = *score of proper weight*
N = *total number of respondents*

Standard deviation is measured to determine how dispersed the data collected is. It helps developers to assess how the respondents rated each criterion and measure the absolute variability of the distribution. The higher the value of computed standard deviation, the more differently the respondents rated the app.

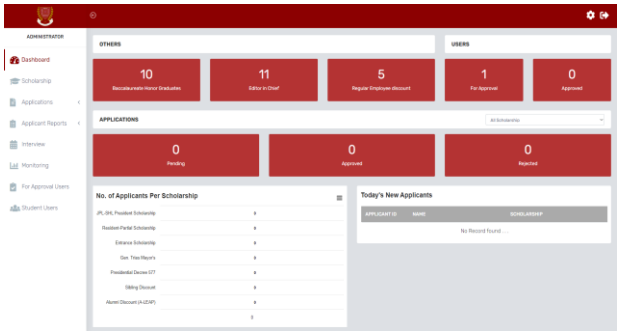
L. User Interface

Figure 10: Login Page of the System Admin



The Illustration above shows the login page of the Scholarship Management System. The User can login to the system by using their valid username and password.

Figure 11: Dashboard of the System Admin



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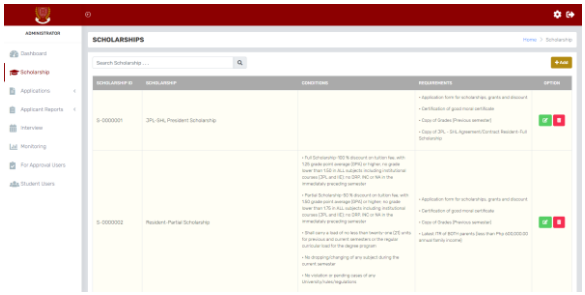
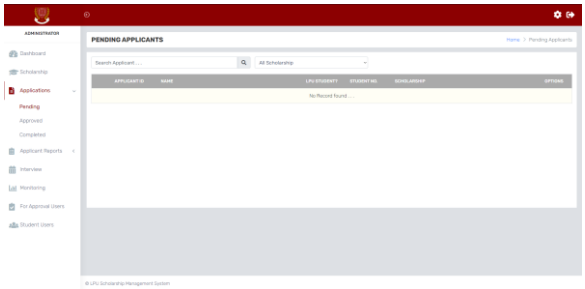
Using the dashboard, the admin has the capability to view comprehensive statistics, including the total number of scholarships categorized by type, as well as the specific breakdown of pending applications, approvals, and rejections. This dashboard functionality provides a clear overview of the scholarship landscape, allowing for informed decision- making and strategic planning.

Figure 12: Scholarship Page of the System Admin



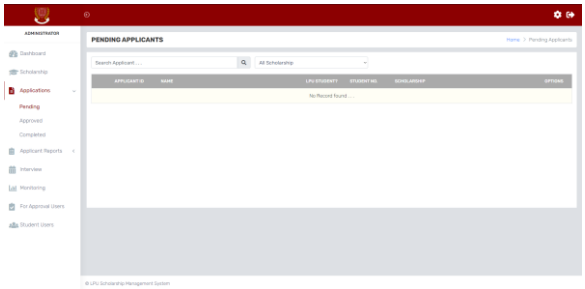
Within the scholarship menu, the admin user possesses the authority to manage scholarship requirements effectively. This includes the ability to update existing requirements, insert new ones, and delete outdated or irrelevant details. These actions directly impact the user experience, ensuring that the information presented to users is accurate, up-to-date, and aligned with the scholarship guidelines. By having this level of control, the admin can maintain the integrity of the scholarship program and enhance user satisfaction through clear and transparent communication of requirements.

Figure 13: Application Page of the System Admin



The admin holds the responsibility for managing student applications effectively. This involves reviewing each application thoroughly and making decisions to either accept or reject them based on predefined criteria and eligibility requirements. The admin's role in this process is crucial as they ensure that only deserving candidates are granted scholarships, maintaining the integrity and fairness of the selection process. Additionally, the admin may also communicate feedback or additional requirements to applicants, fostering transparency and accountability in the application review process.

Figure 14: Pending Page of the System Admin (Application)



The admin has access to a comprehensive list of all pending applications awaiting review and processing. This feature allows the admin to efficiently track the progress of each application, ensuring timely and thorough evaluation. By having a centralized view of pending applications, the admin can prioritize tasks, allocate resources effectively, and streamline the workflow for faster decision-making. Additionally, the pending menu provides valuable insights into the volume of incoming applications, allowing the admin to assess workload and make informed adjustments to optimize efficiency.

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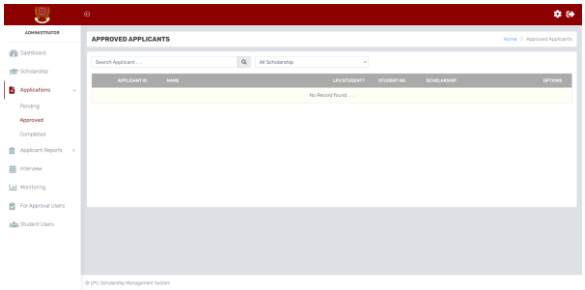
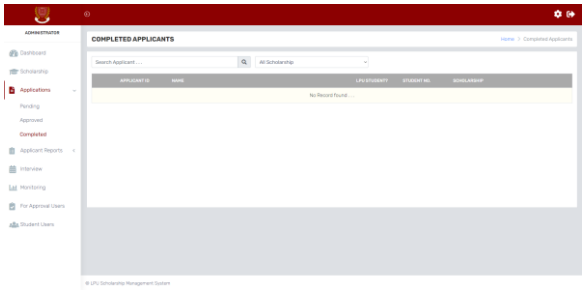
Figure 15: Approved Page of the System Admin (Application)



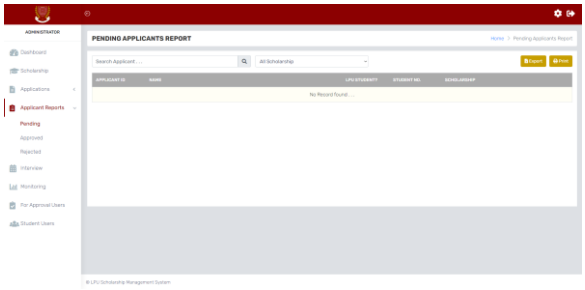
In the approved menu, the admin gains access to a comprehensive repository of all successfully processed applications. This feature provides a consolidated view of applicants who have met the eligibility criteria and have been granted scholarships. By having this centralized database, the admin can track the progress of approved applications, ensuring that all necessary actions, such as fund disbursement or enrollment in scholarship programs, are promptly executed. Additionally, the approved menu serves as a valuable resource for generating reports and analytics on successful applications, allowing the admin to evaluate the effectiveness of the scholarship program, identify trends, and make data-driven decisions for future enhancements.

Figure 16: Completed Page of the System Admin (Application)



The admin gains access to a centralized database containing all applications that have undergone the entire review and processing cycle. This includes applications that have been accepted, rejected, or withdrawn by applicants themselves. The completed menu serves as a valuable archive of historical application data, providing insights into the overall performance and trends of the scholarship program over time. Additionally, it allows the admin to track the outcomes of completed applications, such as scholarship awards or feedback provided to applicants, facilitating continuous improvement and refinement of the application review process.

Figure 17: Applicant Report Page of the System Admin



The admin has the capability to access comprehensive applicant reports within the system, which categorize applicants based on their application status, whether pending, approved, or rejected. These reports offer a detailed overview of each applicant's journey through the application process, including their submitted documents, eligibility status, and any additional notes or feedback provided during the review process. By having access to such detailed reports, the admin can track the progress of applicants at each stage, identify common trends or challenges, and make data-driven decisions to enhance the efficiency and fairness of the scholarship application process. Additionally, these reports serve as valuable documentation for audit purposes and continuous improvement initiatives within the scholarship management system.

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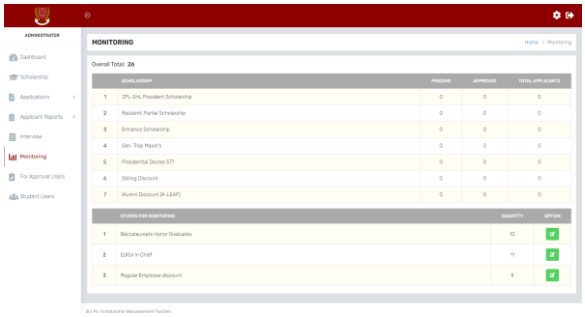
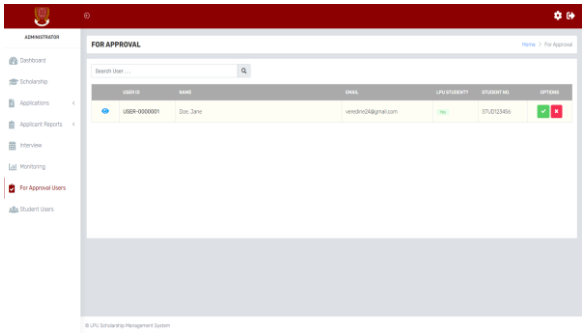
Figure 18: Monitoring Page of the System Admin



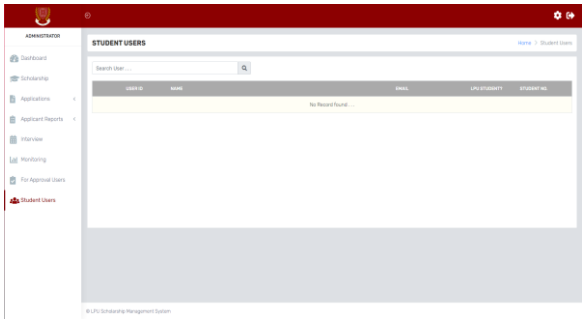
The admin monitor all scholarship types based on the status and the total of the applications.

Figure 19: Approval of User Page of the System Admin



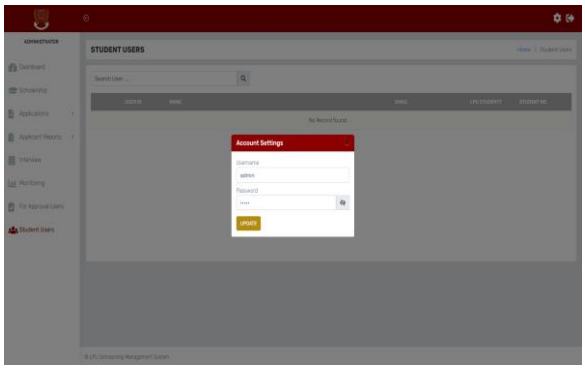
In the approval user's menu, the admin can approve new users and also comprehensive list of all users awaiting approval.

Figure 20: Student User Page of the System Admin



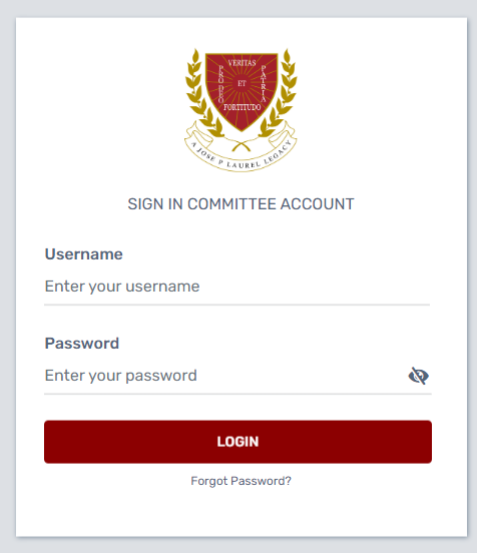
The admin has the ability to access a complete list of student users and view detailed information about each student.

Figure 21: Settings Page of the System Admin



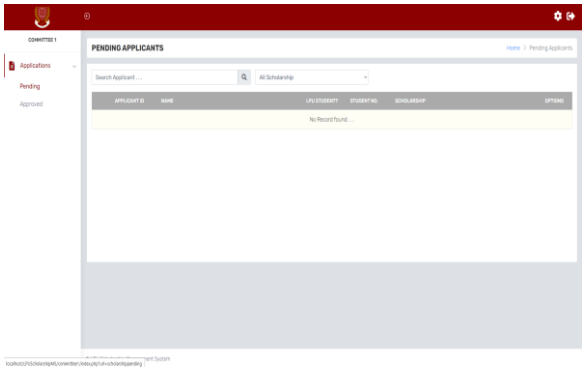
The admin has the capability to update user credentials, including usernames and passwords, ensuring security and compliance with authentication protocols.

Figure 22: Login Page of the System Committee 1 and 2



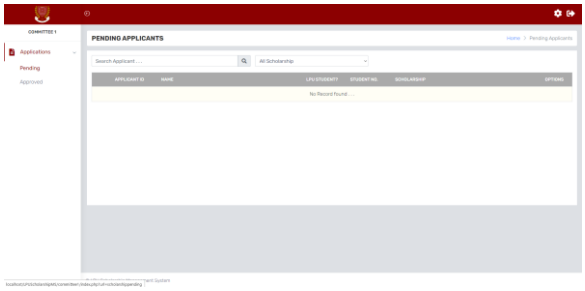
The committee members can log in to the system by entering a valid username and password. This login process is essential for ensuring that only authorized individuals have access to the committee's functionalities and sensitive information. By requiring a valid username and password, the system maintains security measures to protect against unauthorized access and safeguard confidential data. Additionally, the login credentials serve as a form of identity verification, allowing the system to authenticate users and grant appropriate permissions based on their roles and responsibilities within the committee.

Figure 23: Application Page of the System Committee 1 and 2



The committee can see a full list of all the applications that have been submitted. This means they have access to details about each applicant, like their personal information, education background, and any documents they've provided. With this list, the committee can carefully review each application, compare applicants, and make fair decisions about who should receive scholarships or other benefits. Having all this information helps the committee ensure they're making informed choices and treating all applicants fairly.

Figure 24: Pending Page of the System Committee 1 and 2 (Application)



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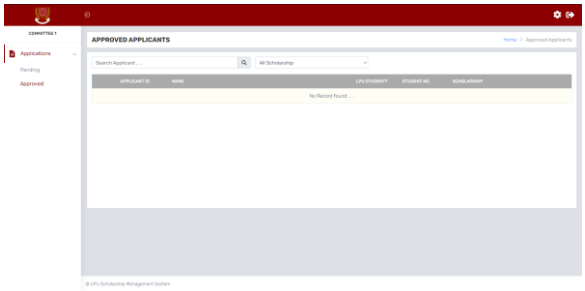
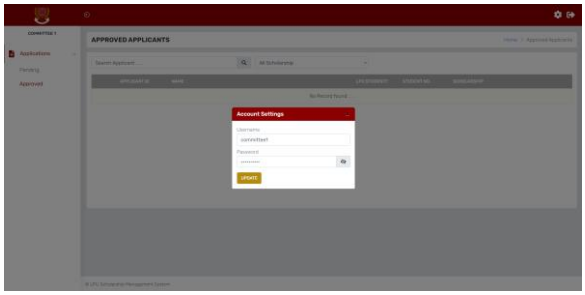
The committee has the ability to see a complete list of all pending applications. This includes applications that are still waiting for a decision or review. By having access to this list, the committee can carefully go through each pending application, assess the information provided by applicants, and make informed decisions about whether to approve or reject each application. This process ensures that every application is thoroughly evaluated and that the committee can manage their workload effectively by prioritizing pending applications. Additionally, having a centralized list of pending applications helps the committee keep track of the progress of each application and ensures that no application is overlooked or left unattended.

Figure 25: Approved Applicant Page of the System Committee 1 and 2 (Application)



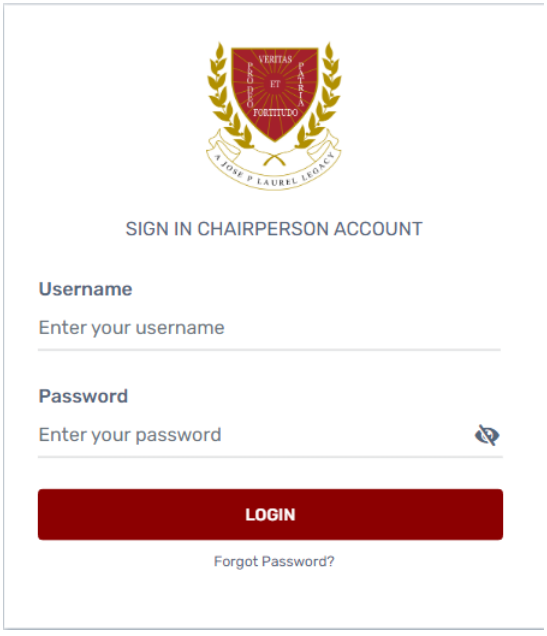
The committee has the ability to view a comprehensive list containing all the applications that have been approved.

Figure 26: Settings Page of the System Committee 1 and 2



The committee 1 and 2 has the capability to update user credentials, including usernames and passwords, ensuring security and compliance with authentication protocols.

Figure 27: Login Page of the System Chairperson



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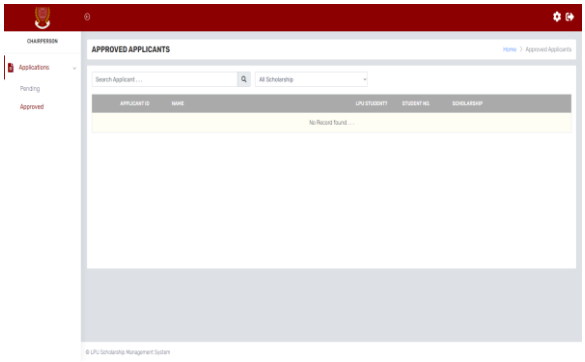
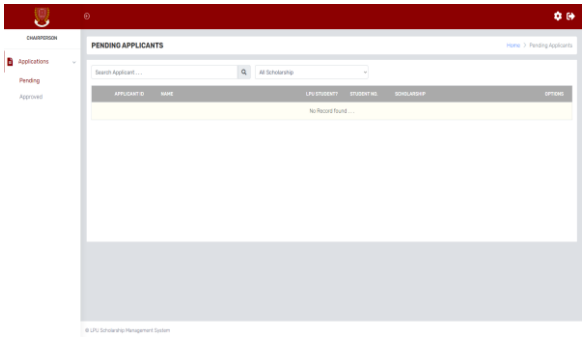
The chairperson has the ability to log in to the system by entering a valid username and password. This login process is essential for ensuring that only authorized individuals, such as the chairperson, have access to the system's functionalities and confidential information. By requiring a valid username and password, the system maintains security measures to protect against unauthorized access and safeguard sensitive data. Additionally, the login credentials serve as a form of identity verification, allowing the system to authenticate users and grant appropriate permissions based on their roles and responsibilities within the committee.

Figure 28: Approved Applicant Page of the System Chairperson



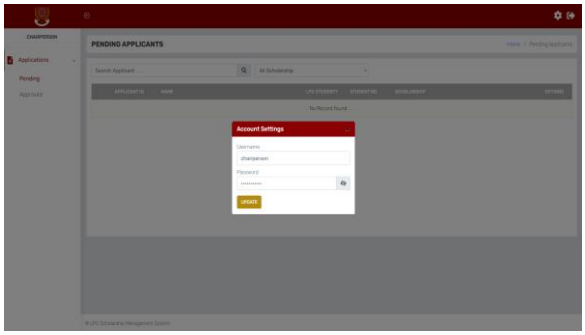
The chairperson has the capability to access and review a comprehensive list of all applications that have been approved. This feature allows the chairperson to gain insights into the successful applicants, including details such as their names, contact information, and the type of benefits or scholarships they have been approved for.

Figure 29: Pending Page of the System Chairperson



The chairperson has the ability to access and review a complete list of all pending applications within the system. This feature allows the chairperson to carefully examine each pending application and assess the information provided by applicant

Figure 30: Settings Page of the System Chairperson



The chairperson has the capability to update user credentials, including usernames and passwords, ensuring security and compliance with authentication protocols.

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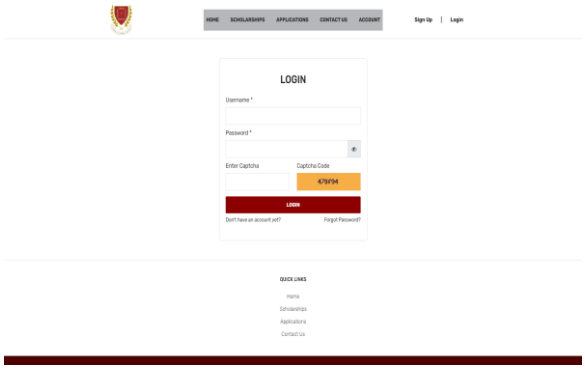
Figure 35: Login Page of the System User

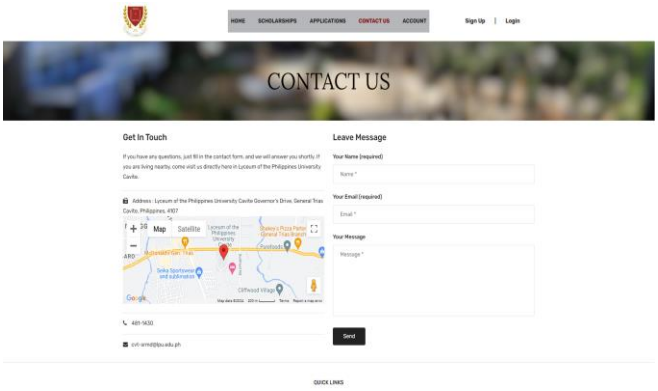


The user has the ability to log in to the system by entering a valid username and password. This login process is crucial for ensuring that only authorized individuals can access the system's functionalities and sensitive information. By requiring a valid username and password, the system maintains security measures to protect against unauthorized access and safeguard confidential data. Additionally, the login credentials serve as a form of identity verification, allowing the system to authenticate users and grant appropriate permissions based on their roles and responsibilities within the organization. This login process ensures that users can securely access the system's features and perform necessary tasks related to their roles.

Figure 36: Homepage of the System User

The user has the capability to access the home page of the system, where they can find information about the Lyceum of the Philippines University history. By providing access to this historical information, the system allows users to gain a deeper understanding of the university's background, values, and contributions to education and society.

Figure 37: Contact Page of the System User



The user has the ability to access and view the contact details and location information of the university.

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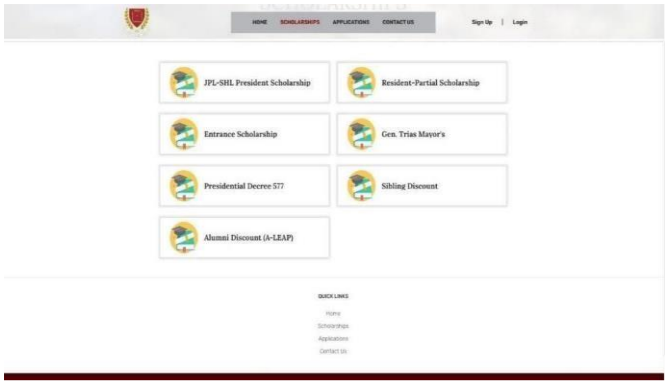
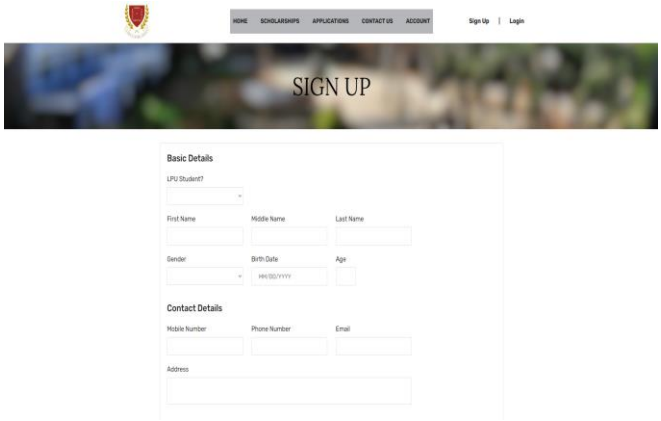
Figure 38: Scholar Page of the System User



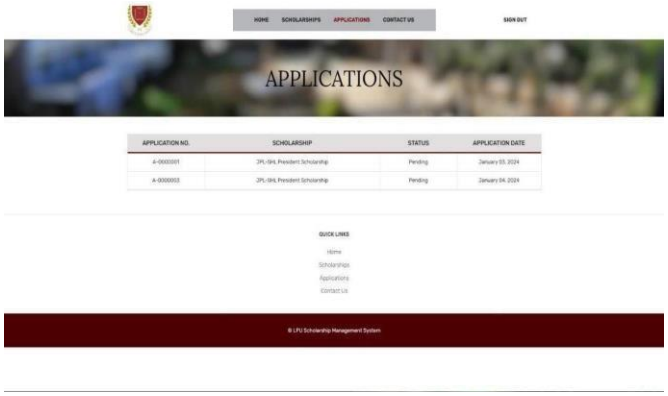
The user has the ability to access and view all the scholarship categories available within the system. Once the user selects a specific scholarship type of interest, the system automatically displays the corresponding requirements for that particular scholarship category.

Figure 39: Signup Page of the System User



Users have the option to create an account within the system, after which they will be directed to the admin for approval. This process involves filling out a registration form with necessary details such as name, email address, and contact information. Once the registration is submitted, the admin reviews the information provided by the user and decides whether to approve or reject the account request.

Figure 40: Application Page of the System User



Users have the ability to view the applications they have submitted within the system. This feature allows users to track and monitor the progress of their applications and see the status of each application they have applied for. By accessing their application details, users can check if their application is pending.

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III. RESULTS

A. Test Results

Table 3: Test Results of the Functionality Test

Test Respondents	Pass	Fail	Test Criteria	Percentage
Technical Adviser (1)	176	0	176	100%
IT-Expert 1	176	0	176	100%
IT-Expert 2	176	0	176	100%
IT-Expert 3	176	0	176	100%
Administrator (5)	153	0	153	100%

Functionality test was participated by the technical adviser, five (5) admin, and three (3) IT Experts. The instrument have 176 criteria tested; for Technical Adviser and IT-Experts and 153 criteria tested for Administrator. both in the technical adviser and IT Experts got 176, while the admin side has 153 passed and 0 failed, with 100% passing rate.

Table 4: Test Results of the Compatibility Test

Test Respondents	Pass	Fail	Test Criteria	Percentage
Technical Adviser (1)	9	0	9	100%
IT-Expert 1	9	0	9	100%
IT-Expert 2	9	0	9	100%
IT-Expert 3	9	0	9	100%
Registrar's Admin (5)	8	0	8	100%

All test participants passed the compatibility test with 100% passing rate from the nine (9) test criteria for Technical Adviser and IT- Experts and (8) test criteria for Administrator. Compatibility test results showed that the application is proficient enough to run in the hardware screen resolutions of 4 inches with 640 x 1136 px, 4.7 inches with 1334 x 750 px and 5.5 inches with 1920 x 1080.

Table 5: Evaluation Results from Thirty-five (35) Student and admin scholars

END-USER (35) Criteria	Mean	SD	Interpretation	Rank
Performance	3.50	0.50	Highly Acceptable	4
Functionality	3.52	0.50	Highly Acceptable	3
Usability	3.53	0.50	Highly Acceptable	1
Reliability	3.53	0.50	Highly Acceptable	2
Grand Mean and SD	**3.52**	**0.50**	**Highly Acceptable**	

Table 5 shows the evaluation results from thirty-five (35) student users. As observed, "Usability" ranks first among the criteria, with a mean of 3.82 and a standard deviation of 0.50 It is followed by the "Reliability," which ranks second with a mean of 3.54 and a standard deviation of 0.50. "Functionakity" ranks third on the evaluation, with a mean of 3.52 and a standard deviation of 0.50. Lastly, with a mean of 3.50 and 0.50 standard deviation, "Performance" is the least ranked among the four. All of them are interpreted as "Highly Acceptable," which garnered a grand mean of 3.52 and 0.52 overall standard deviation.

Table 6: Evaluation Result from five (5) Registrar's admin

Registrar's Admin (5) Criteria	Mean	SD	Interpretation	Rank
Performance	3.51	0.50	Highly Acceptable	2
Functionality	3.52	0.50	Highly Acceptable	1
Usability	3.47	0.50	Highly Acceptable	4
Reliability	3.50	0.50	Highly Acceptable	3
Grand Mean and SD	**3.51**	**0.50**	**Highly Acceptable**	

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Table 6 shows the evaluation results from five (5) Registrar's Admin Users. As observed, "Functionality" ranked the highest evaluation result, with a mean of 3.52 and a standard deviation of 0.50 It is followed by the "Performance" criteria, which ranks second with a mean of 0.50 and a standard deviation of 0.50. "Reliability" is ranked Third on the Admin evaluation, with a mean of 3.50 and a standard deviation of 0.50. This makes "Usability" the least ranked criterion with a mean of 3.48 and 0.50 standard deviation. Individually, each criterion is interpreted as "Highly Acceptable." With a grand mean of 3.51 and 0.50 overall standard deviation, it can be concluded that Scholarship Management System has met the objectives and expectations of the teacher users.

Table 7: Evaluation Result from Ten (10) IT-Expert

IT-Expert (10) Criteria	Mean	SD	Interpretation	Rank
Performance	3.60	0.49	Highly Acceptable	1
Functionality	3.52	0.50	Highly Acceptable	3
Usability	3.53	0.50	Highly Acceptable	2
Reliability	3.38	0.48	Highly Acceptable	4
Grand Mean and SD	**3.51**	**0.50**	**Highly Acceptable**	

Table 7 shows the evaluation results from ten (10) IT experts. It is determined that for IT experts, "Performance" ranked the highest among the other criteria, resulting in a mean of 3.60 and 0.49 standard deviation. Meanwhile, "Usability" ranked second with a mean of 3.53 The former has a standard deviation of 0.50,. This makes "Functionality" the least ranked criterion with a mean of 3.52 and 0.50 standard deviation. Nevertheless, the four criteria are "Highly Acceptable" for IT experts, with a grand mean of 3.51 and 0.50 overall standard deviation. Hence, Scholarship Management System is inferred to meet the objectives and expectations of IT experts with a high rating.

Table 8: Overall Evaluation Result

Criteria	Mean	SD	Interpretation	Rank
Performance	3.54	0.50	Highly Acceptable	1
Functionality	3.52	0.50	Highly Acceptable	2
Usability	3.51	0.50	Highly Acceptable	3
Reliability	3.47	0.50	Highly Acceptable	4
Average Mean and SD	**3.51**	**0.50**	**Highly Acceptable**	

Table 8 shows the overall evaluation results from forty (40) end-users and ten (10) IT experts. Based on the data provided in the table above, "Performance" is the most highly rated criterion among the four, with a mean 3.54 and a standard deviation of 0.50. It is followed by "Functionality" with the mean of 3.52. The former has a 0.50 standard deviation, while the Third one in 0.51 "Usability",ranked fourth among the criteria is "Reliability", with a mean of 3.47 and 0.50 standard deviation. All criteria can be interpreted as "Highly Acceptable." Overall, the evaluation result has a grand mean of 3.51 and 0.50 grand standard deviation. Hence, the system is "Highly Acceptable" in terms of overall performance.

IV. CONCLUSION

Based on the summary of findings, several conclusions were drawn regarding the system's capabilities and functionality. The system features a home page that showcases the school's history, events, and pictures, providing an informative introduction for users. It includes detailed information on scholarship programs, including requirements and application forms, and allows for the tracking of application statuses. Administrators have the capability to manage scholarship program details, student information, and application approvals. They can also view summaries of total students, pending, approved, and rejected applicants through a dashboard. The approval process involves multiple levels, including committee members and the chairperson, who can upload PDF files with digital signatures and provide reasons for rejected applications, enabling students to comply with requirements. Additionally, administrators can schedule interview appointments with students.

The system is equipped to generate reports for pending, approved, and rejected applicants and includes an email notification feature to inform users about account approvals. It supports user creation for both administrators and students and includes secure login functionality with username, password, and captcha validation. The project was developed using HTML, CSS,

Bootstrap, and JavaScript for the front end, and PHP, MySQL, and XAMPP for the back end. It is compatible with web browsers on computers and smartphones, such as Chrome, Microsoft Edge, and Safari. Compatibility and functional testing were conducted to ensure the system's performance. The system's evaluation and assessment were based on the ISO 25010 standard, focusing on performance, functionality, reliability, and usability.

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