Design and implementation of final year project management system for the school of Engineering and technology of Soroti University

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Contents.

Background

- Final year project is a prerequisite for any engineering student to graduate.

- Handling these projects is still a challenge at Soroti University.

- There is a need for a streamlined platform to handle final-year projects.

- This project proposes an online final-year project management system.

Problem Statement

- The current final year project management process for SET is entirely manual which includes the exchange of emails and verbal communications through meetings. This leads to delays in terms of feedback, and inconsistencies in progress tracking between students, supervisors and project coordinators.

- Thus, there is a need for an electronic final-year project management system for Soroti University to handle the project process in the School of Engineering.

Motivation

- The necessity to solve the inefficiencies in final year project management is a driving force to develop the Final Year Project Management System.

- The current approach is time-consuming and is prone to mistakes like loss of papers, slow feedback, and the inability to follow project progress in real-time.

- A more effective method for managing student submissions and evaluations is required.

Related Work

- Al-Ani et al. (2019) highlight the cloud-based final-year project management system's ability to provide supervisors and students with efficient and scalable services[1].

- Similar to this, Rababah et al. (2020) presented a web-based FYPMS intended to address challenges related to project management[2].

- Zhang et al. (2018) created a mobile-based project management system for final-year students using an alternative approach[3].

Proposed System modal.

- Soroti University Final Management System is purposely to occupy the gaps in managing final-year projects.
- The system will provide a customised solution designed specifically to manage final-year projects.
- This proposed system will be user-friendly for students,project coordinators, administrators and supervisors. It will include the following functionalities
- supervisor assignment module.
- Enhanced feedback mechanism. This will allow a looped dialogue between supervisors and students.
- Project Milestone Tracking. This will help in tracking the project's progress
- Supervisor assignment. Project coordinators will be able to assign supervisors to students electronically.

Objectives

Main Objective

- To design and implement a final year project management system for the School of Engineering of Soroti University.

Specific Objectives

- To develop and implement a system with improved Project tracking and management.
- To develop a centralized platform that enhance communication and collaboration between users of the system.
- To compare the system performance with existing systems in the literature.

Methodology

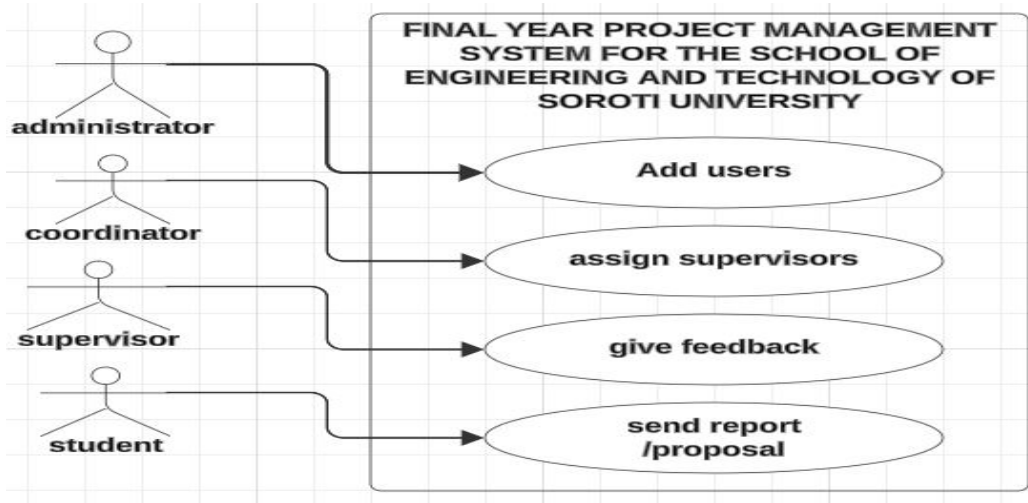| Method	Brief explanation
Literature review	Reading journal articles and case studies to identify best practices
Data collection	Conducting surveys, interviews, and focus groups
Design and implementation	Developing and implementing the system based on collected data using software models
Testing and validation	Verifying system performance to ensure that it functions as intended to meet users' needs
Documentation	Writing reports and proposals for the project

Scope of the Project

Areas of Focus	Exclusions
- User Authentication and Role Management. - Project Management and Submission - Supervisor Assignment and Project Management - Feedback System - Database Design - Administrative Oversight	- Hardware Design - Development of Mobile Applications - Cloud-Based Hosting - Advanced AI and Machine Learning Integration - Payment Processing or Financial Management

Block Diagram

FINAL YEAR PROJECT MANAGEMENT SYSTEM FOR THE SCHOOL OF ENGINEERING AND TECHNOLOGY OF SOROTI UNIVERSITY

administrator

coordinator

supervisor

student

Add users

assign supervisors

give feedback

send report /proposal

Expectations

- Streamlined project management for students, administrators, coordinators and supervisors.

- Improved transparency and accountability in the project life cycle.

- Maintained digital record of project proposals, progress, and final submissions.

Equipment/Software used

Equipment	Explanation
HTML, CSS and JavaScript.	These are going to be used for front development.
PHP	For the application layer. It will handle server-side logic. So it will be used to develop the backend.
XAMPP	It has MySQL, needed for developing database in our system.
Visual Studio Code	This is a developing environment of the system.
Laptop.	This will act as a local host.

Timeline

ACTIVITY	August (2024)	September (2024)	October (2024)	November (2024)	December(2024)	January (2025)	February (2025)	March(2025)	April (2025)	May (2025)
Requirement gathering	████	████								
System design			████	████						
Development					████	████	████	████		
Testing									████	
Evaluation and deployment									████	████

Budget

Item	Cost (UGX)
Software Subscription	200,000
Data	350,000
Domain Name	150,000
Miscellaneous	150,000
Total	**850,000**

Conclusion

- In this project, the proposed system is the design and implementation of a FYPMS for SET.

- Particularly, the system intended to address the inefficiencies in the manual processes of managing final-year projects by transitioning them to web-based methods.

- Finally to provide a communication platform for all parties involved in the project.

References

[1] M.-M. H.-F. A. Al-Ani, "A cloud-based final year project management system," *IEEE Access*, vol. 7, pp. 56-65, 2019.

[2] M.-T. A. B. Rababah, "A web-based system for managing final year projects," *Int. J. Inf. Syst. Technol.*, vol. 14, pp. 89-97, 2020.

[3] H. J. Y. Zhang, "Mobile-based project management system for final year students,"*IEEE Trans. Educ.*, vol. 61, pp. 329-338, 2018.

THANK YOU