

Cloud Based System For Streamlined Final Year Project Allocation And Tracking With Deduplication

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Abstract- *Projects are the only thing that matters on final graduation. Projects work demonstrates the depth of knowledge and some soft skills, such as creativity and problem-solving. The final year Projects will also improve your interview prospects. Therefore, it is necessary and mandatory for students to complete a project in their final year of graduation. Managing and controlling the final year projects of students using manual or traditional process is a very tedious job. This project is aimed at developing a web-based system, which manages the activity of Student Project Allocation and Tracking system. The application helps students, project advisors, and faculty administrators manage the project from the beginning to the end. The main features of this system are (i) project title recommendation, (ii) project and team prioritization, (iii) project and team matching, project management and scoring, and report generation. This deduplication functionality ensures the elimination of redundant or overlapping project proposals, streamlining the project selection and allocation process. The system is therefore useful to help Project Internal Guide to arrange project selection and allocation procedure, as well as helping the students to submit their preferences.*

I. INTRODUCTION

The final year project is the culmination of the degree – it gives students a chance to demonstrate all they have learned. The project module is very different from other modules. Although students are supervised, the onus is on the student to define the problem boundaries, to investigate possible solutions, and to present the results in writing, verbally and in action. Apart from an initial briefing session there are no formal lectures to attend. Teaching consists of regular individual/small group meetings to discuss progress. For assessment, students submit reports of their progress and final results, and give in-person presentations and demonstrations of their work. The Final Year Project (FYP) holds paramount importance as it serves as a culmination of academic learning, allowing students to integrate theoretical knowledge with real-world application. This pivotal undertaking provides students with an opportunity to

showcase their competence by independently conducting research, analyzing information, and presenting well-founded solutions to practical challenges. Beyond academic assessments, the FYP plays a crucial role in skill development, nurturing capabilities such as critical thinking, problem-solving, project management, and effective communication—skills that are not only vital in academic settings but also highly transferable to professional environments.

II. RELATED WORKS

The traditional system of Final Year Project (FYP) processing and management typically involves manual and paper-based procedures. In this conventional approach. In the traditional system, students are required to physically submit hard copies of their project proposals to the respective department offices. This involves printing multiple copies and delivering them in person. Faculty members conduct a manual review of the printed project proposals. They provide handwritten feedback on the hard copies and make decisions regarding the approval of project titles based on the physical documents. The assignment of mentors is typically done through in-person meetings with the Head of Departments (HoDs). This manual process relies on paperwork and may involve considerations such as faculty availability and expertise. Document sharing between students and faculty is done either physically, by handing in printed copies, or through email. This often results in scattered file management, making it challenging to maintain a centralized repository of project-related documents. Feedback is given on printed evaluation sheets, and discussions take place in person. Communication channels are primarily face-to-face, through phone calls, or via email. This can lead to fragmented communication, potential misunderstandings, and delays in information dissemination.

- Manual processes result in a slow and inefficient workflow, impacting project timelines.
- Heavy reliance on physical paperwork leads to document overload and storage challenges.

- Face-to-face and email communication may cause gaps and delays in conveying important information.
- Printing, distributing, and managing hard copies consumes resources and time
- Approvals and signatures require physical presence, leading to delays and inconvenience.
- Tracking project progress is challenging due to manual record-keeping and scattered information.
- Heavy reliance on physical documents contributes to environmental impact through paper usage.

III. PROPOSED SYSTEM

The proposed system for the Final Year Project (FYP) Web App aims to overcome the drawbacks of the traditional system by introducing a modern, web-based platform. The proposed system envisions a modern, efficient, and user-centric platform that revolutionizes FYP management, offering enhanced collaboration, streamlined workflows, and improved accessibility for all stakeholders involved. Key features of the proposed system include. Automated algorithms assist in the review and approval of project titles, incorporating deduplication functionality to eliminate redundant or overlapping proposals. Head of Departments (HoDs) can efficiently assign mentors through an online platform, considering faculty expertise. Automation reduces manual workload, expediting project approvals and progression. Deduplication ensures diverse project topics without redundancy. Online platform accelerates mentor assignment based on faculty expertise. Centralized repository reduces paperwork and enhances document organization. Accuracy is enhanced, and record-keeping simplified during review sessions.

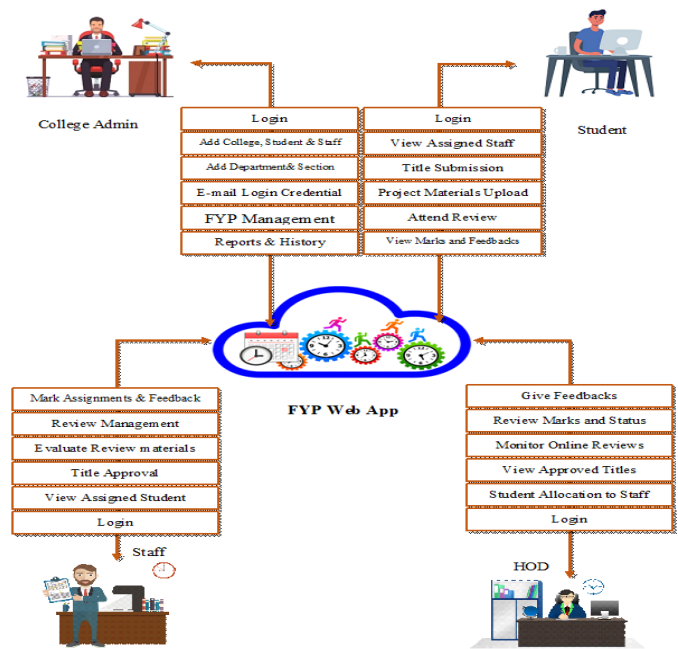


Figure- 1 System Architecture

The system design for the "Cloud-Based System for Streamlined Final Year Project Allocation and Tracking with Deduplication" includes a multi-tier web application architecture that does ensure efficient management of final year projects. It comprises a user interface layer for intuitive interactions, an application logic layer to handle core functionalities, a data layer for secure data storage, cloud services for scalability and reliability, a deduplication module to eliminate redundant project proposals, and a notification system to keep users informed. This comprehensive design does provide a robust and user-friendly solution to enhance the final year project management process for students and faculty.

IV. RESULT & DISCUSSION

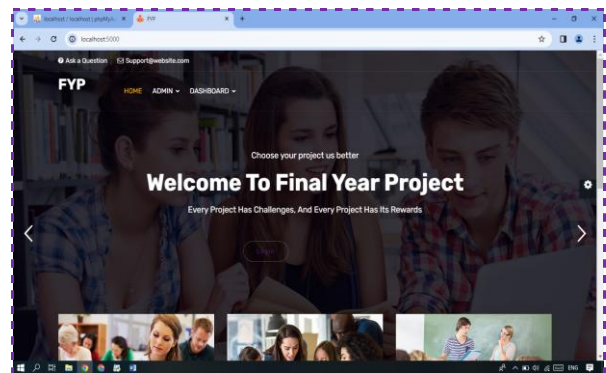


Figure- 2 Welcome page

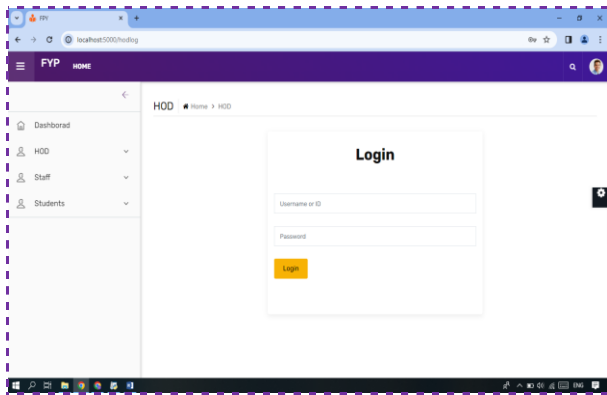


Figure- 3 student login page

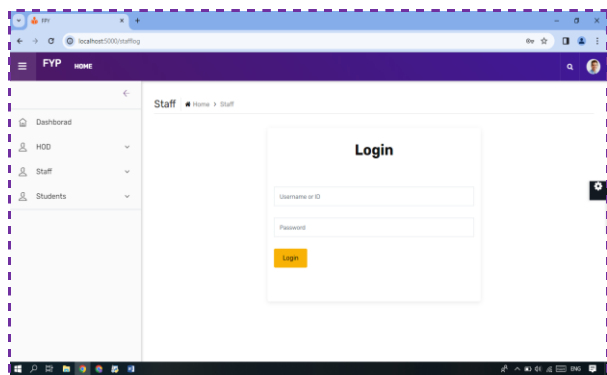


Figure- 4 Staff login page

V. CONCLUSION

In conclusion, the comprehensive design and development of the Final Year Project (FYP) Web App is rooted in a user-centric approach, employing Bootstrap for Front-End responsiveness and Python with Flask for Back-End efficiency. Leveraging MySQL ensures structured data storage, a critical aspect for housing essential project information. The system's key features, such as project title recommendation, team prioritization, and deduplication mechanisms, aim to optimize the project selection process and enhance collaboration among students, advisors, and administrators. The End User Dashboard, Mentor Assignment, Title Processing and Deduplication, Digital Signature Integration, Review Material Submission, Online/Offline Review, Review Evaluation and Grading, Attendance Tracking, Report Generation, and Notification System modules collectively contribute to streamlining the entire FYP process. These modules facilitate efficient project management, personalized mentorship, systematic title processing, secure digital signatures, collaborative review processes, and seamless communication. The FYP Web App, with its user-friendly interfaces and robust functionalities, stands poised to revolutionize the traditional manual approach to final year project management, ensuring a more

streamlined, transparent, and collaborative experience for all stakeholders involved

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