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Centralized Access of Academic Activities

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ABSTRACT: The website development project, "Centralised Access for Academic Activities," serves as a comprehensive platform designed to streamline the management of essential documents for engineering degree students. Through this user-friendly interface, students gain the ability to upload a diverse range of documents virtually, including internship certificates, placement offer letters, AICTE activity reports, Swayam course completion certificates, paper publication details, student-turned-entrepreneur information, records of technical events and extracurricular activities, as well as patents and copyrights. One of the central features of this platform is its seamless integration with the approval process facilitated by lecturers. Lecturers are empowered to review and approve uploaded documents at their convenience, ensuring a swift and efficient generation of No Objection Certificates (NOCs) by the college. Moreover, students retain the ability to access and monitor the status of their NOC requests in real-time. This project not only enhances the accessibility and organization of academic documents but also fosters transparency and collaboration between students and faculty members. By providing a secure and centralized repository for critical academic records, the platform ensures data privacy and integrity while promoting efficient communication and documentation management. In essence, the "Centralised Access for Academic Activities" website development project represents a significant step forward in optimizing the administrative processes associated with academic activities for engineering degree students, ultimately contributing to a more streamlined and effective educational experience.

KEYWORDS: Academic documents, Approval process, NOC's, Real-time monitoring, Accessibility, Transparency, Secure repository, Data privacy and integrity.

I. INTRODUCTION

In today's dynamic educational landscape, we introduce "Centralized Access for Academic Activities," a website project designed for engineering students. It aims to streamline document management by providing a user-friendly platform for uploading and managing academic records, including internship certificates, placement letters, and more. Faculty integration enables efficient document approval, reducing administrative delays. Students can monitor their requests in real-time, fostering transparency. The platform prioritizes data security and privacy, adhering to encryption protocols. Collaboration between students and faculty is emphasized, enhancing communication and feedback. Ultimately, this initiative enhances administrative efficiency, empowers students, and fosters a culture of excellence. Additionally, it promotes interdisciplinary collaboration and provides analytics for strategic decision-making.

II. RELATED WORK

The Student Information Management System (SIMS) [1] offers educational institutions a user-friendly interface for maintaining student records, including details, reports, course information, and placements. S.K. Mishra et al. (2020) propose a blockchain-based student certificate management system for secure storage and management of certificates. There's a pressing need for a streamlined certificate verification process to combat forgery and save time. Our study aims to design an online verification system aligned with university protocols, offering both standalone and embedded options for implementation[2]. A web-based internship system developed using PHP, Bootstrap, CSS, HTML, JavaScript, MySQL, and Apache facilitates communication and enhances nursing skills, benefiting students, supervisors, and coordinators in applied medical sciences colleges[3]. Forgery [4] is prevalent in education, necessitating a student verification system to expunge invalid documents. Blockchain's first application is Bitcoin [5], expanding into various sectors globally. Blockchain technology ensures data integrity, transparency, and decentralization, making it suitable for certificate management. Our proposed system utilizes IPFS and EdDSA for digital signature and verification, enhancing security and privacy. Blockchain technology facilitates certificate sharing and verification, reducing latency and ensuring authenticity. DevCOP automates software certificate management, enabling developers to track V&V practices. Future work includes researching a parametric model to estimate defect density using certificates. Blockchain technology offers

solutions to certificate forgery by providing immutability, transparency, and decentralized storage. Implementing blockchain-based certificate management can address this challenge, although it raises concerns about security breaches and privacy issues. Our proposed system utilizes IPFS and EdDSA for digital signature, ensuring secure verification and transaction processes[6]. Blockchain-based certificate management addresses the issue of forgery in online education by providing security through cryptographic hash and digital signatures. Our proposed system utilizes IPFS and EdDSA for identity verification, ensuring secure transactions and storage. This approach offers improved privacy and security compared to traditional centralized systems[7]. Final Year Project developed a web-based system, Mobility Center, using HTML and PHP, facilitating automation of the paper-based student exchange program application process for CSIMAL at Universiti Teknologi PETRONAS[8]. UiTM's Industrial Training Portal automates internship processes, facilitating online registration, scheduling, and evaluation. It enhances student focus on studies by providing application status access anytime[9]. A web-based system for managing final year projects and grades will be developed, utilizing analyses to inform the design and database implementation, benefiting departmental administration and the Head of Department[10]. A specialized website using SDLC framework aids the internship process for Industrial Engineering students at Atma Jaya Catholic University, enhancing coordination among students, lecturers, and coordinators[11]. Thesis discusses implementing an internship management system at University of Kisubi, enhancing coordination between students and businesses, utilizing HTML5, CSS, JavaScript, and PHP[12].

III. METHODOLOGY

A relational database schema was designed for student information, certificates, fees, and approvals, optimizing data organization. Backend logic ensured secure user authentication, authorization, and role-based access control. A responsive frontend interface prioritized intuitive navigation. Secure user authentication and role-based access were implemented. File upload functionality empowered document management. Approval workflows streamlined document review processes. Fee management facilitated transparent financial tracking. Thorough integration testing ensured system functionality. Deployment on a web server ensured optimal performance. Comprehensive documentation provided clear instructions. Regular maintenance and updates ensured system reliability and security.

1. Database Design: A relational schema was meticulously crafted to organize student data, certificates, fees, and approvals, optimizing system performance.
2. Backend Development: Robust user authentication and authorization mechanisms were implemented to secure system resources and maintain data integrity.
3. Frontend Development: A responsive interface was built with HTML and CSS to ensure seamless user interaction and navigation across devices.
4. User Authentication and Authorization: Secure authentication was reinforced with defined user roles, enhancing system security and data privacy.
5. File Upload and Download: Students can upload and manage certificates and assignments, facilitating document sharing within the system.
6. Approval Processes: Automated workflows streamline document review, enhancing efficiency and accountability for teachers and library managers.
7. Fee Management: Office functionality enables transparent fee tracking and payment processing, enhancing financial management.
8. Testing: Thorough integration testing ensures seamless communication between frontend and backend components.
9. Deployment: Meticulous server deployment ensures optimal performance and accessibility for users.
10. Documentation: Clear user and developer guides provide valuable support for efficient system operation and maintenance.
11. Maintenance and Updates: Regular monitoring and updates ensure system reliability, security, and functionality over time.

A. Block Diagram



Fig.1 Block Diagram of Web Design

IV. EXPERIMENTAL RESULTS

The Centralized Access to Academic Activities website offers students a streamlined platform for managing certification processes with its user-friendly interface. Upon logging in, students gain access to an intuitive interface where they can easily monitor their certification progress, review completed certifications, and stay informed about upcoming assessments. This seamless experience is made possible by a robust backend powered by PHP and SQL, efficiently storing and managing student data for easy access. Additionally, the website's frontend, designed with HTML, CSS, and JavaScript, enhances the user experience with engaging visuals and real-time updates, empowering students to navigate their academic journey effectively.

Administrators also benefit from the website's dedicated interface, allowing them to manage student profiles, monitor certification progress, and generate comprehensive reports. This administrative toolkit equips educators with the resources needed to oversee the certification process and support student success. By centralizing certification management, the website streamlines processes, enhances accessibility, and promotes transparency within the academic community. It serves as a centralized hub, fostering collaboration between students and

It serves as a centralized hub, fostering collaboration between students and administrators to ensure a smooth and efficient certification process that contributes to an enriched educational experience.

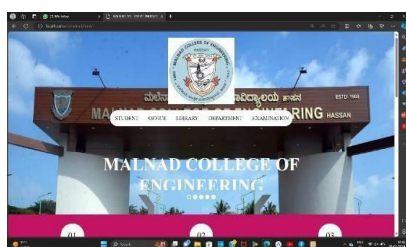


Fig.2 Front page

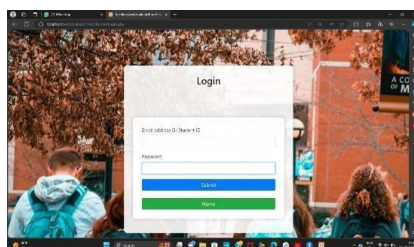


Fig.3 StudentLogin.php

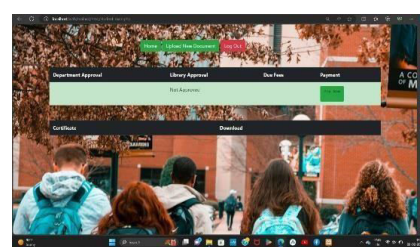


Fig.4 Student_main.php

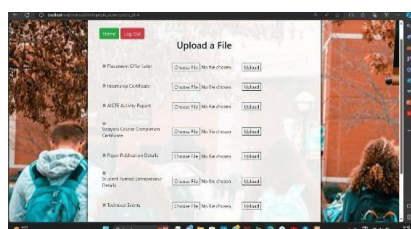


Fig.5 addstudent.php

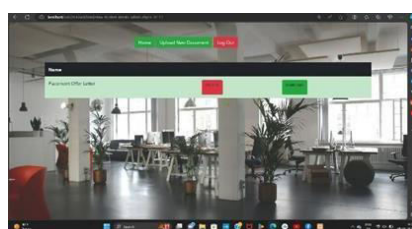


Fig.6 view_student_details_admin.php

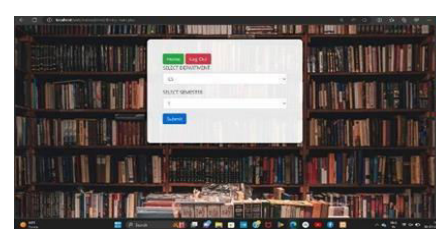


Fig.7 library_main.php

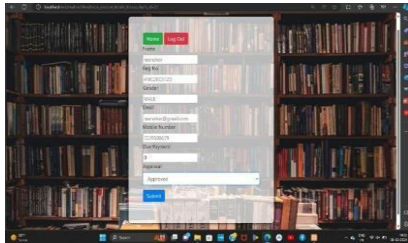


Fig.8 view_student_details_library.php

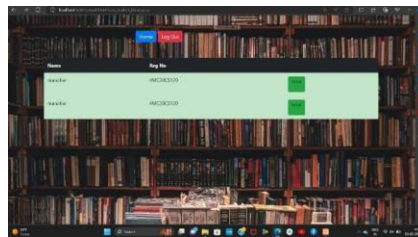


Fig.9 view_student_library.php

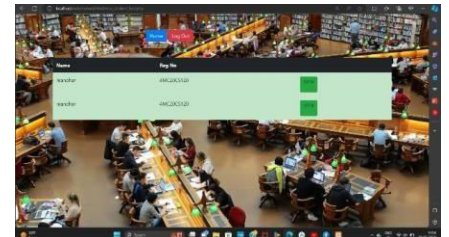


Fig.10 view_student_hod.php

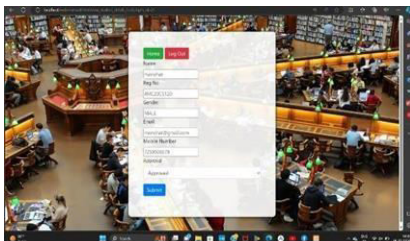


Fig.11 view_student_details_hod.php

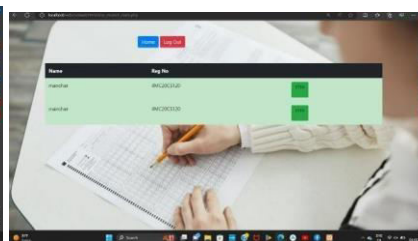


Fig.12 view_student_exam.php

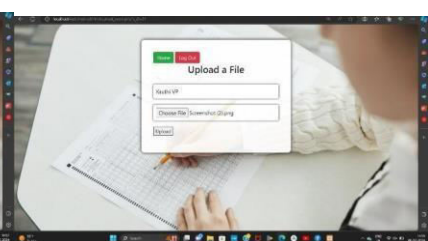


Fig.13 upload_exam.php

V. CONCLUSION

The Student Certification Database Management System (SCDMS) website redefines educational administration, enhancing certification processes for degree-seeking students. Powered by PHP, SQL, HTML, and CSS, it seamlessly integrates technology with user-centric principles for efficiency and transparency. SCDMS ensures data integrity through robust database design and dynamic interfaces created with PHP scripting. Document upload and verification mechanisms streamline submissions. In envisioning a future of innovation and user satisfaction, SCDMS revolutionizes certification processes. As institutions embrace digital transformation, SCDMS exemplifies positive change, facilitating easy, effective, and excellent certification attainment.

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