capstone project

"RESULT VERFICATION SYSTEM EMBEDDED WITH GRADE RE-VERFICATION SCHEDULER"

CSA0488-OPERATING SYSTEM

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PROBLEM STATEMENTS:

➢ **Increasing Website Authentication Level:** Enhance website security through advanced authentication measures to ensure the protection of sensitive data and prevent unauthorized access.

➢ **Distinct Levels of Access for Teachers and Students:** Implement varying access permissions for teachers and students to ensure that each group can only view relevant information and functionalities within the portal.

➢ **Filtering Grades Based on Subject:** Enable the option to filter and view grades based on specific subjects, providing users with more detailed and targeted information.

➢ **Complete Breakdown of Grades:** Enhance the portal to provide a comprehensive breakdown of grades, allowing users to view detailed information such as individual assignment scores, overall performance, and grade distribution.

PROPOSED DESIGN WORK

KEY COMPONENTS:

➢ **Ultra-Secure User Authentication Marvel:** Enhance the user authentication system by implementing multiple-factor authentication, such as username, passcode, and role-based access controls. This approach creates a robust and layered security protocol, ensuring that only authorized users gain access to the portal, thus safeguarding sensitive student data and maintaining the integrity of the system.

➢ **Eminent User Segregation Proficiency:** Refine the user segregation process by clearly categorizing users as students and teachers, each with distinct sets of functionalities and access permissions. This clear differentiation mitigates the risk of confusion and ensures that each user group can access relevant features and information tailored to their specific roles within the educational institution.

- ➢ **Astounding Grade Filtering Mastery:** Implement a streamlined and intuitive grade filtering feature that empowers faculty members to effortlessly navigate and access evaluated courses based on specific subjects. This functionality equips teachers with the tools to efficiently manage and review course-related data, ultimately enhancing their ability to provide informed and focused academic guidance.
- ➢ **Automatic Grading Segregation Innovation:** Introduce an automated grading segregation feature, allowing teachers to customize and save their grading preferences. This innovation streamlines the process of organizing and managing grading activities, enabling educators to efficiently allocate their time and focus on delivering high-quality feedback and support to students.

FUNCTIONALITY:

- ➢ **Transcendent Grade Lookup Interface Monument:** Develop a user-friendly grade lookup interface that offers seamless navigation and a visually engaging experience. This interface should provide intuitive search functionalities, clear presentation of grades, and accessible options for further analysis or exploration, catering to the diverse needs of both students and teachers.
- ➢ **Enlightened Topic Improvement Linking Marvel:** Establish an integrated system that guides students toward areas of improvement within their courses. By linking specific topics or learning resources, this feature supports student development and engagement, empowering them to take proactive steps toward enhancing their academic proficiency.
- ➢ **Fortified Secure Payment Gateway Citadel:** Deploy a secure and reliable payment gateway to facilitate transactions for hall ticket purchases. By integrating robust encryption protocols and stringent security measures, this gateway ensures the confidentiality and integrity of financial transactions, instilling trust and confidence in users.
- ➢ **Eminent Payment Record Archive:** Create a comprehensive and accessible archive of previous payments and transactions. This repository serves as a valuable resource for users to track their financial history, providing transparency and facilitating efficient record-keeping and reference

ARCHITECTURE:

- **Majestic Page Layout Orchestration:** Design an inviting and user-centric layout for the result checking portal, starting with a captivating homepage that guides users through the process of selecting their roles and accessing relevant features. The layout should be intuitively organized, visually appealing, and optimized for seamless navigation and interaction.

- **Elegant Student Oasis Creation:** Develop a dedicated space within the portal that caters to the specific needs of students, providing them with seamless access to grade searching, hall ticket payment, re-evaluation requests, and a comprehensive overview of their academic history. This oasis should be designed to enhance user engagement, simplify navigation, and cater to the diverse requirements of student users.

- **Illustrious Teacher Empowerment Enclave:** Craft a specialized section for faculty members, equipping them with intuitive tools and functionalities to manage grading, conduct evaluations, and oversee other academic responsibilities with precision and efficiency. This enclave should foster a sense of empowerment and enable educators to fulfill their roles effectively within the educational institution.

- **Harmonious Aesthetic Equilibrium Enchantment:** Strike a balance between visual appeal and functional efficiency in the design of the portal. Focus on creating a visually pleasing and engaging environment that complements the functionality and purpose of the portal, providing users with an immersive and harmonious experience.

- **Enchanting Color Grading Enigma:** Curate a harmonious and purposeful color scheme that contributes to the overall aesthetic and functionality of the portal. The color grading should be designed to evoke a sense of professionalism, confidence, and reassurance, supporting educators in their decision-making processes and interactions within the portal.

FEASIBLE ELEMENTS USED:

- **Noble Prefix Identification Rites:** Implement a user identification system that leverages distinct prefixes or other identifiers to categorize users based on their roles. This approach supports personalized access and navigation,

ensuring that users are directed to relevant features and functionalities aligned with their specific roles within the portal.

➢ **Majestic Second-Degree Authentication Ceremonies:** Enhance the security of the portal by introducing an additional layer of authentication for evaluation processes. This second-degree authentication ritual serves as a safeguard, fortifying the evaluation process and ensuring the integrity and security of academic assessments.

➢ **Transcendent Transparency Covenant:** Foster open communication and transparency between students and faculty by empowering students to schedule academic discussions with their instructors. This proactive approach promotes constructive dialogue, encourages feedback, and supports collaborative learning experiences within the academic community.

➢ **The Oracle of Flexible Faculty Scheduling:** Provide faculty members with a dynamic and flexible scheduling tool to manage academic interactions and empower students effectively. This calendar feature supports efficient planning and coordination, enabling educators to engage with students, schedule academic discussions, and optimize their teaching commitments with ease.

DATABASE:

➢ **Reliable Data Storage:** Utilize a robust relational database to securely manage and store student grades and payment records.

➢ **Student and Faculty Data Categories:** Organize student and faculty data with essential attributes to ensure accurate and efficient information management.

DISK SCHEDULING MODULE:

Faculty and Student Schedule Allocation: Utilize scheduling modules such as First-Come, First-Served (FCFS) for faculty course evaluations and Round-Robin for student empowerment, ensuring fair and effective resource allocation.

CONCLUSION:

In this project, we have developed an application that provides two different login methods for students and teachers. The application has some unique features, such as:

- o A grade management system that allows teachers to upload, edit, and view the grades of their students, and students to check their grades and progress.
- o A hall ticket booking system that enables students to book their hall tickets for exams online, and teachers to verify the bookings and generate the seating arrangements.
- o A feedback system that allows students to rate and review their teachers and courses, and teachers to receive and respond to the feedback.

The application aims to improve the efficiency and convenience of the academic processes for both students and teachers. It also enhances the communication and interaction between them, and fosters a better learning environment. The application is user-friendly, secure, and scalable, and can be easily integrated with other systems.

The project has demonstrated the feasibility and benefits of the application, and has also identified some limitations and challenges, such as:

- o The need for reliable and fast internet connectivity for the application to function properly.
- o The possibility of data breaches and cyberattacks that could compromise the privacy and security of the users and the system.
- o The difficulty of ensuring the accuracy and validity of the data entered by the users, especially the grades and the feedback.