Green University of Bangladesh
Department of Computer Science and Engineering (CSE)
Faculty of Sciences and Engineering
Semester: (Spring, Year:2024), B.Sc. in CSE (Day)

LAB PROJECT PROPOSAL
Course Title: Web Programming Lab

Course Code: CSE 302 **Section:** 213D8

Student Details

Name		ID
1.	Shamsul Islam Rana	212902037
2.	Ziaur Rahman	212902002
3.	Sajid Rahman Rifan	212902017

Submission Date : 03/05/2024
Course Teacher's Name : Mahjabin Rahman Oishe

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Project Proposal Status

Marks: …… **Signature:** .....
Comments: ..... **Date:** .....

1) TITLE OF THE PROJECT PROPOSAL

GUB Student Information Site

2) PROBLEM DOMAIN & MOTIVATIONS

Any school's major goal is to disseminate knowledge in an atmosphere that fosters responsibility, relevance, and memory of the material learned.Administrators must provide students access to this page so they may add their own information, although students can do it on their own. A student information management system is crucial,and this cannot be emphasized enough. To name a few, educational institutions ought to use SIMS for the following reasons: SIS enables educational institutions to handle student data more effectively, which is reason number one. With SIMS, educational institutions may store and manage a huge quantity of data, including attendance records, grades, and individual student information, in a single, centralized location.

3) OBJECTIVES/AIMS

1. **Academic Information:** Provide students with access to their academic records, course registrations, schedules, grades, transcripts, and degree requirements.
2. **Campus Resources:** Offer information about campus facilities, libraries, computer labs, student organizations, health services, counseling services, career services, and other resources available to students.
3. **Communication:** Enable effective communication between the institution and students by providing announcements, news, event calendars, and contact information for various departments and services.
4. **Self-Service:** Allow students to perform administrative tasks online, such as updating personal information, paying tuition and fees, requesting transcripts, and submitting forms or requests.
5. **Learning Management:** Integrate with the institution's learning management system (LMS) to provide access to course materials, assignments, discussions, and online learning resources.
6. **Student Engagement:** Foster student engagement by offering tools for collaboration, social networking, and extracurricular activities.

4) TOOLS & TECHNOLOGIES

1. **Content Management System (CMS):** A CMS like WordPress, Drupal, or a proprietary system is often used to manage the website's content, structure, and layout. This allows for easy content creation, editing, and publishing without requiring extensive technical knowledge.
2. **Web Application Framework:** Frameworks like Ruby on Rails, Django (Python), Laravel (PHP), or ASP.NET (C#) are used to build the dynamic and interactive components of the site, such as student portals, course registration, and self-service features.
3. **Database Management System (DBMS):** A robust DBMS like MySQL, PostgreSQL, or Microsoft SQL Server is utilized to store and manage student data, academic records, course information, and other relevant data.
4. **Authentication and Authorization:** Solutions like LDAP (Lightweight Directory Access Protocol), Active Directory (AD), or custom-built authentication systems are implemented to securely manage user authentication and authorization for students, faculty, and staff.
5. **Integration with Student Information System (SIS):** The site typically integrates with the institution's existing Student Information System or Enterprise Resource Planning (ERP) system to fetch and display academic data, such as course schedules, grades, and transcripts.
6. **Learning Management System (LMS) Integration:** Integration with an LMS like Blackboard, Canvas, or Moodle is often required to provide students with access to course materials, assignments, and online learning resources.
7. **Payment Gateway Integration:** For handling online payments, such as tuition fees and other charges, the site may integrate with payment gateways like PayPal, Stripe, or campus-specific payment systems.
8. **Responsive Web Design:** Modern web development techniques like responsive web design and mobile-first approaches are employed to ensure the site is accessible and provides a seamless experience across various devices and screen sizes.

5) CONCLUSION

Administrators can effectively manage student records with the Student Information System by inserting, updating, and deleting data thanks to CRUD capability provided in PHP. In addition to ensuring data security and integrity, it

offers a user-friendly interface for simple interaction. In addition to providing scalability and customization choices, the system streamlines administrative processes and increases data accuracy. The SIMS improves user experience, simplifies student record administration, and makes it possible to work with data efficiently.