Project Goals & Planning

University Study Platform is a web-based platform designed to facilitate academic administration by managing students, groups, courses, assignments, schedules, and performance tracking.

1.1 Goals and objectives

The main goal of the project is to create a modern, convenient and intuitive tool for organizing the educational process by providing convenient management of data about students, teachers, courses, grades, class schedules and assignments. The system should cover all key aspects of learning and communication between participants in the educational process.

The system aims to achieve the following (the specific goals & objectives):

- Provide a **user-friendly** UI/UX.
- **Digitalize** student and group **management**.
- Enhance **communication** between students and teachers.
- Implement a **centralized database** to store student records, grades, and schedules.
- Provide **real-time updates** for student progress and academic records.
- Integrate **role-based access control** (students, teachers, administrators).
- Offer **automated notifications** for assignments, exams, and deadlines.

1.2 Problems to solve

The current student management process faces several challenges that hinder efficiency, transparency, and communication between students and teachers. The proposed system aims to address the following problems:

1. Inefficient Student Data Management
    - Many institutions still rely on spreadsheets, paper-based records or outdated software, leading to **data inconsistencies and loss**.

2. Lack of Centralized Course and Assignment Tracking
    - Students struggle to track their **assignments, deadlines, and grades** due to **dispersed or unstructured information**.
3. Unstructured Communication Between Students and Teachers
    - Communication is often **fragmented** across email, messaging apps, and paper-based notices, leading to **missed updates and misunderstandings**.
    - No centralized **announcement system** for course-related messages.
4. Scheduling Conflicts and Lack of Real-Time Updates
    - Class schedules are often **static** and manually updated, causing **conflicts and delays** in notifying students about changes.
    - Students and teachers need **real-time updates** on schedule modifications.
5. Absence of Automated Reporting and Insights
    - Teachers lack **automated tools to generate reports** on student performance, attendance, and course effectiveness.
    - Manual report generation is **time-consuming** and prone to **errors**.
6. Time-consuming evaluations
    - Teachers **spend excessive time** manually calculating grades and performance metrics.

1.3 Expected outcomes

Upon successful implementation, the system will provide the following benefits:

- **A centralized platform** for managing student records, courses, assignments, and schedules.
- **A user-friendly web interface** for students, teachers, and administrators.
- **Seamless communication** through an integrated messaging and notification system.
- **Reduced administrative workload** by automating data management and reporting.
- **Improved academic performance tracking**, ensuring transparency in grading and student progress.
- **Enhanced security**, protecting sensitive student data from unauthorized access.

2.1 Target audience

The primary users of the student management system include:

1. Students
    - Track their **course schedules, assignments, grades, and academic progress**.
    - Communicate with **teachers and classmates** via messaging and notifications.
2. Teachers
    - Manage **course materials, assignments, and student performance tracking**.
    - Grade assignments and exams, providing students with timely feedback.
    - Communicate with students regarding **assignments, lectures, and other academic matters**.
3. Administrators
    - Manage courses and accounts.
    - Manage class schedules, ensuring **conflict-free timetables**.

2.2 Stakeholders

Stakeholder	Role & Interest in the System
University Administration	Seeks to improve efficiency in student management, reduce staff workload.
Teachers & Faculty	Require tools to manage courses, track student performance, and communicate with students efficiently.
Students	Expect a user-friendly platform for tracking academic progress, assignments, and communication with teachers.
Development Team	Responsible for system development, security, and maintenance.

2.3 Project constraints

Constraint	Description
Time Constraints	The project must be completed within the allocated development timeline, i.e. by the end of May.

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Team Size Constraints	The development team size is limited, which may affect the speed of development and require prioritization of core features.
Budget Constraints	Limited financial resources may affect third-party integrations. Open-source technologies are prioritized.
Technology Constraints	The system must be developed using web-based technologies (e.g., ASP.NET, PostgreSQL, bootstrap…).
Security & Compliance Constraints	The system must ensure secure storage of personal records.
User Accessibility Constraints	The platform must be accessible across different devices (desktop, mobile, tablet).
Performance Constraints	The system should ensure low latency and high availability, but infrastructure limitations may affect performance under high traffic.