“ EDU Track ”

Academic Portal

Project Proposal

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Abstract

Digital platforms that offer convenience, accessibility, and transparency are becoming more and more prevalent in education today. EDU Track is intended to be a comprehensive academic portal for faculty and students at universities. Students will be able to create profiles, manage course enrollments, keep track of attendance, pay fees, view results, get alerts, and provide feedback using this platform. EDU Track seeks to streamline the student experience and enhance communication between students and institutions by combining several academic functions into a single portal.

1. Introduction

Thousands of students attend modern higher education institutions at once, and each one needs access to academic records, attendance monitoring, course registration, results, and fee payments. Students find it challenging to effectively manage their academic journeys in many institutions because these procedures are still either manual or distributed across several disconnected systems. When systems are not integrated, faculty members also have difficulty controlling student communications, attendance, and grading.

EDU Track seeks to address these gaps by offering a centralized academic management portal. Students can safely log in and access all necessary services through the portal, which is intended to act as a one-stop shop. Students will be able to complete the majority of their academic tasks from a single platform, saving time and increasing accuracy, rather than traveling between departments to find information.

EDU Track will simplify the process for students to sign up for classes, monitor attendance, pay fees, drop classes as needed, and view grades and results instantly. From the standpoint of the faculty, the system will make administrative duties like communicating notifications, updating grades, and recording attendance easier. Having a clear and dependable platform to monitor fee records, authorize course enrollments, and guarantee efficient academic operations will be beneficial to administrators.

The system will be developed using a combination of HTML, CSS, and JavaScript for the frontend, ensuring a responsive and user-friendly interface, while Python with MySQL will form the backend, ensuring reliable data storage and processing. This technology stack has been chosen due to its scalability, security, and wide community support.

2. Goals and Objectives

The main goal of EDU Track is to provide a one-stop academic portal for students and universities. The specific objectives include:

- To allow students to create and manage their academic profiles.
- To provide an online course registration and course drop system.

- To enable real-time attendance tracking.
- To integrate fee payment and receipt generation.
- To offer grading and result checking facilities.
- To create a notification system for important updates.
- To enable feedback exchange between students and faculty.
- To design a secure, scalable, and user-friendly system.

3. Scope of the Project

The scope of EDU Track includes the following features:

- **Student Module:** Registration, login, profile management, attendance, course registration, results, and notifications.
- **Faculty Module:** Attendance management, grading, course updates, and student feedback review.
- **Administration Module:** Approval of course registrations, monitoring of fee transactions, and system security management.

The system will initially be developed for web browsers. Notifications will be available both on the portal and through email alerts. The portal will prioritize user experience, data security, and scalability to support increasing users over time.

4. Initial Study and Work Done so Far

In order to fully understand the needs of academic portals, our group went through an initial study. We examined the platforms currently in use by academic institutions and determined their advantages and disadvantages. The significance of a straightforward user interface, effective data security, and integrated attendance, results, and fee modules were among the main lessons learned.

For development tools, the group has decided on:

- **Frontend:** HTML, CSS, JavaScript
- **Backend:** Python (Flask/Django to be finalized)
- **Database:** MySQL
- **IDE/Tools:** VS Code, MySQL Workbench/SQL Server for database handling

So far, we have finalized the core modules, studied sample templates for inspiration, and set up the required tools for development.

5. Functionalities of the System

The EDU Track portal will include the following functionalities across its modules:

- **Student Functionalities**
  - Create and manage academic profile
  - Register and drop courses
  - View attendance records
  - Pay fees online and generate receipts
  - Check results and grades
  - Receive notifications and alerts
  - Submit feedback to faculty
- **Faculty Functionalities**
  - Mark and update student attendance
  - Upload and manage grades
  - Post notifications and updates for students
  - Review student feedback
- **Administration Functionalities**
  - Approve or reject course registrations
  - Monitor and verify fee payments
  - Manage user access and system security
  - Oversee academic data consistency