

Project Title

Integrated University Management System (UMS)

Abstract Summary

The University Management System (UMS) is a comprehensive digital platform developed using **Python (Django framework)** and **MySQL** to automate and streamline key academic and administrative operations within a university. The system integrates all major processes—student management, faculty coordination, course scheduling, examinations, and financial handling—into a unified and secure environment.

UMS provides role-based access for students, faculty, and administrators, ensuring data security and operational transparency. By centralizing information and automating workflows, the system enhances decision-making, improves communication, and supports efficient academic planning across departments.

Key Features of the System

1. **Student Lifecycle Management** – Manages admissions, enrollment, course registration, academic progress, and graduation.
 2. **Course & Timetable Scheduling** – Organizes academic programs, curriculum structures, and complex class timetables.
 3. **Grade & Examination Module** – Secure management of grade entry, calculations, exam scheduling, and transcript generation.
 4. **Faculty/Staff Management** – Maintains complete faculty profiles, workload distribution, departmental assignments, and schedules.
 5. **Role-Based Portals (RBAC)** – Separate access portals for Students, Faculty, and Administrators for secure and efficient operations.
 6. **Financial Integration** – Tracks fee payments, outstanding dues, and financial reports.
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Modules Included

1. **Student Information Module** – Manages student demographics, academic history, financial status, and documents.
 2. **Academic Module** – Handles courses, curricula, departmental structures, and academic year planning.
 3. **Faculty Module** – Maintains faculty profiles, teaching duties, qualifications, and performance history.
 4. **Attendance Tracking Module** – Records and monitors student attendance across all courses.
 5. **Results Processing Module** – Calculates GPA, processes results, and generates transcripts.
 6. **Admin Dashboard Module** – Offers real-time data analytics and insights into academic and administrative performance.
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Software Specifications

- **Programming Languages:** Python (Django), JavaScript
- **Frontend Technologies:** HTML5, CSS3, Bootstrap, jQuery
- **Database:** MySQL (or MariaDB)
- **Web Server:** Apache or Nginx
- **Platform:** Web-based system accessible on desktop and mobile browsers