

DBMS LAB
CSA-511

UNIVERSITY MANAGEMENT SYSTEM

YEAR
2023



TEAM

2340 | 2344 | 2346

INTRODUCTION

The University Course Management System (UCMS) is a web-based application designed to streamline the management of courses, students, professors, departments, and enrollments within a university setting. The system provides administrators, professors, and students with a user-friendly interface to perform various tasks related to course management.

UCMS is a comprehensive web-based application tailored to meet the intricate needs of modern educational institutions. As universities continue to grow in complexity, the management of courses, students, professors, departments, and enrollments becomes increasingly challenging. Recognizing this need for efficiency and organization, the UCMS emerges as a strategic solution to streamline the administrative processes inherent in academic institutions.

In the dynamic landscape of higher education, universities face the formidable task of managing a myriad of administrative processes related to course scheduling, student registration, faculty assignments, and departmental coordination.

In today's digital age, where the demand for streamlined administrative processes and enhanced user experiences is ever-growing, UCMS stands as a pivotal tool to meet these challenges head-on.

OBJECTIVES

The primary objectives of the UCMS are as follows:

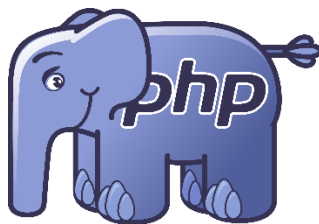
- Efficiently manage courses offered by different departments.
- Maintain records of students and professors associated with each course.
- Facilitate enrollment of students into courses.
- Enable easy updates and modifications to course, student, and professor information.
- Provide a centralized platform for administrators, professors, and students to interact and access relevant information.



SYSTEM COMPONENTS

The UCMS consists of the following key components:

- **Database:** Utilizes a MySQL database to store information about courses, students, professors, departments, and enrollments.
- **Backend:** Developed using PHP to handle server-side logic, database interactions, and form submissions.
- **Frontend:** HTML and CSS are used to create a user-friendly interface for administrators, professors, and students to interact with the system.
- **Functionality:** Includes features such as adding, updating, and deleting records for courses, students, professors, and departments. It also enables enrollment management and displays relevant information to users.



SYSTEM ARCHITECTURE

The UCMS follows a client-server architecture, where the frontend interacts with the backend server to perform various tasks.

The server-side logic is implemented using PHP, which communicates with the MySQL database to fetch and manipulate data. The HTML and CSS components provide a responsive and visually appealing user interface.

STUDENT RELATION:

Field	Type	Null	Key	Default	Extra
StudentID	int(11)	NO	PRI	NULL	auto_increment
SName	varchar(50)	YES		NULL	
Email	varchar(100)	YES		NULL	
DepartmentID	int(11)	YES	MUL	NULL	

DEPARTMENT RELATION:

Field	Type	Null	Key	Default	Extra
DepartmentID	int(11)	NO	PRI	NULL	auto_increment
DepartmentName	varchar(100)	YES		NULL	

PROFESSOR RELATION:

Field	Type	Null	Key	Default	Extra
ProfessorID	int(11)	NO	PRI	NULL	auto_increment
PName	varchar(50)	YES		NULL	
DepartmentID	int(11)	YES	MUL	NULL	

COURSE RELATION:

Field	Type	Null	Key	Default	Extra
CourseID	int(11)	NO	PRI	NULL	auto_increment
CourseName	varchar(100)	YES		NULL	
DepartmentID	int(11)	YES	MUL	NULL	
ProfessorID	int(11)	YES	MUL	NULL	
EnrollmentCount	int(11)	YES		0	

ENROLLMENT RELATION:

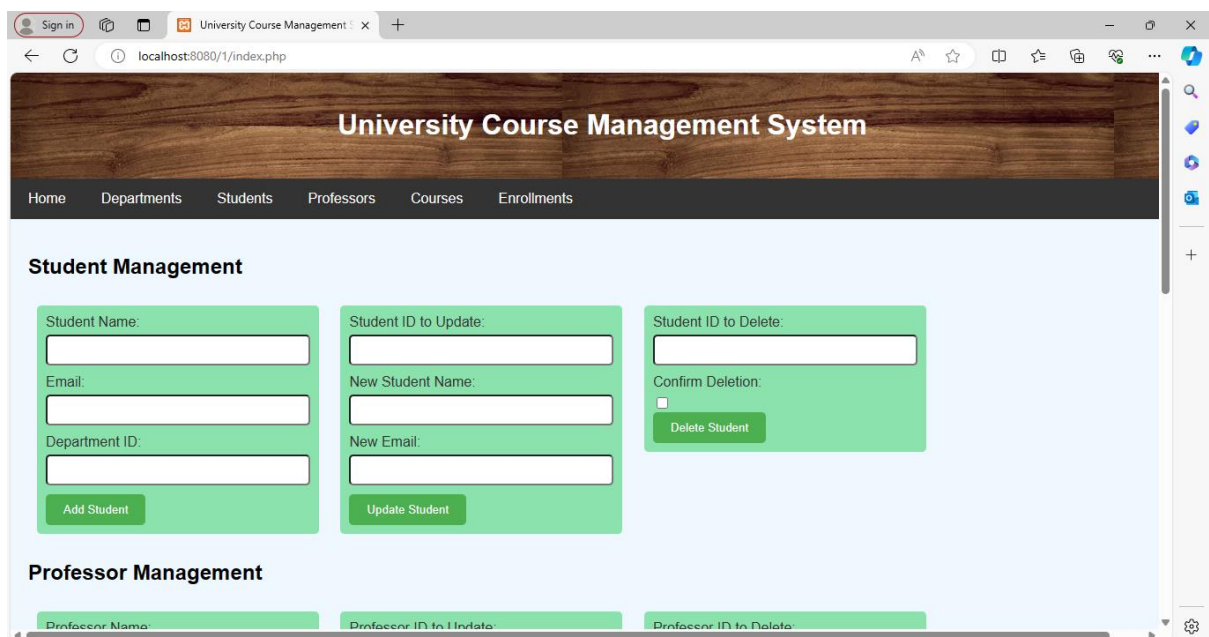
Field	Type	Null	Key	Default	Extra
EnrollmentID	int(11)	NO	PRI	NULL	auto_increment
StudentID	int(11)	YES	MUL	NULL	
CourseID	int(11)	YES	MUL	NULL	
Grade	varchar(2)	YES		NULL	

FUNCTIONALITY OVERVIEW

- **Course Management:** Administrators can add, update, and delete courses. Each course is associated with a department and a professor.
- **Student Management:** Administrators can add, update, and delete student records. Students are associated with departments.
- **Professor Management:** Administrators can add, update, and delete professor records. Professors are associated with departments.
- **Department Management:** Administrators can add, update, and delete department records.
- **Enrollment Management:** Students can enroll in courses, and administrators can manage enrollments.

IMPLEMENTATION DETAILS

- **Database Schema:** The database consists of tables for courses, students, professors, departments, and enrollments. Relationships are established using foreign keys.
- **Backend Logic:** PHP scripts handle form submissions, database queries, and data validation. CRUD operations are implemented for each entity.
- **Frontend Design:** HTML templates provide the structure of web pages, while CSS stylesheets enhance the visual appeal and responsiveness of the interface.



University Course Management System

[Home](#)[Departments](#)[Students](#)[Professors](#)[Courses](#)[Enrollments](#)

Student Management

Student Name:

Email:

Department ID:

Add Student

Student ID to Update:

New Student Name:

New Email:

FUTURE ENHANCEMENTS

- **User Authentication:** Implement user authentication to restrict access to certain functionalities based on user roles.
- **Enhanced UI/UX:** Improve the user interface to make it more intuitive and visually appealing.
- **Reporting:** Add functionality to generate reports on course enrollments, student performance, etc.
- **Notifications:** Implement notifications for important events such as enrollment deadlines, course updates, etc.

CONCLUSION

The University Course Management System is a robust solution for managing various aspects of university courses, students, professors, and departments. It provides administrators, professors, and students with an efficient platform for accessing and managing relevant information. With further enhancements and refinements, the UCMS can become an indispensable tool for universities to streamline their academic operations.

This concludes the project report for the University Course Management System.

Date: April 05, 2024

Prepared by: 2340