

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

WEB ENGINEERING LAB PROJECT PROPOSAL

CSE-2210: Web Engineering Lab

A Web-Based Automated System for University Hostel Management

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1. Introduction

This project proposes the design and implementation of a web-based automated system that streamlines the university hostel management and room allocation process. The platform enables students to register, apply for hostel accommodation, and track their allocation status online. Hostel managers can efficiently review applications, allocate rooms, manage vacancies, and communicate with students. The admin can monitor and control overall system operations.

The system replaces the traditional manual hostel management process with a secure and efficient digital solution.

2. Problem Statement

- Manual hostel application process involving paperwork
- Time-consuming room allocation procedure
- Difficulty in managing student and hostel data
- Poor communication between students and hostel authorities
- Lack of real-time room availability tracking

3. Objectives

- Develop a web-based University Hostel Management System
- Enable secure student registration and login
- Implement role-based login system (Student, Hostel Manager, Admin)
- Automate hostel room allocation process
- Maintain real-time room availability records
- Provide communication system between students and hostel managers
- Create admin dashboard for monitoring

4. Scope of the Project

- Student registration and login system
- Online hostel application form submission
- Application approval/rejection by hostel manager
- Room allocation and vacancy management
- Prevention of multiple room allocations for a single student
- Messaging system between students and hostel managers
- Admin panel for managing hostel managers and students

5. Technology Stack

- Frontend: HTML, CSS, Bootstrap, JavaScript
- Backend: PHP
- Database: MySQL
- Tools: XAMPP, VS Code, phpMyAdmin

6. Conclusion

The University Hostel Management System provides a structured and efficient digital solution for managing university hostel operations. It demonstrates the practical implementation of web

development concepts using HTML, CSS, Bootstrap, JavaScript, PHP, and MySQL to solve real-world administrative problems. The system improves transparency, reduces paperwork, enhances efficiency, and ensures accurate room allocation management.