

COMSATS UNIVERSITY ISLAMABAD, ABBOTTABAD CAMPUS

SOFTWARE REQUIREMENT ENGINEERING

**HOSTEL MANAGEMENT SYSTEM**

Submitted By:

Laiba Binta Tahir FA21-BSE-019-5A

Arfah Ali FA21-BSE-080-5A

ASSINGEMENT # 01

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Vision and Scope document

# Business Requirements

## Background

The hostel management system is designed to improve the management and operational processes of hostels. Traditional hostel management systems involve a lot of paperwork and manual efforts, leading to errors and inefficiencies. The aim is to create a consistent, flawless, and user-friendly system for hostel staff, administration, and students.

## Business Opportunity

The hostel management system directs the growing need in institutions for effective hostel management solutions. As the number of students seeking accommodation increases, there is a significant business opportunity for institutions to provide reliable and efficient systems that will enhance hostel management capabilities.

## Business Objectives

The key objectives of HMS include:

**Efficiency:** Automate activities to reduce manual work and time.

**Reliability:** Minimize the accounting errors and keep records accurate.

**Accessibility:** Provide easy access of system to intended users i-e administrators, students, and staff members.

**Transparency & Real time monitoring:** Ensure transparency in room allocation, fee processing and room availability along with real time monitoring of available spaces and waitlists thus making a proactive system.

**Security:** Ensure appropriate security measures to protect data of students and finance including Data encryption, secure authentication, regular security audits & backup and recovery.

## Success Metrics

The success of this project will be determined by:

**Reduction in Administrative workload:** Aim for 30% reduction in workload on administration.

**Accuracy Rate:** Target a 20-40% reduction in errors related to records of hostel.

**User satisfaction:** Achieve a 4 by 5 rating of satisfaction from intended users.

**Operationally:** Maintain the availability of system and uptime of 99% to ensure endless services.

## Vision statement

“To create a system that transform hostel experience by simplifying tasks, ensuring reliability, enhancing accessibility, thus providing a secure and convenient living environment for students.”

## Business Risks

**Data integrity:** The risks of data breaches and unauthorized access to confidential information.

**User Acceptance:** The challenges related to user adoption of the new system.

**Technical issues:** The issues during integration & implementation.

**Regulatory fulfilment:** Ensuring data protection laws and standards.

## Business assumptions & dependencies

**Assumptions:** The availability of essential hardware & software framework. Users must have basic computer knowledge and expertise.

**Dependencies:** The integration of the new system with the existing database.

# Scope and limitations

## Major features

The Hostel Management System will cover the following features:

**Authentication**: Authentication will provide a secure login to the users: admin, staff, and students.

**Attendance Tracking:** student and teacher attendance will be monitored.

**Inventory Management**: All supplies in mess, rooms and lawns will be recorded and managed.

**Room Reservation:** Students can apply for the reservation of rooms through the system.

**Fee Management:** Automated fee challans, calculations, tracking and reminders.

## Scope of initial release

Initial release of HMS will cover the following features:

* Registration and login functionality of user
* Allocations of rooms and availability tracking functionality.
* All Fee processing and calculations.
* Basic reporting and notifications for administrators.
* Tracking of student attendance.

## Scope of subsequent releases

Scope of subsequent releases include:

* Inventory management for hostel supplies.
* Tracking and Management of Maintenance request.
* Integration with student information systems.
* Mobile application version for the ease of students.
* Security features and data protection integration.
* Integration with other campus systems, such as access control.

## Limitations and exclusions

The HMS will have certain limitations and exclusions:

* It will not handle financial transactions directly but will facilitate payment tracking.
* It will not provide Rooms booking for external users or those who are not registered with university.
* It will not cover the entire university’s administrative functions, only focus will be hostel management.

# Business context

## Stakeholders’ profiles

**Administrators:** He will be responsible for managing hostel processes, allocating rooms, and tracking finances, entertaining problems, and feedback.

**Staff Members:** Assist in day-to-day hostel tasks, such as continuation and record keeping.

**Students:** They will access and interact with the system for room allotment, fee payments, feedback, and requests.

## Project priorities

**Efficiency:** To save time and effort HMS process will be streamlined.

**Reliability:** Ensures that records are kept accurately along with financial transactions.

**User Satisfaction:** User’s experience and satisfaction will be prioritized.

**Security:** Protecting student and financial data with security measures.

## Deployment considerations

**Hardware & Software:** Ensure that the necessary hardware and software infrastructure is in place for system deployment.

**User Training:** A Small tour of application usage will be provided to students.

**Testing:** A thorough testing and Quality assurance of the system will be done before deployment.

**Compliance**: During deployment compliance will be ensured with data protection laws and standards.