Project Proposal

Hostel Management System

A Proposal for Capstone Project

Software Development Capstone Project (SE133 - H2)
Department of Software Engineering
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1 Introduction

The Hostel Management System is a proposed software application to automate hostel operations. It aims to replace manual record-keeping with a structured, menu-driven program to handle resident information, room assignments, and check-outs efficiently.

The system will:

- Store and manage resident data accurately.
- Track room occupancy and assignments.
- Provide a simple and user-friendly interface.

2 Requirements

2.1 Functional Requirements

- Add new residents with details (name, age, gender, room number).
- Display a list of all residents.
- Remove residents (check-out process).
- Provide an interactive menu for navigation.

2.2 Non-Functional Requirements

- **Usability:** Intuitive for first-time users.
- **Performance:** Quick execution for all operations.
- **Portability:** Compatible with any system having a C compiler.
- **Maintainability:** Modular design for easy updates and enhancements.

3 Use Case Diagram

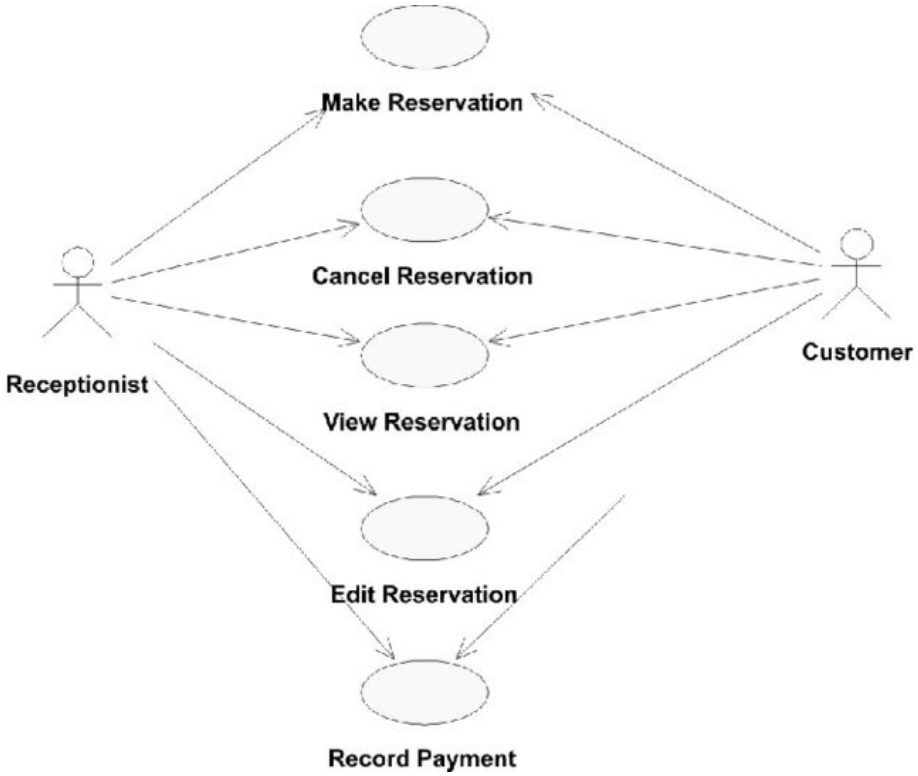

Figure 1: Use Case Diagram (Placeholder)

4 Description

The system will be a console-based C program where users interact through a menu. Options will include adding residents, viewing records, and removing residents. Data will be stored temporarily during program execution.

This project will:

- Manage small-scale hostels effectively.
- Serve as a practical learning example for structured programming.

5 Programming Language

The project will be implemented in C because it is:

- Simple and portable across platforms.
- Efficient in memory management.
- Ideal for beginner-level system programming exercises.

6 Conclusion

The proposed Hostel Management System will streamline hostel record-keeping, reduce human errors, and provide a learning experience in modular C programming. It can be expanded in the future to include persistent data storage or a graphical interface.