Hotel Reservation System (Core Java Project)

# 1. Introduction

The Hotel Reservation System is a simple Core Java project designed to manage hotel bookings. It allows customers to reserve rooms, check availability, and view their booking details. The project does not use any database; instead, data will be stored in memory using Java collections.

# 2. Objectives

The main objectives of this project are:

* • To allow customers to reserve hotel rooms.
* • To check available rooms based on user input.
* • To store reservation details temporarily during program execution.
* • To practice Object-Oriented Programming (OOP) concepts in Java.

# 3. Features

The Hotel Reservation System will have the following features:

* • Add Rooms: Add available rooms with details (room number, type, price).
* • Reserve Room: Customers can book a room by providing details.
* • View Reservations: Display all bookings made.
* • Check Availability: See which rooms are free for booking.
* • Cancel Reservation: Customers can cancel their booking.

# 4. System Requirements

* • JDK 8 or above
* • Any IDE (Eclipse, IntelliJ IDEA, NetBeans) or simple text editor
* • Core Java (no database required)

# 5. Project Structure (Classes)

The project will include the following classes:

* • Hotel: Manages rooms and reservations.
* • Room: Stores details about a hotel room (room number, type, price, availability).
* • Reservation: Stores details about a reservation (customer name, room number, date).
* • HotelReservationSystem (Main Class): Contains the main method and menu-driven program.

# 6. Workflow

1. Start the program.

2. Admin can add rooms to the system.

3. Customer can check available rooms.

4. Customer can make a reservation by selecting an available room.

5. Customer can view or cancel reservations.

6. Program continues until the user exits.

# 7. Sample Menu (Console)

1. Add Room

2. View Available Rooms

3. Make Reservation

4. View Reservations

5. Cancel Reservation

6. Exit

# 8. Future Enhancements

* • Store reservations in a file for persistence.
* • Add login system for customers and admin.
* • Support multiple hotels with different branches.