GROUP-5

HOTEL MANAGEMENT SYSTEM SRS DOCUMENT

1. Introduction

1.1 Purpose

This SRS document outlines the functional and non-functional requirements for the HotelEase system. The primary goal is to develop a desktop application that automates hotel operations, including room bookings, customer check-ins/check-outs, and billing processes, thereby enhancing operational efficiency and customer satisfaction.

1.2 Scope

HotelEase is designed to manage hotel operations through a desktop application built with Java Swing and MySQL. The system will enable hotel staff to perform tasks such as room bookings, customer registrations, check-ins, check-outs, and billing. It aims to reduce manual errors, streamline processes, and provide real-time data access.

1.3 Definitions, Acronyms, and Abbreviations

- GUI: Graphical User Interface
- MySQL: An open-source relational database management system
- Swing: A Java GUI widget toolkit
- SRS: Software Requirements Specification

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2. Overall Description

2.1 Product Perspective

HotelEase is a standalone desktop application that interfaces with a MySQL database. It is intended for use by hotel staff to manage daily operations efficiently.

2.2 Product Functions

- Room booking and availability management
- Customer registration and check-in/check-out processing
- Billing and invoice generation
- Real-time data management and reporting

2.3 User Classes and Characteristics

- Receptionist: Handles customer interactions, bookings, and billing.
- Manager: Oversees hotel operations, accesses reports, and manages room availability.

2.4 Operating Environment

- Hardware: Standard desktop or laptop computers
- Software: Java Runtime Environment, MySQL Server
- Platform: Cross-platform compatibility (Windows, macOS, Linux)

2.5 Design and Implementation Constraints

- The application must be developed using Java Swing for the GUI.
- MySQL will serve as the backend database.
- The system should ensure data security and integrity.

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3. Specific Requirements

3.1 Functional Requirements

- FR1: The system shall allow receptionists to register new customers.
- FR2: The system shall enable room bookings and display availability status.
- FR3: The system shall process customer check-ins and check-outs.
- FR4: The system shall generate billing invoices upon check-out.
- FR5: The system shall allow managers to view reports on occupancy and revenue.

3.2 Non-Functional Requirements

- NFR1: The system shall provide a responsive and intuitive GUI.
- NFR2: The system shall ensure data accuracy and consistency.
- NFR3: The system shall maintain data security and restrict unauthorized access.
- NFR4: The system shall perform operations with minimal latency.

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4. External Interface Requirements

4.1 User Interfaces

- The application shall provide forms for customer registration, room booking, and billing.
- The GUI shall display real-time room availability and booking status.

4.2 Hardware Interfaces

- The system shall operate on standard desktop or laptop hardware without the need for specialized equipment.

4.3 Software Interfaces

- The application shall interface with the MySQL database to store and retrieve data.

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5. System Features

5.1 Customer Management

- Register new customers with personal details.
- Maintain a database of current and past customers.

5.2 Room Management

- Display current room availability.
- Allow booking and cancellation of rooms.5.3 Billing System

- Calculate charges based on room type and duration of stay.
- Generate and print invoices for customers.

5.4 Reporting

- Generate reports on occupancy rates, revenue, and customer statistics.

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6. Other Requirements

6.1 Security Requirements

- Implement user authentication to restrict access to authorized personnel.
- Ensure secure storage of customer and booking data.

6.2 Backup and Recovery

- Implement regular data backup procedures.
- Provide mechanisms for data recovery in case of system failure.