

HOTEL MANAGEMENT SYSTEM

I. Introduction:

1.1 Purpose of this Document:

The purpose of this document is to outline the requirements and specifications for the development of a Hotel management System. It will provide a clear understanding of the project objectives, scope, and deliverables.

1.2 Scope of this Document:

This document defines the overall working and main objectives of the Hotel Management System. It includes a description of the development cost and time required for the project.

1.3 Overview:

The Hotel Management System is a software solution designed to streamline hotel operations, including reservation management, guest check-in/check-out, room assignment, billing and reporting.

2. General description

The Hotel management System will cater to the needs of hotel staff and management, providing features such as room booking, guest profiles, inventory management and financial reporting. It will be accessible to users with varying levels of technical expertise.

3. Functional Requirements

3.1 Reservation management

- Allows users to make room reservations online or through the front desk.
- Generate reservation confirmations and send notifications to guests.

3.2 Room management

- Assign rooms to guests based on availability and preferences.
- Track room status (clean, occupied, vacant) in real-time.

3.3 Guest management

- Maintain guest profiles with personal information, preferences, and booking history.
- Facilitate guest check-in and check-out processes.

3.4 Bidding and Invoicing:

- Generate accurate bills for room charges, additional services, and taxes.
- Accept various payment methods and generate invoices for corporate clients.

4. Interface Requirements:

4.1 User Interface:

- Intuitive and user-friendly interface for hotel staff and guests.
- Accessible via web browser, mobile devices, and desktop.

4.2 Integration Interfaces:

- Integration with payment gateway for secure transactions.
- Integration with third-party booking platforms for seamless reservation management.

5. Performance Requirements:

5.1 Response Time:

- The system should respond to user within 2 seconds.

5.2 Scalability:

- Handle a minimum of 1000 concurrent

users during peak hours.

5.3 Data Integrity

- ensure data consistency and accuracy across all modules.

6. Design Constraints

6.1 Hardware Limitations:

- The system should be compatible with standard hotel hardware (computers, printers, POS terminals).

6.2 Software Dependencies:

- utilize a relational database management system (e.g. MySQL) for data storage.
- use a programming language and framework conducive to UML modelling (e.g. Java, SpringBoot).

7. Non-functional Attributes

7.1 Security:

- implement robust authentication and authorization mechanisms to protect sensitive data.

7.2 Reliability

- ensure high availability and fault tolerance to minimize system downtime.

7.3

Scalability:

- Design the system to accommodate future growth and expansion.

7.4

Portability:

- Support multiple platforms and devices for user accessibility.

7.5

Usability:

- The system shall have a user friendly interface with clear navigation.

7.6

Reusability:

- The system shall use a modular code design to facilitate future enhancements and maintenance.

7.7

Compatibility:

- The system shall be compatible with common web browsers (Chrome, Firefox, Safari).

7.8

Data Integrity:

- The system shall ensure accurate and consistent data storage and retrieval.

8. Preliminary Schedule and Budget

The development of the Hotel management System is estimated to take 6 months with a budget of \$100,000. This includes project planning, development, testing and deployment phases.