

21/08/25

## Hotel Management System

### Problem Statement:

Design and implement a centralised Hotel Management System (HMS) to streamline hotel operations such as reservations, check ins/check outs, billing and administration. The system aims to reduce human error, improve efficiency and enhance the guest experience through automation and real time information access.

### SRS Document:

#### 1. Introduction

##### 1.1 Purpose of the Document -

This document outlines the software requirements specification for the Hotel Management System. It is intended to communicate the functional and non-functional requirements of the system to all stakeholders, including developers, project managers and the client.

##### 1.2 Scope of this Document.

This document covers all essential aspects for the development of the hotel management system. It is intended to communicate the functional and NFE and includes operations such as billing, booking, administration, service, staff allocation.

##### 1.3 Overview -

The Hotel Management system provides a comprehensive

intended to streamline and automate the overall management of hotel operations. The document covers functionalities, interface requirements, performance expectations, design constraints and the Preliminary budget and schedule.

## 2. General Description

### 2.1 Product Functions

- Manage customer reservations and bookings
- Register guest-ins and check outs
- Allocate and track room availability
- Generate reports for management
- Manage staff and house keeping schedules
- send notifications for bookings, cancellations and feedback

### 2.2 User Characteristics

- Receptionist: Manage bookings, check-ins, check outs
- Manager: View Reports, manage staff, set pricing
- House keeping staff: View room cleaning schedules
- Guests: Book rooms online, receive invoices.
- Admin: configure system settings, manage user roles.

## 3. Functional Requirements

FR1. Booking Management: The system shall allow guests to book rooms online, display real-time room availability and send booking confirmation emails.

FR2. Guest Management: The system shall store and manage guest information, including personal and contact details with options to update as needed.



FR 3. Billing: The system shall automatically generate invoices, and support various payment methods such as card, cash and UPI.

FR 4. Room Management: Admins shall be able to add, update, delete room types and amenities, and monitor room statuses.

FR 5. Reporting: The system shall produce and revenue reports on a daily, weekly and monthly basis.

#### 4. Interface Requirements:

1. User Interface: The system shall have a responsive web based interface accessible on both desktop and mobile, featuring role based login, a booking calendar.

2. Hardware Interface - The system shall support optional integration with POS devices.

3. Software interfaces: The system shall integrate with third-party services, including -

- payments
- email / SMS notification services.

#### 5. Performance Requirements.

- The system shall support upto 500 concurrent users.

- The average page load time should not exceed 2 seconds.

- The system shall ensure 99.9% uptime per month.

- Daily data backups shall be performed automatically.

## 6. Design Constraints

- Must be developed using open source technologies.
- Must comply with data privacy laws
- Must follow responsive design standards
- Must support localisation.

## 9. Non-Functional Attributes

### 7.1 Security

- All users shall be encrypted in transit

### 7.2 Usability

- The system shall be intuitive for non-technical users.

### 7.3 Maintainability

- Modular architecture for easy future updates.

## 8. Preliminary Budget and Schedule.

### 8.1 Schedule

#### Phase

#### Timeline

Requirements Analysis

2 weeks

UI/UX

3 weeks

Development

10 weeks

Testing

4 weeks.

### 8.2 Budget

estimated → \$ 38,000

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