

Hotel Management System

Do

Problem Statement: Design and implement a hotel management application for booking, billing, house keeping. Managing Hotel applications manually causes delays, poor booking experience and poor customer Experience. So there is a need for Automated hotel management System for Streamline reservations, billing and housekeeping.

1 Introduction:

1.1 Purpose of the document: This document provides detailed explanation of the requirement for the hotel management system. It serves as a guideline for developers, testers and stakeholders to understand the system functionality and constraints to ensure the application meets user needs and experience.

1.2 Scope of the document: The application will automate key hotel operations such as reserving rooms, billing, check in and check out operations. It is intended to use by the hotel staffs, customers for efficient experience.

1.3 Overview: The hotel management application is designed to streamline the daily operations from room management and guest management to billing and reporting. It provides application for both staffs and customers.

2 General description:

The hotel management application is a Comprehensive Software Solution designed to handle the end to end operations of a hotel. The System allows users to book rooms, manage their reservations and make payments. Hotel staffs can check room availability check in and out of customers, generate invoice and maintain records efficiently.

3 Functional Requirements:

- Room Booking: Allow customers to book their rooms.
- check in / checkout: Allow the staff to manage the guest check in and check outs
- Payment gateway: Allow online payments through various modes, and generate automated invoice.
- User Management: Allow different type of users such as staff, guests & Management to login
- Inventory Management: Track room no and room availability.
- Reporting: Generate reports on booking, and take customer feedback, ratings
- Notifications: Send booking confirmations, reminders

4. Interface requirements:

* User Interface:

- web Interface for Staff and Customers
- with responsive design for desktop & mobile
- Mobile app interface for Android and iOS

* External System Interface:

- Integration with Payment gateways
- Email/SMS gateway for Notifications

* Database Interface:

- Secure database Communication with backend database for data storage.

5. Performance Requirements:

- The system should support 1000 Concurrent users at a time.
- Booking and check in operations should be processed with ~~10~~ 3 seconds
- Data Synchronization between modules should occur in real time.

6. Design Constraints:

- The application must comply with data privacy regulations.
- System should be developed with Scalable technologies
- Use of Secure payment options
- Compatibility with Common web browsers.

1. Non Functional Attributes:

- Security: Ensure data Confidentiality, integrity and user Authentication.
- Reliability: The system should recover from failure.
- Maintainability: Modular design to facilitate and update bug fixes.
- Portability: Ability to deploy on cloud or non-premise environments.

8. Preliminary Schedule and budget:

- Requirement Analysis and budget: 4 weeks
- Development phase : 12 weeks
- Testing phase : 4 weeks
- Deployment & Training : 2 weeks
- Total Estimated Time : 22 weeks

• Estimated budget:

- Development Team (5 members) : \$ 50,000
- Software Licence & tools : \$ 5000
- Testing and QA : \$ 8000
- Deployment and Training : \$ 3000
- Contingency : \$ 4000
- Total budget : \$ 70000