*Software Requirements Specification****HOTEL BOOKING APPLICATION***

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# 1.Objective and Scope

* Hotel Booking App is a web-based application that enables users to book hotel accommodations conveniently.
* It allows users to search and book hotel rooms based on their preferences and availability.
* Users can view details about available rooms, including room types, amenities, and prices.
* The system provides users with the ability to modify or cancel their bookings as needed.
* Hotel Booking App offers users the option to make payments securely within the application.
* This document outlines the functional and non-functional requirements for Hotel Booking .

**2. Product Description**

## 2.1 Product Perspective

The hotel room booking system serves as a crucial component to streamline the process of room reservations and management. It interfaces with existing hotel management systems, payment gateways, email services, and potentially SMS services to provide a seamless booking experience for guests and efficient management tools for hotel staff. The system aims to enhance the overall efficiency of hotel operations by automating booking processes, optimizing room utilization, and improving guest satisfaction.

## 2.2 User Interface

* Web Interface: The primary interface for users to search for rooms, make reservations, and manage their bookings.
* Admin Dashboard: An interface for hotel administrators to manage room inventory, view bookings, generate reports, and perform other administrative tasks.
* Mobile Application : A mobile app version of the booking system for users who prefer to book rooms using their smartphones.

## 2.3 Hardware Interface

* Computers: The system should be accessible via standard desktop or laptop computers with an internet connection.
* Mobile Devices: Compatibility with various mobile devices such as smartphones and tablets for users accessing the system on the go.

## 2.4 Software Interface

* Operating System: The system should be compatible with common operating systems such as Windows, macOS, and Linux.
* Web Browsers: Compatibility with popular web browsers including Google Chrome, Mozilla Firefox, Safari, and Microsoft Edge.

# 3.Functional Requirements

## 3.1 Reservation Management

* Users shall be able to search for available rooms based on specified criteria such as check-in/out dates, room type, and number of guests.
* Guests shall be able to make new reservations by selecting available rooms and providing necessary booking details.
* The system shall allow guests to modify existing reservations (e.g., change dates, room type) and cancel bookings within specified time frames.
* Hotel administrators shall have the ability to manage room inventory, including adding new rooms, updating availability, and blocking rooms for maintenance or other purposes.

## 3.2 Login to the system (User Management)

Once the user enters the site, he should be asked with the login credentials. Which includes,

* Username: Minimum of 8 characters without any spaces.
* Mail id: Complete mail id which should contain the domain after ‘@’.
* Password: Minimum of 8 characters at least one (special character, number, capital letter) should be present. Should not be a common password.

There should be an option for new users and users who forgot their password.

## 3.3 Sign in

If the user is new to the page he should be asked to provide and verify his details which includes,

* First name: Should only contain letters and no space at the end.
* Last name: Should only contain letters.
* Username: Minimum of 8 characters without any spaces.
* Mail id: Complete mail id which should contain the domain after ‘@’.
* Phone number: Should Contain 10 digit number.
* Password: Minimum of 8 characters at least one (special character, number, capital letter) should be present. Should not be a common password.
* Repeat password: should be same as the previous column.

Once he filled the details, he should press register and he should be able to enter into the site.

## 3.4 Admin Management

* The system shall provide an administrative dashboard for hotel staff to perform various management tasks.
* Administrators shall be able to add, update, or remove room types, along with their corresponding rates and availability.
* The system shall generate reports on key metrics such as occupancy rates, revenue, and room utilization to assist in decision-making and planning.

## 3.5 Payment

* The system shall integrate with one or more secure payment gateways to facilitate online transactions for booking payments.
* Guests shall have the option to pay using different payment methods such as credit cards, debit cards, or alternative payment methods.
* The system shall generate invoices and receipts for completed transactions and provide confirmation emails to guests upon successful bookings.

# 4 Non-Functional requirements

## 4.1 Hardware requirements:

Smart phone or a computer which supports a browser and should have internet or Wi-Fi options.

## 4.2Scalability:

A minimum of 100 users should be able to access the site simultaneously without any lag in the page.

# 5 . Diagrams

## 5.1 Class diagram

A computer screen shot of a computer

Description automatically generated

## 5.2 Use Case Diagram

A diagram of a hotel

Description automatically generated

## 5.3 Flow Chart

A diagram of a diagram

Description automatically generated