**SOFTWARE REQUIREMENTS SPECIFICATIONS**

**FOR**

**DOCTOR APPOINTMENT SYSTEM**

**BY**

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**1. Introduction**

The Smart Appointment Booking System is a web-based application designed to provide an efficient and convenient way for patients or users to book doctor's appointments online. The goal of this project is to overcome the challenges of manual appointment management and provide a user-friendly platform for booking appointments according to user preferences.

* 1. **Project Goals**

The goal of the Smart Appointment Booking System is to create a reliable and user-friendly platform that simplifies the process of booking doctor's appointments. The system aims to automate the appointment management process, allowing users to view available time slots, book appointments, and cancel bookings as needed.

The primary goals of the Doctor Appointment Booking System are as follows:

1. Provide users with a convenient and efficient way to book doctor appointments online.
2. Simplify the appointment management process for healthcare providers.
3. Enable users to check the availability of appointments in real-time.
4. Automate the calculation of appointment costs based on the booking duration.
5. Allow users to cancel their appointments easily.
6. Facilitate communication between users and administrators through feedback functionality.

**1.2 Project Scope**

The project scope includes the development of a web-based application with the following key features:

1. **User Registration and Login**: Users can create accounts and login to the system to access the appointment booking functionality.

2. **Admin Login**: An admin interface will be provided to manage the bookings made by users.

3. **Clinic Areas**: The system will support multiple clinic areas at different locations to accommodate various doctors and specialties.

4**. Appointment Availability Check**: Users can check the availability of appointment slots for their desired date and time.

5. **Appointment Booking**: Users can book appointments online by selecting their preferred date and time from the available slots.

6. **Automatic Cost Calculation**: The system will calculate the total cost incurred for parking based on the duration of the appointment.

7. **Booking Cancellation**: Users will have the option to cancel their booked appointments at any time.

8. **Email Notifications**: Users will receive email notifications upon successful appointment booking and cancellation.

9. **Feedback System**: A feedback form will be provided for users to provide feedback on their experience with the system.

**1.3 Functional Requirements**

The functional requirements of the Doctor Appointment Booking System are as follows:

**1.3.1 User Management**

1. User Registration
   * Users can create an account by providing necessary information.
   * User information includes name, contact details, and email address.
2. User Login
   * Registered users can log in using their credentials.
   * Authentication and session management are required.
3. User Profile
   * User can view and update their profile information.

**1.3.2 Appointment Booking**

4. Appointment Availability Check

* + Users can view the availability of appointment slots for their selected clinic area.
  + Already booked slots will be marked as yellow and unavailable for others.

5. Appointment Selection

* + Users can select a preferred date and time slot for their appointment.
  + The system should validate the selected slot for availability.
  + Automatic cost calculation should be performed based on the booking duration.

6. Appointment Cancellation

* + Users can cancel their booked appointments at any time.
  + The system should handle cancellation requests and update the availability of slots.

7. Email Notifications for Booking Confirmation or Cancellation

* + Users should receive confirmation and "thank you" emails upon successful appointment booking.
  + Users should also receive cancellation confirmation emails.

8. Feedback

* + Users can provide feedback through a form.
  + Feedback should be stored and made available for administrators to view.

**1.3.3 Admin Management**

1. Admin Login
   * Admins can log in using their credentials to access the system.

2. User Data Management

* + Admin can view user information, including personal details and booking history.

3. Booking Management

* + Admins can view and manage the bookings made by users.
  + They can cancel appointments on behalf of users if necessary.

4. Feedback Management

* + Admins can view user feedback and reply to users if required.

**1.4 Non-Functional Requirements**

The non-functional requirements of the Doctor Appointment Booking System are as follows:

1. Performance
   * The system should handle multiple concurrent users efficiently.
   * Response times should be fast, ensuring a smooth user experience
   * .
2. Security
   * User login credentials and personal information should be securely stored.
   * Authentication and authorization mechanisms should be implemented to protect sensitive data.
3. Usability
   * The user interface should be intuitive and user-friendly.
   * Clear instructions and error messages should be provided.
4. Reliability
   * The system should be available 24/7, with minimal downtime for maintenance.
   * Data backup and recovery mechanisms should be in place to prevent data loss.
5. Compatibility
   * The system should be compatible with commonly used web browsers.
   * It should support different screen sizes and resolutions for a responsive design.

**1.5. Conclusion**

The Doctor Appointment Booking System aims to provide a convenient and efficient solution for users to book doctor appointments online. By automating the appointment management process, this system saves time for both users and healthcare providers. It enhances the overall experience by offering real-time availability checks, automatic cost calculations, and easy appointment cancellation. The system also facilitates communication between users and administrators through feedback functionality.