Doctor Appointment App

* The app allows patients to search to doctors in their areas and book appointment
* Doctor and patient can plan video call or real-time chat.
* Allows reviews of doctors
* Allows searches

**Introduction:** The Doctor Appointment App is a mobile application designed to streamline and simplify the process of booking and managing doctor appointments for users. It provides a convenient platform for patients to search for doctors, schedule appointments, receive reminders, and manage their medical records. The app aims to enhance the overall healthcare experience for users and optimize the efficiency of medical practices.

**User Roles**: The Doctor Appointment App includes the following user roles:

a. Patients:

* Patients can create an account and securely log in to the app.
* They can search for doctors based on specialty, location, and availability.
* Patients can view doctor profiles, including their qualifications, experience, and ratings.
* They can schedule appointments with preferred doctors based on availability.
* Patients can receive appointment reminders and notifications.
* They can access and manage their medical records, including test results and prescriptions.
* Patients can provide feedback and ratings for doctors.

b. Doctors:

* Doctors can create profiles with their professional information and specialties.
* They can manage their availability for appointments.
* Doctors can receive appointment requests from patients and accept or reject them.
* They can view patient medical records and update them as necessary.
* Doctors can communicate with patients through secure messaging within the app.
* They can receive feedback and ratings from patients.

c. Administrators:

* Administrators have access to the backend system of the app.
* They can manage user accounts, including patient and doctor profiles.
* Administrators can update doctor information and specialties.
* They can monitor and resolve any technical issues or complaints.

1. Key Features:

a. User Registration and Authentication:

* Users can create accounts using email addresses or social media profiles.
* Account authentication is performed securely to protect user data.

b. Doctor Search and Profiles:

* Users can search for doctors based on specialty, location, and other relevant criteria.
* Detailed doctor profiles display qualifications, experience, ratings, and patient reviews.

c. Appointment Scheduling:

* Users can view doctors' availability and schedule appointments based on preferred time slots.
* Real-time availability updates to avoid conflicts or double bookings.
* Confirmation notifications sent to users and doctors upon successful booking.

d. Appointment Reminders:

* Automated reminders sent to users prior to their scheduled appointments.
* Reminders can be delivered via push notifications, SMS, or email.

e. Medical Records Management:

* Patients can access and manage their medical records within the app.
* Ability to upload and store test results, prescriptions, and other relevant documents securely.
* Doctors can view and update patient medical records for accurate treatment.

f. Secure Communication:

* In-app messaging functionality for secure communication between doctors and patients.
* Users can ask questions, discuss treatment plans, or seek clarification.

g. Ratings and Reviews:

* Patients can provide ratings and reviews for doctors based on their experiences.
* Ratings and reviews help other users make informed decisions.

h. Notifications and Alerts:

* Appropriate notifications and alerts to keep users informed about appointment updates, test results, etc.

i. Integration with Calendar:

* Integration with users' calendars to sync appointments and avoid conflicts.

j. Localization and Accessibility:

* Support for multiple languages and localization options.
* Accessibility features for users with disabilities.

1. Technology Stack:
   * Mobile Application: Native development (iOS and Android), or hybrid framework like React Native.
   * Backend: Server-side programming language (e.g., Node.js, Python, Java).
   * Database: Relational database management system (e.g., MySQL, PostgreSQL) or NoSQL database (e.g., MongoDB).
   * Cloud Services: Hosting (e.g.,