Project Report: Comfort Crew

1. Student Details

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2. Project Information

Project Name: Comfort Crew
Question Statement:
Comfort Crew is a multi-user application designed for the management of roles, such as an Admin, Service Professionals, and Customers. It is meant to act as a platform delivering comprehensive home servicing solutions with easy accessibility for booking services.
Approach:
The project started by developing a multi-role platform. A light-weight database schema was designed to efficiently manage the user and booking. The front-end was done using Bootstrap for responsiveness. Flask was used to handle the backend logic. The system divided into modular components using MVC architecture for easy maintainability

3. Frameworks and Libraries Used

- **Flask:** For backend logic and routing.
- **Jinja2:** For dynamic rendering of web pages according to user roles.
- **SQLite:** A lightweight database solution to store and manage user and booking data.
- **Front-end:** Used HTML and CSS to design a responsive and user-friendly front-end interface.

4. ER Diagram

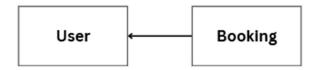The ER Diagram represents the two main entities: **User** and **Booking**.

- **User Table:**
  Attributes: user_id, email, password, role (Customer/Professional/Admin), name.
- **Booking Table:**
  Attributes: booking_id, user_id, status (Pending/Accepted/Completed), approval_status, date, time.

Relationships:

- One-to-Many relationship between User and Booking.
- A single user can have multiple bookings, but each booking is associated with only one user.

5. API Resource Endpoints

- login: Authenticate users and create sessions.
- register: Register new users as Customers or Professionals.
- services: Show available services.
- book: Allows Customers to create a booking.
- dashboard: Show bookings for Customers and Professionals.
- admin: Admin interface for managing users and services.

6. Drive Link for Presentation Video

https://drive.google.com/file/d/1lB3t3iexaXF5EKex1kYakt6WEUtpbx8z/view?usp=sharing

7. Conclusion

Comfort Crew is a great solution for networking professionals with customers while also helping the system admins to run it smoothly. Thereby, this network bridges the gap between service seekers and providers by providing an easy-to-use interface and using efficient role-based flows.

8. Future Developments

- **Payment Gateway Integration:** This is with respect to the smooth online transactions.
- **Notifications System:** Email or SMS for providing updates about bookers.
- **Calendar Management:** Professionals might be able to manage their availability using a calendar system.