**PRACTICE EXAM**

**React Native and Firebase/SQLite Practice Exam - Room Rental Application (Airbnb Clone)**

**Exam Duration: 80 minutes**

**Objective:**

You are tasked with developing a cross-platform room rental application using React Native and Firebase or SQLite as the database. The app should allow users to browse available rooms, book a room, and manage their bookings.

**Instructions:**

* **The exam is divided into two parts:**
  1. Application Development (70%)
  2. Report and Submission (30%)
* **All source code should be submitted in a .zip file.**
* **A short report must be included, explaining your solution.**

**Application Requirements:**

1. **Login/Registration Screen (15%):**
   * Implement user authentication using Firebase Authentication or SQLite for storing user credentials.
   * Users should be able to sign up, log in, and log out.
   * Use JWT tokens or session management for authentication.
2. **Room List Screen (15%):**
   * Fetch and display a list of available rooms for rent from Firebase or SQLite.
   * Each room should include an image, location, price per night, and description.
3. **Room Detail Screen (15%):**
   * Clicking on a room should show more detailed information, such as room amenities, location on a map, and an option to book the room.
4. **Booking Screen (15%):**
   * Users should be able to view all their room bookings and see past or upcoming reservations.
   * Implement functionality to cancel a booking and update the database accordingly.
5. **Map Integration (10%):**
   * Show the room's location on a map using Google Maps API.
   * Use geolocation data to display available rooms near the user’s current location.

**Report Requirements:**

* **Introduction (5%):**
  + Briefly describe the room rental application and its key functionalities.
* **Architecture (10%):**
  + Explain the structure of your React Native app and how you integrated it with Firebase or SQLite.
  + Discuss your use of React Navigation for routing between screens.
* **Database Design (5%):**
  + Describe how you structured the data for users, rooms, and bookings.
* **Challenges & Future Improvements (10%):**
  + Discuss any challenges you faced during the development process.
  + Suggest additional features or improvements you would add with more time (e.g., filtering by room type, availability, price).

**Evaluation Criteria:**

* **Application Development (70%):**
  + Login/Registration (15%)
  + Room List Screen (15%)
  + Room Detail Screen (15%)
  + Booking Functionality (15%)
  + Map Integration (10%)
* **Report (30%):**
  + Clarity and completeness of the report (5%)
  + Explanation of architecture and database design (15%)
  + Reflection on challenges and improvements (10%)

**Deliverables:**

* **A .zip file containing:**
  + The React Native project.
  + A short report (in PDF or Word format) explaining your work.

**Good luck!**