📌 Flutter Developer Assignment – "City Explorer" 🌍

Objective

Build a **City Explorer App** in Flutter that lets users discover places in a city, view live weather information, and chat in real-time with other users exploring the same city. The app should demonstrate **scalable architecture, clean code, API integration, offline support, and real-time communication**.

Requirements

1. Authentication

- Allow **guest login** (no backend required).

- *(Optional Bonus)*: Implement Firebase Auth (free tier).

2. City Places Explorer (Open API)

- Use **OpenStreetMap + Nominatim API** to search for places in a city.

- Example API:
  `https://nominatim.openstreetmap.org/search?q=agra&format=json&limit=10`

- Show results in a list/grid with **name, image, and address**.

3. Weather Info (Open API)

- Use **OpenWeatherMap API (free tier)**.

- When a user selects a place, display **live weather info** (temperature, humidity).

4. Real-Time Chat (WebSocket)

- Implement a chat room feature where each city acts as a chat room.

- Use a free WebSocket service such as `wss://ws.postman-echo.com/raw`.

- Users should be able to **send & receive messages** in real-time.

5. Offline Support

- Cache last searched city + places using **Hive or SQLite**.

- Store last 20 chat messages per city locally.

Bonus Features (Optional)

- Show places on a **map** using `flutter_map` with free OpenStreetMap tiles.

- Add a **favorites list** stored locally.

- Add **light/dark theme toggle**.

- Add **multi-language support** (English + Hindi).

Deliverables

1. A **GitHub repository** containing:

   - Clean folder structure (data, domain, presentation).

   - Clear commit history.

   - A README with setup instructions, API links, and usage notes.

2. The app should run on **Android** (iOS optional).

3. Include at least **2 unit tests** (e.g., testing weather parsing, caching logic).