Coding Challenge: Simple Countries Info App via a RESTful API



Objective:

Develop a Flutter app that interacts with the Rest Countries API to retrieve and display a list of countries. Implement functionality for searching countries by name and filtering by region. Ensure the app is well-organized with regular commits and pull requests, showcasing effective use of GitHub workflows.

Requirements:

1. Country List Page:

- Fetch and display a list of all countries from the Rest Countries API.
- Each country card in the list should display:
 - Country name
 - Flag (image)
 - Region

2. Search Functionality:

Add a search bar to allow users to search for a country by name.

3. Country Details Page:

- When a user taps on a country from the list, navigate to a new page to display detailed information, including:
 - Capital
 - Population
 - Currency
 - Languages
 - Borders (other neighboring countries)

4. Error Handling:

o Gracefully handle API errors, such as when a country cannot be found or if there's a network issue.

5. Bonus Features (Optional):

- o Filter: Allow users to filter countries by region (e.g., Africa, Europe, Asia, etc.).
- o Favorite Countries: Let users mark countries as "favorite" and store them locally (using SQLite or Hive).

Technical Requirements:

- State Management: Use Provider, getX, Riverpod, or any preferred state management solution.
- API Integration: Use the http or dio package to make API calls.

- **Responsive UI**: Ensure the app looks good on both Ui and Ux aspects.
- Code Quality: Write clean, modular code with meaningful comments where necessary.

Final Submission

- Share the GitHub repository with the completed project.
- Ensure the main branch contains the final merged code with all features implemented.
- Submit a **build APK** in the repository or via a link (e.g., in the Releases section or directly in the repository).

Evaluation Criteria:

- Functionality: Does the app meet the core requirements (list, search, and details)?
- Code Quality: Is the code well-structured and easy to read?
- **Performance**: Is the app responsive and optimized, especially when handling large lists of countries?
- **UI/UX Design**: Is the app user-friendly with good design practices?
- Error Handling: Does the app handle API failures or edge cases gracefully?

API Documentation:

- Api Documentation site: https://restcountries.com/
- Base URL: https://restcountries.com/v3.1
- Endpoints:
 - o GET /all Get a list of all countries.

Example:

https://restcountries.com/v3.1/all

GET /name/{name} - Search for a country by its name.

Example:

https://restcountries.com/v3.1/name/ethiopia

- Search by Full Name: Search for a country by its full name, either common or official.
 - o GET /name/{name} ? fullText=true

Example:

https://restcountries.com/v3.1/name/ethiopia?fullText=true

- **Search by Currency:** Search for countries by currency code or name.
 - GET /currency/{currency}

Example:

https://restcountries.com/v3.1/currency/cop

For more information, visit the API documentation at https://restcountries.com/