Architecture Design

**Project – Weather Application**

* The application should provide real-time weather updates.
* It should include a 7-day forecast feature.
* It should support multiple locations.
* It should have a user-friendly interface.
* It should support different units of measurement (Celsius, Fahrenheit).
* It should have a dark and light mode feature.

**Type of Application – Native**

* The application should be developed using Visual Studio Code and Android Emulator.
* It should follow Android design guidelines.
* It should support different screen sizes and resolutions.
* The application should be compatible with the latest Android version.
* It should have a smooth and responsive UI.

**UI Framework – Android OS**

* The application should use Material Design components.
* It should use themes and styles to create a consistent look and feel.
* The application should use animations to enhance the user experience.
* The application should handle user input events.
* It should use intents to navigate between different activities.

**Backend language - Javascript**

* The application should use Node.js for the backend.
* It should use async/await for handling asynchronous operations.
* The application should handle errors properly.
* It should use environment variables for configuration.
* The application should use Firebase for authentication.
* Use open weather API for weather data.

**Permissions**

* The application should request location permission to get weather data for the user’s current location.
* It should handle the case where the user denies the location permission.
* The application should provide a clear explanation of why it needs the location permission.
* It should request the permission only when necessary.
* It should handle the case where the user revokes the permission.
* It should respect the user’s privacy.

**Data storage**

* Use firestore to store data.
* It should follow best practices for data storage.
* The application should use encryption for sensitive data.
* It should clear data when the user logs out.

**Any additional frameworks or technology stacks**

* The application should use Firebase for analytics and crash reporting.
* It should use Git for version control.