Exercise 4 – Reflection Questions

1. What is the purpose of the flutter doctor command?

The flutter doctor command is a diagnostic tool used to verify the health of your Flutter development environment. It automatically checks your system for all necessary dependencies and configurations, identifying any potential issues that might prevent you from building and running Flutter apps.

2. What file acts as the entry point of a Flutter application?

The file that acts as the entry point of a Flutter application is called **main.dart**. This file is located in the lib folder of the project structure and contains the main() function, which is the starting point for all Dart programs

3. Explain the difference between **Hot Reload** and **Hot Restart**.

The primary difference is that Hot Reload preserves the app's current state (like user input or position in the app) while applying new code changes, whereas Hot Restart completely resets the app to its initial state.

4. How does runApp() build the widget tree?

The runApp() function builds the widget tree by taking the root widget you provide, attaching it to the Flutter rendering engine, and synchronously running the build() method of that root widget and all its children. This process creates three interconnected tree structures: the Widget tree, the Element tree, and the Render Object tree.

5. Describe how Flutter’s architecture enables cross-platform development.

Flutter's architecture enables cross-platform development by using a single codebase and a unique approach to UI rendering that bypasses native system components. Its layered system ensures consistency and high performance across various platforms (iOS, Android, web, desktop, embedded).