**Assignment 2**

1. **What is Flutter, and how does it differ from other mobile app development frameworks?**
2. **Discuss the advantages and disadvantages of using Flutter for mobile app development.**
3. **Describe the steps to install Flutter on your local development environment (Windows, macOS, or Linux).**
4. **What is Dart, and why is it used in Flutter?**
5. **Explain the basic syntax of Dart, including variables, data types, and functions.**
6. **Write a Dart program to demonstrate the use of conditionals and loops.**
7. **What is a widget in Flutter? Explain the difference between stateful and stateless widgets.**
8. **Describe the different types of layout widgets available in Flutter (e.g., Container, Row, Column, Stack).**
9. **Write a brief explanation on how to implement a simple user interface with a few basic widgets (e.g., Text, Image, Button).**
10. **Explain the 14 categories of widgets.**
11. **What is the Widget tree in Flutter, and how does it affect the rendering and performance of a Flutter application?**
12. **What is state management in Flutter, and why is it important?**
13. **Provide a simple example of using setState to manage the state of a Flutter application.**
14. **What are the different types of navigation in Flutter? Explain their use cases.**
15. **Describe how to implement basic navigation using the Navigator class.**
16. **What are Flutter packages, and how can they enhance app development? List 5 popular Flutter packages.**
17. **What is pubspec.yaml file?**
18. **What are plugins in flutter?**
19. **Explain the use of themes in Flutter and how to define a custom theme for an app.**
20. **What are different types of streams in Dart?**