

Application Development Bootcamp Plan

Prerequisites: Working knowledge of any one Object Oriented Programming language, OOPs concepts like classes, objects, inheritance, etc.

1. Layers of a mobile application

- a. Presentation Layer
- b. Business Layer
- c. Network Layer

2. Introduction to flutter

- a. What is flutter
- b. Flutter setup
- c. Emulator and Simulator to run the apps
- d. IDEs
- e. Flutter app structure -> assets, pubspec, dependencies etc.

3. Basics about Dart language

- a. Dart functions and constructors -> lambda functions, function arguments: default, optional, named
- b. String interpolation
- c. Collection methods
- d. Cascade notation
- e. Function as a datatype
- f. Mixins and extension
- g. Null safety

4. Widgets – Create a new flutter project from scratch

- a. Stateless widgets and Stateful widget -> setState() method
 - i. Stateful widget lifecycle
- b. Hot Reload and Hot Restart
- c. Material vs Cupertino widgets
- d. Material App widget and its component
- e. Building custom widgets

5. Creating a Screen / Screen Layouting -> develop UI based on a design

- i. Scaffolding
- ii. Some widely used widgets
- iii. User interactivity -> textfield, button pressing, showing dialogs, showing snackbars

6. Navigation / Routing

7. Dart Futures, Async & Await

8. BLoC – State Management

9. Networking in flutter app

- a. Creating repository.
- b. Exploring different API call packages.

10. Local Data Storage

- a. Preferences
- b. Sqlite DB
- c. Hive DB

11. App Testing

12. Flutter Best Practices

13. App deployment