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 it's 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

    a. Single Responsibility Principle

        i. Break Out methods that is responsible for a single UI component.

13. App deployment