

## **Experiment-5(a)**

Date: 17/10/25

### **5. Installing and Configuring Flutter SDK.**

Introduction to flutter and dart programming language

#### **INTRODUCTION**

Flutter is an open-source user interface software development kit (app SDK) created by Google. It is for building high-performance, high-fidelity apps for iOS, Android, and web from a single codebase. The purpose of this course is to enable developers create high-performance and attractive apps that feel natural on iOS & Android devices. Flutter, is used by companies around the world including Alibaba, Capital One, and Groupon for apps that touch hundreds of millions of users.

#### **Importance of Flutter**

Because any developer or anyone who wants to learn about mobile development can now build native Android and iOS apps with one codebase ONLY! This means, instead of having to learn Objective-C or Swift to build iOS apps, and Java or Kotlin to build Android apps, you can now use Flutter Mobile Development Framework to build apps that run natively on both iOS and Android devices using the Dart Programming Language.

The following are some advantages of Flutter.

- i. Be highly productive
- Develop for iOS and Android from a single codebase.
- Do more with less code, even on a single OS, with a modern, expressive language, and a declarative approach.

The following are some examples of Dart IDEs which you can use to write Dart code.

- IntelliJ IDEA
- Android Studio
- Visual Studio

**Note:** When you later use Flutter SDK to create a mobile app, you don't need to install Dart SDK or Dart plugins to any IDE such as Android Studio or IntelliJ IDEA because Flutter SDK already includes Dart SDK. Also, Flutter plugins already include Dart plugins.

### IntelliJ IDEA

IntelliJ IDEA is a Java integrated development environment for developing computer software. It is developed by JetBrains. IntelliJ IDEA is free software used to develop Java, Kotlin, Dart, and other programming languages.

## Installing and Configuring Flutter SDK

1. In Google search type flutter download for windows and click on the second link.  
After downloading copy the flutter and go to C-drive Create one folder as SOC and Paste inside SOC folder.
2. Open Edit environment Variable and select the Path Click on Edit and Copy the address C:\SOC\flutter\bin and Paste here and Click on OK.
3. In Google search type Dart download for windows and click on the second link.

After downloading double click the file and go to C drive create one folder as tools and select up to tools folder.

4. Open edit environment Variable and select the Path Click on Edit and Copy the address C:\Tools\flutter\bin and Paste here and click on OK.

5. Open Android studio Select Plugins and search flutter Install it and search Dart install it.

6. Right Side of Android studio Click on Actions and select SDK Manager and select SDK Platforms Click on Android API 34 and click on Apply and finish.

7. 14. Android SDK Go to SDK Tools Select 1. Android SDK Built Tools 35 2. Android SDK (Command Line Tools) 3. Android Emulator -4. Android Platform tools and click on Apply and finish.

8. In Google Search type IntelliJ IDEA download for windows and click on the first link scroll

down and Select IntelliJ IDEA Community Edition & Download & Install it.

9. Open IntelliJ IDEA go to Plugins Search Dart & Install it.

10. For Creating a new Project go to Projects → new Project → Select Dart and set the tools as C:\tools\dart\dart-sdk\out give the Project name and type the Code.