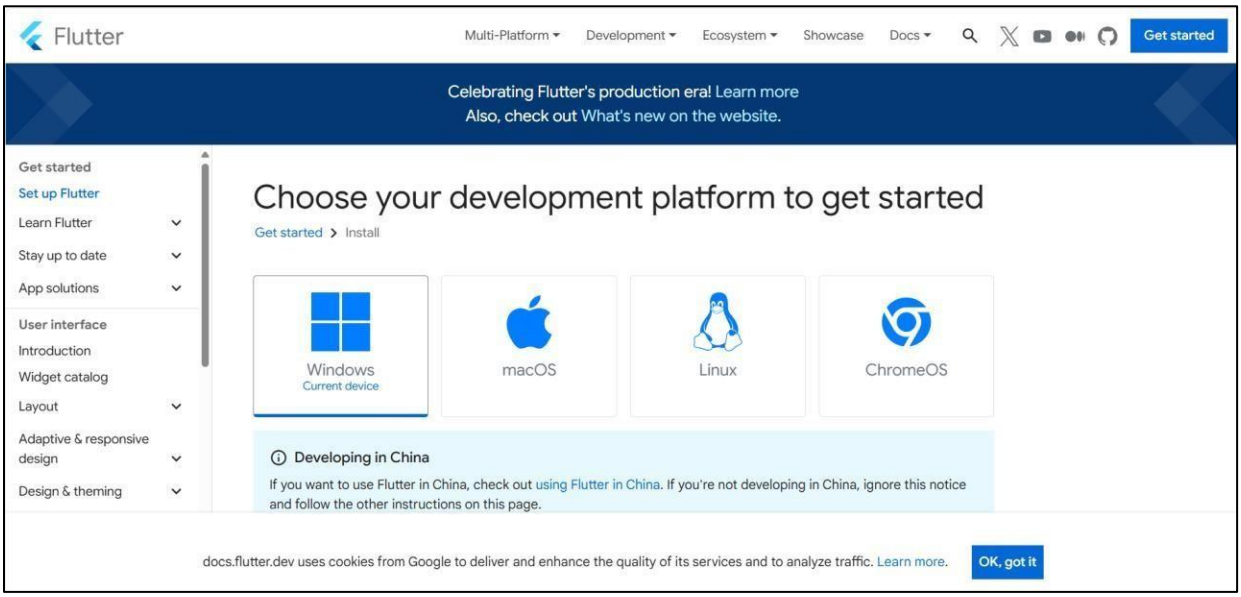
EXPERIMENT NO: - 01

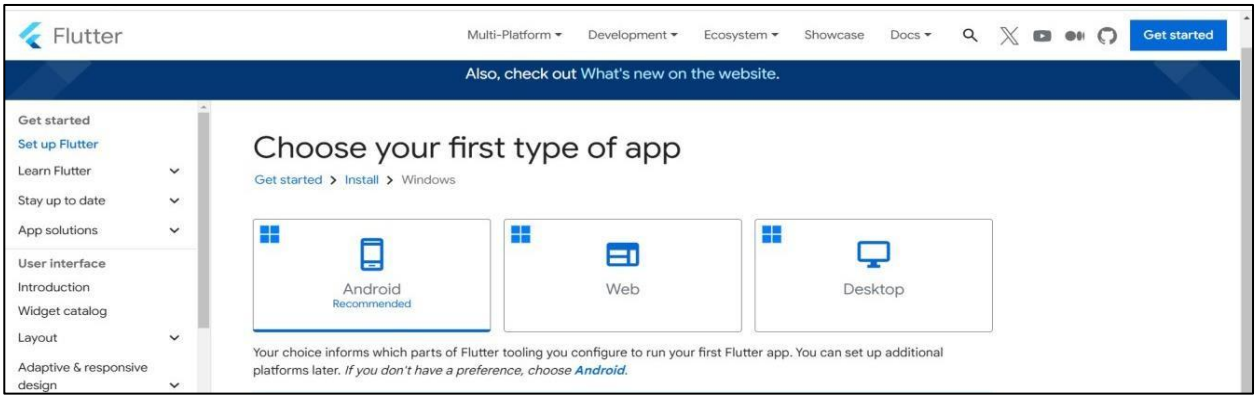
AIM: Installation and Configuration of Flutter Environment.

PROCEDURE:

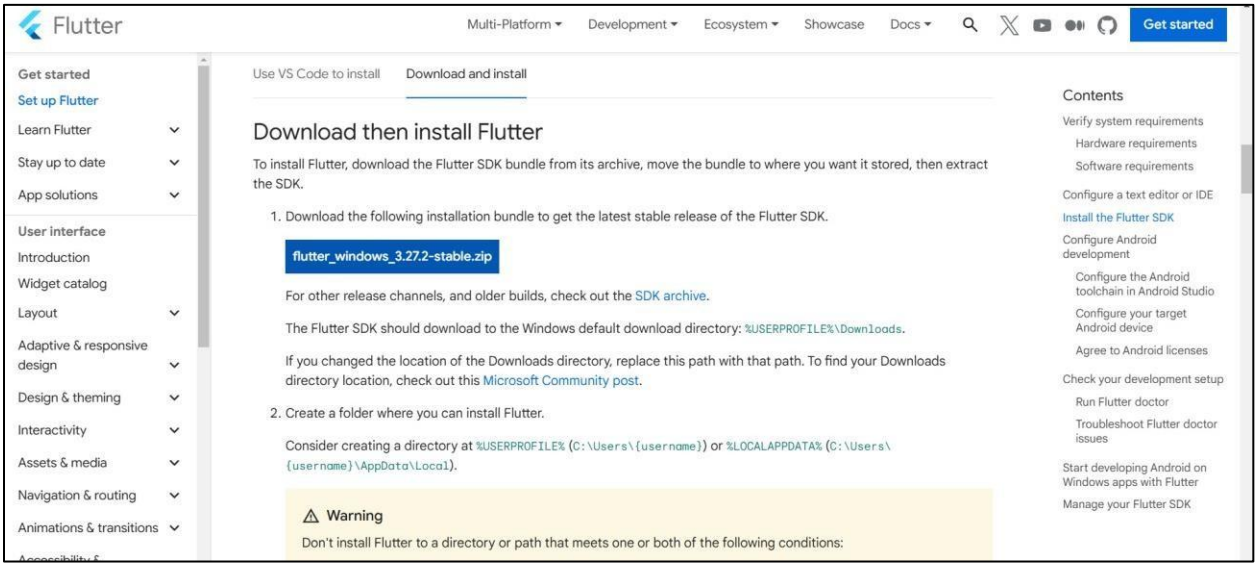
Step 1: Go to the official Flutter website: https://docs.flutter.dev/get-started/install



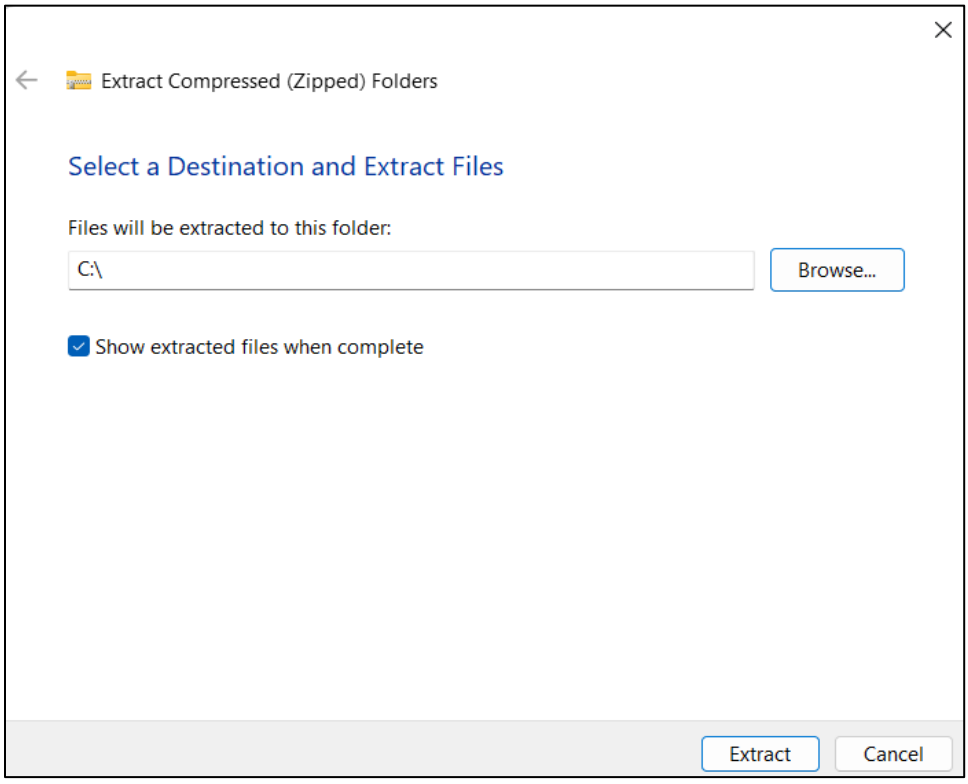
Step 2: To download the latest Flutter SDK, click on the Windows icon > Android



Step 3: For Windows, download the stable release (a .zip file).



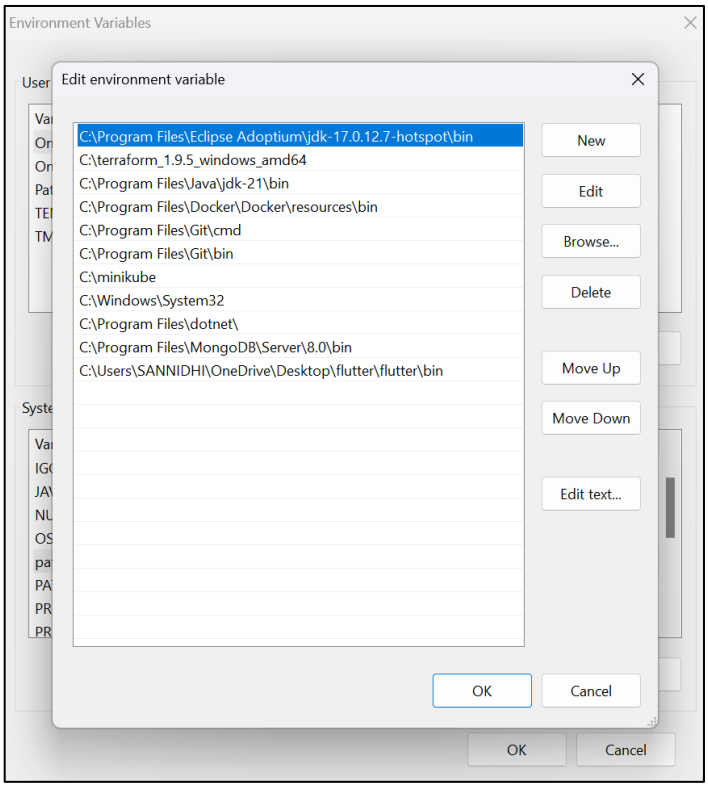
Step 4: Extract the ZIP file to a folder (e.g., C:\flutter).



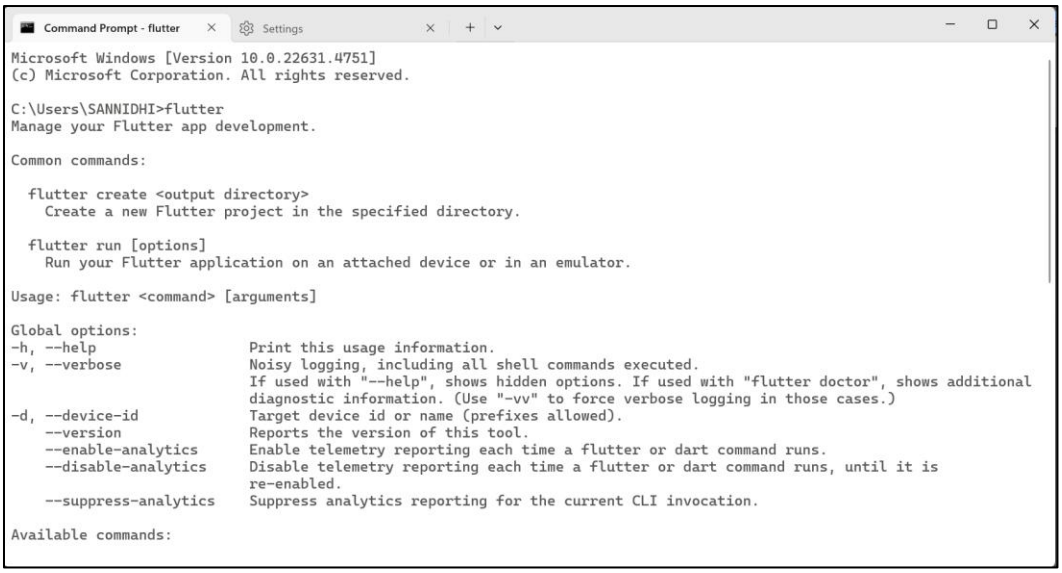
Step 5: Add Flutter to System PATH

Right-click on the Start Menu > System > Advanced system settings > Environment Variables. Under System Variables, find Path and click Edit.

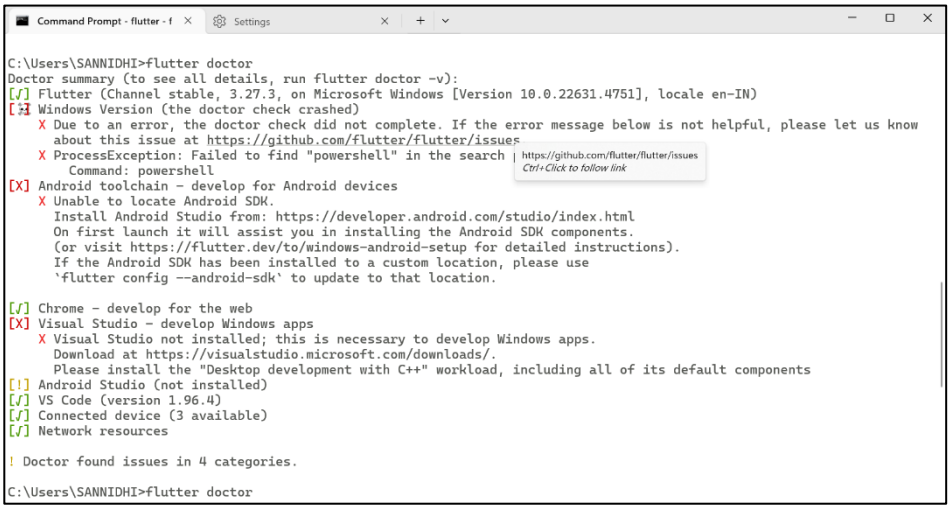
Add the full path to the flutter/bin directory (e.g., C:\flutter\bin).



Step 6 : Now, run the $ flutter command in command prompt.

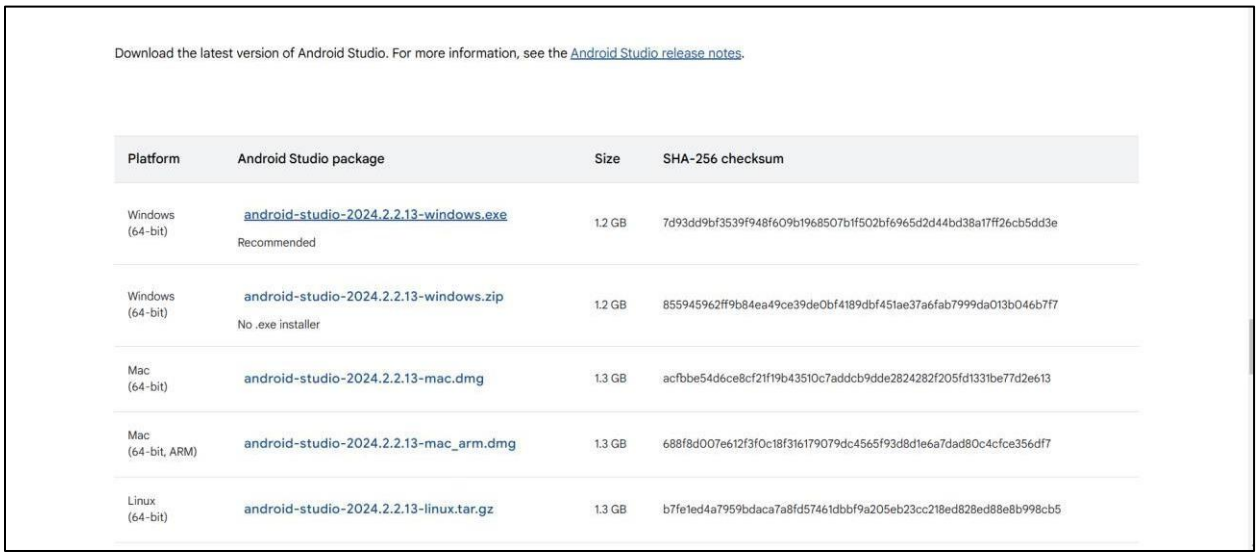


Step 7: Run the $ flutter doctor command. This command checks for all the requirements of Flutter app development and displays a report of the status of your Flutter installation



Android SDK installation:

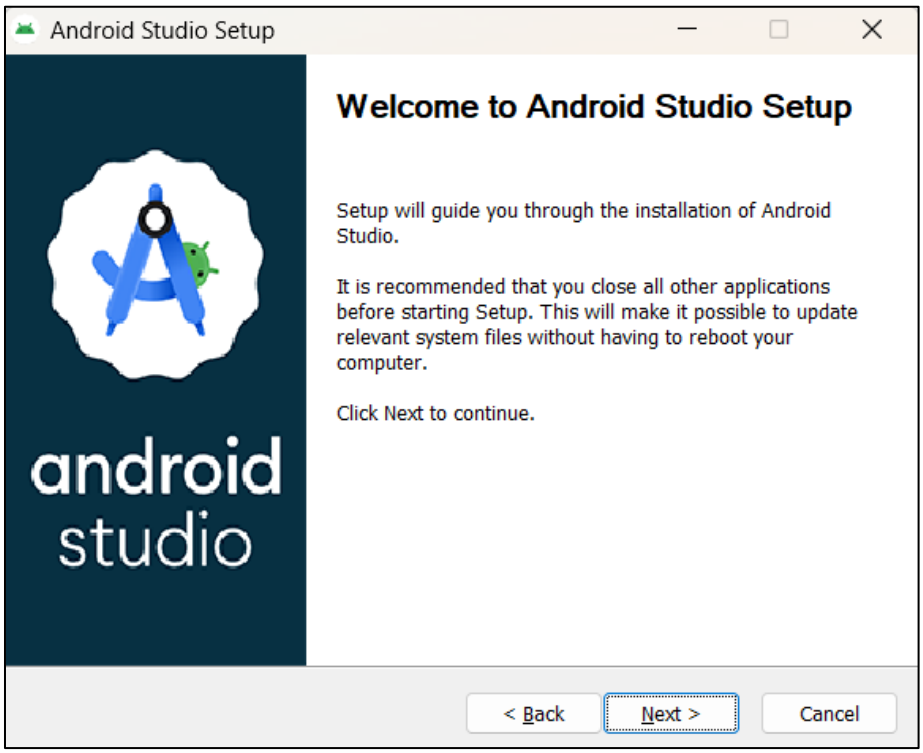
Step 1: Go to Android Studio and download the installer.



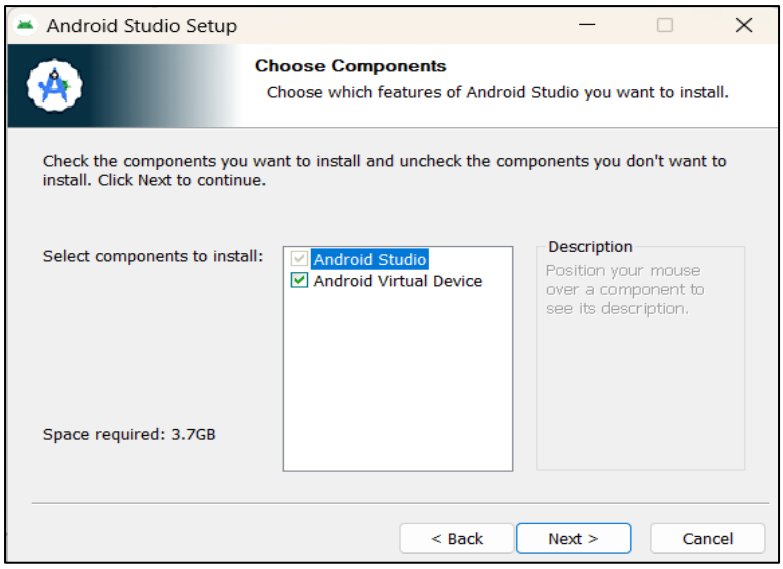
Download the latest version of Android Studio. For more information, see the Android Studio release notes.

Platform	Android Studio package	Size	SHA-256 checksum
Windows (64-bit)	android-studio-2024.2.2.13-windows.exe Recommended	1.2 GB	7d93dd9bf3539f948f609b1968507b1f502bf6965d2d44bd38a17ff26cb5dd3e
Windows (64-bit)	android-studio-2024.2.2.13-windows.zip No .exe installer	1.2 GB	855945962ff9b84ea49ce39de0bf4189dbf451ae37a6fab7999da013b046b7f7
Mac (64-bit)	android-studio-2024.2.2.13-mac.dmg	1.3 GB	acfbbe54d6ce8cf21f19b43510c7addcb9dde2824282f205fd1331be77d2e613
Mac (64-bit, ARM)	android-studio-2024.2.2.13-mac_arm.dmg	1.3 GB	688f8d007e612f3f0c18f316179079dc4565f93d8d1e6a7dad80c4cfce356df7
Linux (64-bit)	android-studio-2024.2.2.13-linux.tar.gz	1.3 GB	b7fe1ed4a7959bdaca7a8fd57461dbbf9a205eb23cc218ed828ed88e8b998cb5

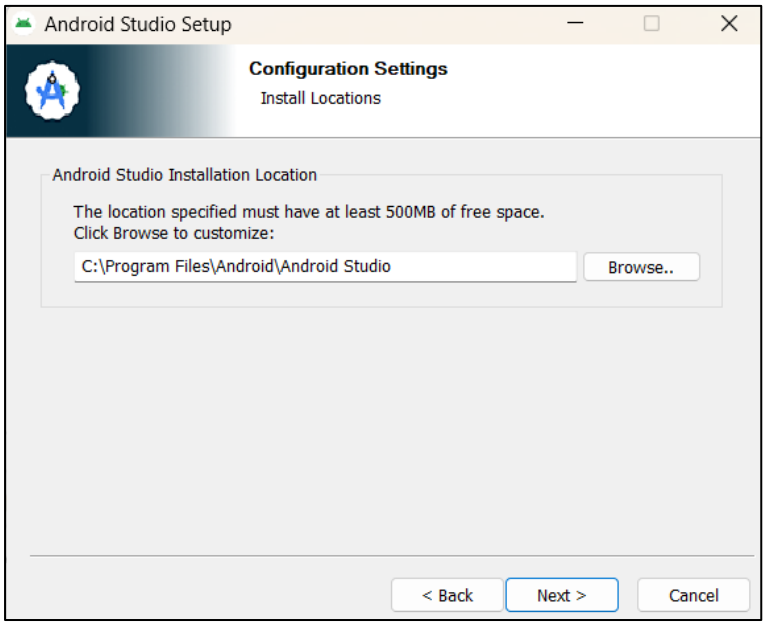
Step 2: When the download is complete, open the .exe file and run it. You will get the following dialog box



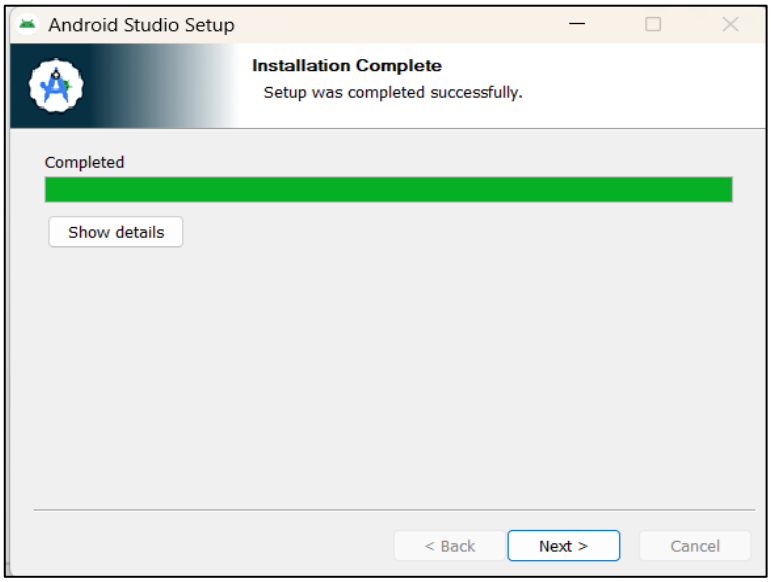
Step 3: Select all the Checkboxes and Click on ‘Next’ Button.

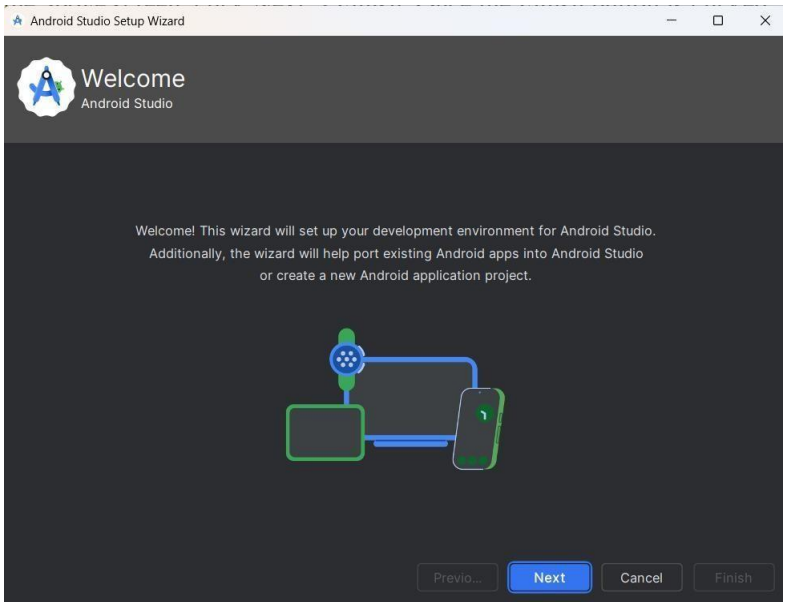


Step 4: Change the destination as per your convenience and click on ‘Next’ Button.

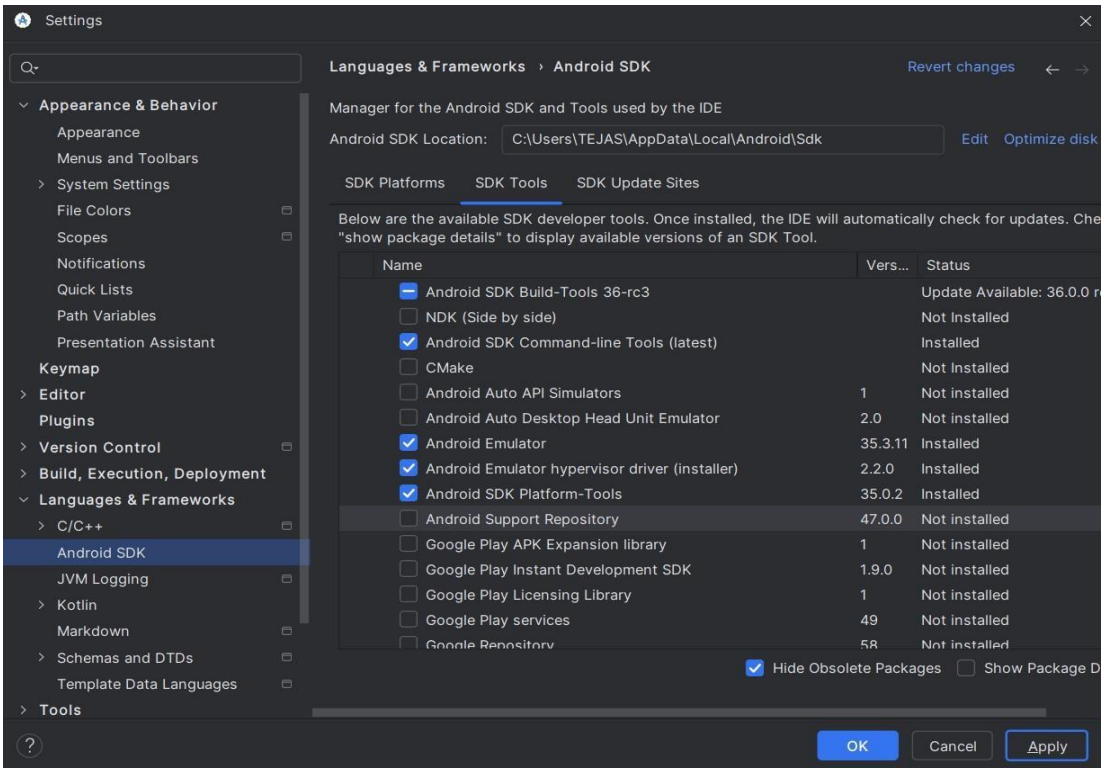


Step 5: Follow the steps of the installation wizard. Once the installation wizard completes, you will get the following screen.

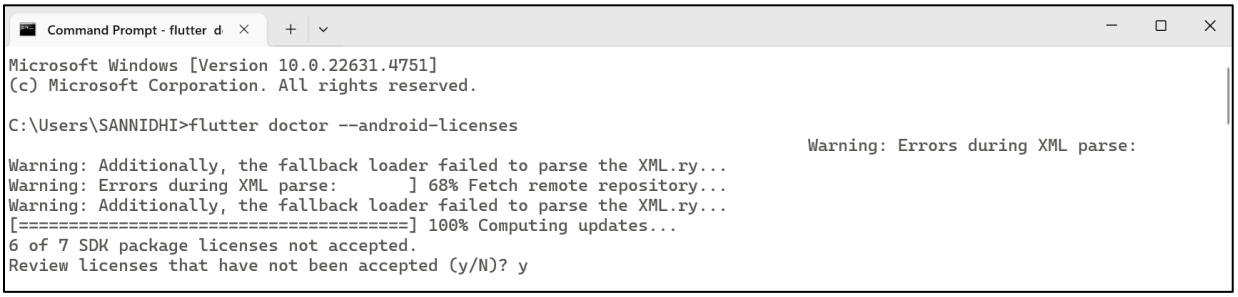


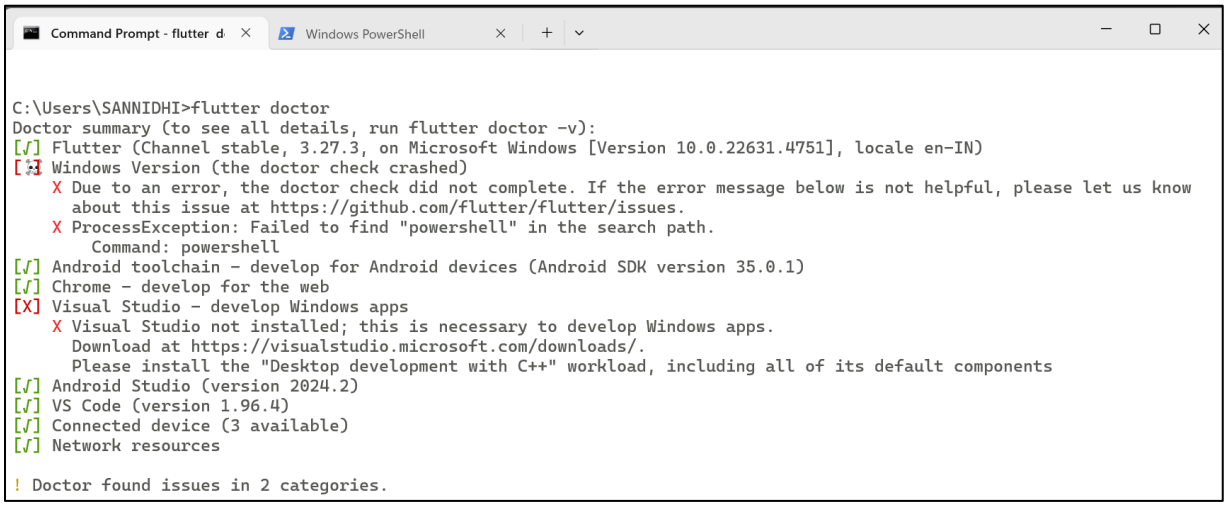


Step 6: Go to Preferences > Appearance & Behavior > System Settings > Android SDK. Select the SDK Tools tab and check Android SDK Command-line Tools and Install it.



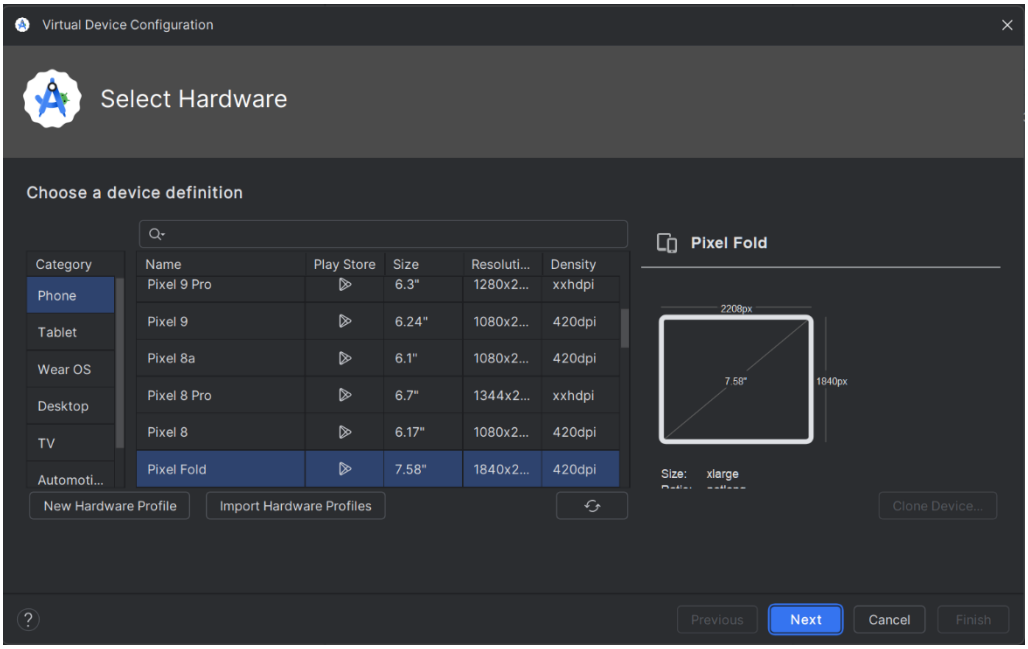
Step 9: Open a terminal and run the following command





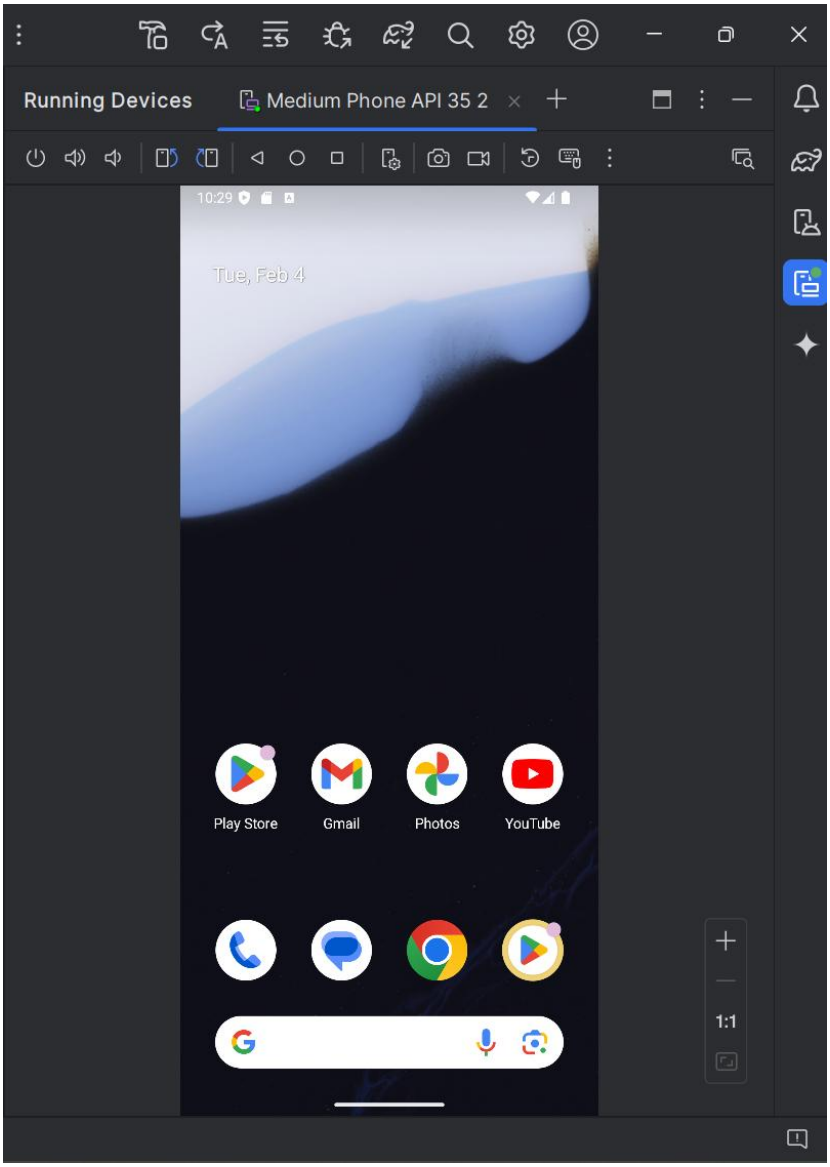
Setting up Android Emulator

Step 1: Next, you need to set up an Android emulator. It is responsible for running and testing the Flutter application



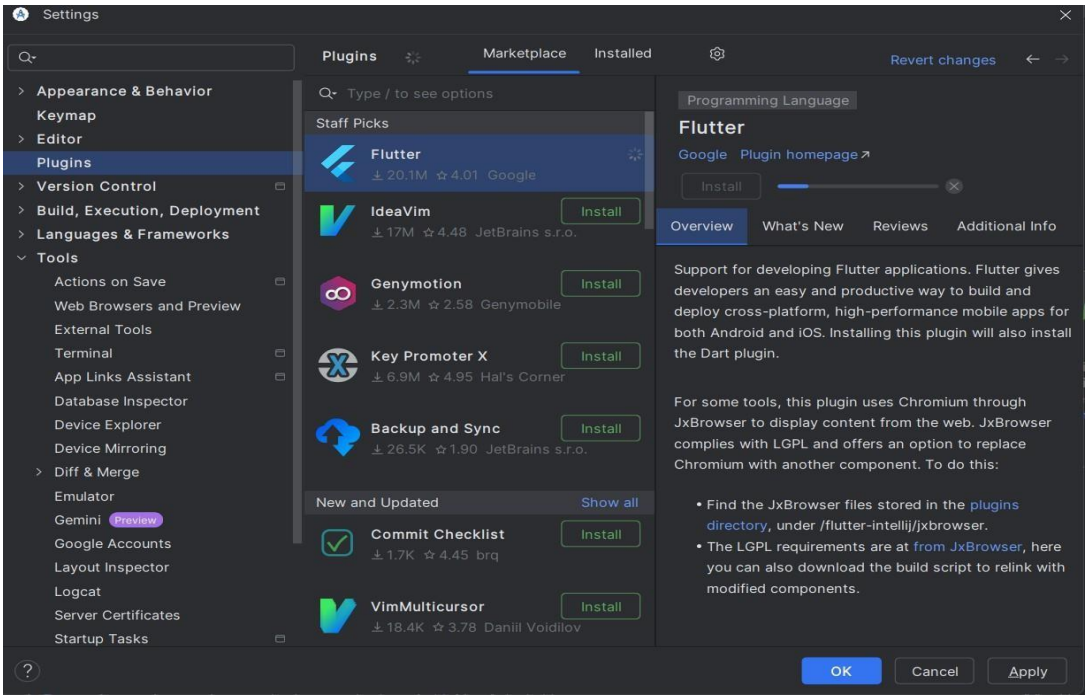
Step 2: Open Android Studio and go to Tools > AVD Manager. Create a new virtual device.

Step 3: Click on the icon pointed into the red color rectangle. The Android emulator displayed as below screen



Plugins Installation

Install Flutter and Dart plugin for building Flutter application in Android Studio.
Open the Android Studio and then go to File->Settings->Plugins. Now, search the Flutter plugin and click install. Restart the Android Studio.



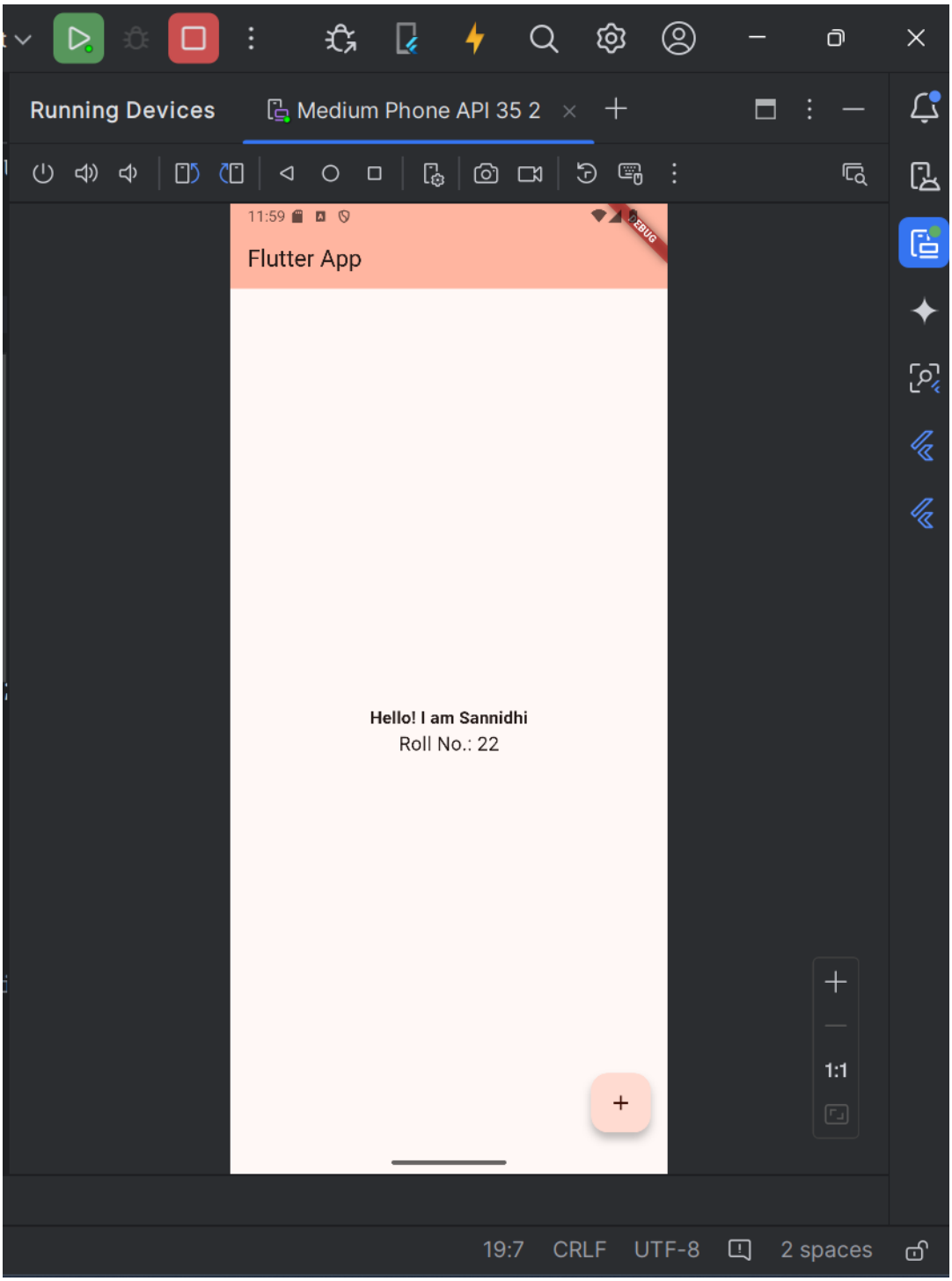
First Flutter App:

Go to File > New Project > Create Flutter Project, then select the project name and location, and click Next to proceed.

Code:

```
import 'package:flutter/material.dart';

void main() {
  runApp(const MyApp());
}

class MyApp extends StatelessWidget {
  const MyApp({super.key});

  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: 'Flutter Demo',
      theme: ThemeData(
        colorScheme: ColorScheme.fromSeed(seedColor: Colors.deepOrange),
        useMaterial3: true,
      ),
      home: const MyHomePage(title: 'Flutter App'),
    );
  }
}

class MyHomePage extends StatefulWidget {
  const MyHomePage({super.key, required this.title});

  final String title;

  @override
  State<MyHomePage> createState() => _MyHomePageState();
}

class _MyHomePageState extends State<MyHomePage> {
  int _counter = 0; // Added a counter variable

  void _incrementCounter() {
    setState(() {
      _counter++; // Increment the counter when button is pressed
    });
  }

  @override
  Widget build(BuildContext context) {
```

```
    return Scaffold(
      appBar: AppBar(
        backgroundColor: Theme.of(context).colorScheme.inversePrimary,
        title: Text(widget.title),
      ),
      body: Center(
        child: Column(
          mainAxisAlignment: MainAxisAlignment.center,
          children: <Widget>[
            const Text(
              'Hello! I am Sannidhi',
              style: TextStyle(fontSize: 16.0, fontWeight: FontWeight.bold),
            ),
            Text(
              'Roll No.: $_counter', // Display counter value
              style: const TextStyle(fontSize: 18.0),
            ),
          ],
        ),
      ),
      floatingActionButton: FloatingActionButton(
        onPressed: _incrementCounter, // Calling the function when button is pressed
        tooltip: 'Increment',
        child: const Icon(Icons.add),
      ),
    );
  }
}
```


Running Devices
Medium Phone API 35 2
11:59
DEBUG
Flutter App
Hello! I am Sannidhi
Roll No.: 22
1:1
19:7
CRLF
UTF-8
2 spaces