

EXPERIMENT NO: - 01

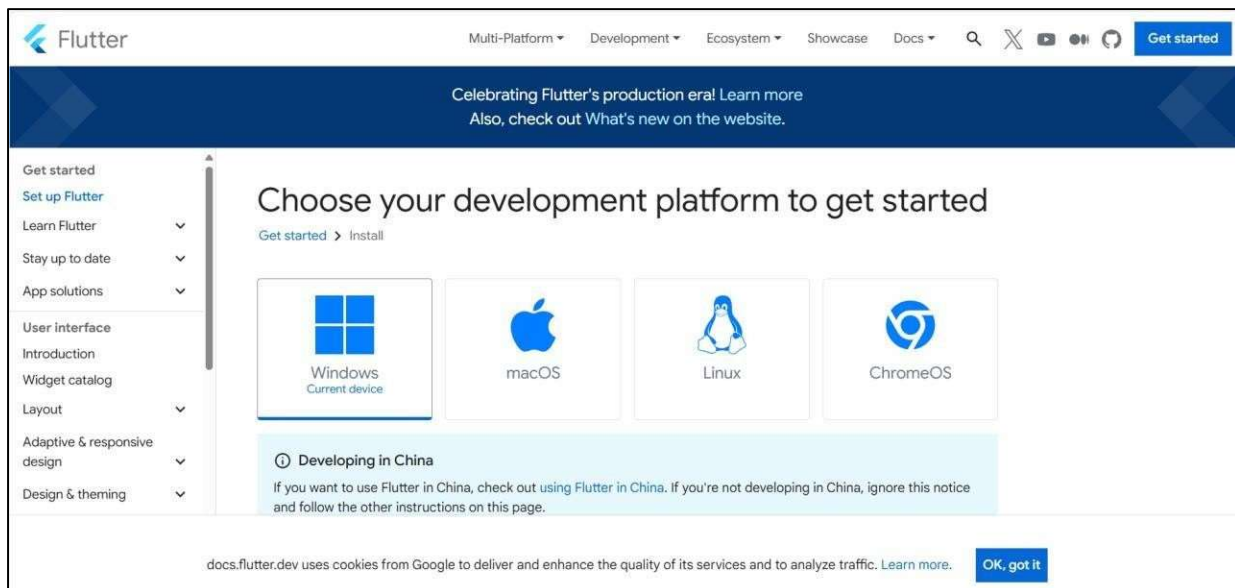
Name:-Pranav Pol

Class:- D15A

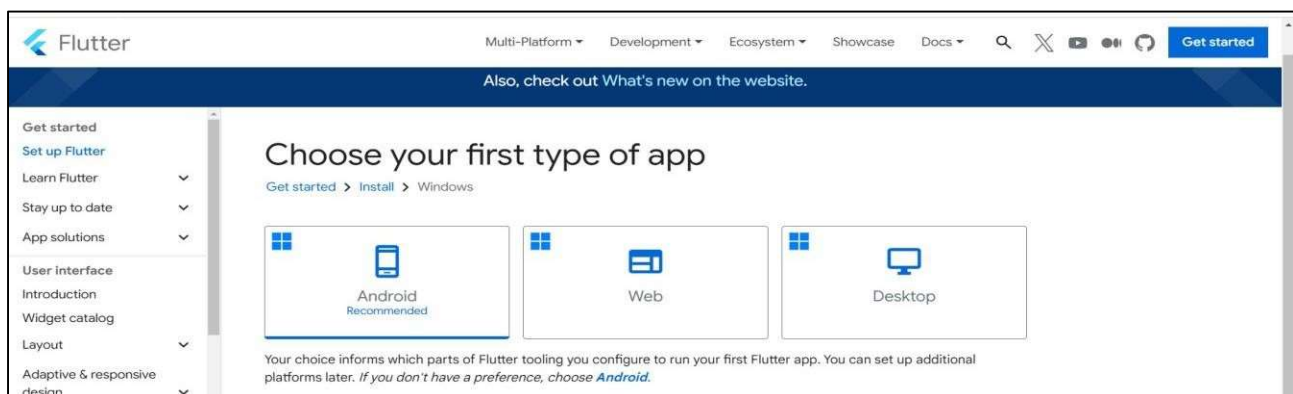
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AIM: - Installation and Configuration of Flutter Environment.

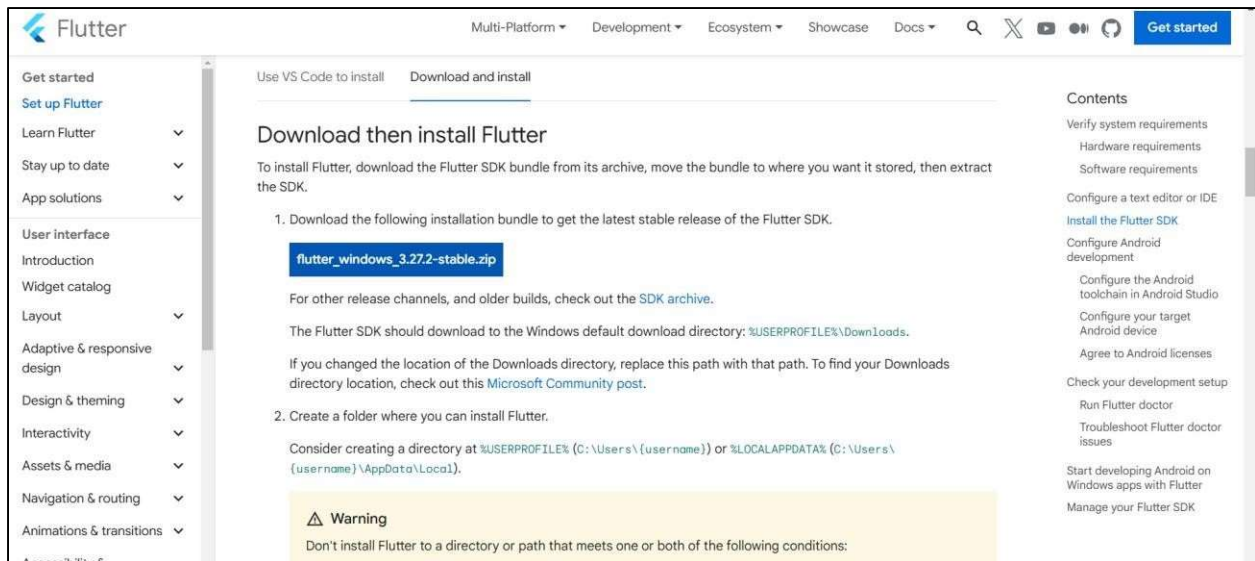
Step 1: Go to the official Flutter website: <https://docs.flutter.dev/get-started/install>



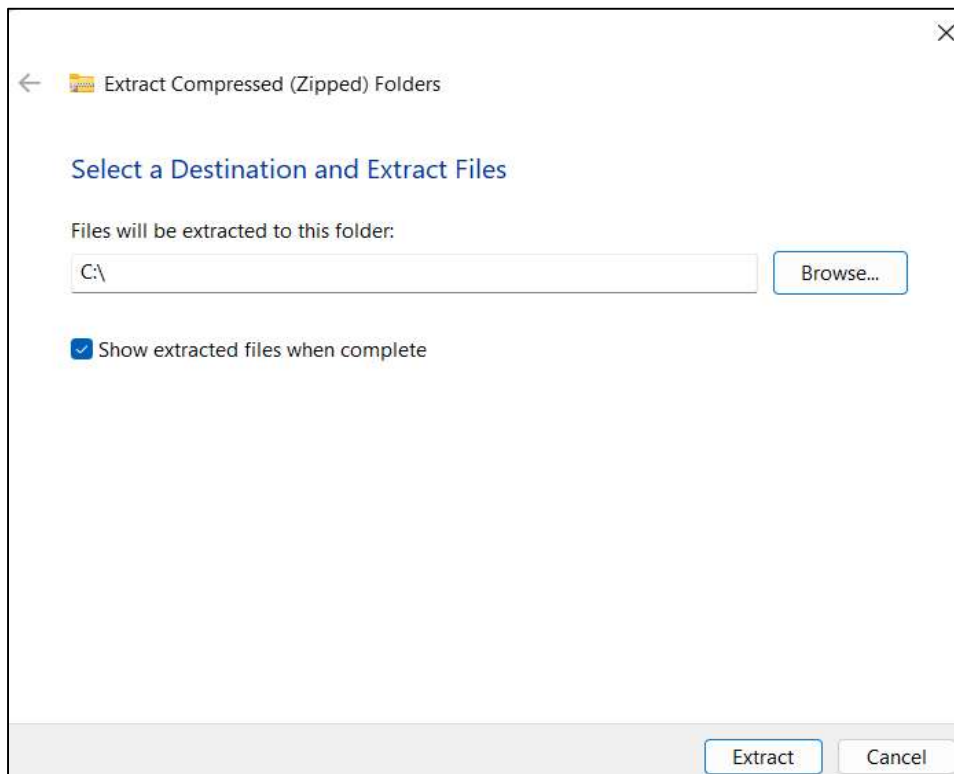
Step 2: To download the latest Flutter SDK, click on the Windows icon > Android



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



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

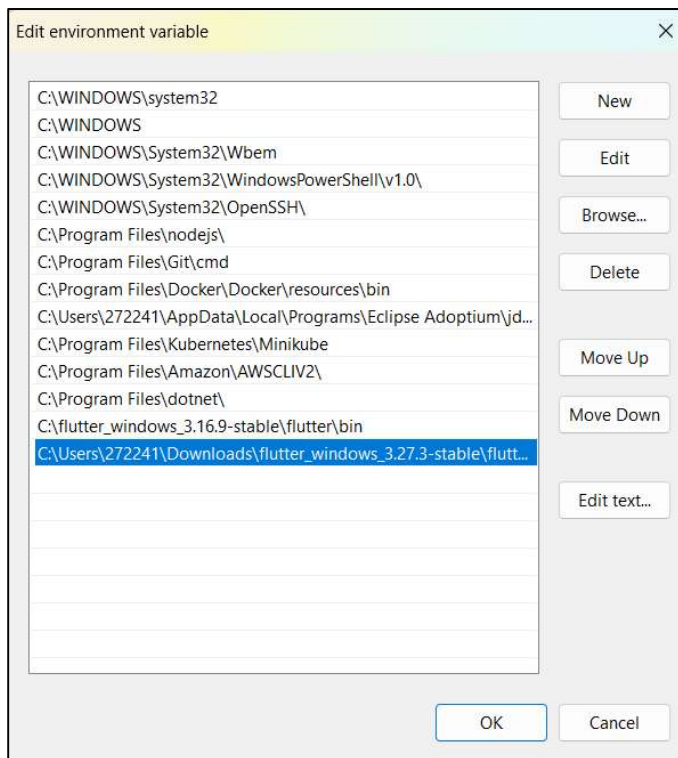


Step 5 :- Add Flutter to System PATH

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.

```
C:\Users\sbpol>flutter
Manage your Flutter app development.

Common commands:

  flutter create <output directory>
    Create a new Flutter project in the specified directory.

  flutter run [options]
    Run your Flutter application on an attached device or in an emulator.

Usage: flutter <command> [arguments]

Global options:
-h, --help                Print this usage information.
-v, --verbose             Noisy logging, including all shell commands executed.
                           If used with "--help", shows hidden options. If used with "flutter doctor", shows additional
                           diagnostic information. (Use "-vv" to force verbose logging in those cases.)
-d, --device-id           Target device id or name (prefixes allowed).
    --version             Reports the version of this tool.
    --enable-analytics     Enable telemetry reporting each time a flutter or dart command runs.
    --disable-analytics   Disable telemetry reporting each time a flutter or dart command runs, until it is
                           re-enabled.
    --suppress-analytics  Suppress analytics reporting for the current CLI invocation.
```

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

```
C:\Users\sbpol>flutter doctor
Doctor summary (to see all details, run flutter doctor -v):
[✓] Flutter (Channel stable, 3.27.3, on Microsoft Windows [Version 10.0.22621.4317], locale en-IN)
[✓] Windows Version (Installed version of Windows is version 10 or higher)
[✓] Android toolchain - develop for Android devices (Android SDK version 34.0.0)
[✓] Chrome - develop for the web
[!] Visual Studio - develop Windows apps (Visual Studio Community 2022 17.8.5)
    X The current Visual Studio installation is incomplete.
      Please use Visual Studio Installer to complete the installation or reinstall Visual Studio.
[✓] Android Studio (version 2023.1)
[✓] IntelliJ IDEA Community Edition (version 2024.2)
[✓] VS Code (version 1.96.4)
[✓] Connected device (3 available)
[✓] Network resources

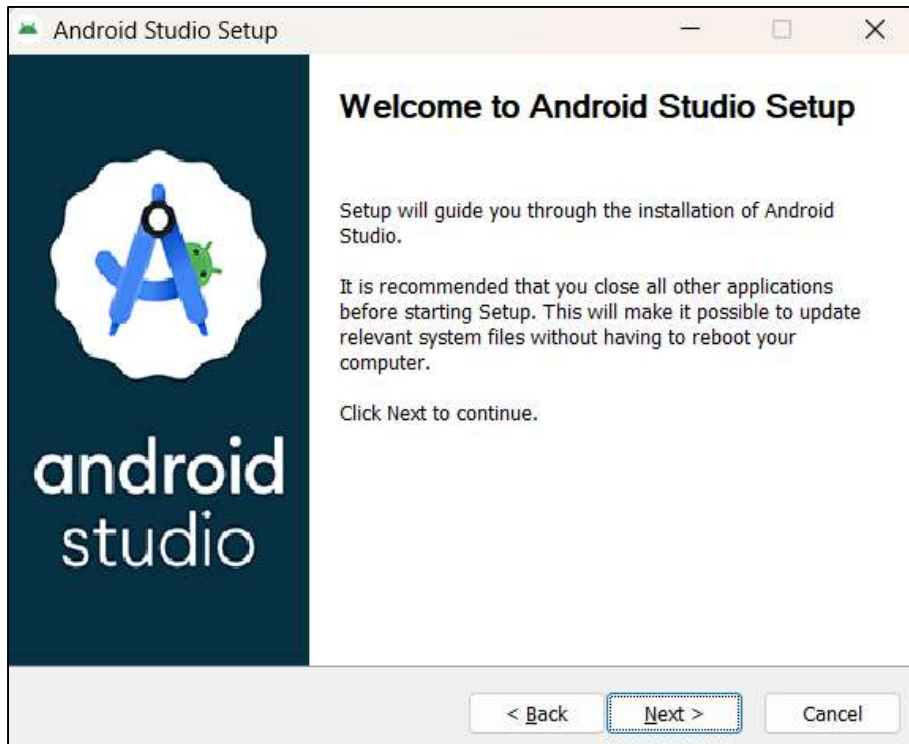
! Doctor found issues in 1 category.
```

Step 8 :- Go to Android Studio and download the installer.

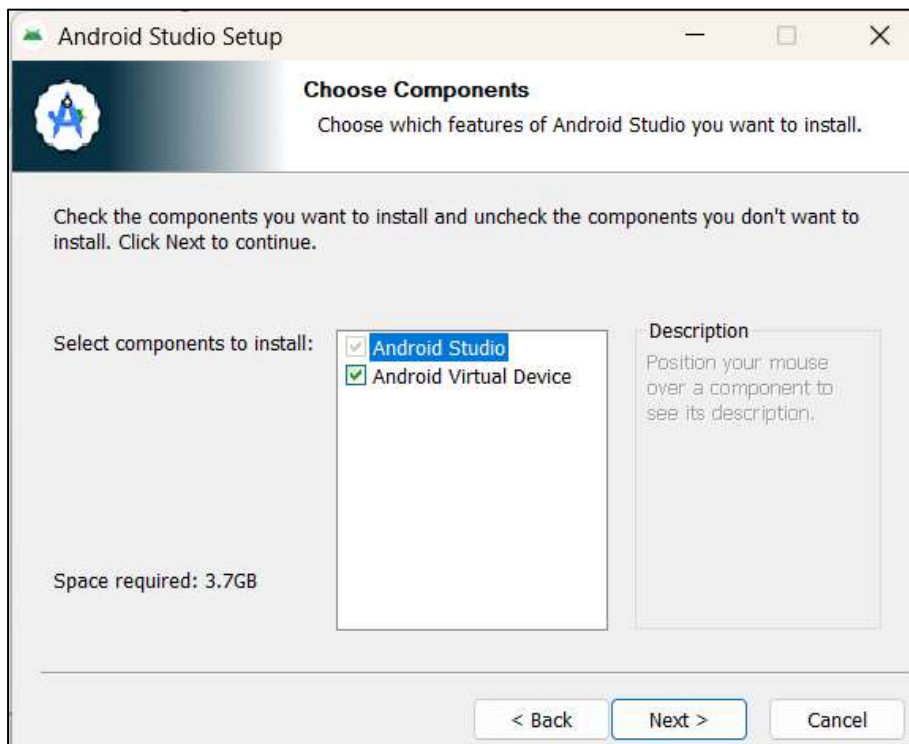
Download the latest version of Android Studio. For more information, see the [Android Studio release notes](#).

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	688f8d007e612f3f0c18f316179079dc4565f93d8dfe6a7dad80c4cfc356df7
Linux (64-bit)	android-studio-2024.2.2.13-linux.tar.gz	1.3 GB	b7fe1ed4a7959bdaca7a8fd57461dbbf9a205eb23cc218ed828ed88e8b998cb5

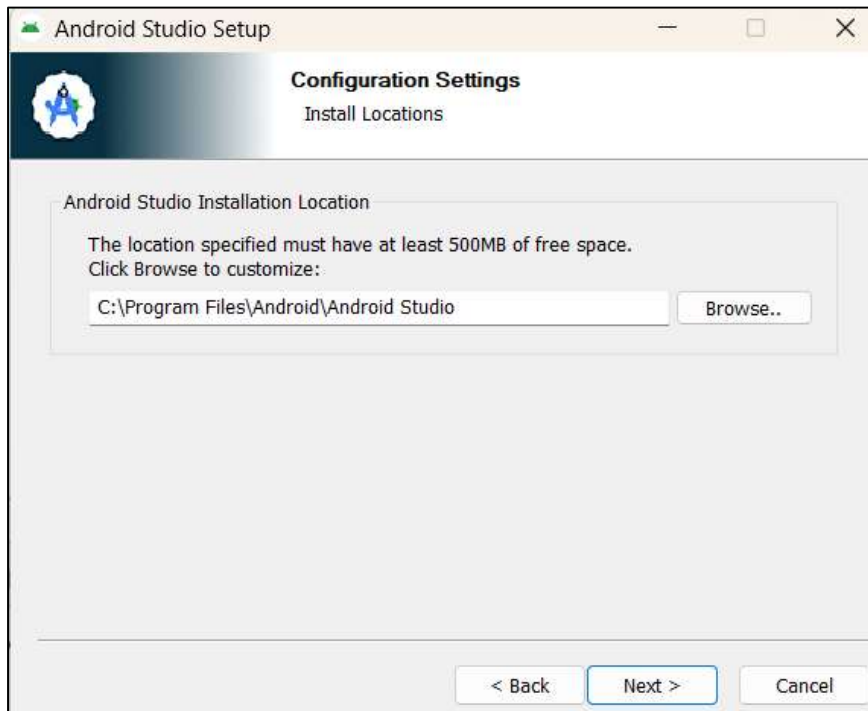
Step 8.1: - When the download is complete, open the .exe file and run it. You will get the following dialog box



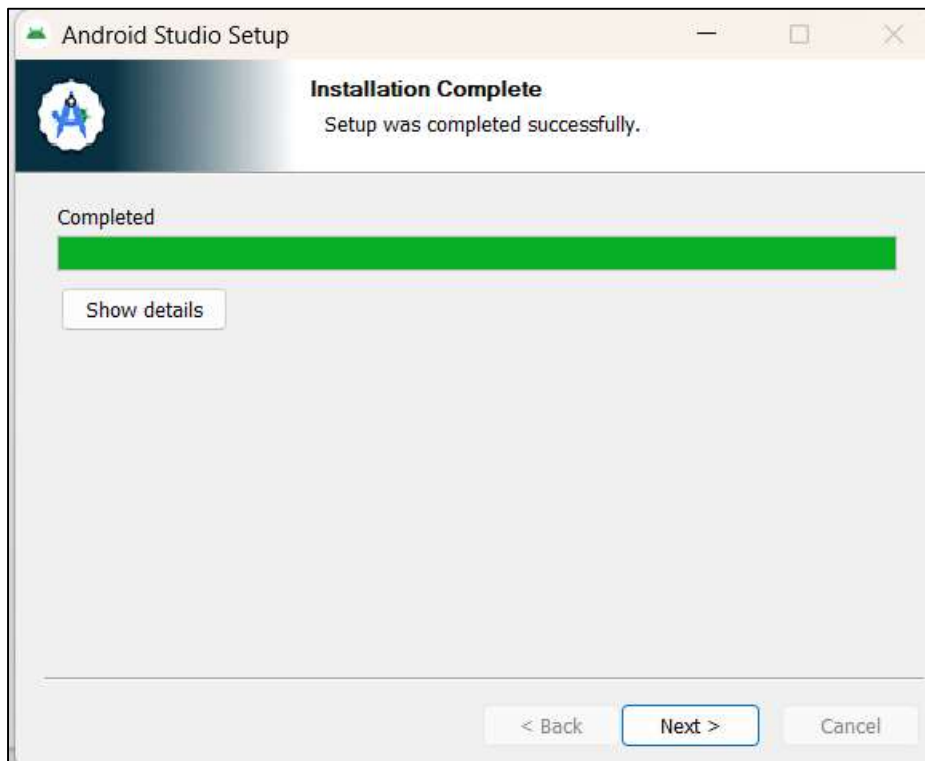
Step 8.2: - Select all the Checkboxes and Click on 'Next' Button.

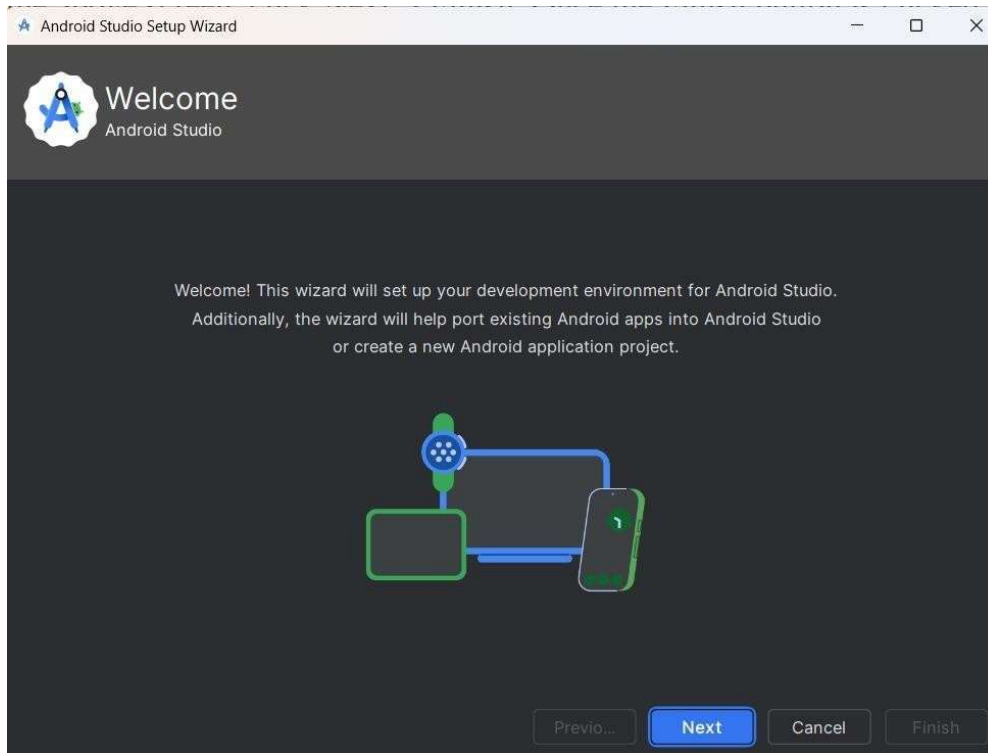


Step 8.3: - Change the destination as per your convenience and click on 'Next' Button.



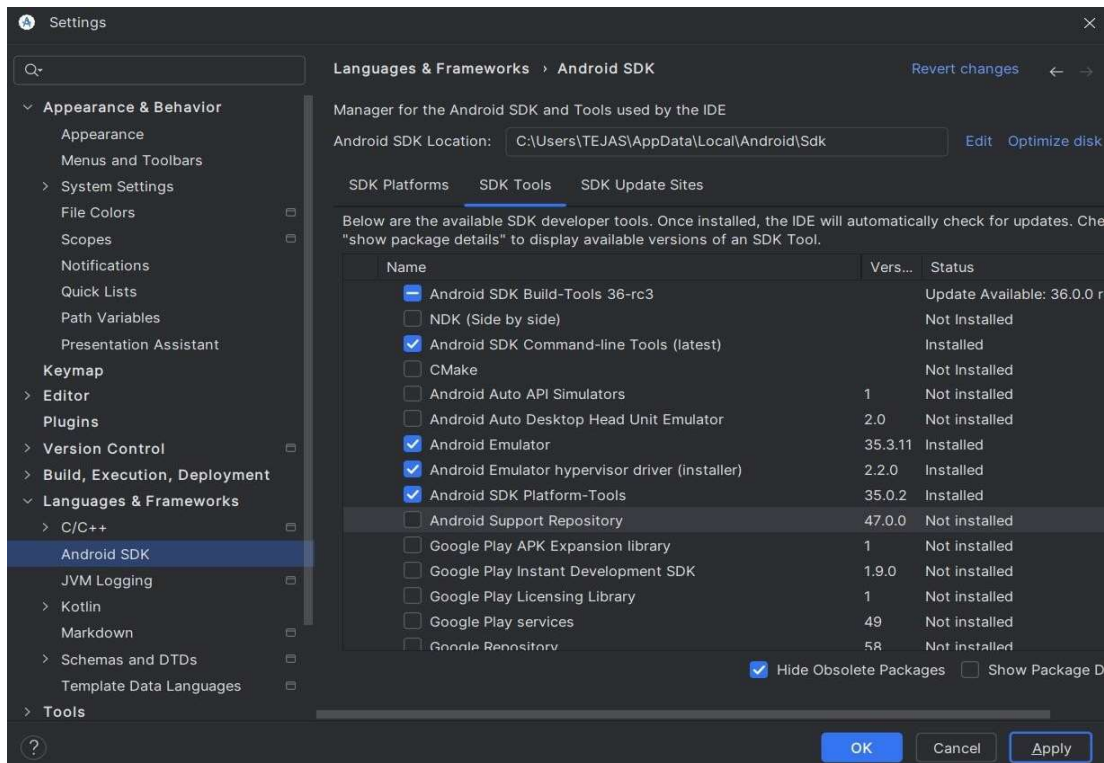
Step 8.4: - Follow the steps of the installation wizard. Once the installation wizard completes, you will get the following screen.





Step 8.5: - 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

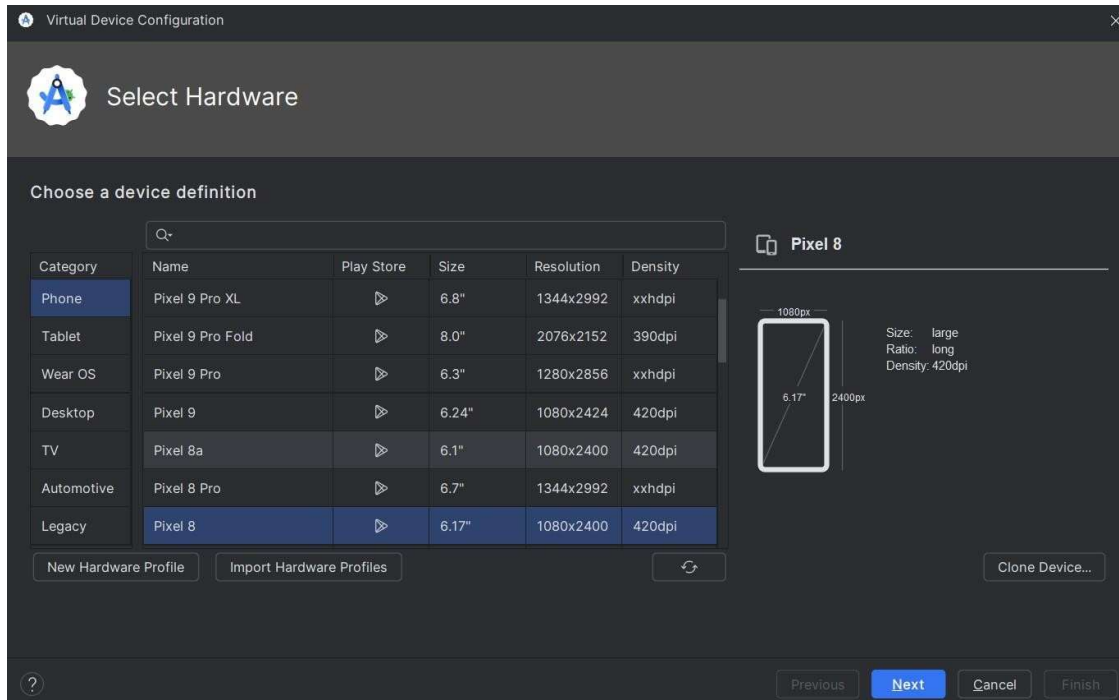
```
C:\Users\sbpol>flutter doctor --android-licenses
Warning: Errors during XML parse:          ] 54% Fetch remote repository...
Warning: Additionally, the fallback loader failed to parse the XML.ry...
Warning: Errors during XML parse:          ] 74% Fetch remote repository...
Warning: Additionally, the fallback loader failed to parse the XML.ry...
[=====] 100% Computing updates...
All SDK package licenses accepted.
```

```
C:\Users\sbpol>|
```

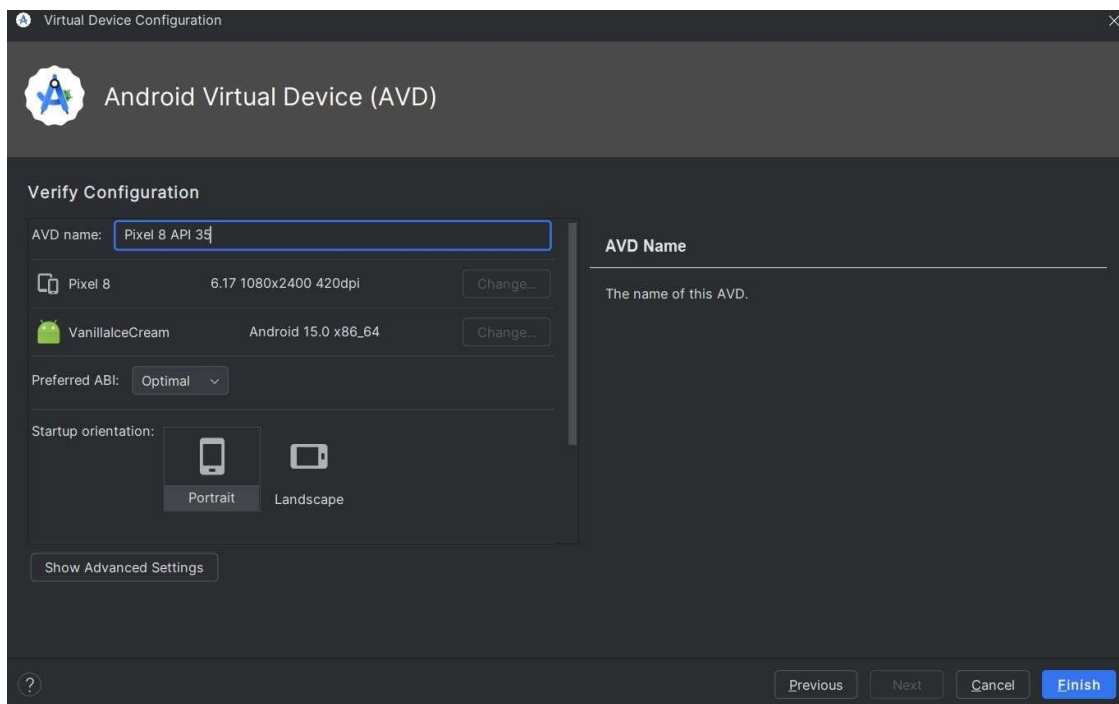
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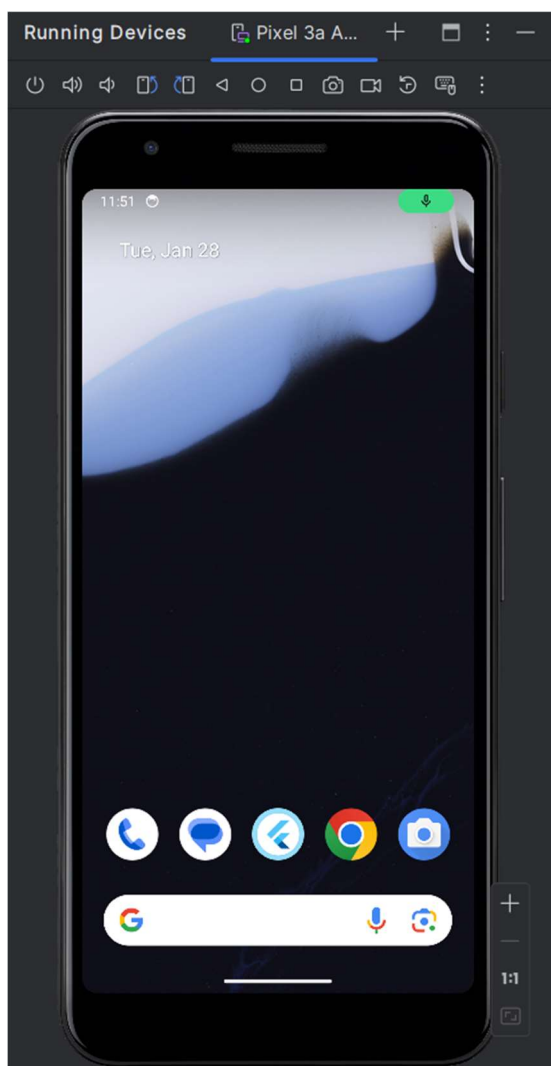
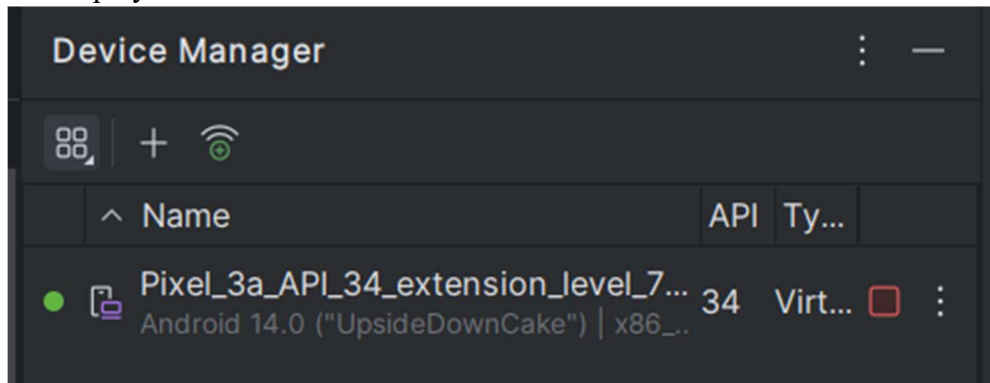

Step 10:- Next, you need to set up an Android emulator. It is responsible for running and testing the Flutter application



Step 10.1:- Open Android Studio and go to Tools > AVD Manager. Create a new virtual device.

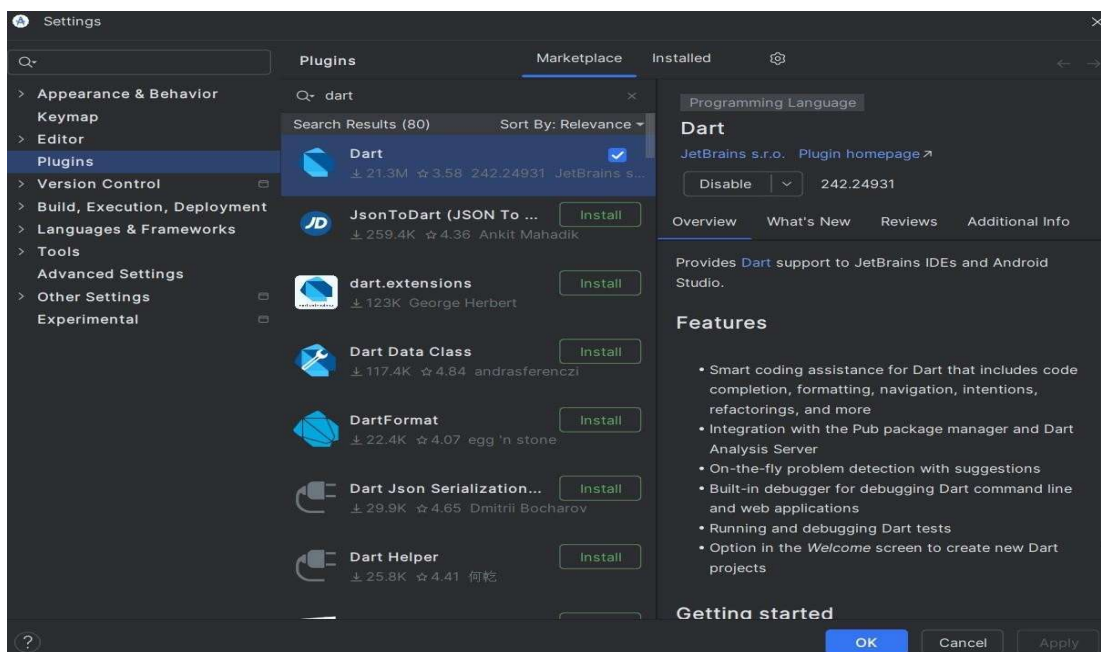
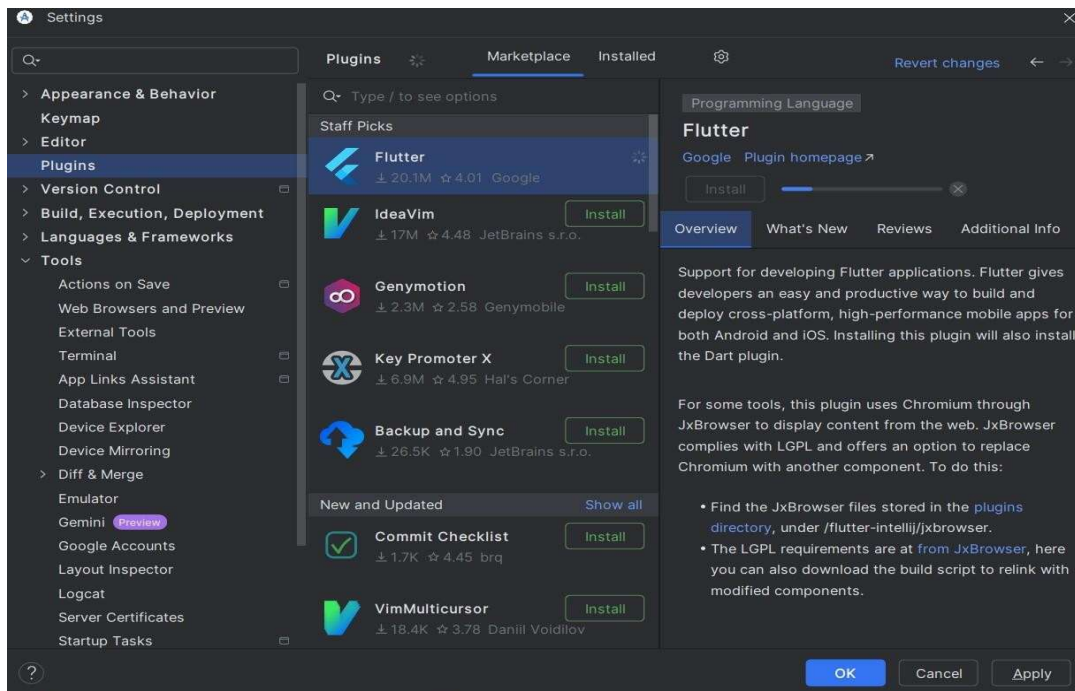


Step 10.2: - Click on the icon pointed into the red color rectangle. The Android emulator displayed as below screen



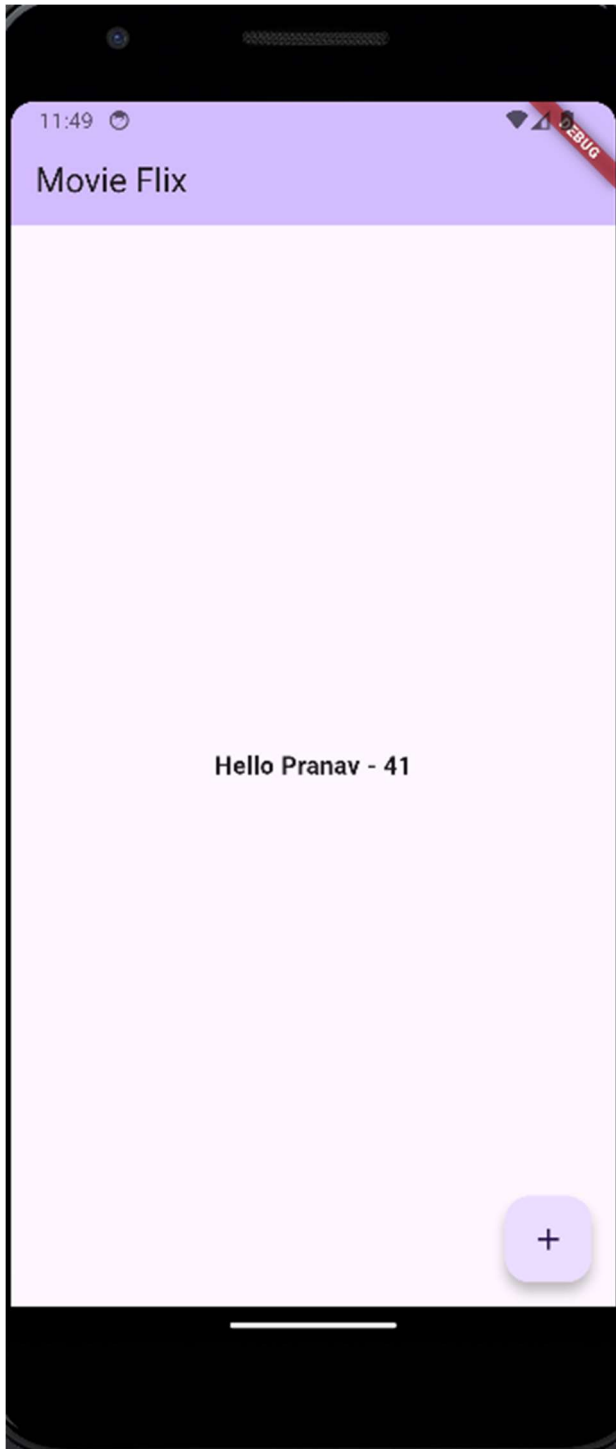
Step 11:- Now, install Flutter and Dart plugin for building Flutter application in Android Studio. These plugins provide a template to create a Flutter application, give an option to run and debug Flutter application in the Android Studio itself

Step 11.1:- Open the Android Studio and then go to File->Settings->Plugins. Now, search the Flutter plugin. If found, select Flutter plugin and click install



Step 11.2:- Restart the Android Studio

Step 12: - 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});

  // This widget is the root of your application.
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: 'Flutter Demo',
      theme: ThemeData(

        colorScheme: ColorScheme.fromSeed(seedColor: Colors.deepPurple),
        useMaterial3: true,
      ),
      home: const MyHomePage(title: 'Movie Flix'),
    );
  }
}

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

  final String title;

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

class _MyHomePageState extends State<MyHomePage> {

  @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 Pranav - 41',
    style: TextStyle(fontSize: 16.0, fontWeight: FontWeight.bold),
  ),
],
),
),
floatingActionButton: FloatingActionButton(
  onPressed: _incrementCounter,

  tooltip: 'Increment',
  child: const Icon(Icons.add),
), // This trailing comma makes auto-formatting nicer for build methods.
);
}
}
```