

Experiment No: 1

Experiment No 1 1: Installation and Configuration of Flutter Environment.	
ROLL NO	70
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CLASS	D15B
SUBJECT	MAD & PWA Lab
LO-MAPPED	

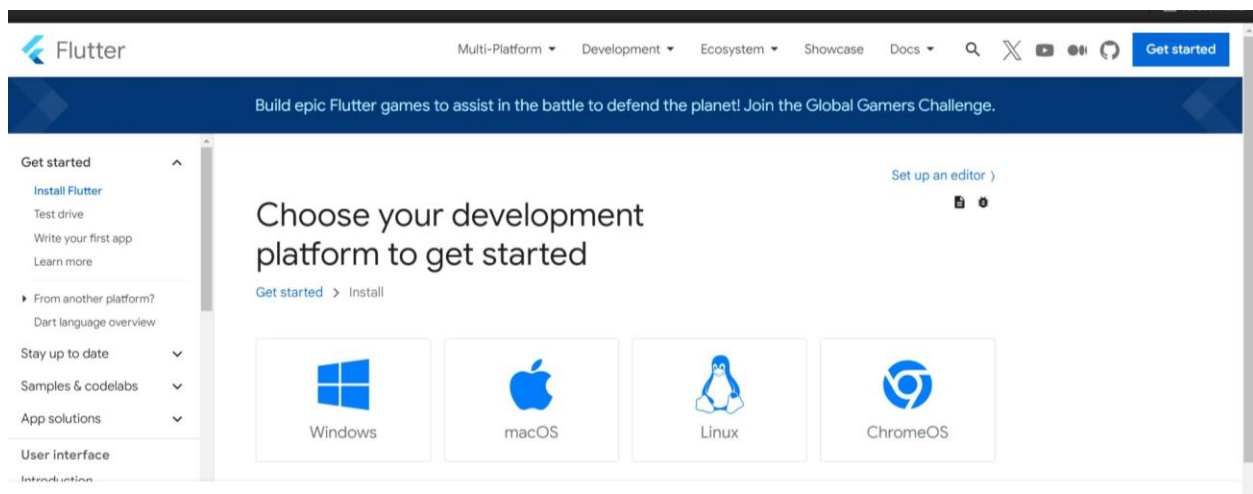
Aim: Installation and Configuration of Flutter Environment.

Theory: Flutter is basically Google’s portable user interface (UI) toolkit, used to build and develop eye-catching, natively-built applications for mobile, desktop, and web, from a single codebase. Flutter is free, open-sourced, and compatible with existing code. It is utilized by companies and developers around the world, due to its user-friendly interface and fairly simple, yet to-the-point commands.

Step 1: Download Flutter SDK

Visit the official Flutter website: <https://docs.flutter.dev/get-started/install>.

Click on the Windows icon to download the Flutter SDK.



Once downloaded, extract the zip file to your desired installation folder (e.g., C:/Flutter).

Get the Flutter SDK

1. Download the following installation bundle to get the latest stable release of the Flutter SDK:

`flutter_windows_2.2.3-stable.zip`

For other release channels, and older builds, see the [SDK releases](#) page.

2. Extract the zip file and place the contained `flutter` in the desired installation location for the Flutter SDK (for example, `C:\Users\<your-user-name>\Documents`).

⚠ Warning: Do not install Flutter in a directory like `C:\Program Files\` that requires elevated privileges.

If you don't want to install a fixed version of the installation bundle, you can skip steps 1 and 2. Instead, get the source code from the [Flutter repo](#) on GitHub, and change branches or tags as needed. For example:

```
C:\src>git clone https://github.com/flutter/flutter.git -b stable
```

You are now ready to run Flutter commands in the Flutter Console.

← Extract Compressed (Zipped) Folders

Select a Destination and Extract Files

Files will be extracted to this folder:

C:\Flutter

Browse...

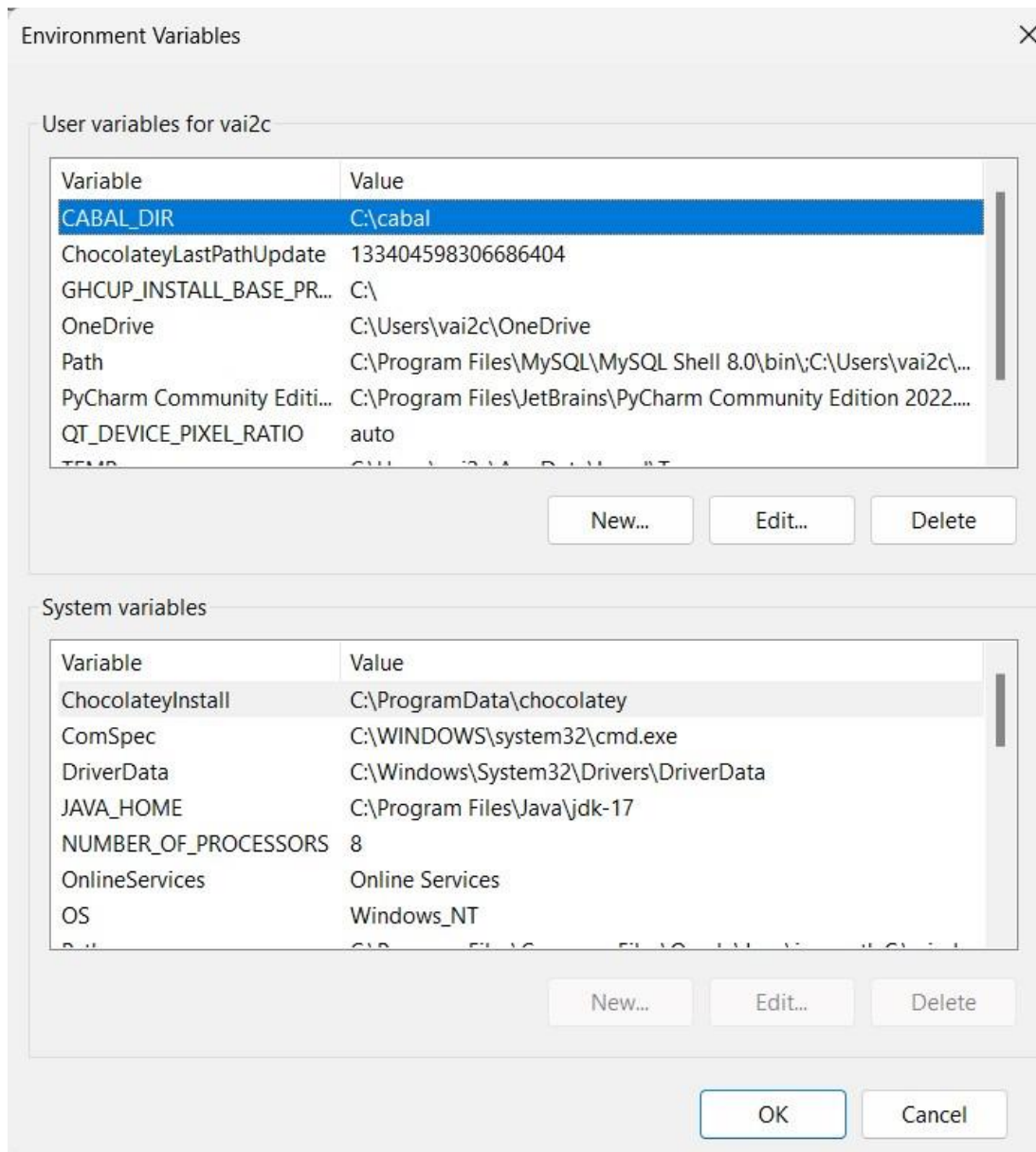
☒ Show extracted files when complete

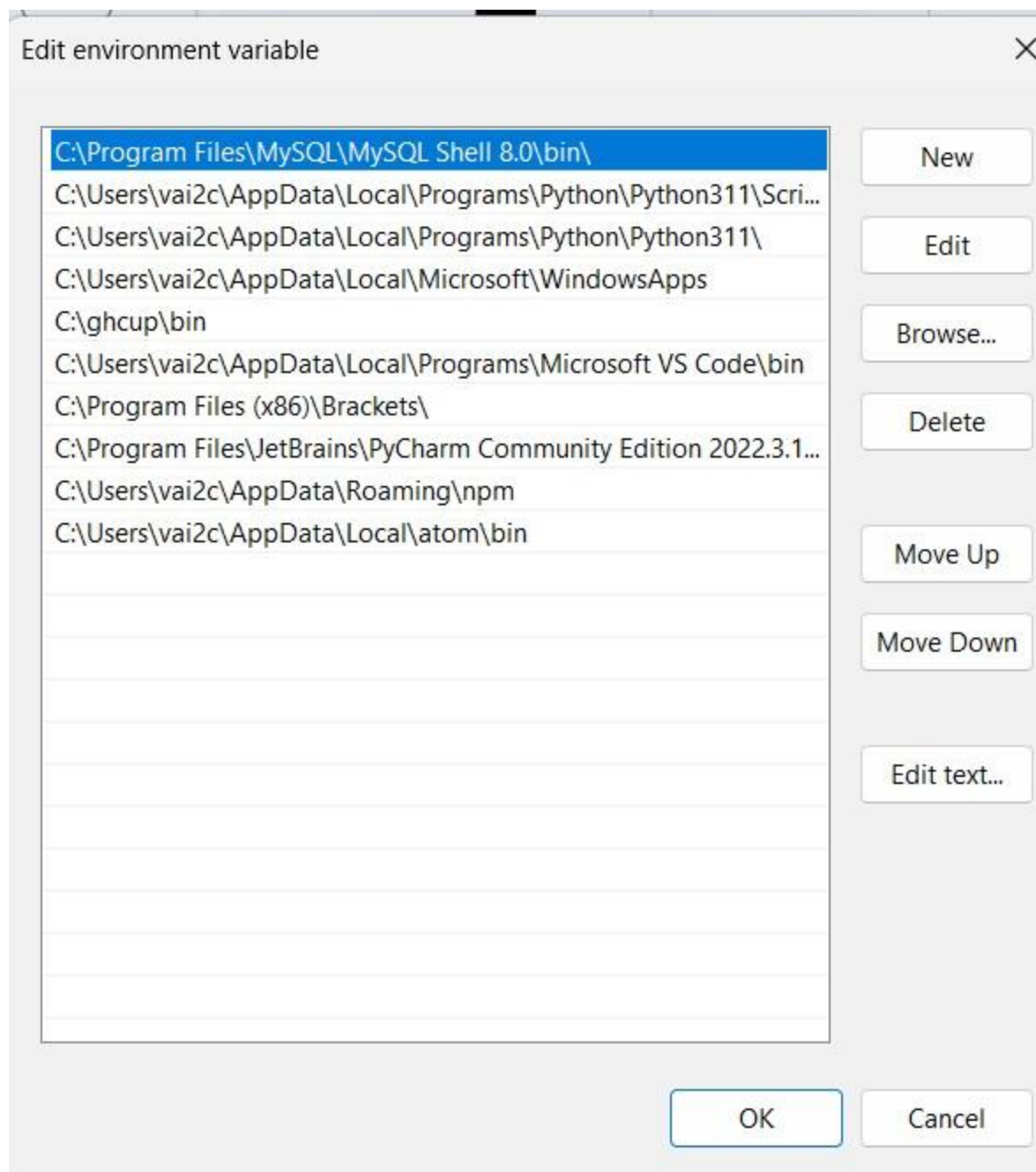
Next

Cancel

Step 2: Update System Path

- Go to My Computer properties -> advanced tab -> environment variables.
- Select "path" and click on edit.
- Click on New and add the path of the Flutter bin folder (e.g., C:/Flutter/bin).
- Click OK in each window.





Step 3: Run Flutter Commands

Open the command prompt and run flutter to ensure the installation is successful.

Run flutter doctor to check for any missing dependencies

```
Command Prompt - flutter di x + v
Microsoft Windows [Version 10.0.22621.3007]
(c) Microsoft Corporation. All rights reserved.

C:\Users\vai2c>flutter doctor

Welcome to Flutter! - https://flutter.dev

The Flutter tool uses Google Analytics to anonymously report feature usage
statistics and basic crash reports. This data is used to help improve
Flutter tools over time.

Flutter tool analytics are not sent on the very first run. To disable
reporting, type 'flutter config --no-analytics'. To display the current
setting, type 'flutter config'. If you opt out of analytics, an opt-out
event will be sent, and then no further information will be sent by the
Flutter tool.

By downloading the Flutter SDK, you agree to the Google Terms of Service.
The Google Privacy Policy describes how data is handled in this service.

Moreover, Flutter includes the Dart SDK, which may send usage metrics and
crash reports to Google.

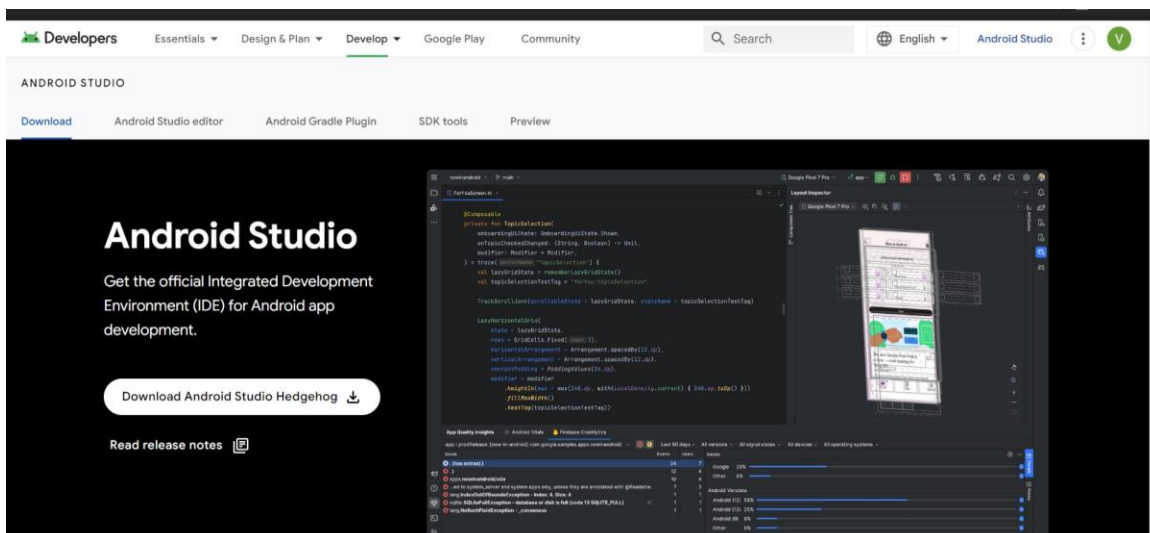
Read about data we send with crash reports:
https://flutter.dev/docs/reference/crash-reporting

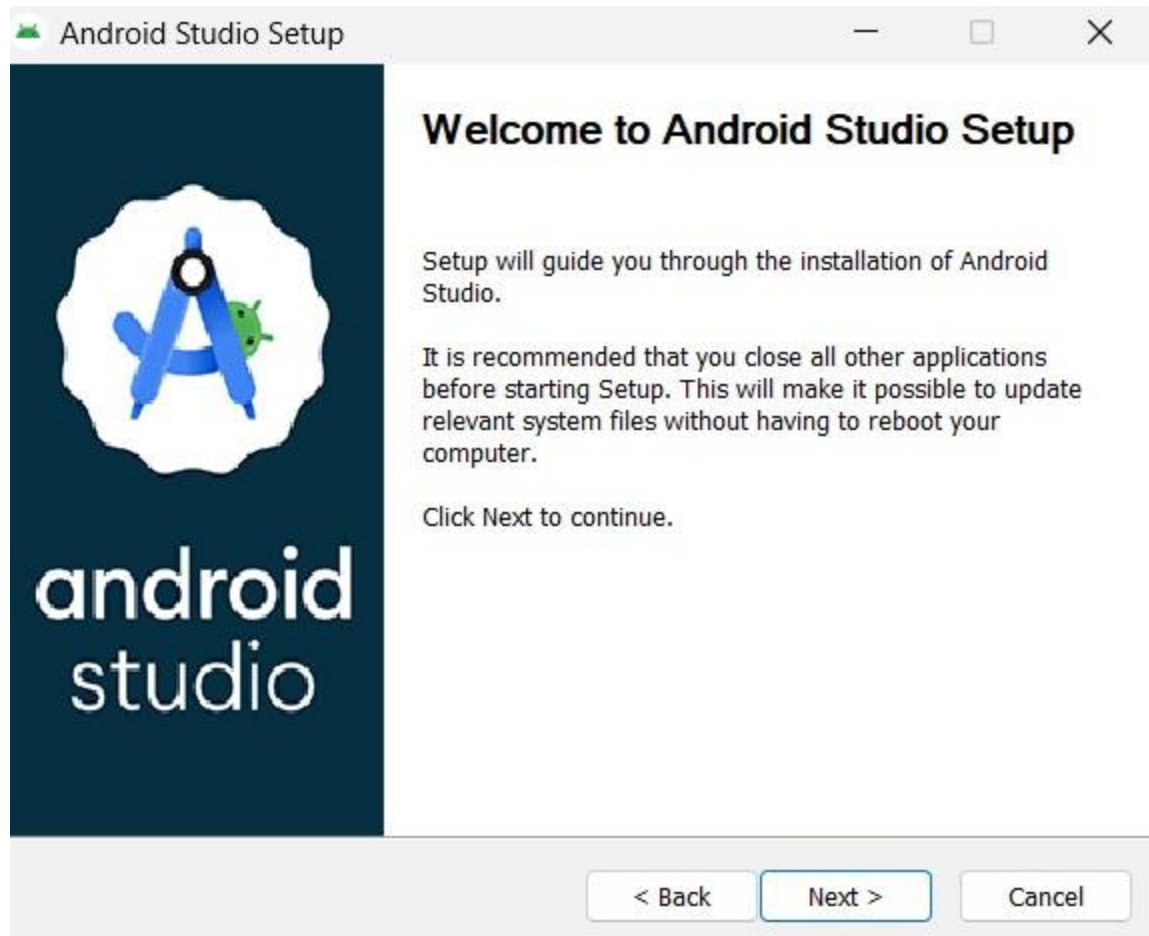
See Google's privacy policy:
https://policies.google.com/privacy
```

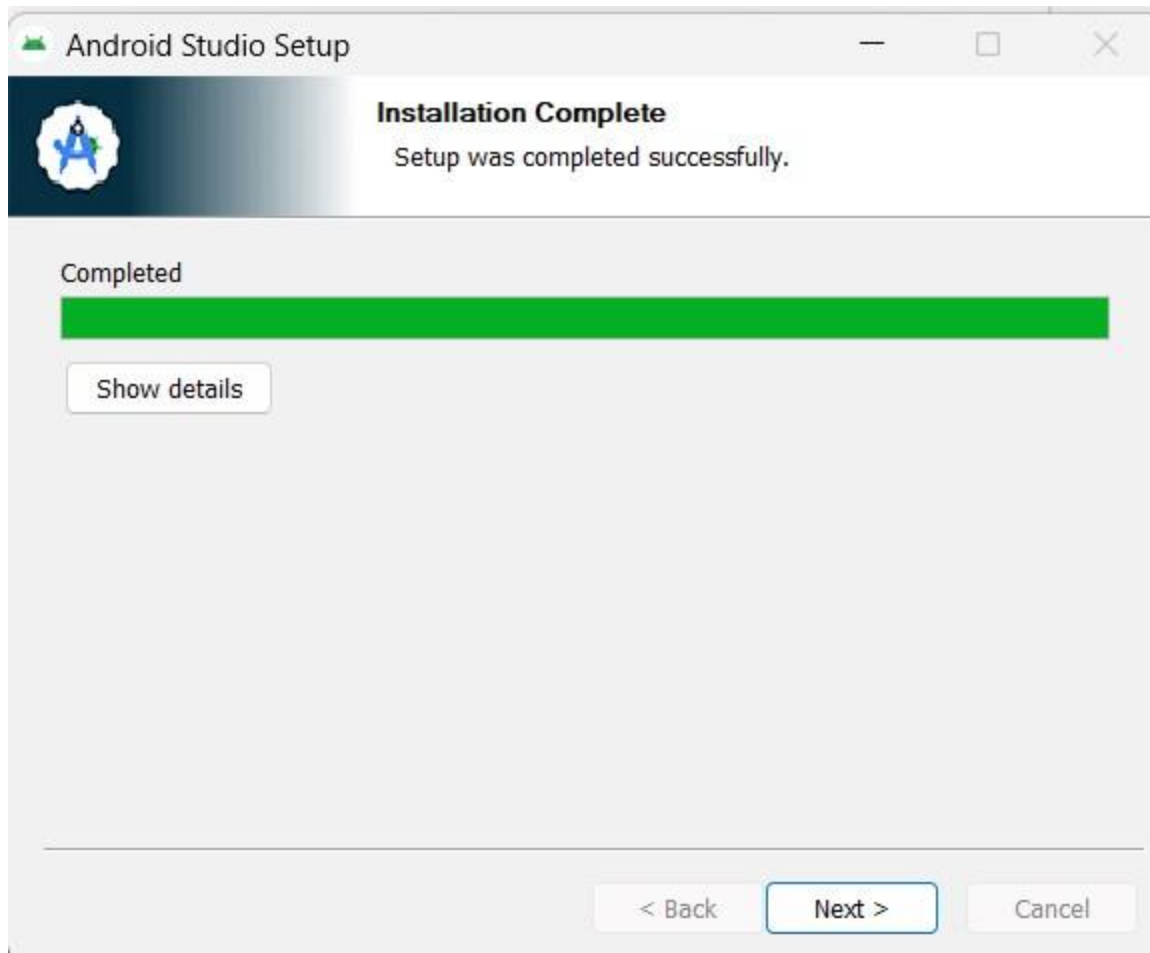
Step 4: Install Android SDK (if needed)

If Flutter doctor indicates a missing Android SDK, install Android Studio:

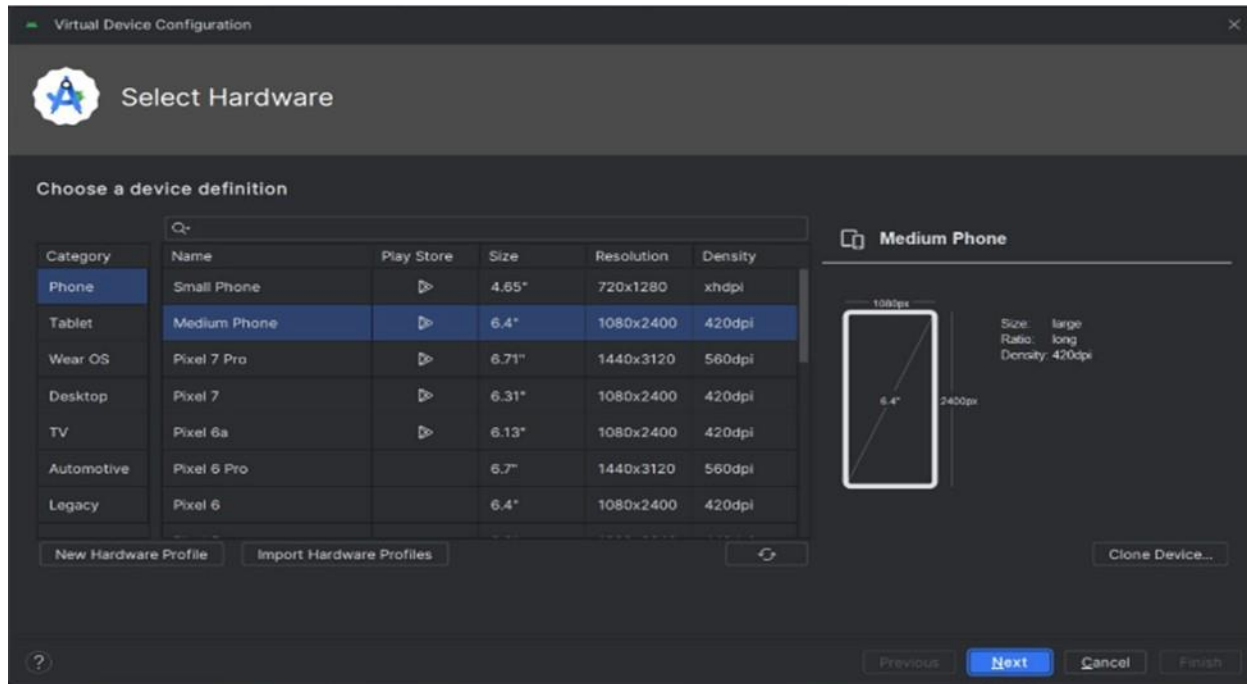
- Download Android Studio from the official site.
- Run the installer and follow the installation wizard.
- Launch Android Studio and complete the setup.



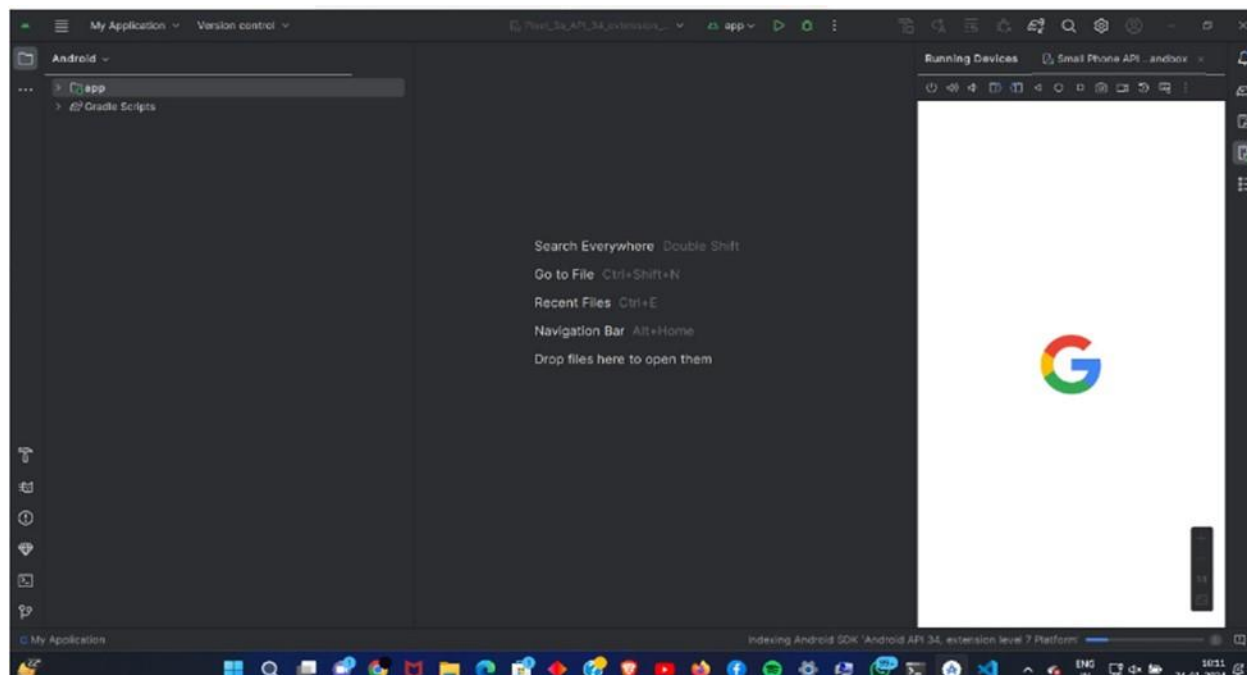


**Step 5: Set Up Android Emulator**

- In Android Studio, go to Tools -> Android -> AVD Manager.
- Create a Virtual Device by choosing a device definition and system image.



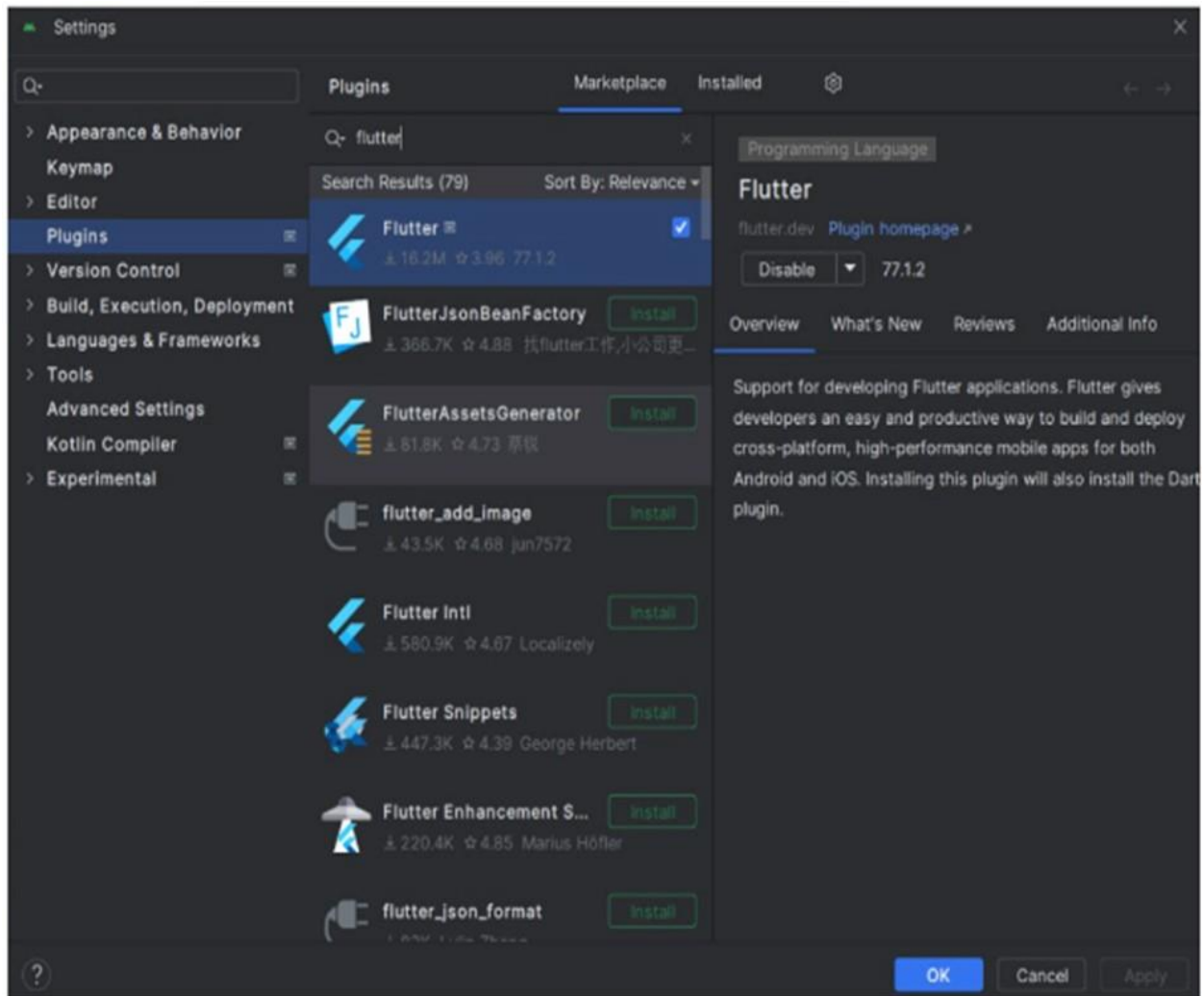
- Start the emulator.

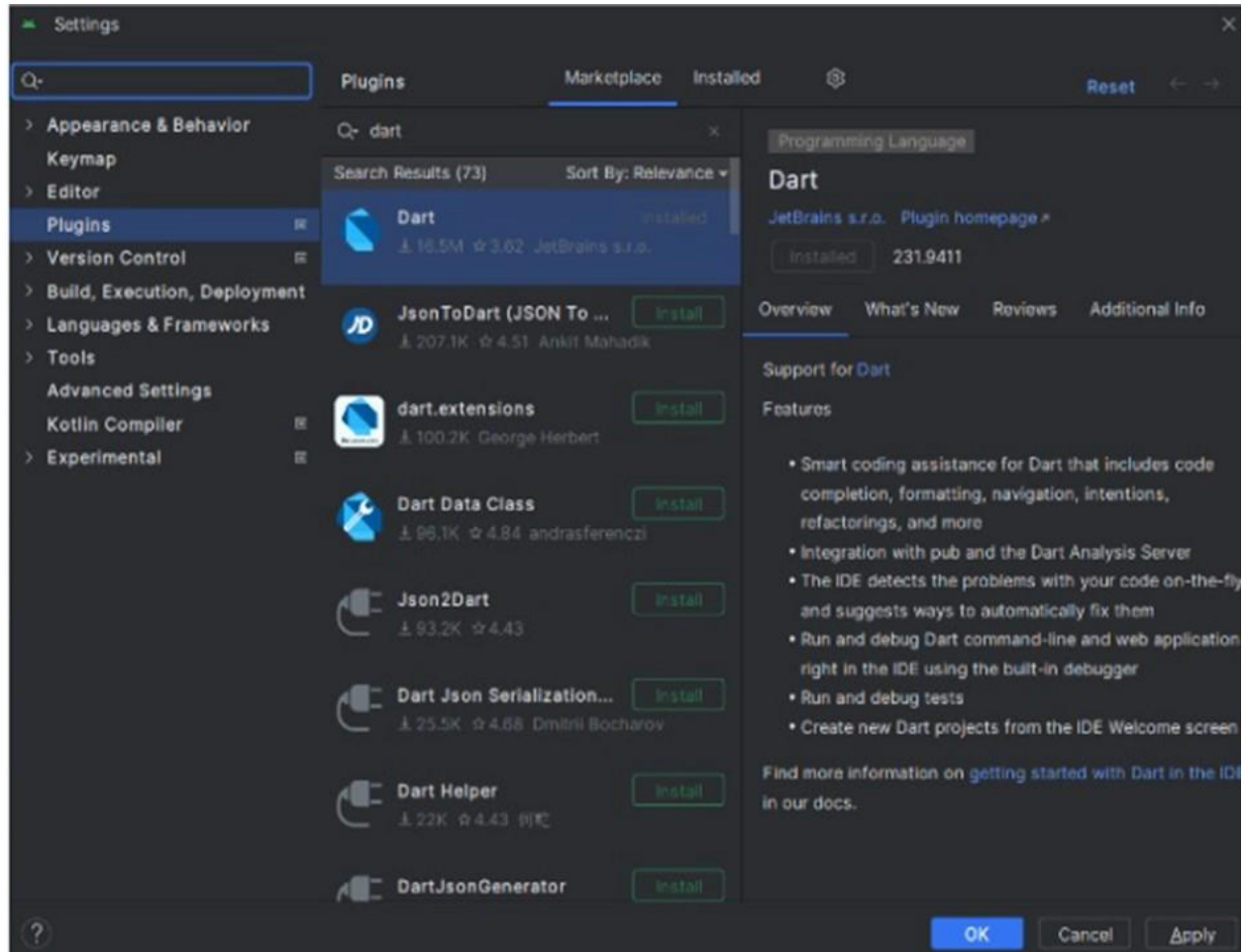


Step 6: Install Flutter and Dart Plugins in Android Studio

- Open Android Studio, go to File -> Settings -> Plugins.

- Search for and install the Flutter plugin.
- When prompted, install the Dart plugin as well.
- Restart Android Studio.





Conclusion:

In this experiment, we successfully installed and configured the Flutter SDK, set up an Android emulator, and installed necessary plugins in Android Studio for Flutter app development.