

Installation of Flutter

Aim: Installation and Configuration of Flutter Environment.

Theory:

Flutter is an open-source UI software development toolkit created by Google. It is used for building natively compiled applications for mobile, web, and desktop from a single codebase. Flutter employs the Dart programming language and features a reactive framework that facilitates the development of expressive and visually appealing user interfaces. Known for its hot reload capability, Flutter enables developers to quickly experiment, build, and customize interfaces efficiently. This toolkit has gained popularity for its cross-platform development capabilities, allowing developers to create consistent and high-performance applications across various platforms.

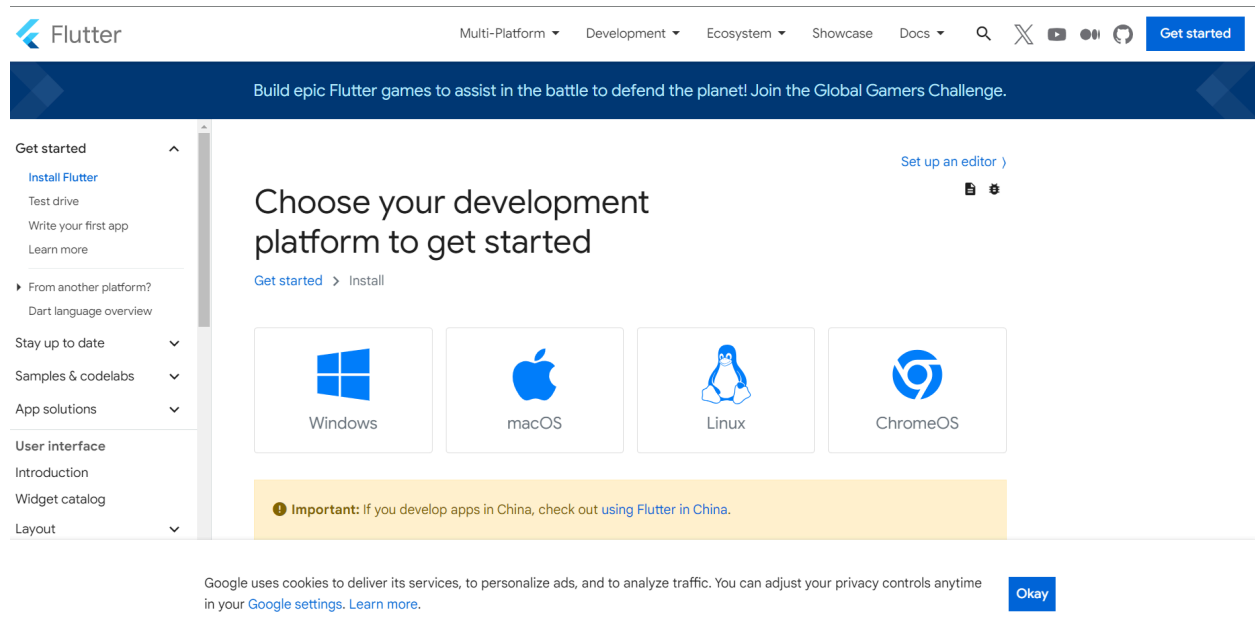
Installation:

Step 1: Download the installation bundle of the Flutter Software Development Kit for windows.

To download Flutter SDK, Go to its official website

<https://docs.flutter.dev/get-started/install>,

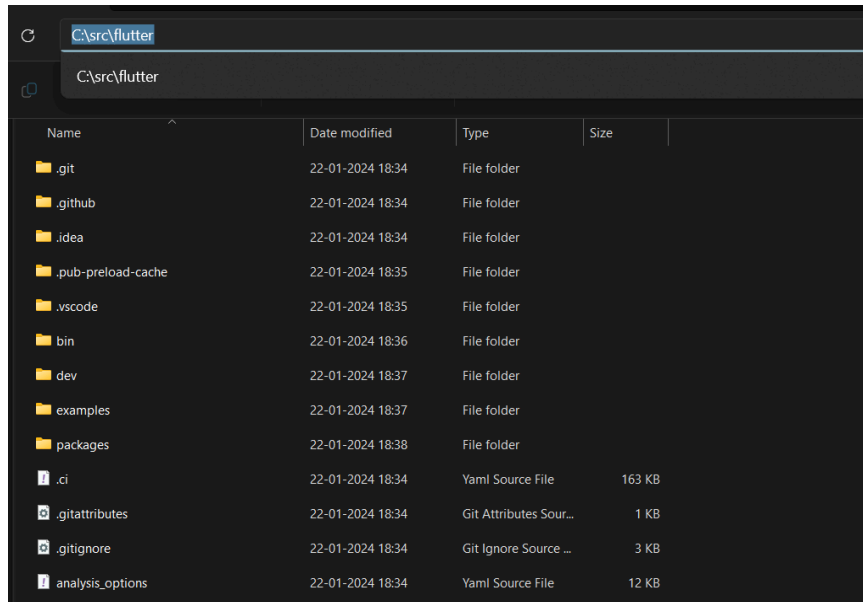
you will get the following screen.



Step 2: Next, to download the latest Flutter SDK, click on the Windows icon. Here, you will find the download link for SDK.

Step 3: When your download is complete, extract the zip file and place it in the desired

installation folder or location, for example, C: /Flutter.

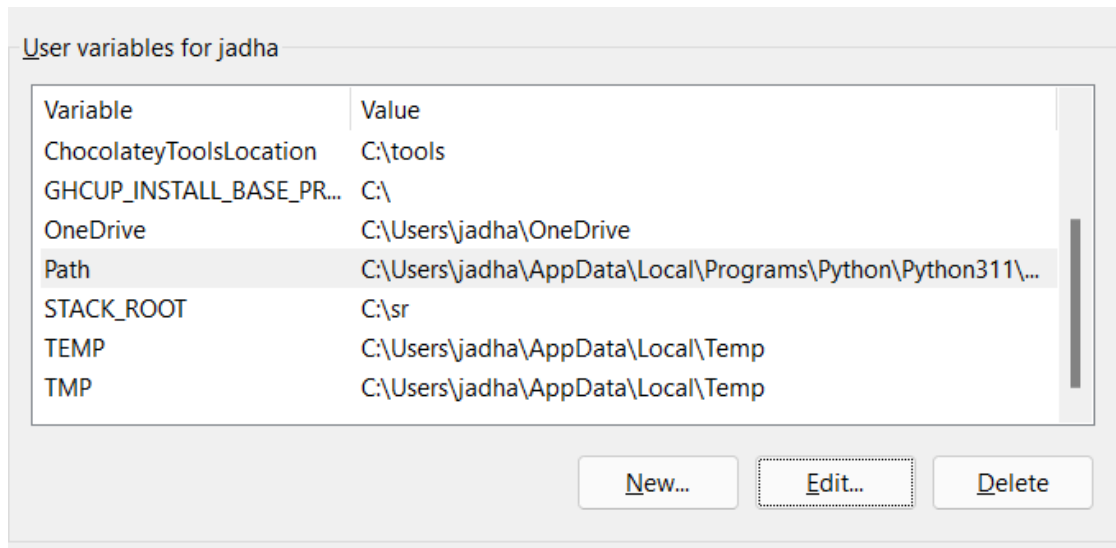


Step 4: To run the Flutter command in regular windows console, you need to update the system

path to include the flutter bin directory. The following steps are required to do this:

Step 4.1: Go to MyComputer properties -> advanced tab -> environment variables.

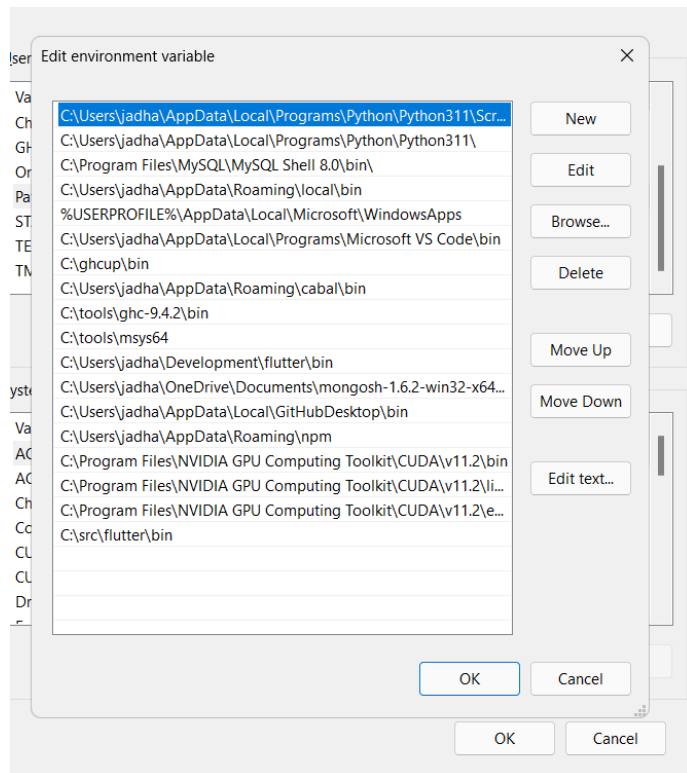
You will get the following screen.



Step 4.2: Now, select path -> click on edit. The following screen appears

Step 4.3: In the above window, click on New->write path of Flutter bin folder in variable value -

> ok -> ok -> ok.



Step 5: Now, run the \$ flutter doctor command in the command prompt.

Now, 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.

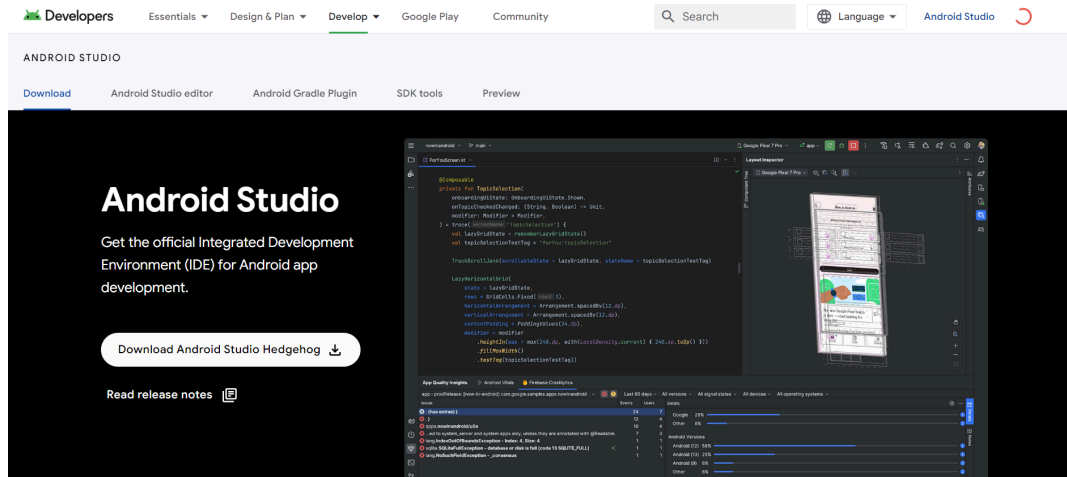
```
C:\Users\jadha>flutter doctor
Doctor summary (to see all details, run flutter doctor -v):
[✓] Flutter (Channel stable, 3.16.8, on Microsoft Windows [Version 10.0.22631.3007], locale en-IN)
[✓] Windows Version (Installed version of Windows is version 10 or higher)
[✓] Android toolchain - develop for Android devices (Android SDK version 34.0.0)
[✓] Chrome - develop for the web
[✓] Visual Studio - develop Windows apps (Visual Studio Community 2022 17.4.3)
[✓] Android Studio (version 2023.1)
[✓] VS Code (version 1.85.2)
[✓] Connected device (3 available)
[✓] Network resources

• No issues found!
```

Step 7: Install the Android SDK. If the flutter doctor command does not find the Android SDK

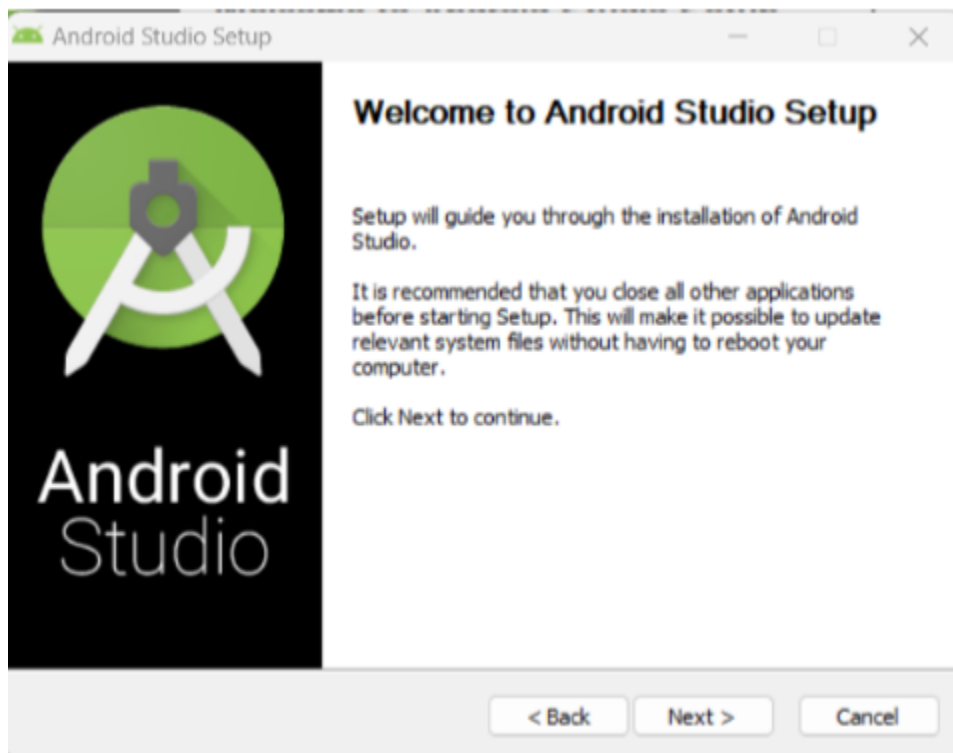
tool in your system, then you need first to install the Android Studio IDE. To install Android Studio IDE, do the following steps.

Step 7.1: Download the latest Android Studio executable or zip file from the official site.



Waiting for www.google.com...

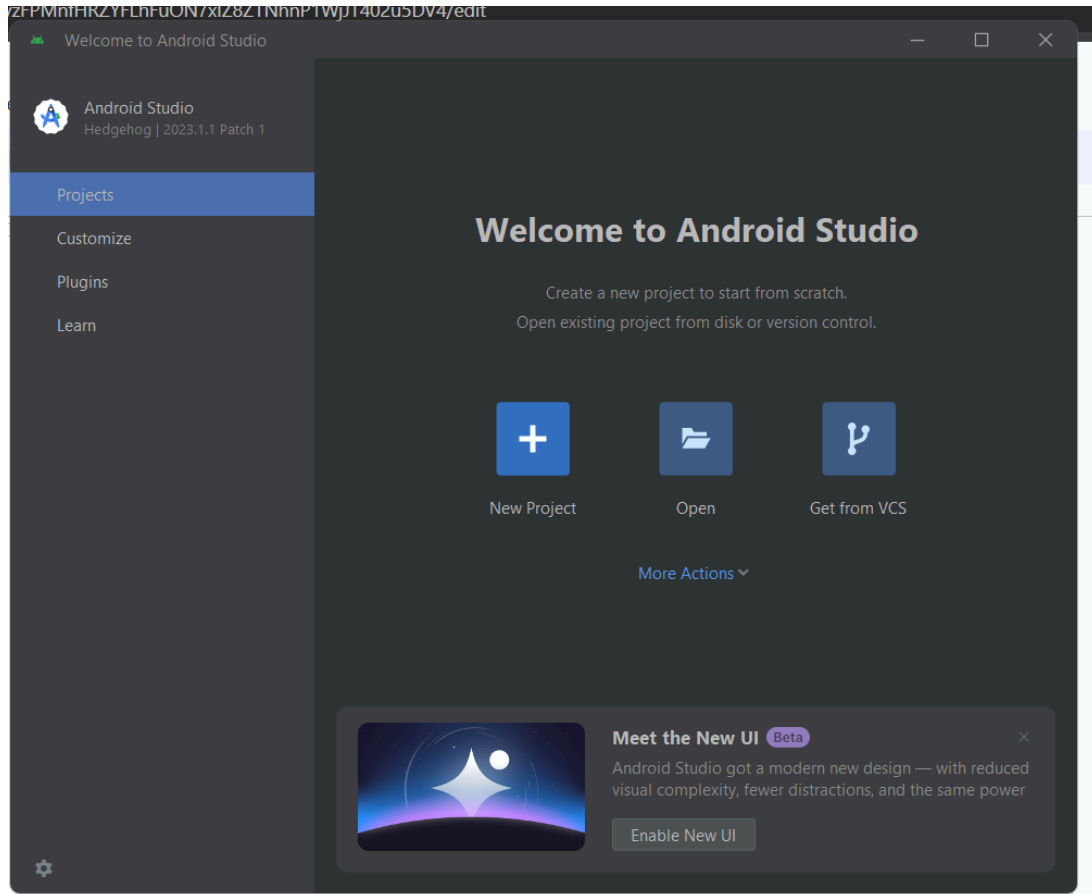
Step 7.2: When the download is complete, open the .exe file and run it. You will get the following dialog box.



Step 7.4: In the above screen, click Next-> Finish. Once the Finish button is clicked, you need to

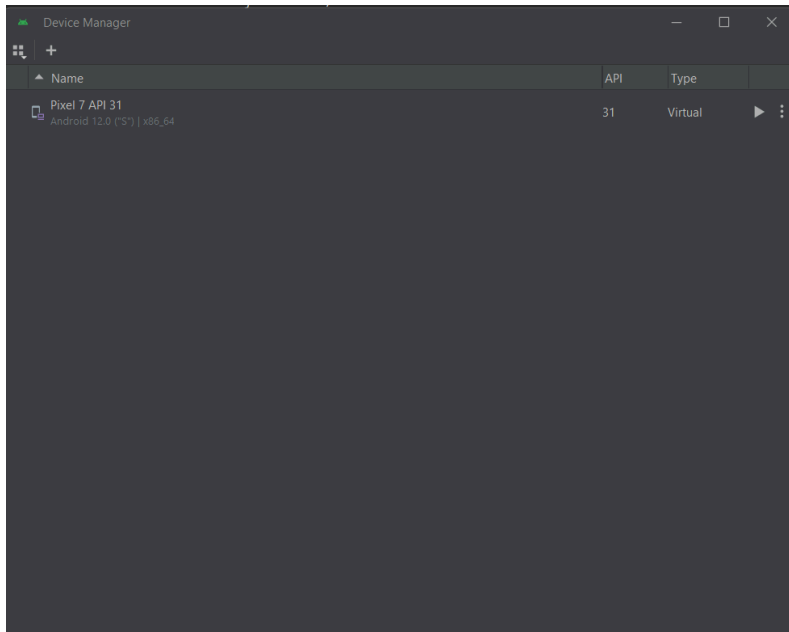
choose the 'Don't import Settings option' and click OK. It will start the Android Studio.

Step 8: Next, you need to set up an Android emulator. It is responsible for running and testing the Flutter application.



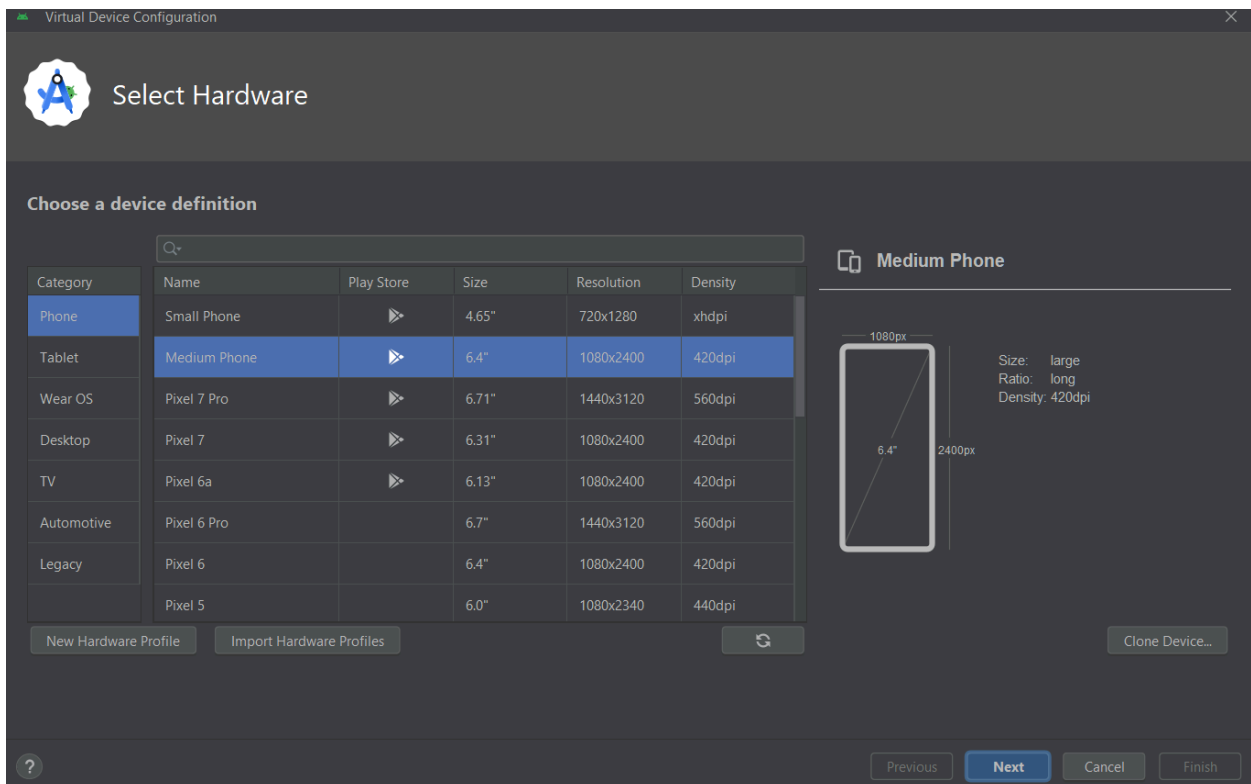
Step 8.1: To set an Android emulator, go to Android Studio > Tools > Android > AVD Manager and select Create Virtual Device. Or, go to Help->Find Action->Type Emulator in the search

box. You will get the following screen.



Step 8.2: Choose your device definition and click on Next.

Step 8.3: Select the system image for the latest Android version and click on Next.



Step 8.4: Now, verify the all AVD configuration. If it is correct, click on Finish. The following screen appears.

Step 8.5: Last, click on the icon pointed into the red color rectangle. The Android emulator displayed as below screen.

Launch the VMemulator you will see following screen.



Step 9.2: Now, search the Flutter plugin. If found, select Flutter plugin and click install.

When

you click on install, it will ask you to install Dart plugin as below screen. Click yes to proceed.

Step 9.3: Restart the Android Studio.

Conclusion:

Installation of Flutter involves a series of steps to set up the Flutter Software Development Kit on a Windows system. The process includes downloading the SDK, updating the system path, and ensuring the presence of the Android SDK for Flutter app development. The installation also requires configuring an Android emulator for testing Flutter applications. Overall, the steps outlined in this guide aim to provide a smooth and comprehensive setup for initiating Flutter development on a Windows platform.