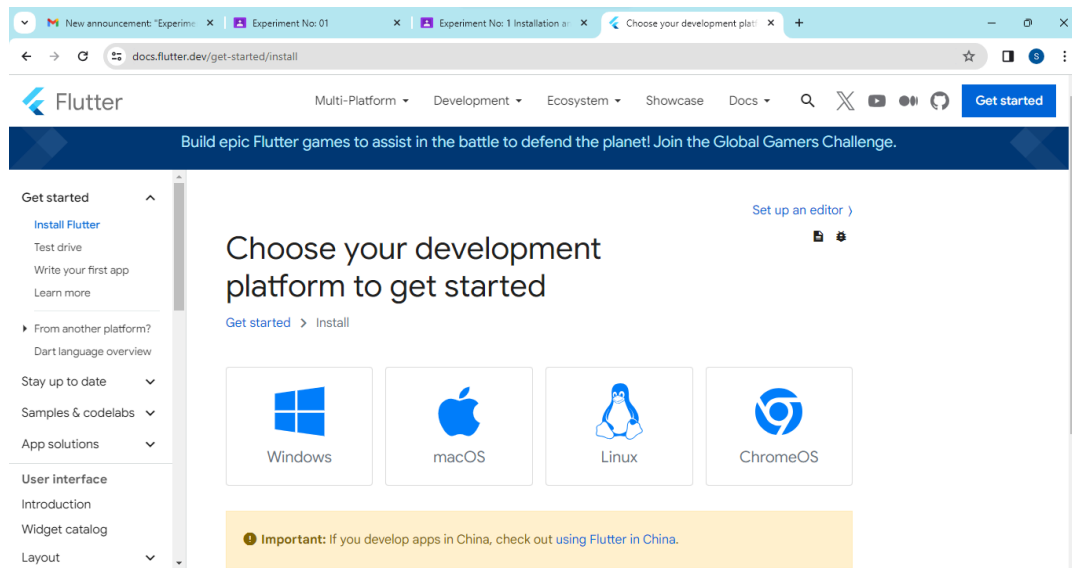


## Aim: Installation and Configuration of Flutter Environment.

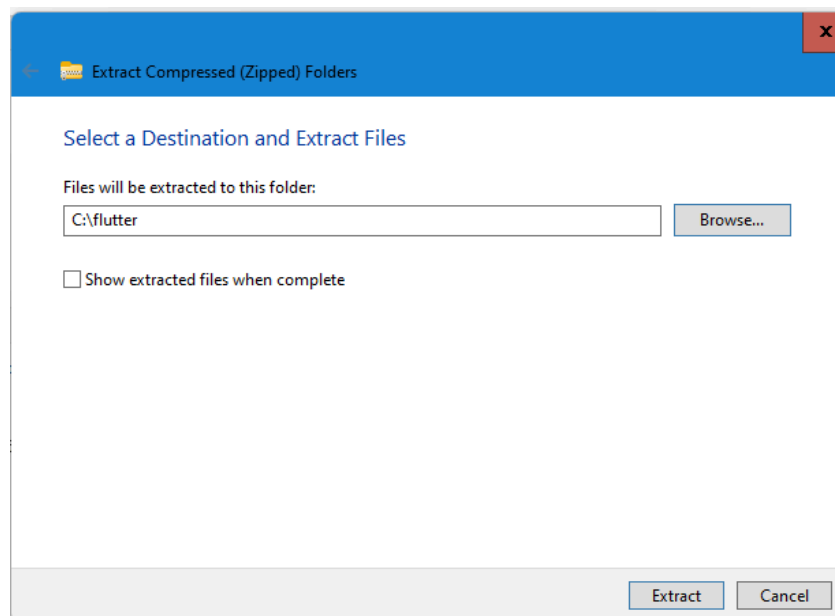
### Theory:

**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.



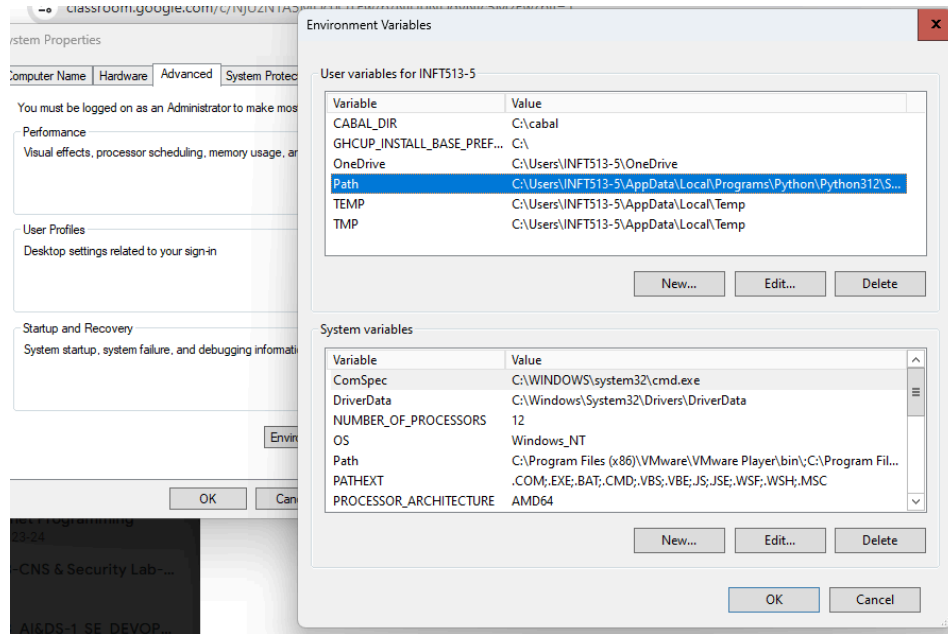
**Step 2:** Next, to download the latest Flutter SDK, click on the Windows icon. Here, you will find the download link for SDK.

**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.

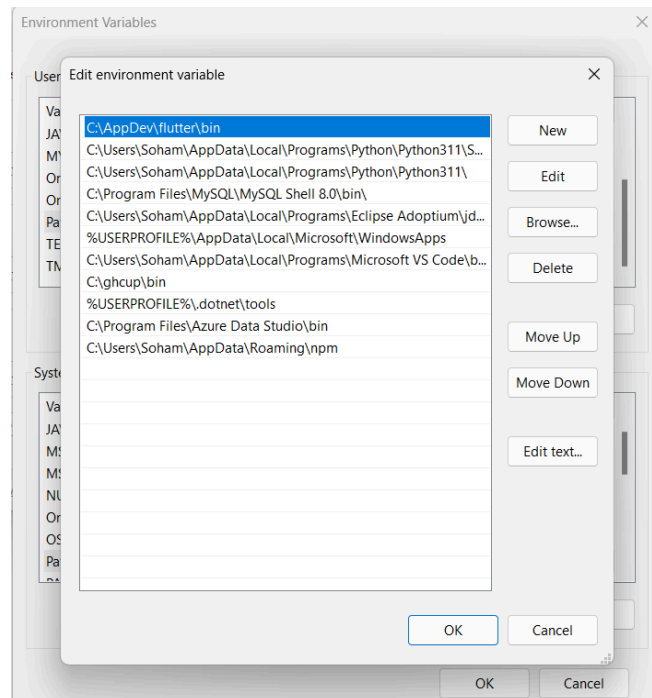


**Step 4:** To run the Flutter command in regular windows console, you need to update the system path to include the flutter bin directory. The following steps are required to do this:

**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

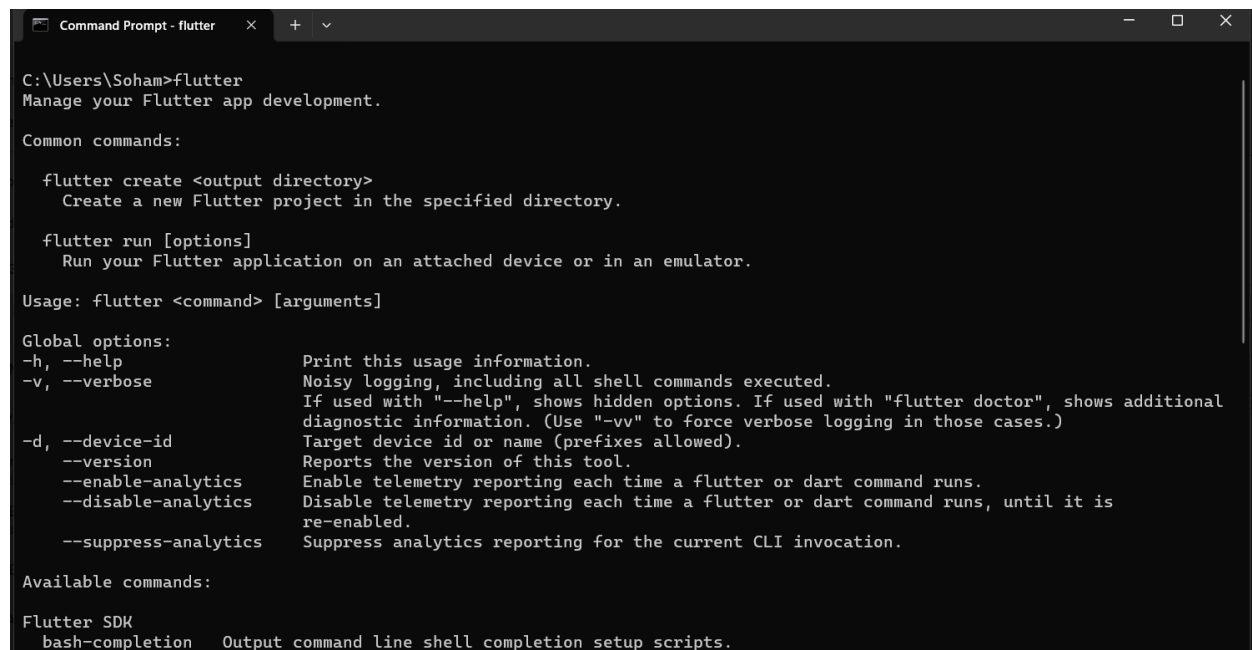


**Step 4.3:** In the above window, click on New->write path of Flutter bin folder in variable value  
-> ok -> ok -> ok.

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

**Step 6:** When you run the above command, it will analyze the system and show its report, as shown in the below image. Here, you will find the details of all missing tools, which required to run Flutter as well as the development tools that are available but not connected with the device.



```
Command Prompt - flutter
C:\Users\Soham>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]

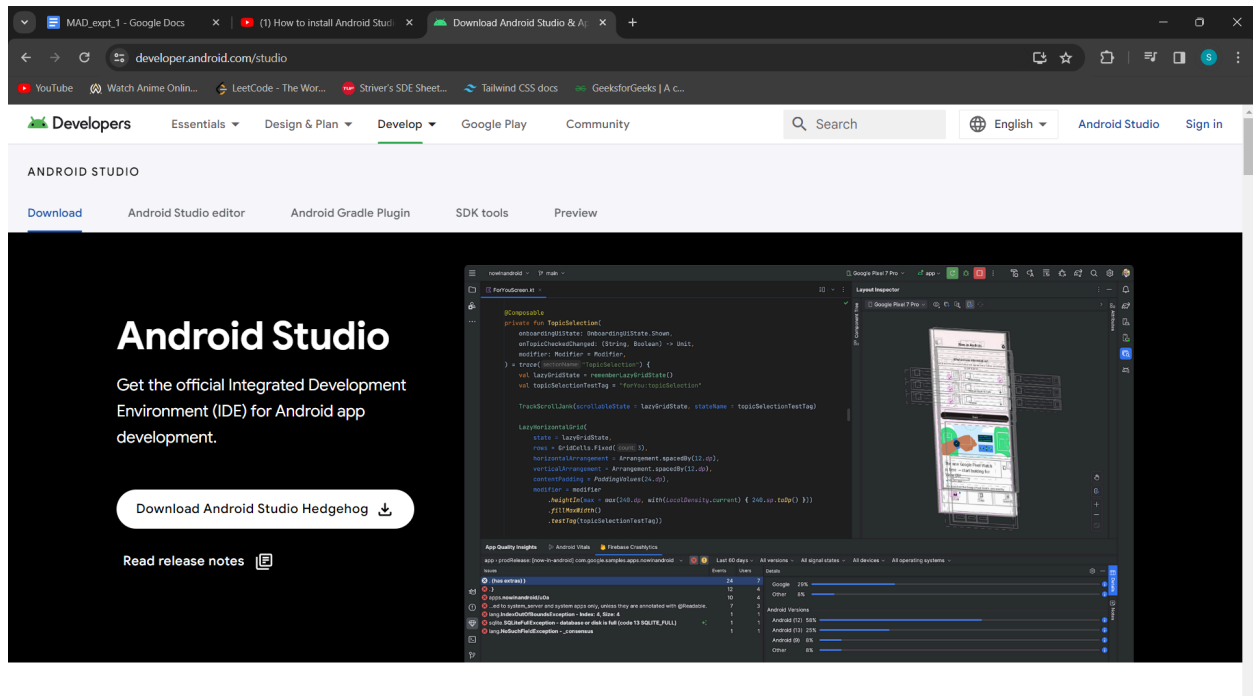
Global options:
-h, --help                Print this usage information.
-v, --verbose             Noisy logging, including all shell commands executed.
                          If used with "--help", shows hidden options. If used with "flutter doctor", shows additional
                          diagnostic 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.

Available commands:

Flutter SDK
  bash-completion  Output command line shell completion setup scripts.
```

**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.

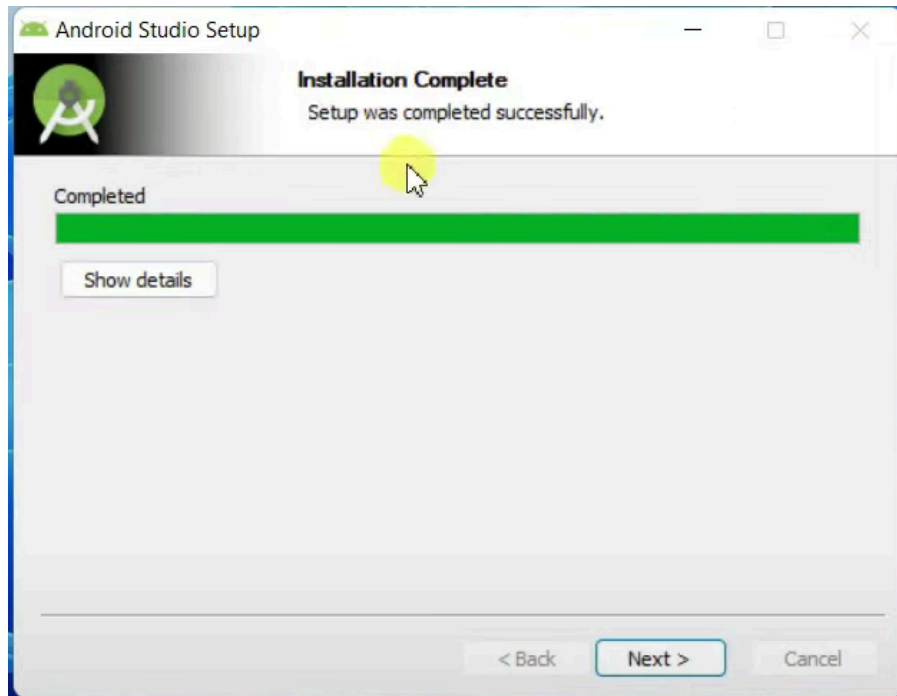
**Step 7.1:** Download the latest Android Studio executable or zip file from the official site.



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



**Step 7.3:** Follow the steps of the installation wizard. Once the installation wizard completes, you will get the following screen.



**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.

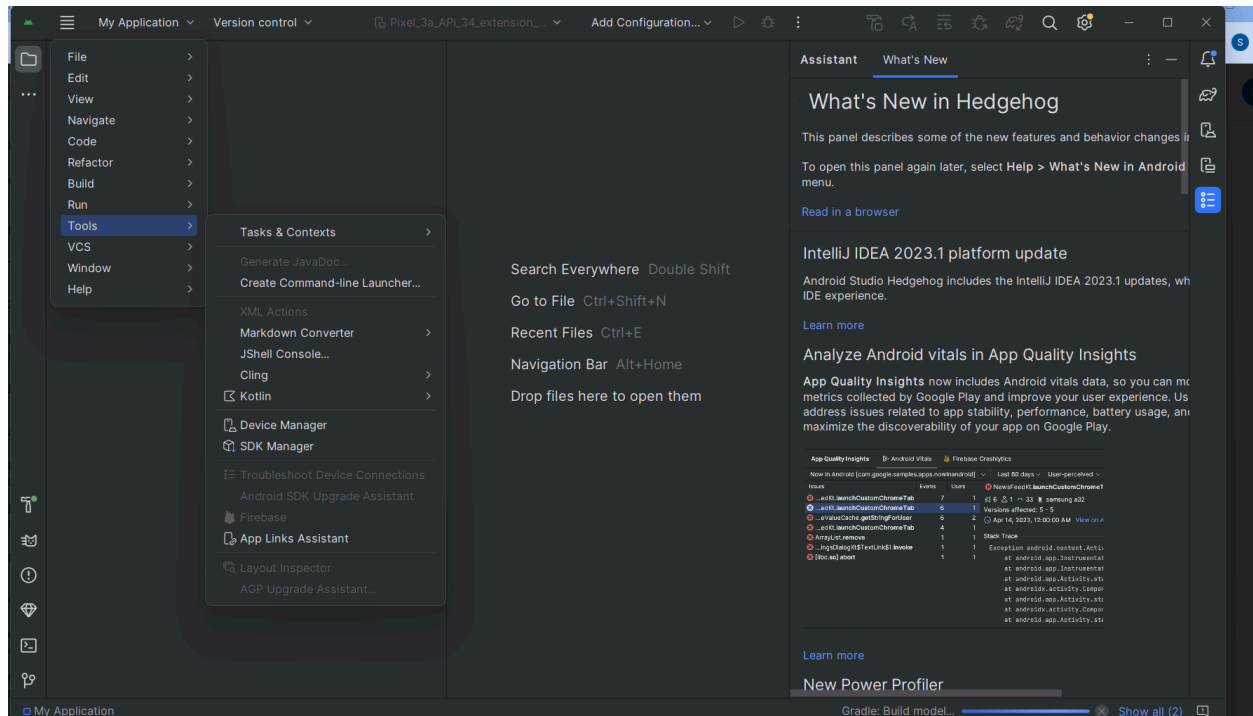
**Step 7.5:** run the \$ flutter doctor command and Run flutter doctor --android-licenses command.

```
C:\Users\Soham>flutter doctor
Doctor summary (to see all details, run flutter doctor -v):
[✓] Flutter (Channel stable, 3.16.8, on Microsoft Windows [Version 10.0.22621.3007], 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 17.3.6)
[✓] Android Studio (version 2023.1)
[✓] VS Code (version 1.85.2)
[✓] Connected device (3 available)
[✓] Network resources

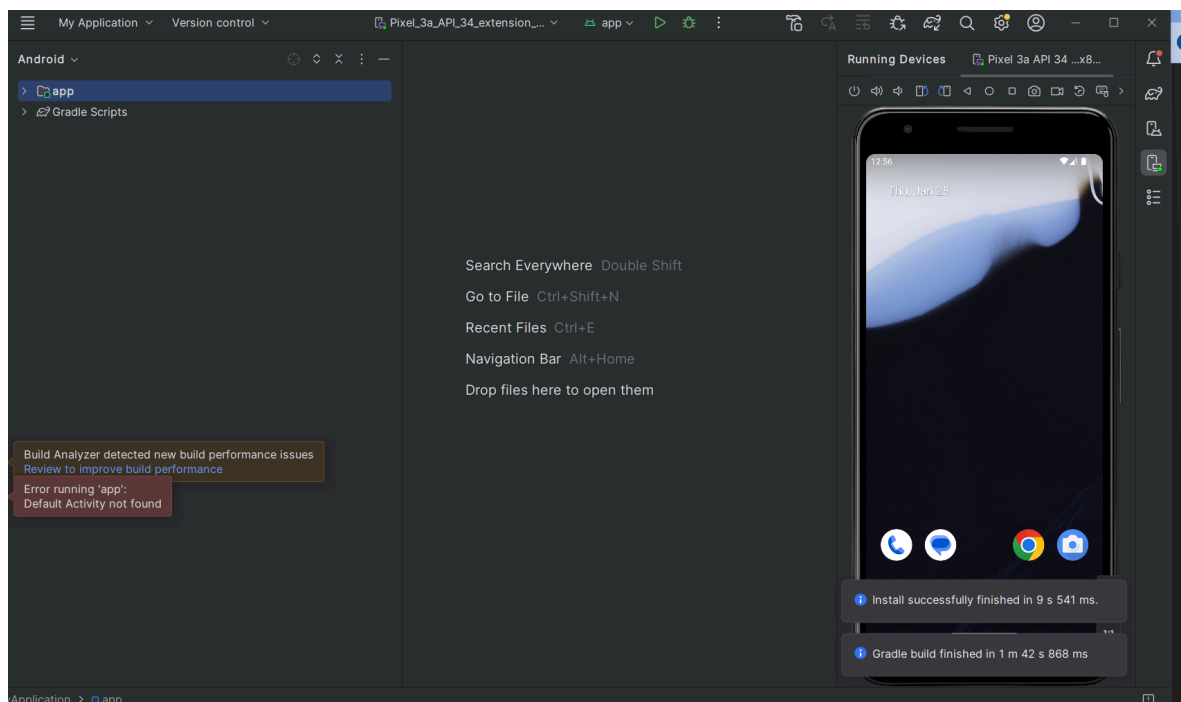
• No issues found!
C:\Users\Soham>
```

**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.



**Conclusion:** Thus we have completed the setup of flutter environment for development of Mobile applications. We have installed Flutter, Android Studio and the C++ support tools and configured the emulator for android development and debugging.