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## EXP 1: Installation and Configuration of Flutter Environment.

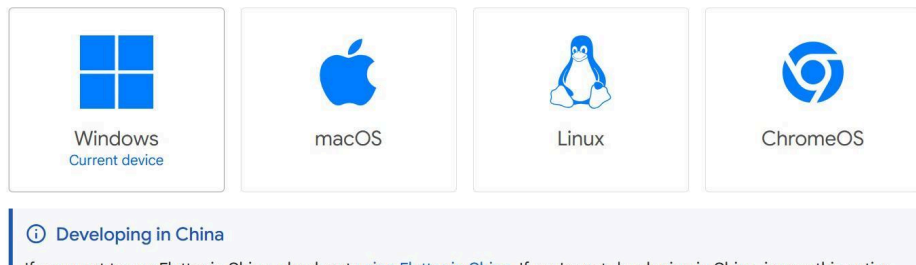
### Install the Flutter SDK

**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.

### Choose your development platform to get started

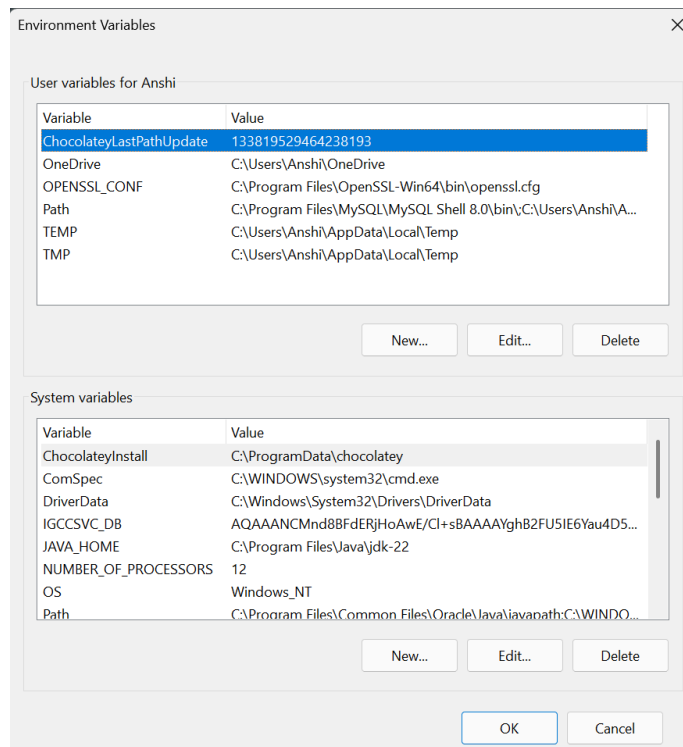
[Get started](#) > Install



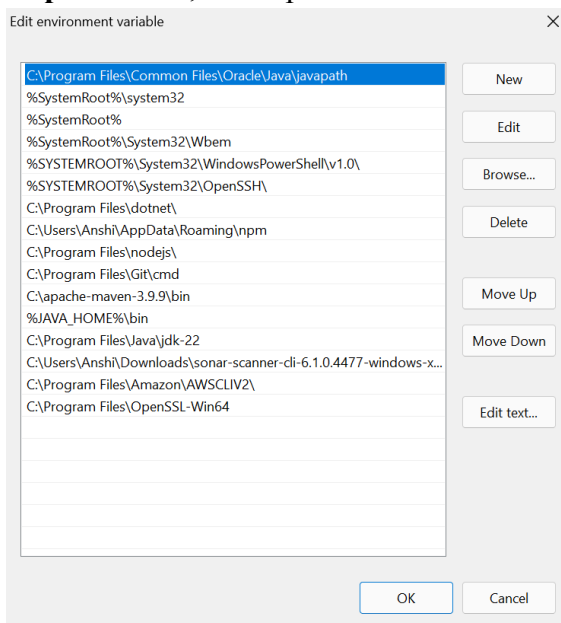
**Step 3:** When your download is complete, extract the **zip** file and place it in the desired installation folder or location, for example, C: /Flutter.

**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.

A new version of Flutter is available!

To update to the latest version, run "flutter upgrade".

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.

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\Anshi>flutter doctor
Doctor summary (to see all details, run flutter doctor -v):
[✓] Flutter (Channel stable, 3.27.3, on Microsoft Windows [Version 10.0.22H2]
[✓] Windows Version (Installed version of Windows is version 10.0.22H2)
[!] Android toolchain - develop for Android devices (Android SDK version 34.0.0)
    X cmdline-tools component is missing
      Run 'path/to/sdkmanager --install "cmdline-tools;latest"'
      See https://developer.android.com/studio/command-line for more SDK details
    X Android license status unknown.
      Run 'flutter doctor --android-licenses' to accept the SDK licenses.
      See https://developer.android.com/studio/terms-and-conditions for more details.
```

**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 are required to run Flutter as well as the development tools that are available but not connected with the device.

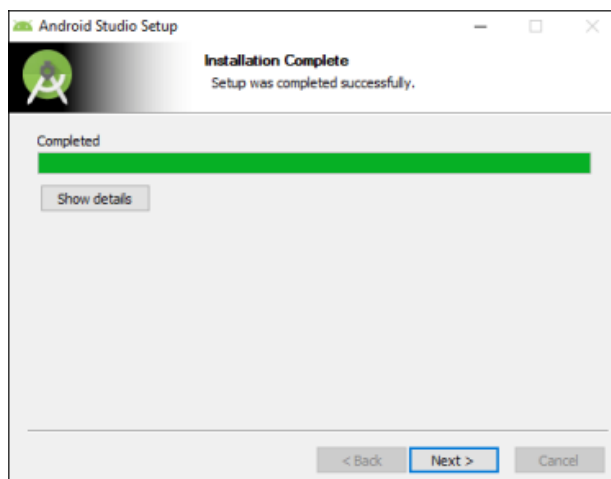
**Step 7:** Install the Android SDK. If the flutter doctor command does not find the Android SDK tool in your system, then you need first to install the Android Studio IDE. To install Android Studio IDE, do the following steps.

**Step 7.1:** Download the latest Android Studio executable or zip file from the [official site](https://developer.android.com/studio).

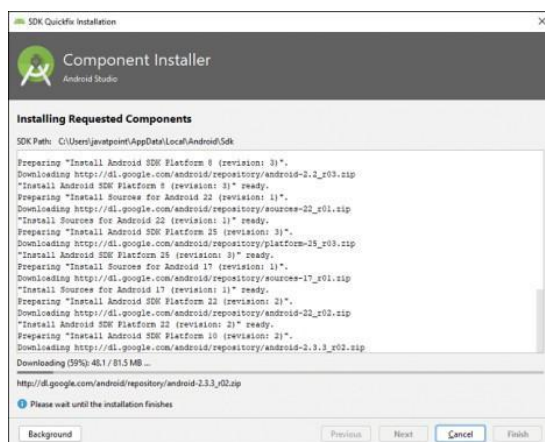
**Step 7.2:** When the download is complete, open the `.exe` file and run it. You will get the following dialog box.



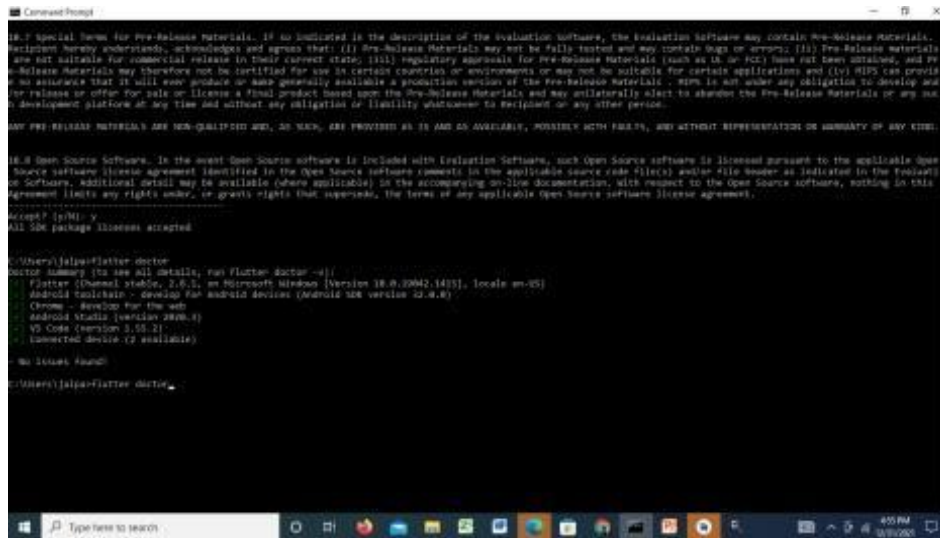
**Step 7.3:** Follow the steps of the installation wizard. Once the installation wizard completes, you will get the following screen.



**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\jajpa>flutter doctor

Doctor summary (to see all details, run flutter doctor -v):
[✓] Flutter (Channel stable, 2.6.1, on Microsoft Windows [Version 10.0.22H2.143], locale en-US)
[✓] Android toolchain - develop for Android devices (Android SDK version 32.0.0)
[✓] Chrome - develop for the web
[✓] Android Studio (version 2022.1)
[✓] VS Code (version 1.55.2)
[✓] Connected device (2 available)

No issues found!

C:\Users\jajpa>flutter doctor

```

**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.



**Step 9:** 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. Do the following steps to install these plugins.

**Step 9.1:** Open the Android Studio and then go to File->Settings->Plugins.

**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:**

In this experiment, we installed and set up flutter and android studio to run flutter applications on them.