

## Windows - VS Code and Android Studio Setup

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# 1 Introduction

With this guide, you can learn how to set up the development environment for Flutter and Dart—explained in simple and easy terms, the guide details how to create your first Flutter application for different operating systems like Android, iOS, and web.

Please note that there would be a default prefix \$ in every terminal. You don't need to copy it, just copy the command if you want to execute it in your terminal or shell. We sincerely hope that the guide will help you develop more interest in Flutter and give you the technical knowledge of working in the Flutter environment.

## 2 Setup Development Environment - For Windows

### Pre-requisites:

- Editor or Integrated Development Environment (IDE)
- Flutter and Dart Software Development Kit (SDK)

This chapter gives insight into Android Studio, a popular IDE from IntelliJ, and Visual Studio Code from Microsoft. Followed by this, we will go forward with the Flutter installation on Windows.

### 2.1 Android Studio - Explained in brief

Android Studio is a powerful IDE that facilitates quick Android Development. It contains everything needed by a developer to create new-age Android applications. When integrated with Android Studio, flutter, also a Google framework, adds its features and functionality to create native apps.

It supports Version Control Systems like Git and SVN, which are built-in the IDE.

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Android Studio contains features that support standard code formatting and advanced refactoring, which simplifies development tasks.

The disadvantage of Android Studio is that it requires more hardware resources compared to its contemporary Visual Studio.

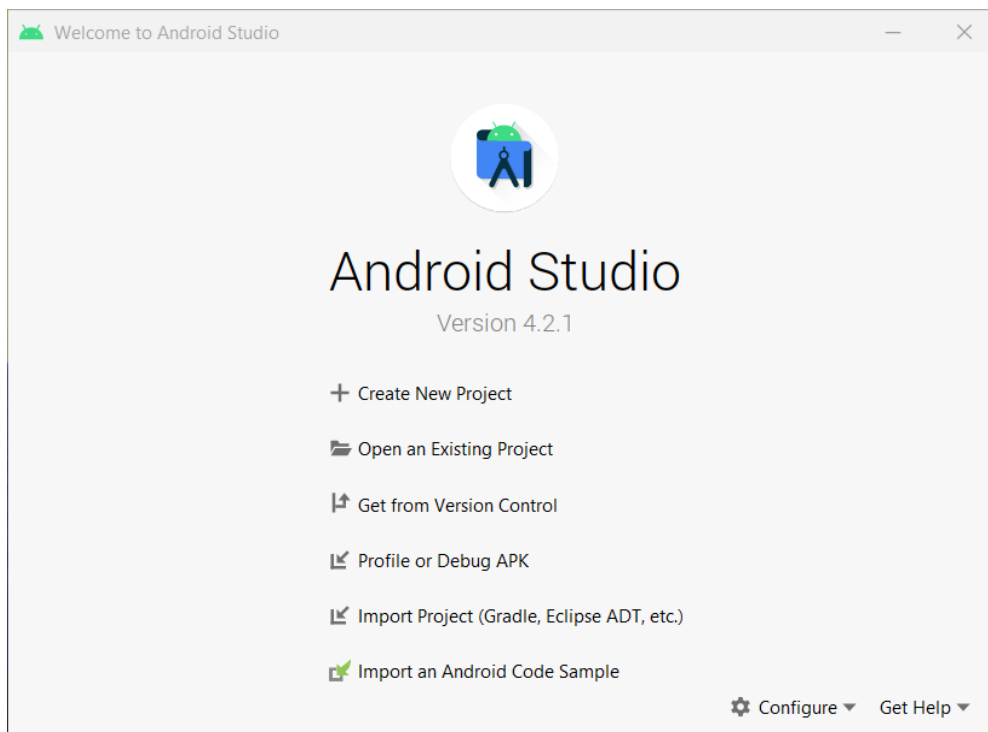
A word of advice for developers who want to test the app on Android Emulator is to install Android Studio without fail. This will help you test your app without any hassles.

### 2.1.1 Installation

1. The first step is to download the latest version of Android Studio, which you can do from <https://developer.android.com/studio>
2. You need to accept the licenses and download the Android Studio version suitable for your Operating System.
3. Once the installation begins, it will prompt you to download and install Android SDK.
4. Followed by this, you need to install the Flutter and Dart plugins, which you can do by clicking the “Configure” button.

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5. After clicking Configure, you will find a menu with various options. Select “Plugins” from this menu.

SDK Manager

Settings

Plugins

Default Project Structure...

Run Configuration Templates for New Projects...

Import Settings

Export Settings

Settings Repository...

Restore Default Settings...

Compress Logs and Show in File Manager

Edit Custom Properties...

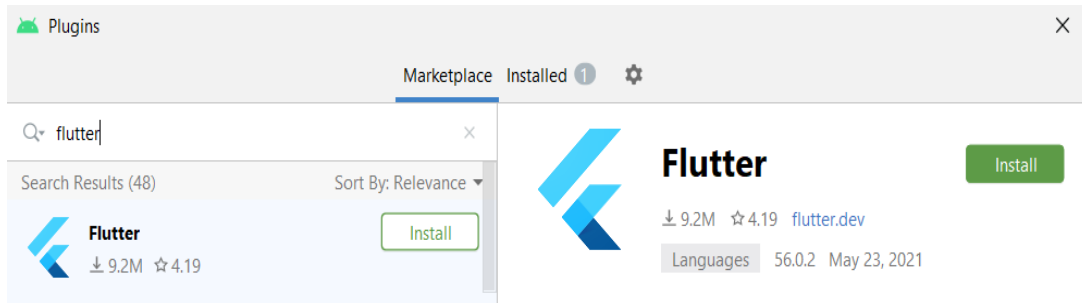
Edit Custom VM Options...

Check for Updates

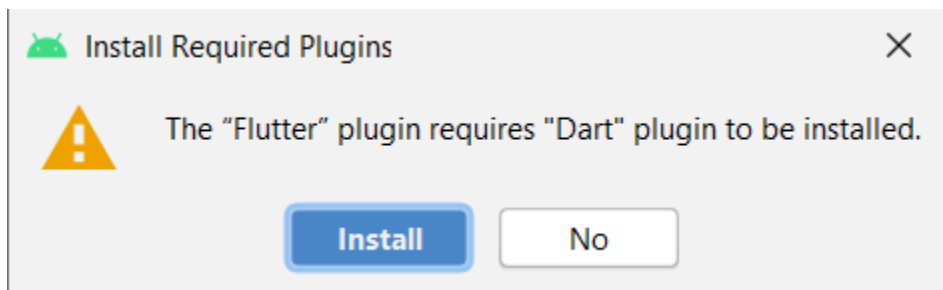
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6. It will open a window. Select “Marketplace” and search “Flutter”



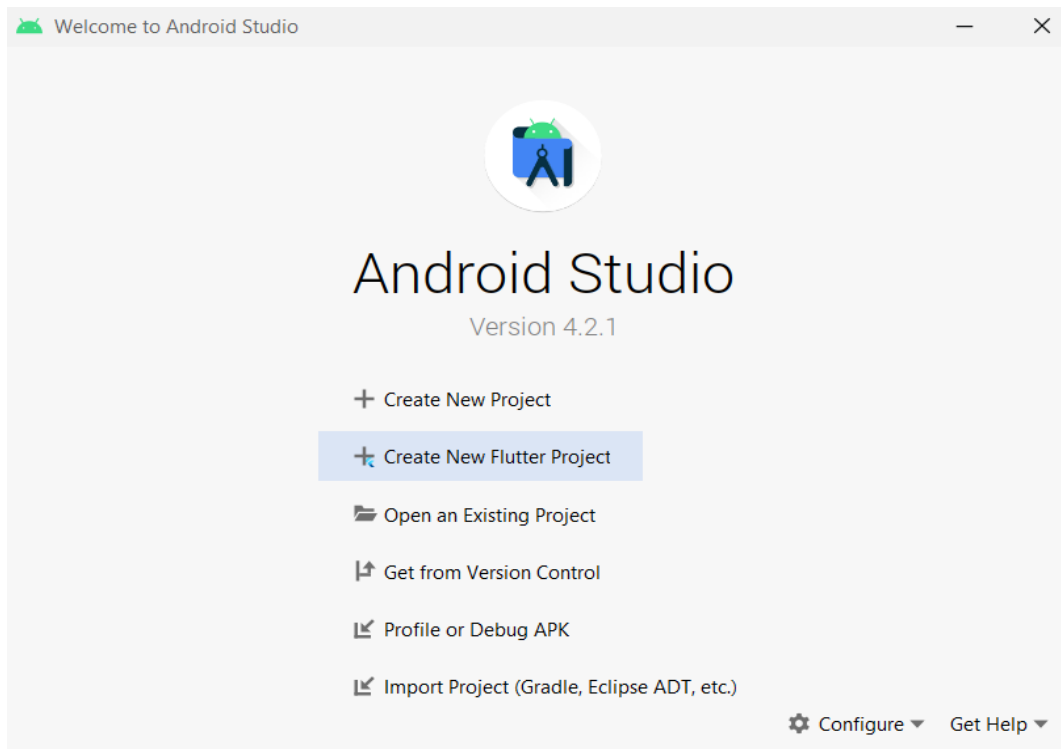
7. Now, click on the “Install” button. Doing this will open a dialogue box that says, “the Flutter plugin requires Dart plugin to be installed”. Click on the “Install” button to install the Dart plugin as it’s the prerequisite.



8. Once the installation is complete, you need to restart Android Studio. The starting window will showcase the option of “Create New Flutter Project.”

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9. Now, you are all set to start Flutter Development in Android Studio.

## 2.2 Visual Studio Code - Explained in Brief

Microsoft has come up with an Open source coding editor called Visual Studio Code (VSCode). This editor is lightweight and supports the feature of IntelliSense as well as runs and debugs Flutter application. It also supports Git integration and offers numerous extensions created by the open-source community.

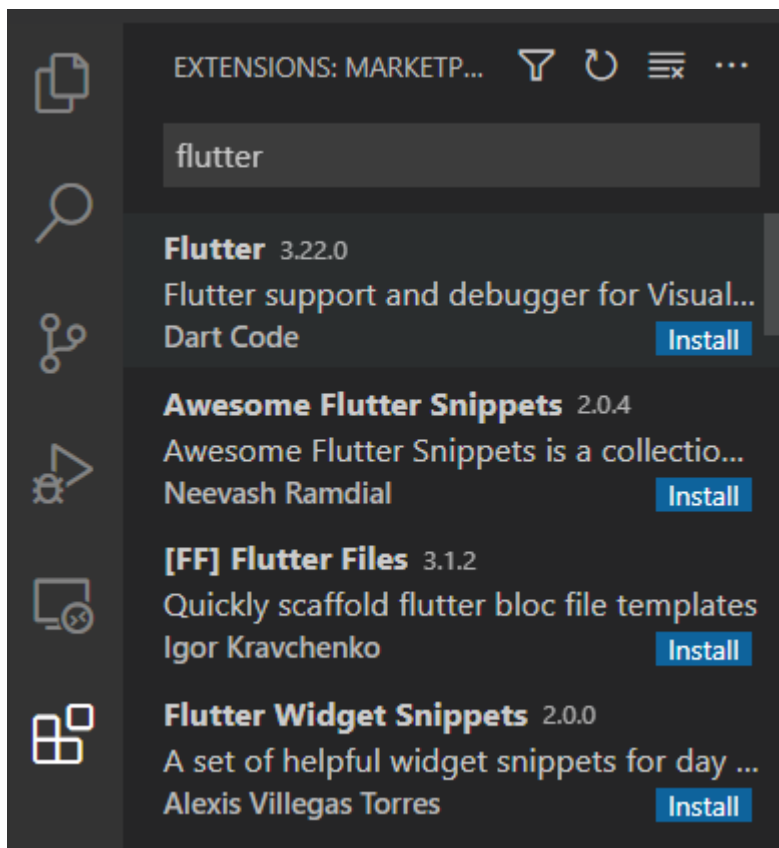
Being a text editor simplifies coding and gives a quick development experience. VSCode is often considered the best coding editor for developers. It is a trendy editor which requires lesser hardware resources. That is why GitHub and StackBlitz use it to do coding within the browser.

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### 2.2.1 Installation

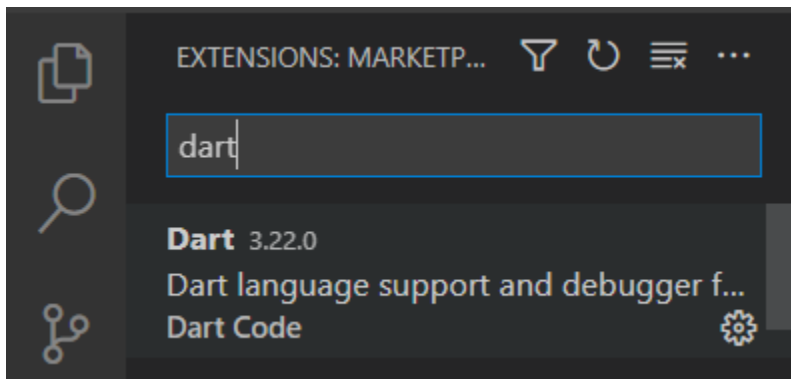
1. Go to <https://code.visualstudio.com/> and download the latest version for your OS.
2. Install Visual Studio Code
3. For Windows, simply follow the installer
4. Start VSCode and select “Extensions” on the left side menu.
5. Search “Flutter” and Install.



6. As Dart is a prerequisite of installing the Flutter plugin, it is automatically installed. Cross-check it by searching Dart extension in the search bar.

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7. That's it! Now, you have both Flutter and Dart plugins installed within the IDE.

## 2.3 Install Flutter & Dart

Flutter 1.22 (or the most current version of Flutter) contains the SDKs of Flutter and Dart. This makes it far quicker to develop applications. Now, we will check the process to install Flutter in Windows.

Flutter can be installed in two ways:

- Install it through a zip file and copy the files into the correct path.
- Install via Git.

The first method installs a fixed version with all source code created, while the Git version gives you the flexibility to upgrade the version.

### 2.3.1 Windows

#### System Requirements

Operating Systems: Windows 7 SP1 or later (64-bit), x86-64 based.

Disk Space: ~2 GB4

Windows PowerShell 5.0 or higher

Git for Windows (<https://git-scm.com/>)

#### Installation via Download



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1. Go to <https://flutter.dev/docs/get-started/install/windows#get-the-flutter-sdk>
2. Start downloading Flutter SDK by pressing the blue button
3. Unzip the Flutter SDK into your preferred folder in our case "D:\software\flutter"
4. Set up path variable. (Refer Chapter 2.4)
5. Execute `flutter doctor` and check for problems.

### Installation via Git

1. Open a Terminal or PowerShell
2. Check if you have Git installed on the command prompt.

```
$ git --version
```

3. If *Git* is not installed, go to *Git* ([git-scm.com](https://git-scm.com)) and install.
4. Navigate to a folder where you want Flutter installed.
5. Execute the command

```
$ git clone https://github.com/flutter/flutter.git -b stable
```

6. Setup the path variable
  1. For the current terminal session execute the below command. Replace *pwd* with your directory. In our chapter "Setup the Path Variable" it is D:\software.
7. Execute "flutter doctor" command to check the successful installation.

```
$ export PATH="$PATH:pwd/flutter/bin"
```

## 2.4 Setup the Path Variable

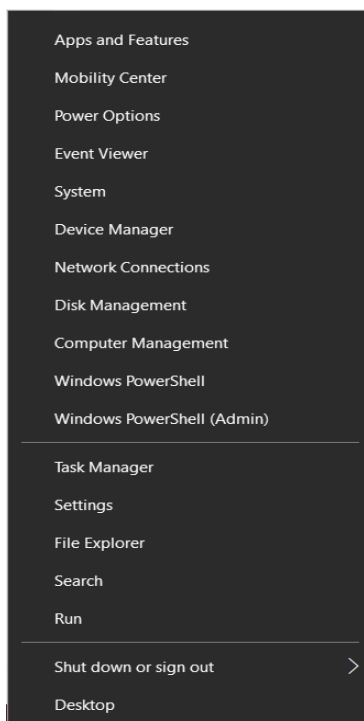
To execute commands like "flutter doctor" rather than full path(installed\_dir/flutter/bin) you will need to set up a path variable.

### 2.4.1 Windows (Win 10)

1. Right-click on the Windows start menu
2. Select "Systems"

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3. In the coming window, there would be a link for “Advanced System Settings”. Click it.

Related settings

[BitLocker settings](#)

[Device Manager](#)

[Remote desktop](#)

[System protection](#)

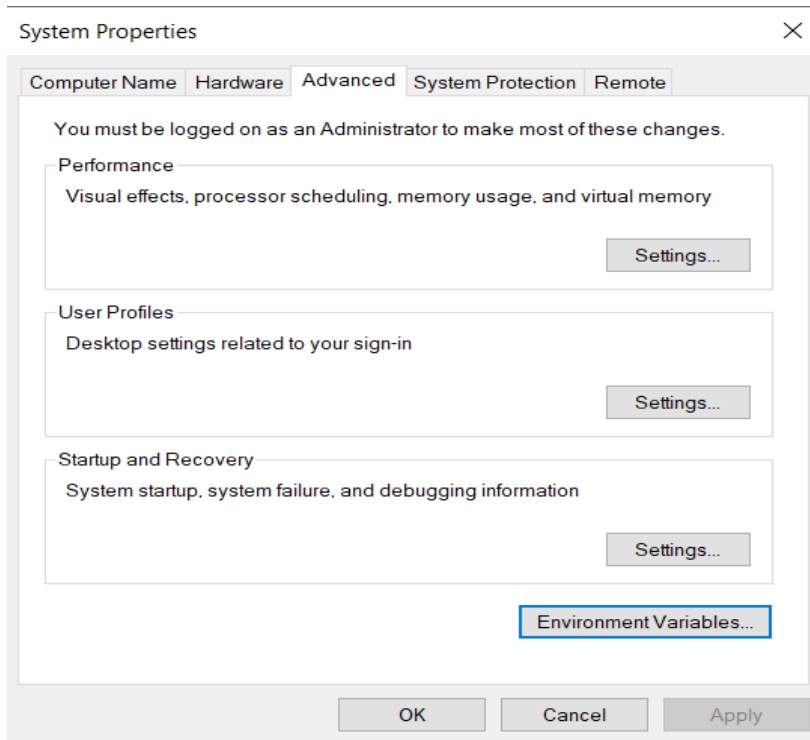
[Advanced system settings](#)

[Rename this PC \(advanced\)](#)

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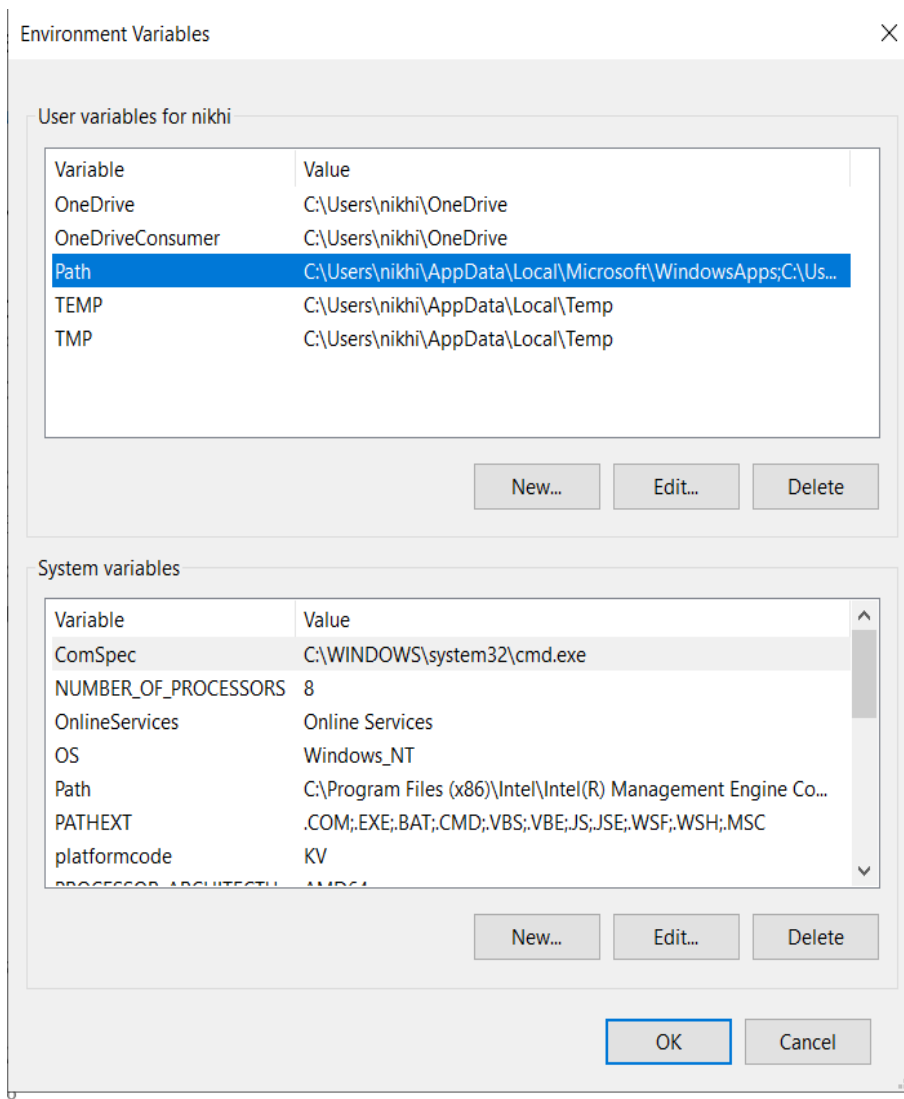
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4. It will open the “System Properties” window, from where you need to select “Environment variables”.



5. It will open the Environment Variables window.
6. Now, the window that opens will be in two sections. The top section is for the logged-in user, and the bottom is for every account. If you want to make Flutter active for all accounts, then make changes in the System Variable, go-ahead for the current user.

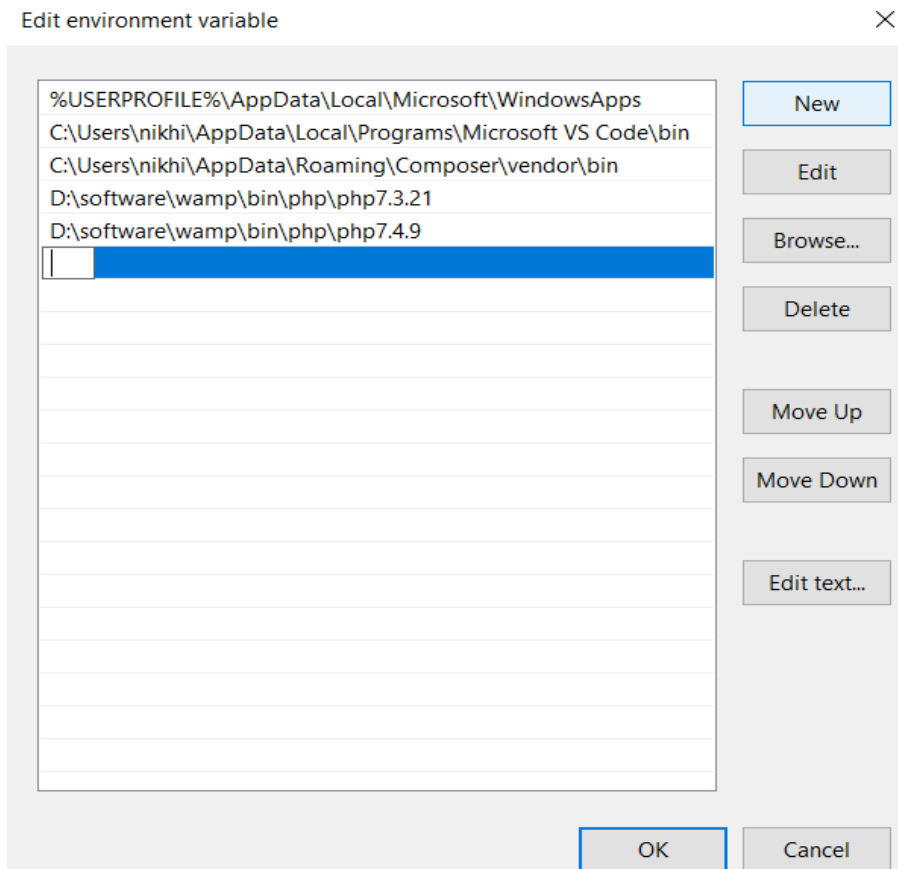
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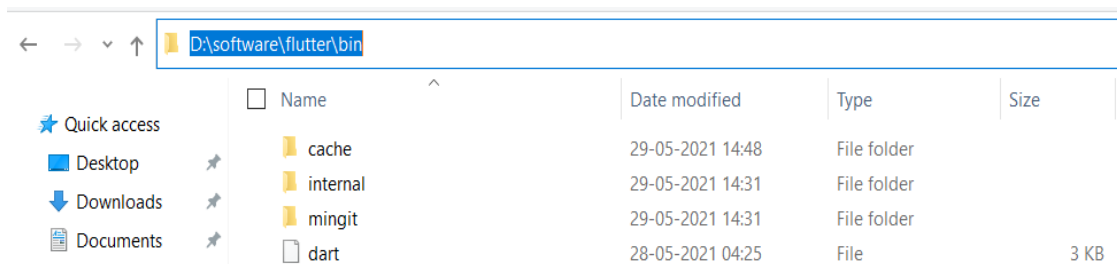
7. In the following dialogue box, select the path variable and click “Edit”. It will open another window and click on the “New” button, adding a new line in the variable paths.

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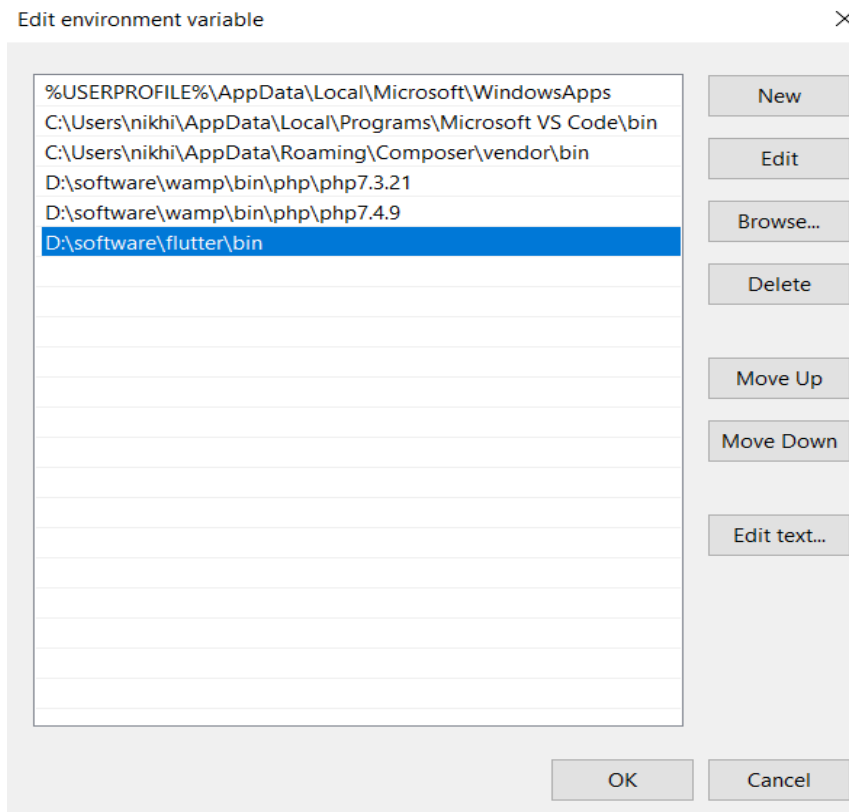
8. To add a new variable, browse your system, go to the Navigation bar and copy the full path of the bin directory.



9. Paste the path into the new line of the Environment Variable Window.

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10. Now, you need to restart all your terminals, including PowerShell and CMD.
11. This will make it possible to execute your Flutter directory through the Command Line Tool.

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```
PS C:\Users\<username> > 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.
Note: 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
```

## 3. Troubleshooting Installation Issues

### 3.1 Antivirus software issue

#### **Problem**

Many Antivirus deletes *flutter.bat* files as a system security measure, making it impossible for Flutter to work correctly.

#### **Solution**

Whitelist the Flutter folder from your Antivirus Program.

### 3.2 Command not found: Flutter.

#### **Problem**

While executing flutter commands like flutter doctor, the terminal will show a message like “command not found: flutter”

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```
$ flutter doctor  
bash: flutter: command not found
```

### ***Solution***

Commonly this happens because your path variables weren't set correctly. Please refer to section 2.4 setup path variable. If the issue persists, then try to execute *flutter* command with the full path.

After having done the process above and the issues continue, you'll need to reinstall flutter then. Make sure to verify that all files are correctly installed.