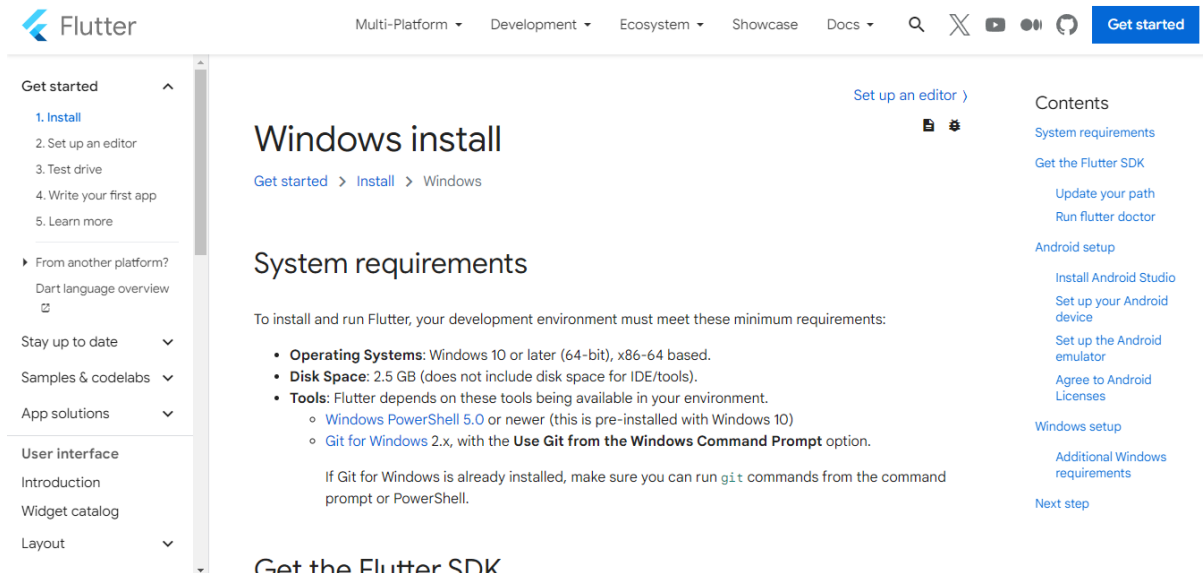


LAB 1 – INSTALLATION OF FLUTTER, ANDROID STUDIO, VISUAL STUDIO CODE AND VISUAL STUDIO 2022

Step 1 : Install Flutter. Go to website URL <https://docs.flutter.dev/get-started/install/windows>



The screenshot shows the Flutter documentation page for Windows installation. The left sidebar contains a 'Get started' menu with options like '1. Install', '2. Set up an editor', '3. Test drive', '4. Write your first app', and '5. Learn more'. The main content area is titled 'Windows install' and includes a 'System requirements' section. The requirements list: Operating Systems (Windows 10 or later, 64-bit), Disk Space (2.5 GB), and Tools (Flutter depends on these tools being available in your environment). The tools list includes Windows PowerShell 5.0 or newer and Git for Windows 2.x. A blue button 'Set up an editor' is visible. The right sidebar contains a 'Contents' menu with links to 'System requirements', 'Get the Flutter SDK', 'Update your path', 'Run flutter doctor', 'Android setup', 'Install Android Studio', 'Set up your Android device', 'Set up the Android emulator', 'Agree to Android Licenses', 'Windows setup', 'Additional Windows requirements', and 'Next step'.

Windows install

[Get started](#) > [Install](#) > [Windows](#)

System requirements

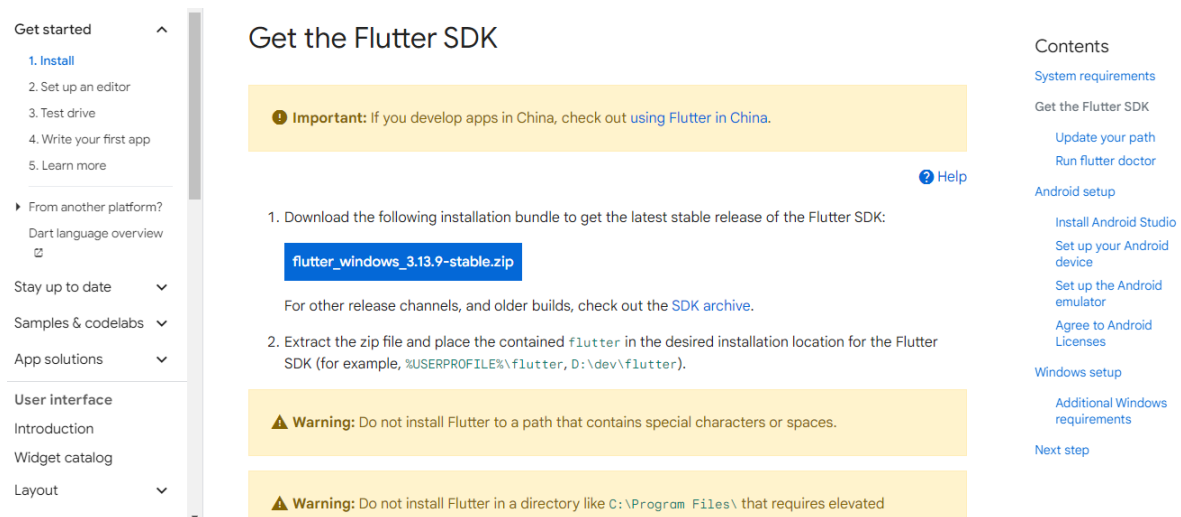
To install and run Flutter, your development environment must meet these minimum requirements:

- **Operating Systems:** Windows 10 or later (64-bit), x86-64 based.
- **Disk Space:** 2.5 GB (does not include disk space for IDE/tools).
- **Tools:** Flutter depends on these tools being available in your environment.
 - [Windows PowerShell 5.0](#) or newer (this is pre-installed with Windows 10)
 - [Git for Windows 2.x](#), with the **Use Git from the Windows Command Prompt** option.

If Git for Windows is already installed, make sure you can run `git` commands from the command prompt or PowerShell.

Get the Flutter SDK

Step 2 : Click the blue button to install Flutter SDK.



The screenshot shows the Flutter documentation page for getting the Flutter SDK. The left sidebar is the same as the previous screenshot. The main content area is titled 'Get the Flutter SDK' and includes an 'Important' note: 'If you develop apps in China, check out [using Flutter in China](#).' Below this, there is a list of steps: 1. Download the following installation bundle to get the latest stable release of the Flutter SDK: [flutter_windows_3.13.9-stable.zip](#). 2. Extract the zip file and place the contained `flutter` in the desired installation location for the Flutter SDK (for example, `%USERPROFILE%\flutter`, `D:\dev\flutter`). There are two warning boxes: 'Warning: Do not install Flutter to a path that contains special characters or spaces.' and 'Warning: Do not install Flutter in a directory like `C:\Program Files\` that requires elevated permissions.' A blue button 'Help' is visible. The right sidebar contains a 'Contents' menu with links to 'System requirements', 'Get the Flutter SDK', 'Update your path', 'Run flutter doctor', 'Android setup', 'Install Android Studio', 'Set up your Android device', 'Set up the Android emulator', 'Agree to Android Licenses', 'Windows setup', 'Additional Windows requirements', and 'Next step'.

Get the Flutter SDK

Important: If you develop apps in China, check out [using Flutter in China](#).

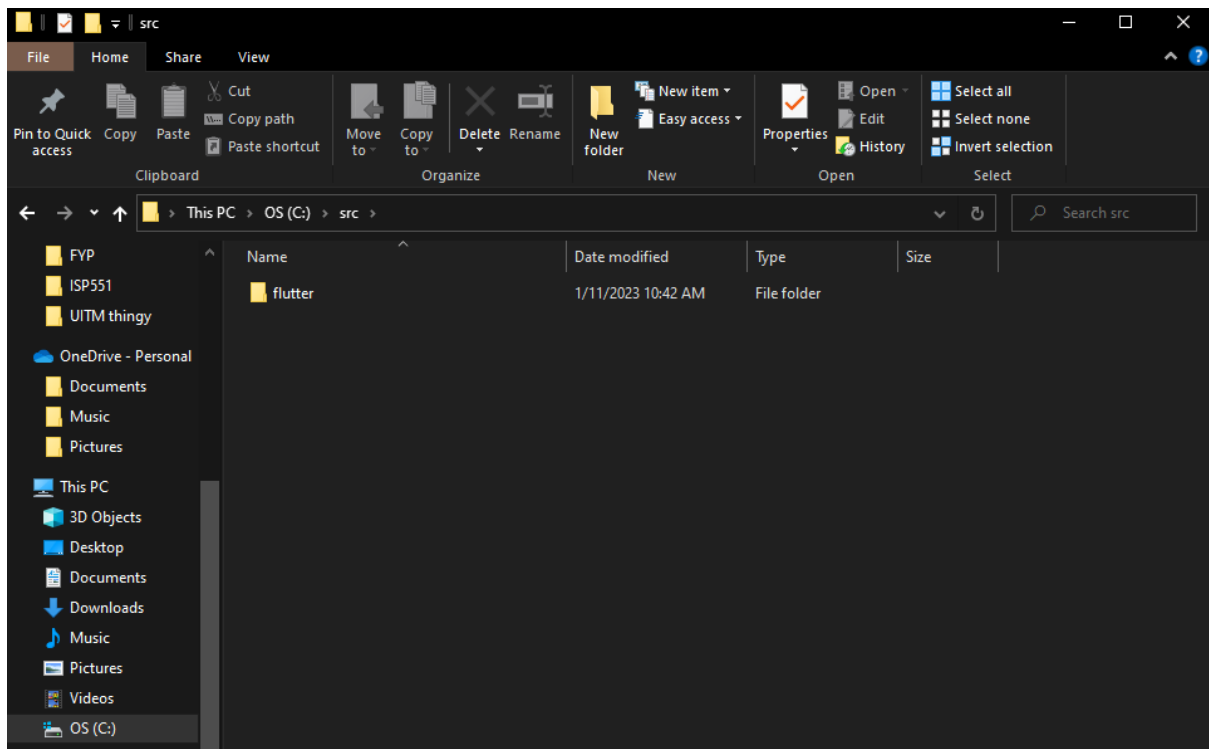
[Help](#)

1. Download the following installation bundle to get the latest stable release of the Flutter SDK:
[flutter_windows_3.13.9-stable.zip](#)
For other release channels, and older builds, check out the [SDK archive](#).
2. Extract the zip file and place the contained `flutter` in the desired installation location for the Flutter SDK (for example, `%USERPROFILE%\flutter`, `D:\dev\flutter`).

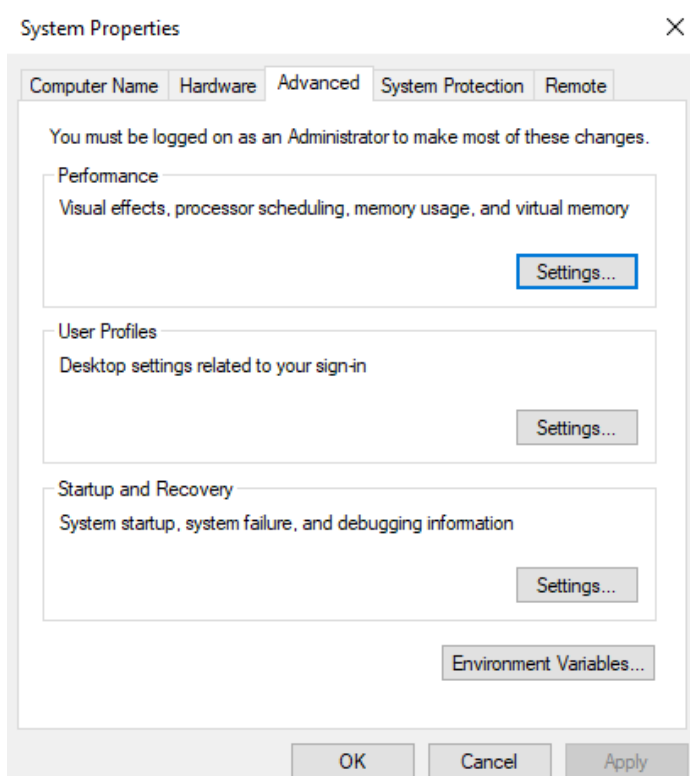
Warning: Do not install Flutter to a path that contains special characters or spaces.

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

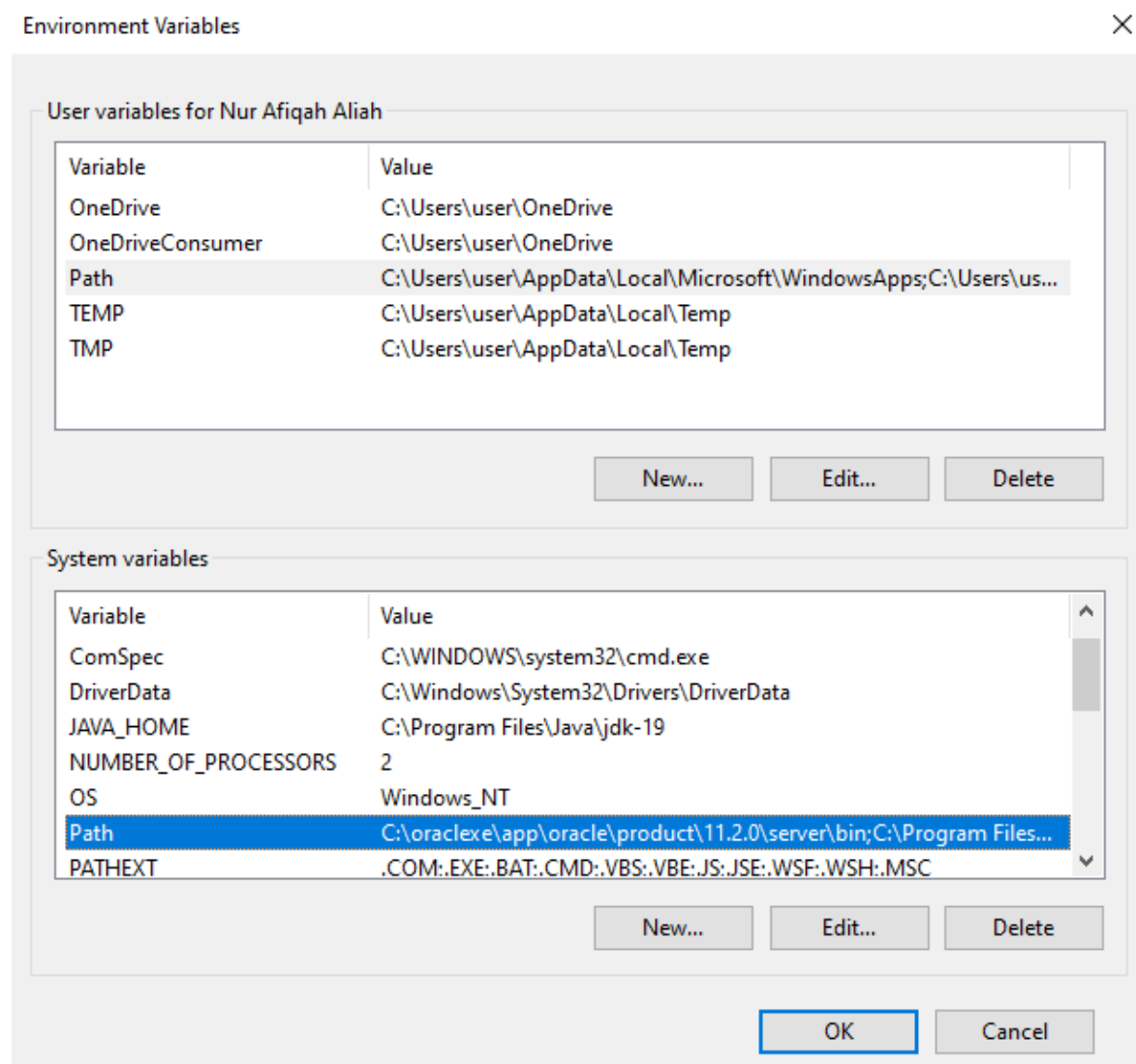
Step 3 : After completing the installation, extract the folder in C: drive by creating a new 'src' folder and place the Flutter SDK into the folder.



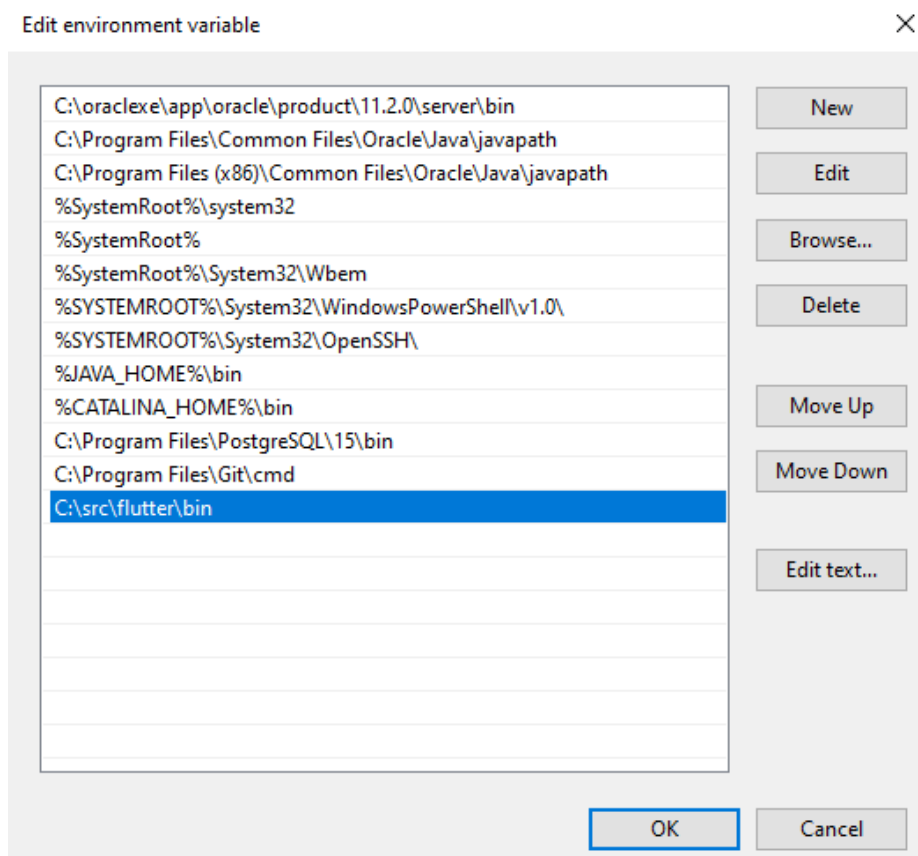
Step 4 : Go to System Properties and click the Environment Variables button.



Click Path and “Edit...” button on System variables.



Press New button and copy and paste path to flutter\bin



Step 5 : Check your CMD if Flutter SDK is installed according to your path.

```
C:\Users\user>where flutter dart
C:\src\flutter\bin\flutter
C:\src\flutter\bin\flutter.bat
C:\src\flutter\bin\dart
C:\src\flutter\bin\dart.bat
```

Step 6 : Write a command “flutter” in your CMD.

```
Flutter Console - flutter
C:\Users\user>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.
--suppress-analytics       Suppress analytics reporting for the current CLI invocation.
--disable-telemetry        Disable telemetry reporting each time a flutter or dart
                           command runs, until it is re-enabled.
--enable-telemetry        Enable telemetry reporting each time a flutter or dart
                           command runs.

Available commands:

Flutter SDK
bash-completion  Output command line shell completion setup scripts.
channel          List or switch Flutter channels.
config           Configure Flutter settings.
doctor           Show information about the installed tooling.
downgrade        Downgrade Flutter to the last active version for the current
channel.
precache         Populate the Flutter tool's cache of binary artifacts.
upgrade          Upgrade your copy of Flutter.

Project
analyze          Analyze the project's Dart code.
assemble         Assemble and build Flutter resources.
build            Build an executable app or install bundle.
clean            Delete the build/ and .dart tool/ directories.
```

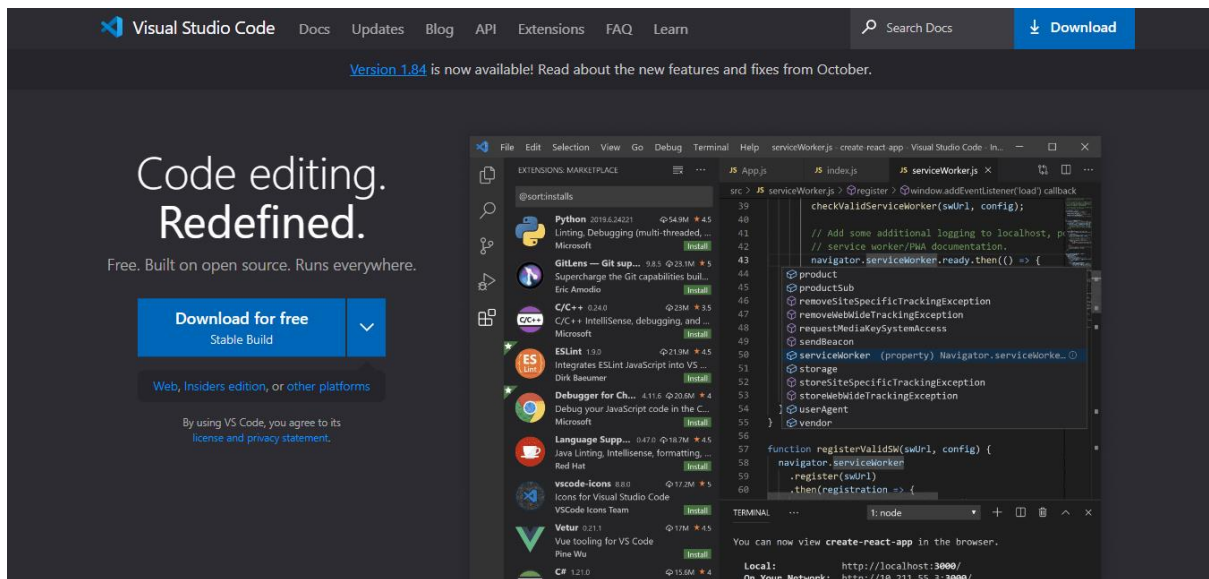
Step 7 : Write a command “flutter doctor”.

```
Flutter Console - flutter - flutter doctor - flutter doctor

C:\Users\user>flutter doctor
Downloading package sky_engine... 8.0s
Downloading flutter_patched_sdk tools... 8.8s
Downloading flutter_patched_sdk_product tools... 10.2s
Downloading windows-x64 tools... 134.2s
Downloading windows-x64/font-subset tools... 4.0s
Doctor summary (to see all details, run flutter doctor -v):
[✓] Flutter (Channel stable, 3.13.9, on Microsoft Windows [Version 10.0.19045.3570],
     locale en-MY)
[✓] Windows Version (Installed version of Windows is version 10 or higher)
[!] 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 details.
     X Android license status unknown.
       Run 'flutter doctor --android-licenses' to accept the SDK licenses.
       See https://flutter.dev/docs/get-started/install/windows#android-setup for more
       details.
[✓] Chrome - develop for the web
[!] Visual Studio - develop Windows apps (Visual Studio Community 2022 17.7.5)
     X Visual Studio is missing necessary components. Please re-run the Visual Studio
       installer for the "Desktop development with C++" workload, and include these
       components:
         MSVC v142 - VS 2019 C++ x64/x86 build tools
         - If there are multiple build tool versions available, install the latest
         C++ Make tools for Windows
         Windows 10 SDK
[✓] Android Studio (version 2022.3)
[✓] VS Code (version 1.84.2)
[✓] Connected device (3 available)
[✓] Network resources

! Doctor found issues in 2 categories.
```

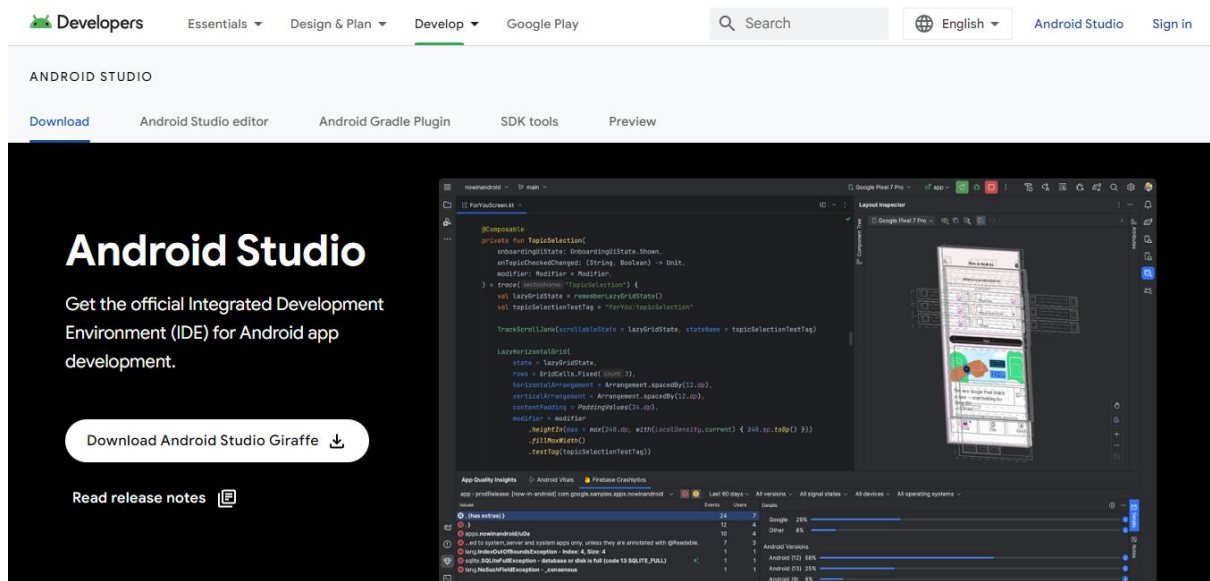
Step 8 : Install Visual Studio Code: <https://code.visualstudio.com/>



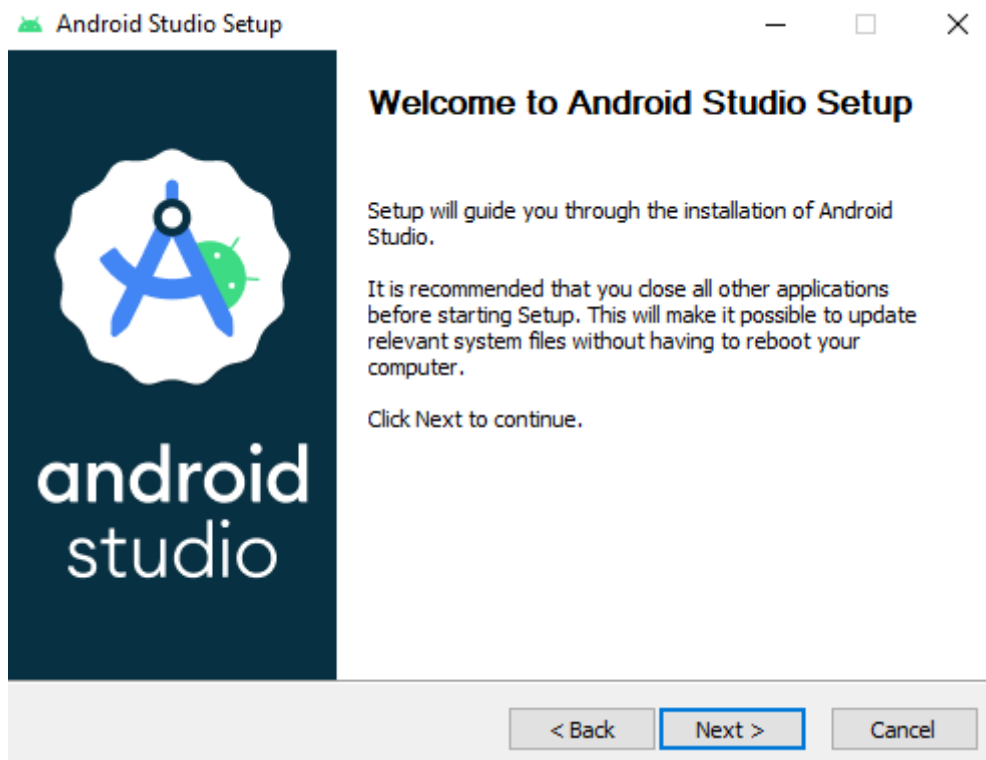
Install Flutter extension in Visual Studio Code



Step 9 : Installation of Android Studio: <https://developer.android.com/studio>



Step 10 : Android Studio Setup



**Choose Components**

Choose which features of Android Studio you want to install.

Check the components you want to install and uncheck the components you don't want to install. Click Next to continue.

Select components to install:

- ☒ Android Studio
- ☒ Android Virtual Device

Description

Position your mouse over a component to see its description.

Space required: 3.4GB

< Back

Next >

Cancel

**Configuration Settings**

Install Locations

Android Studio Installation Location

The location specified must have at least 500MB of free space.
Click Browse to customize:

Browse..

< Back

Next >

Cancel

**Choose Start Menu Folder**

Choose a Start Menu folder for the Android Studio shortcuts.

Select the Start Menu folder in which you would like to create the program's shortcuts. You can also enter a name to create a new folder.

Accessibility
Accessories
Administrative Tools
Adobe Master Collection CS6
Android Studio
Apache NetBeans
Bloodshed Dev-C++
BlueJ
Chrome Apps
Cisco Packet Tracer
Cisco Webex Meetings Desktop App

☐ Do not create shortcuts

< Back

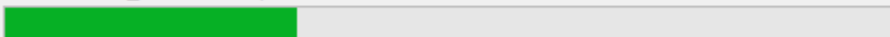
Install

Cancel

**Installing**

Please wait while Android Studio is being installed.

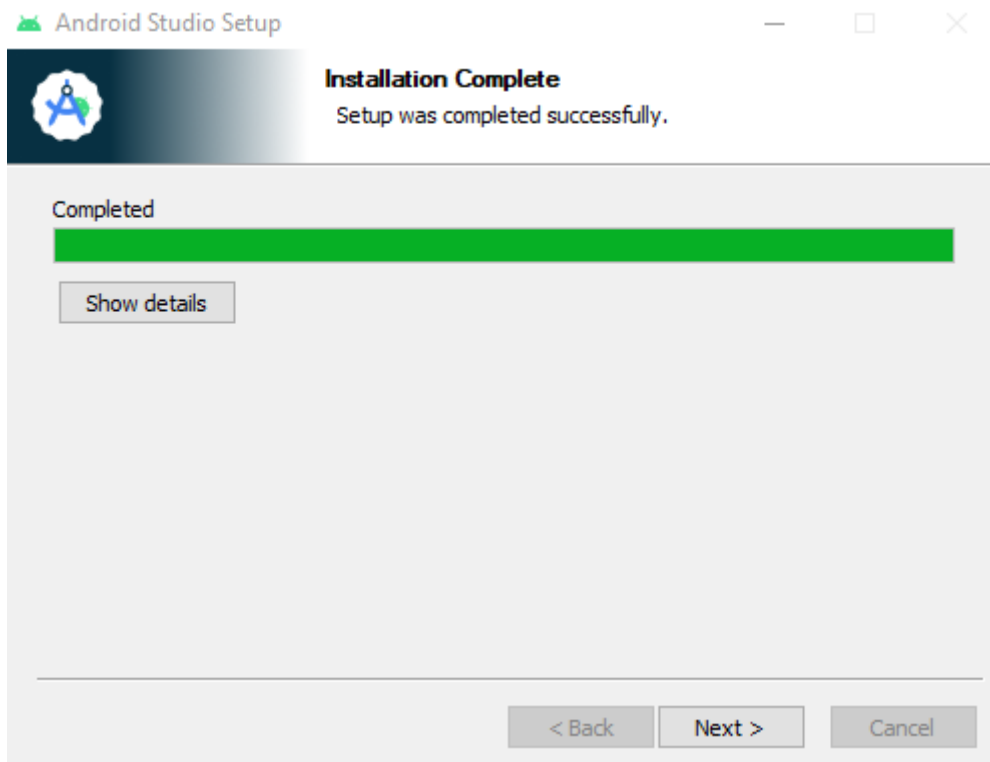
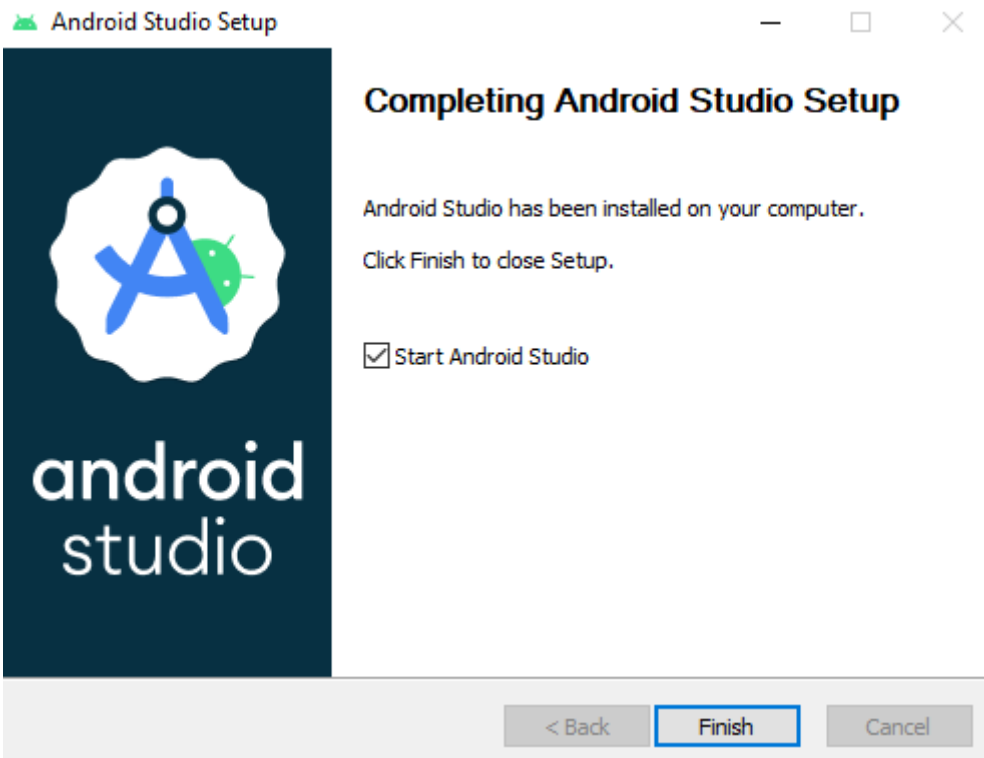
Extract: land_shadow.webp... 100%

[Show details](#)

< Back

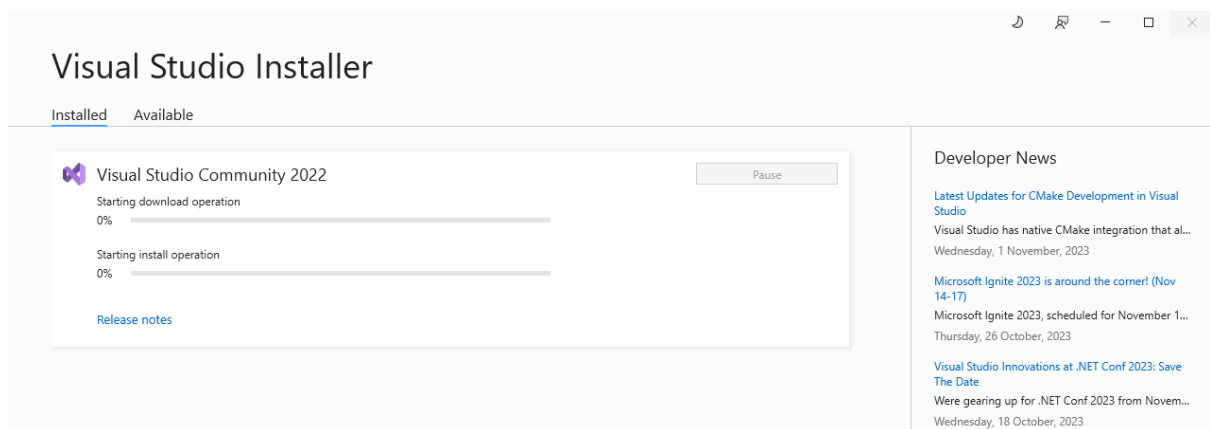
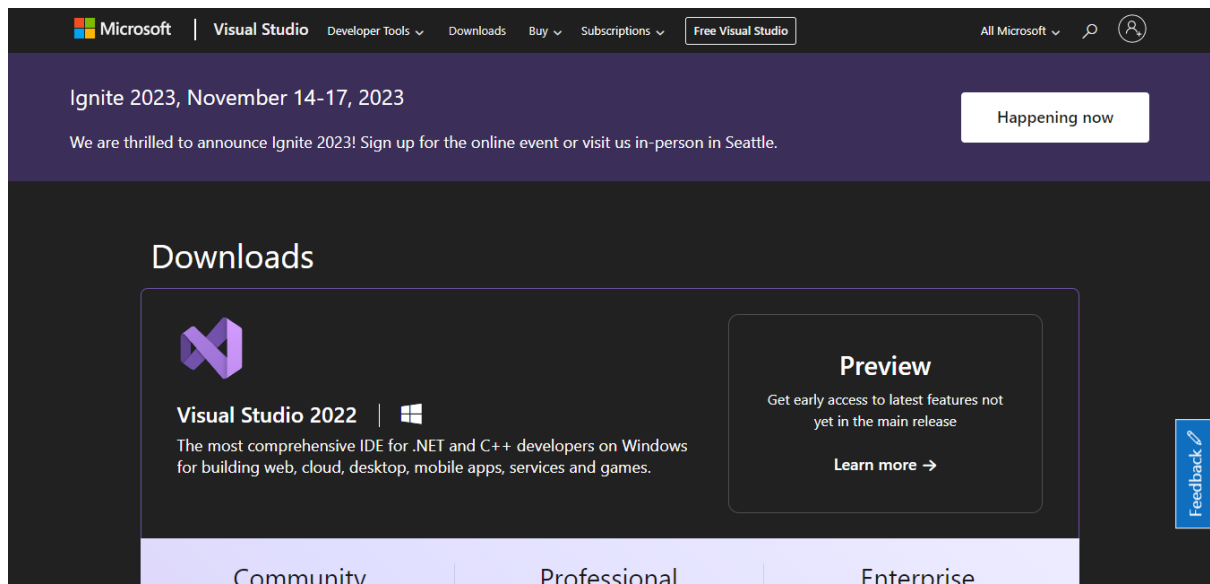
Next >

Cancel

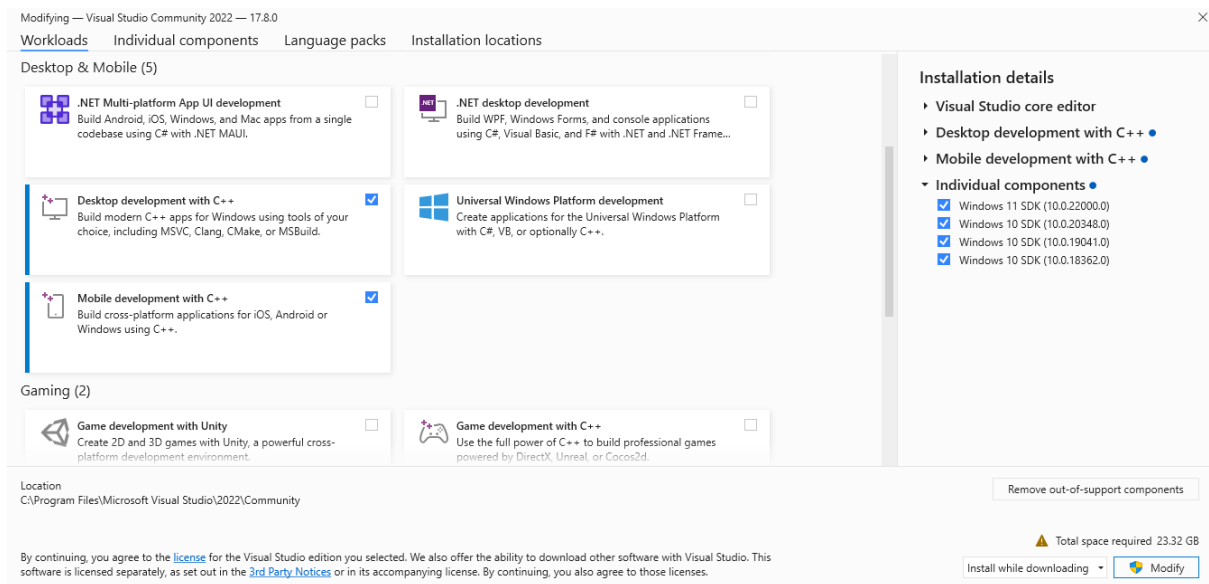


Step 11 : Installation of Visual Studio 2022. Go to website URL

<https://visualstudio.microsoft.com/downloads/>



Tick Windows 10 SDK and “Desktop development with C++” and “Mobile development with C++”



Step 12 : Write the command “flutter doctor” again if your Flutter is complete.

```
Flutter Console - flutter doctor - flutter doctor
C:\Users\user>flutter doctor
Doctor summary (to see all details, run flutter doctor -v):
[v] Flutter (Channel stable, 3.13.9, on Microsoft Windows [Version 10.0.19045.3570], locale en-MY)
[v] Windows Version (Installed version of Windows is version 10 or higher)
[v] Android toolchain - develop for Android devices (Android SDK version 34.0.0)
[v] Chrome - develop for the web
[v] Visual Studio - develop Windows apps (Visual Studio Community 2022 17.8.0)
[v] Android Studio (version 2022.3)
[v] VS Code (version 1.84.2)
[v] Connected device (3 available)
[v] Network resources

• No issues found!
```