

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

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

The screenshot shows the Flutter documentation website. The main heading is "Start building Flutter native desktop apps on Windows". Below this, there is a yellow box with an "Important" note: "Perform this guide in sequence. Skipping steps can cause errors." The page is divided into sections: "System requirements", "Hardware requirements", and "Software requirements". The "Hardware requirements" section includes a table with the following data:

Requirement	Minimum	Recommended
x86_64 CPU Cores	4	8
Memory in GB	8	16
Display resolution in pixels	WXGA (1366 x 768)	FHD (1920 x 1080)
Free disk space in GB	4.0	52.0

The "Software requirements" section mentions that to write and compile Flutter code for desktop, you must have the following version of Windows and the listed software packages. It specifies that Flutter supports 64-bit version of Microsoft Windows 10 or later, and these versions should include the required Windows PowerShell 5.0 or later.

Step 2: Install Flutter SDK. Click the blue button.

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App solutions

User interface

Introduction

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Layout

Design & theming

Interactivity

Assets & media

Navigation & routing

Animations & transitions

Accessibility & internationalization

Beyond UI

Data & backend

Platform integration

Download then install Flutter

1. Download the following installation bundle to get the latest stable release of the Flutter SDK.

[flutter_windows_3.16.5-stable.zip](#)

For other release channels, and older builds, check out the [SDK archive](#).

This guide presumes that you downloaded your Flutter SDK to the default download directory for Windows:
`%CSIDL_DEFAULT_DOWNLOADS%`.

2. Create a folder where you can install Flutter.

Consider `%USERPROFILE%` or `C:\dev`.

Warning:

Don't install Flutter to a directory or path that meets one or both of the following conditions:

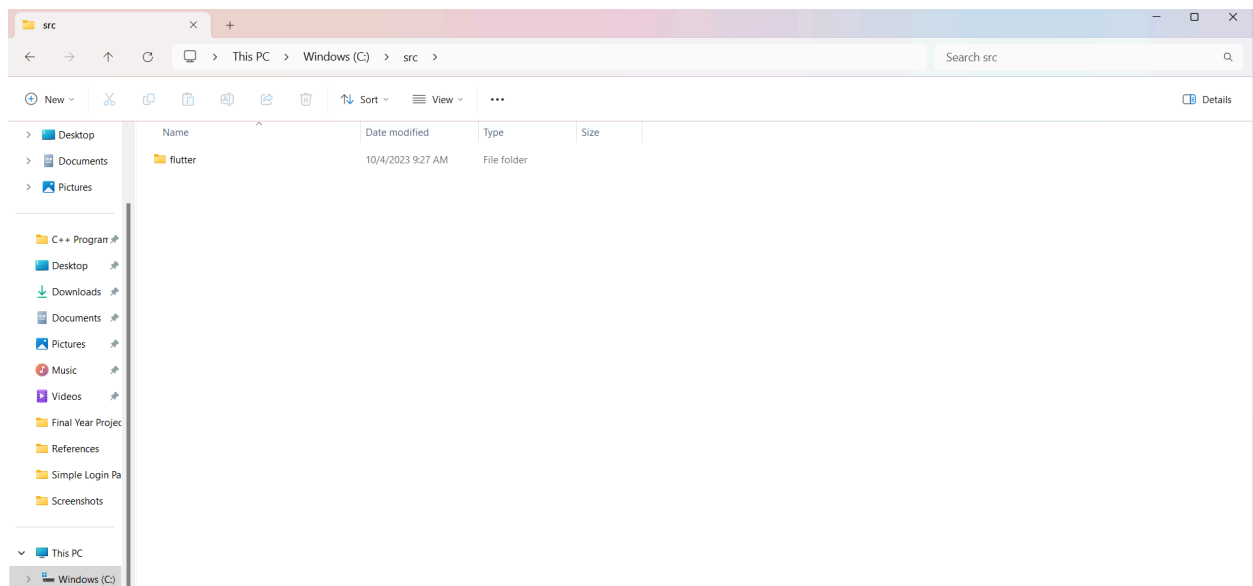
- The path contains special characters or spaces.
- The path requires elevated privileges.

As an example, `C:\Program Files\` fails both conditions.

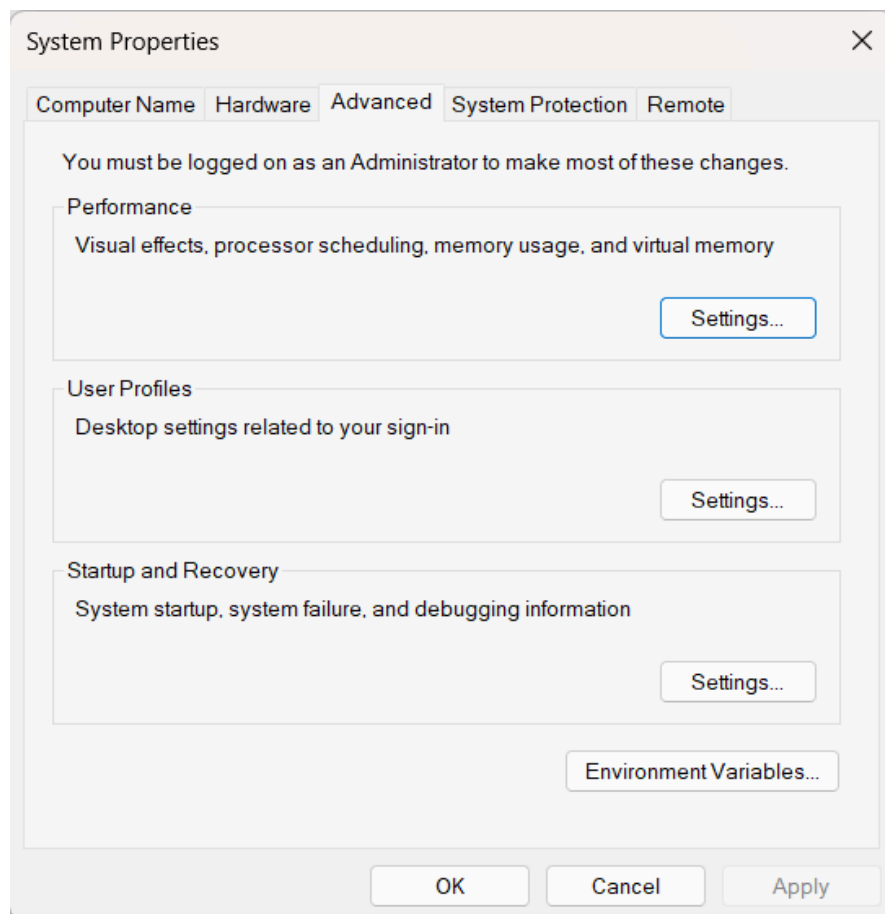
Contents

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- [Install the Flutter SDK](#)
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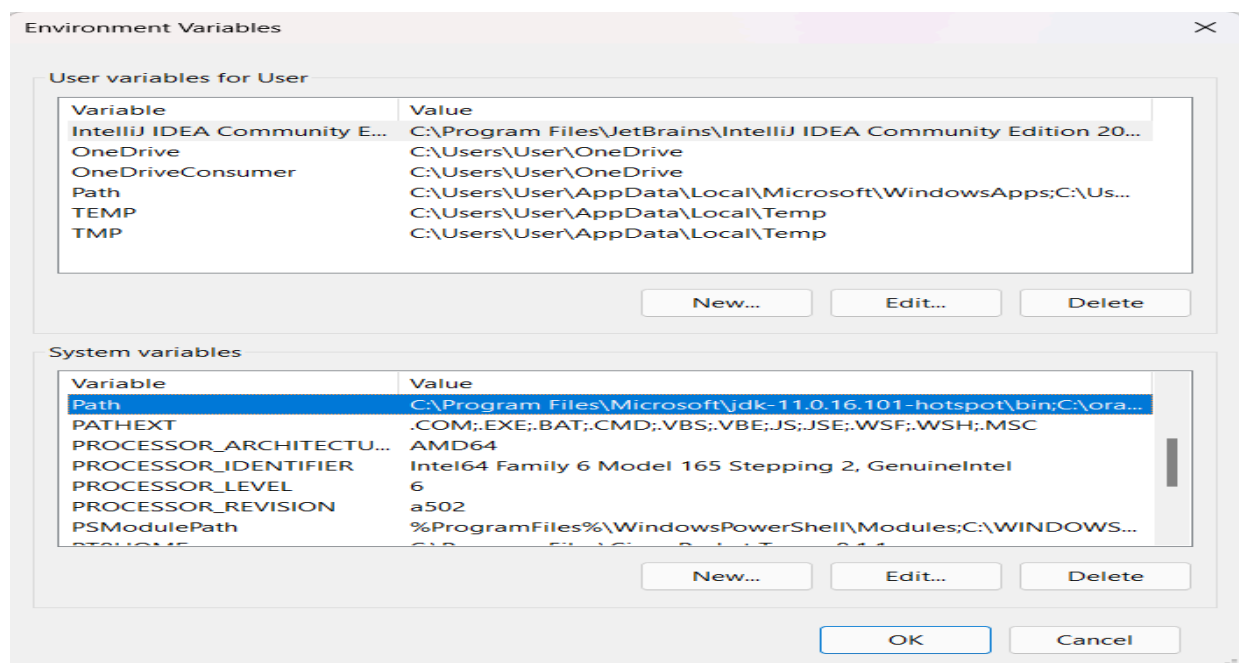
Step 3: After the installation is complete, create a new “src” folder in C: drive and place the Flutter SDK into the folder.



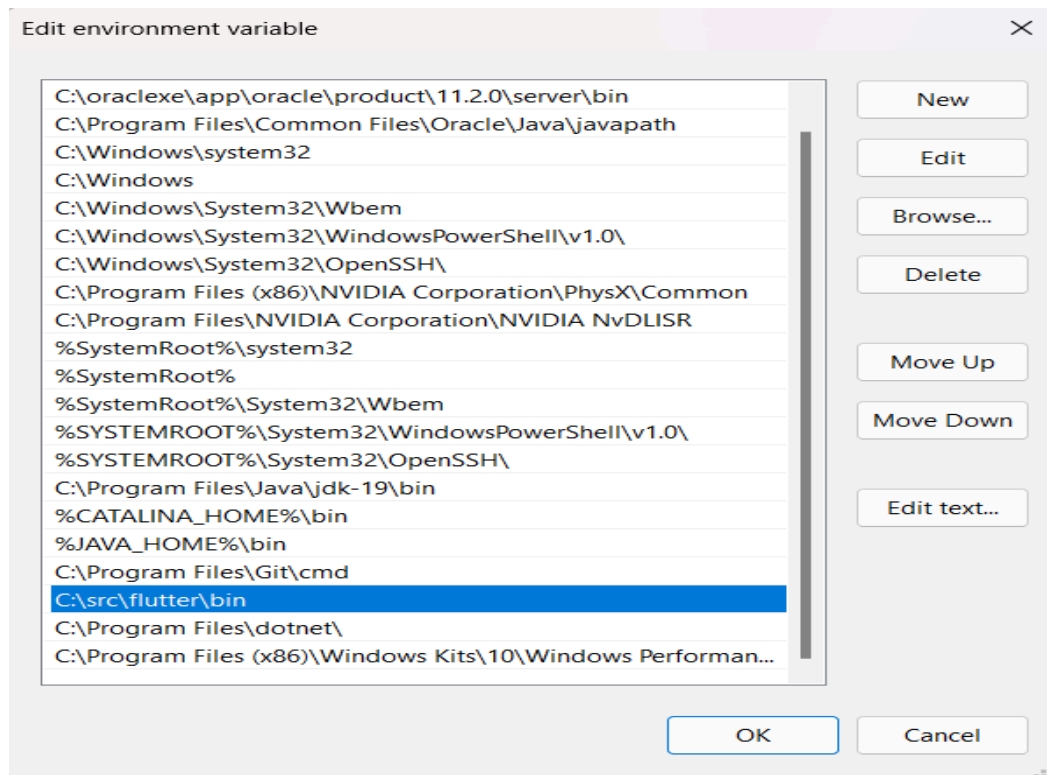
Step 4: Open System Properties and click the Environment Variables button



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



Press the “New” button. Copy and paste path to flutter\bin



Step 5: Open CMD and write a command “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.
  create          Create a new Flutter project.
  drive           Run integration tests for the project on an attached device or emulator.
  gen-l10n        Generate localizations for the current project.
  pub             Commands for managing Flutter packages.
  run             Run your Flutter app on an attached device.
  test            Run Flutter unit tests for the current project.

Tools & Devices
  attach          Attach to a running app.
  custom-devices  List, reset, add and delete custom devices.
  devices         List all connected devices.
  emulators       List, launch and create emulators.
  install         Install a Flutter app on an attached device.
  logs            Show log output for running Flutter apps.
  screenshot      Take a screenshot from a connected device.
  symbolize       Symbolize a stack trace from an AOT-compiled Flutter app.
```

Step 6: Write command “flutter doctor” to validate all components of a complete Flutter development environment for Windows.

```
C:\Windows\System32\cmd.exe - flutter doctor
Microsoft Windows [Version 10.0.22621.2861]
(c) Microsoft Corporation. All rights reserved.

C:\src\flutter> flutter doctor

A new version of Flutter is available!

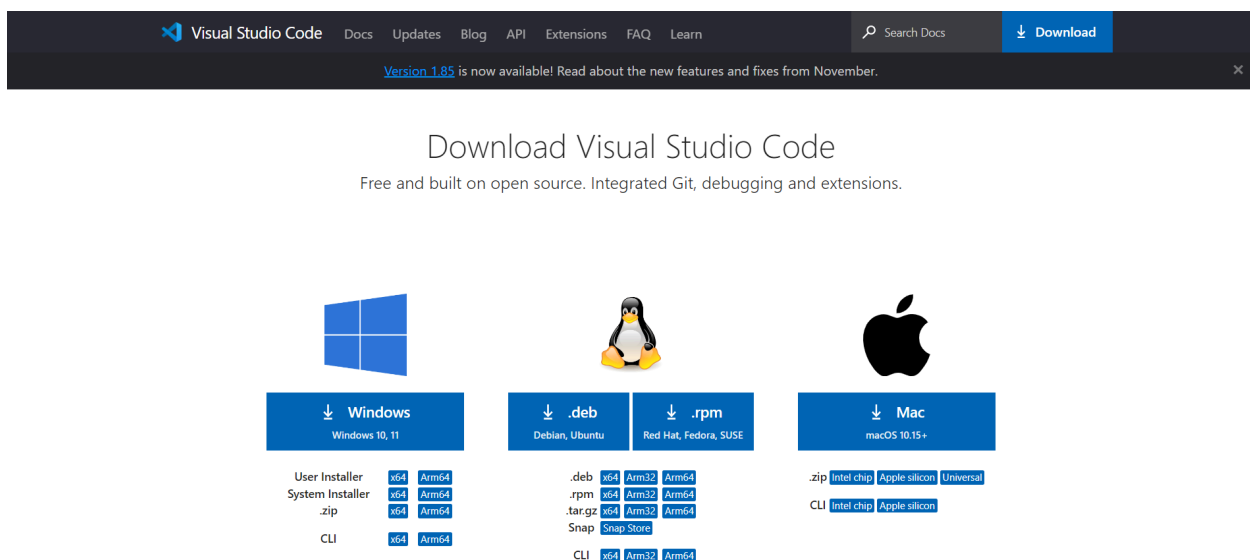
To update to the latest version, run "flutter upgrade".

Doctor summary (to see all details, run flutter doctor -v):
[✓] Flutter (Channel stable, 3.13.6, on Microsoft Windows [Version 10.0.22621.2861], locale en-US)
[✓] 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 17.7.5)
[✓] Android Studio (version 2022.3)
[✓] VS Code (version 1.83.1)
[✓] Connected device (3 available)
[✓] Network resources

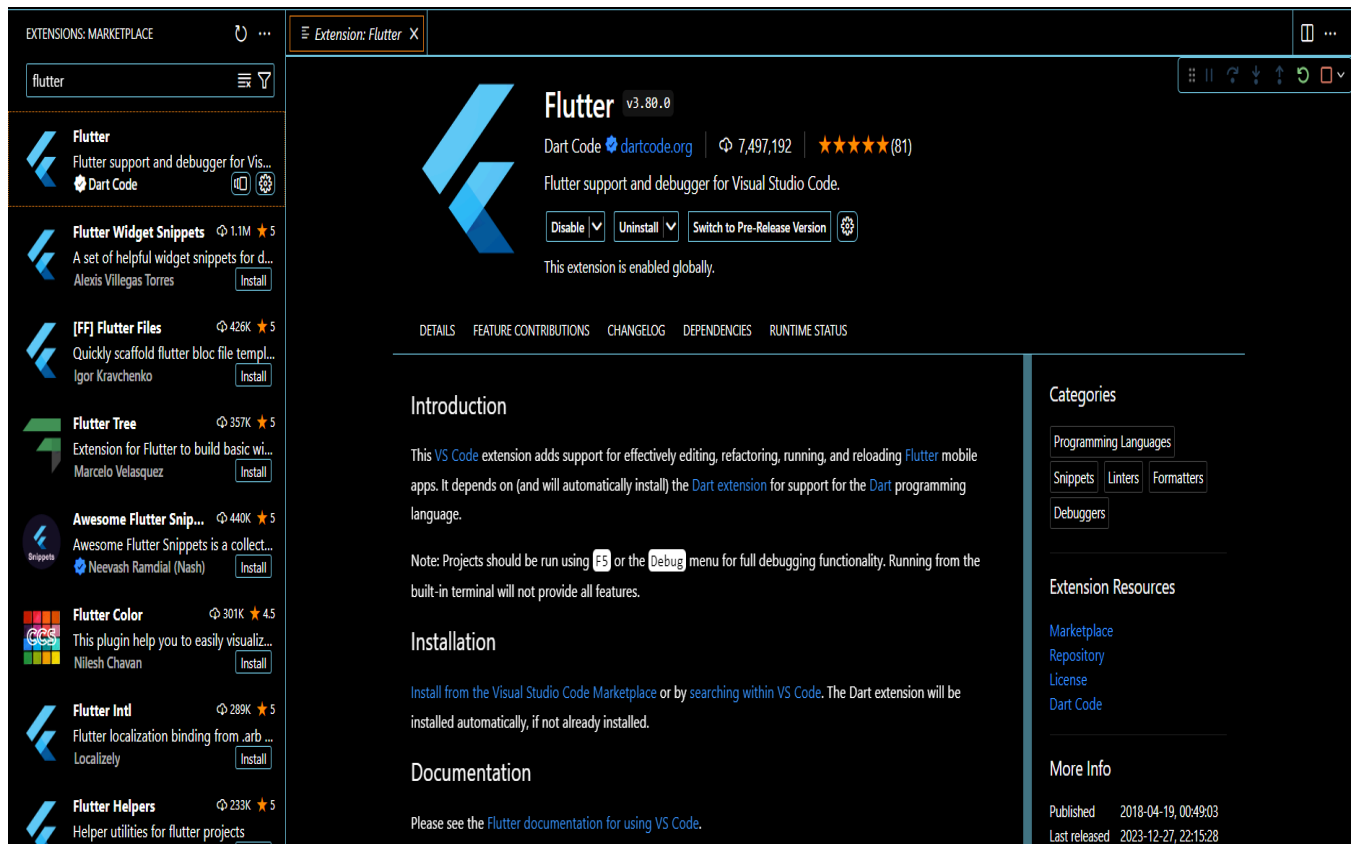
• No issues found!

C:\src\flutter>
```

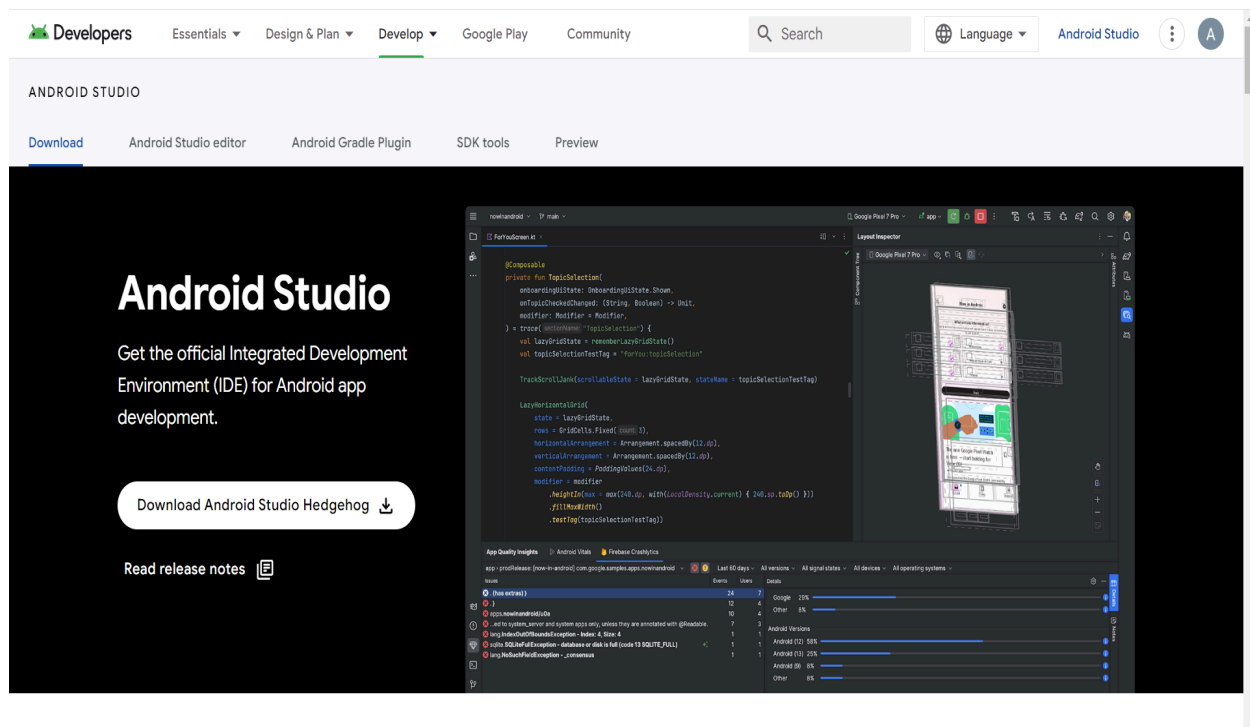
Step 7: Install Visual Studio Code at website <https://code.visualstudio.com/download>



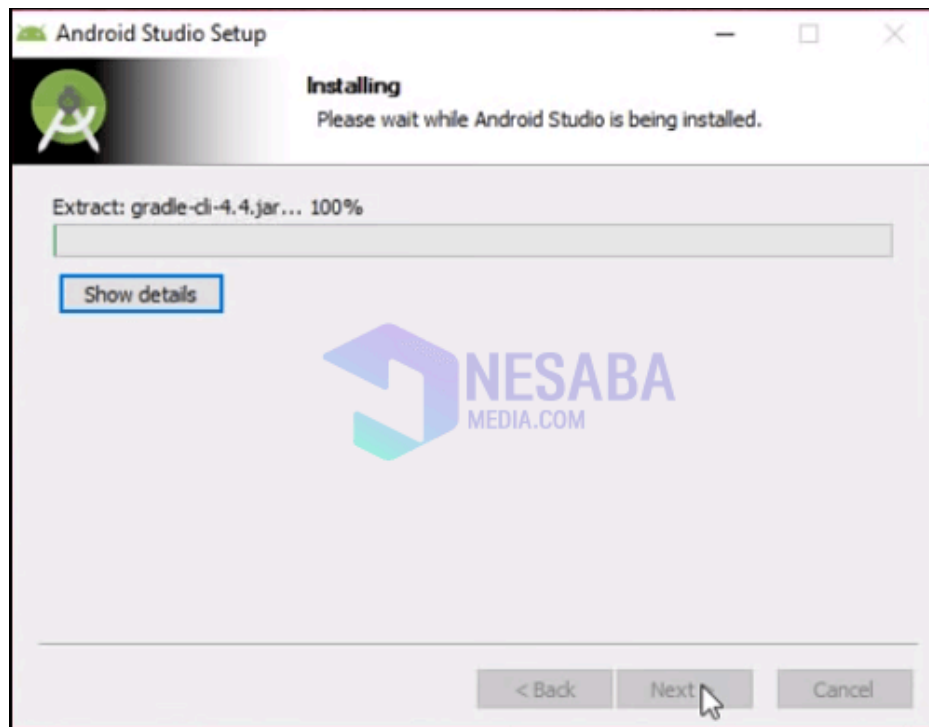
Step 8: Open the Visual Studio Code, and install Flutter extension



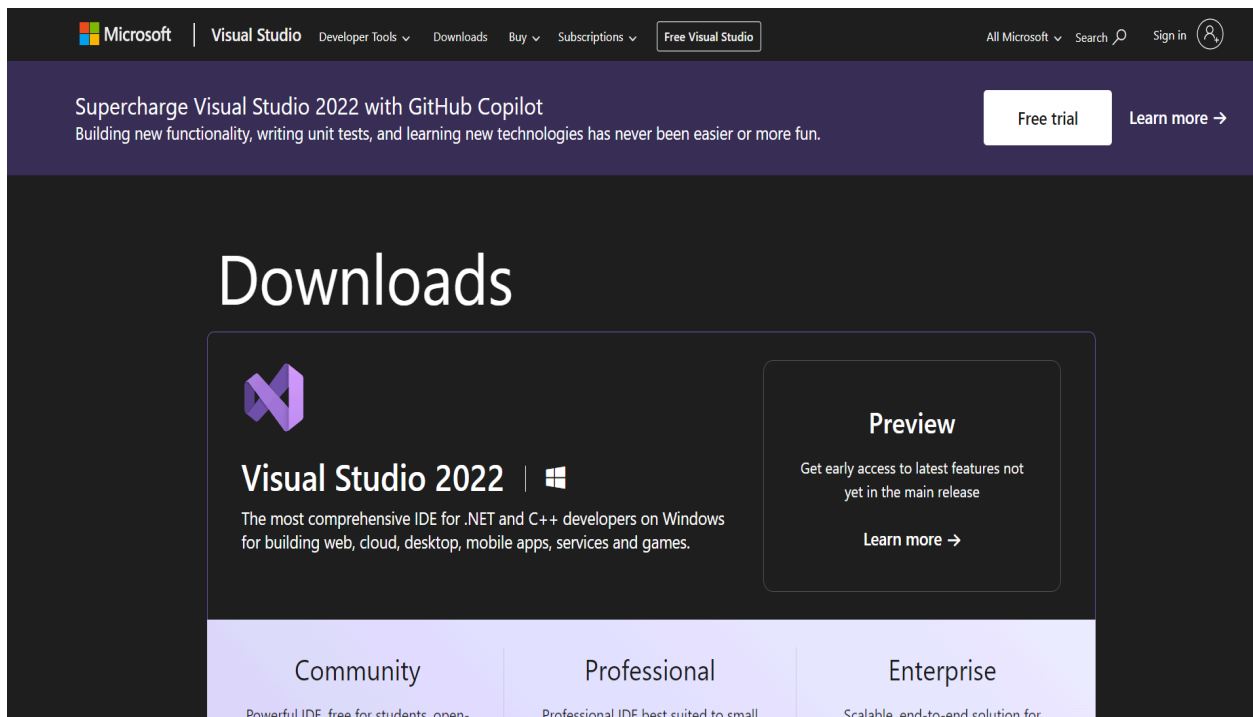
Step 9: Install Android Studio at <https://developer.android.com/studio>



Step 10: Set Up an Android Studio



Step 11: Go to website <https://visualstudio.microsoft.com/downloads/> to install Visual Studio Code 2022.



Step 12: Open command prompt and type “flutter doctor” once the Flutter is complete.

```
C:\Users\User>flutter doctor
Doctor summary (to see all details, run flutter doctor -v):
[✓] Flutter (Channel stable, 3.16.5, on Microsoft Windows [Version 10.0.22621.2861], locale en-US)
[✓] 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 17.7.5)
[✓] Android Studio (version 2022.3)
[✓] VS Code (version 1.85.1)
[✓] Connected device (3 available)
[✓] Network resources

• No issues found!
```