

# How to setup development environment.

## (A) How to Install Windows 11 from a USB Drive

### 1. CHECK FOR COMPATIBILITY

Before downloading and installing of window 11 on your computer, one has to see if his/her device meet the compatibility issues.

- 64-bit processor with at least 2 cores and 1 GHz processing speed
- 4GB RAM
- 64GB storage space (in addition to the space for the operating system installation software)
- DirectX 12 or later graphics card with WDDM 2.0 driver
- A high-def display of 720p
- TPM 2.0
- Secure Boot-capable UEFI firmware

### 2. CHECK YOUR DEVICE FOR AVAILABLE MEMORY

f you haven't cleaned up your computer's storage in a while, now is the best time. You'll need at least 5.1GB of extra storage space on all of the devices involved in this process because that's the Windows 11 ISO file size.

You need 5.1GB free on the computer you're downloading the file to, the USB drive, and the computer on which you're installing the operating system. Not all USB drives have this much memory, and drives with just a bit more memory (6GB, for example) may not meet your needs. To be safe, buy a USB device with ample space to spare.

### 3. DOWNLOAD THE ISO FILE TO YOUR DEVICE (ANOTHER DEVICE)

Unlike prior versions of Microsoft Windows, you don't need to sign in to your Microsoft account to download the ISO file. Just follow these steps:

1. Visit the [Windows 11 product download page](#)
2. Navigate to the **Create Windows 11 installation** media link, and click **Download Now**.
3. The download for the Media Creation Tool will begin.
4. Once the tool downloads, double-click on the file in your download and run it. You may be asked for permission to run the program, so go ahead and approve it.
5. Now that you have the Media Creation Tool running, follow the directions to download the ISO file (the file used to install Windows 11) to your device. Make sure you select USB Flash Drive when prompted to download the file directly to your USB drive and format it properly for installation later.

### 4. REMOVE THE USB

When you receive a notification that the file transfer is finished, use the "eject" function on your USB utility to prepare it for removal before you pull it out of the computer.

## 5. RUN WINDOWS 11 FROM A USB

With the Windows 11 installation file on your thumb drive, you're almost there! The USB flash drive should have been formatted properly when you used the **Windows Media Creation Tool**. You do not have to use a third-party application to make it bootable.

- Plug the USB drive into the computer and restart the computer.
- Before the computer fully turns back on, hold the F8 key. The exact command will depend on your computer. **Note:** You must do this before the Windows or manufacturer's brand logo appears on your screen. If you see the logo, you waited too long and must restart again.
- When prompted, choose the boot order and select the USB drive option as first. You'll then be told to press any key to continue booting from your specified location.
- Your computer should start up as normal, but with Windows 11 prepared to install and run at the startup screen.

## 6. SET UP WINDOWS 11

Now that your PC is running on Windows 11, you need to set up your account and preferences for each time you log on. Many of these preferences are similar to Windows 10, but there are some differences.

To start using Windows 11, choose the language you want for installation, your time zone, currency format, and how you want to input data (for most people, this is the keyboard). There are some preset definitions to set, but you may not need to tinker with these additional settings.

With everything specified, click the **Install Now** button.

## 7. WINDOWS 11 VERSIONS

You'll receive a prompt to pick your version of Windows 11 before the installation completes. If you were eligible for a free upgrade, this should match the version you had for Windows 10. So, Windows 10 Home users would pick Windows 11 Home, Windows 10 Pro users would pick [Windows 11 Pro](#), and so on.

## FINAL STEPS

Select the location for your Windows. Pick the partition designed for your operating system and click **Next**.

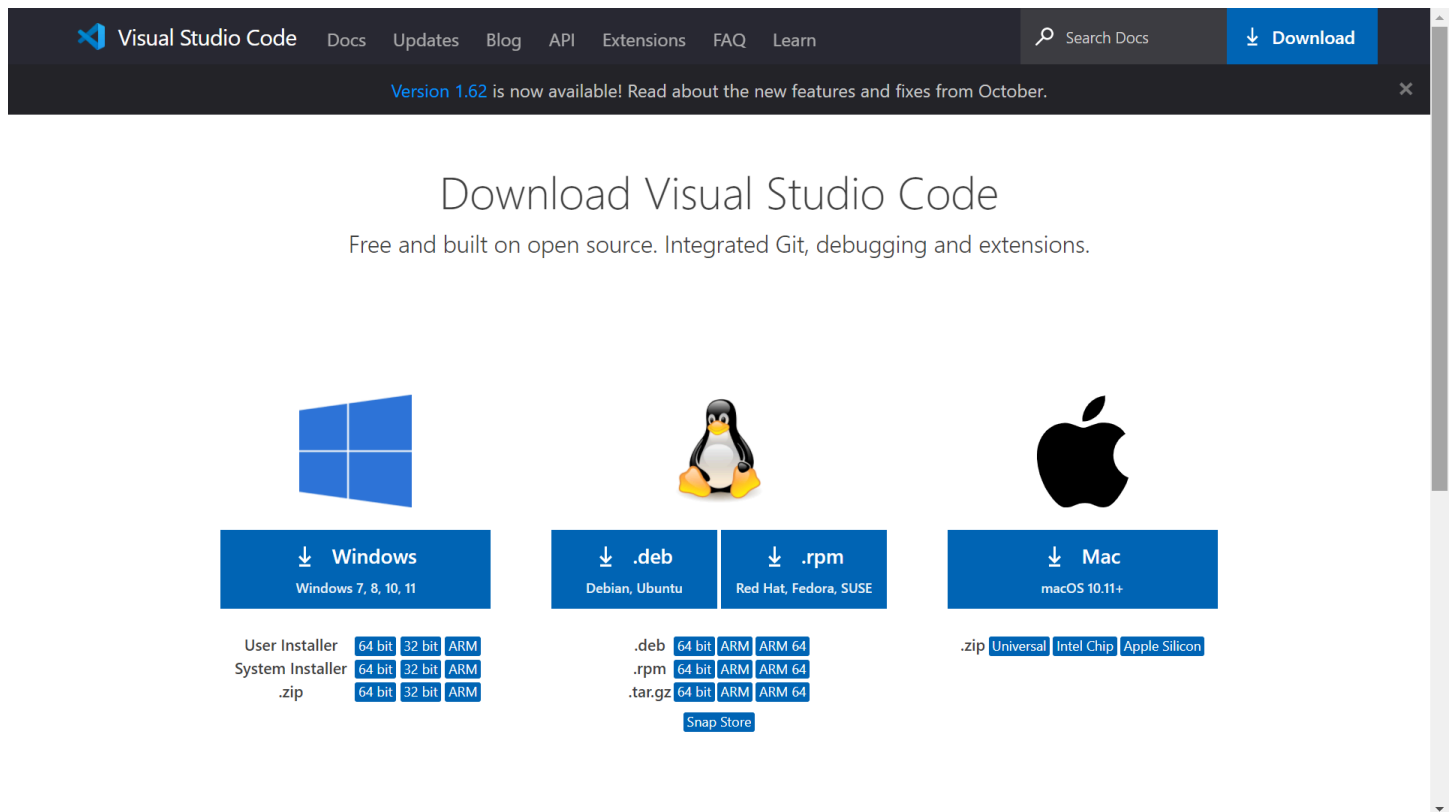
It will take some time to finish the installation process. Your computer will also reboot at least once. When it's done, the new login screen will appear.

Learning to use the Windows 11 features may take time, but the improvements are significant and, as many have agreed, well worth it!

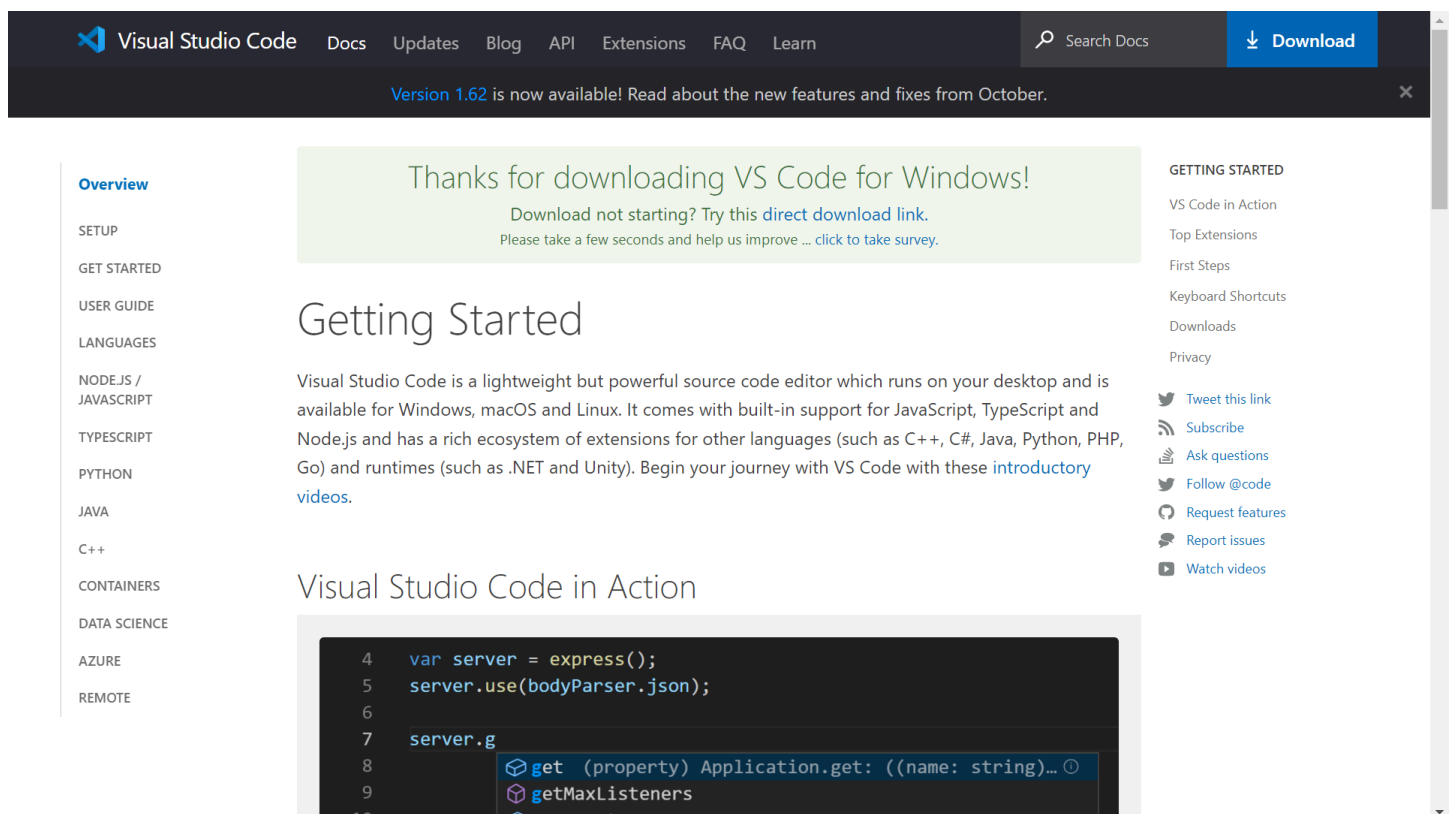
## (B) HOW TO INSTALL TEXT EDITOR (VISUAL STUDIO CODE)

Visual studio code can be found in the following link .

<https://code.visualstudio.com/Download>



2. Download process will start.



3. Once the download is complete. Open the file and accept the agreement.

## License Agreement

Please read the following important information before continuing.



Please read the following License Agreement. You must accept the terms of this agreement before continuing with the installation.

*This license applies to the Visual Studio Code product. Source Code for Visual Studio Code is available at <https://github.com/Microsoft/vscode> under the MIT license agreement at <https://github.com/microsoft/vscode/blob/master/LICENSE.txt>. Additional license information can be found in our FAQ at <https://code.visualstudio.com/docs/supporting/faq>.*

## MICROSOFT SOFTWARE LICENSE TERMS

## MICROSOFT VISUAL STUDIO CODE

☐ I accept the agreement

☒ I do not accept the agreement

Next >

Cancel

4. Select the drive location where you need to install the VS Code.

## Select Destination Location

Where should Visual Studio Code be installed?



Setup will install Visual Studio Code into the following folder.

To continue, click Next. If you would like to select a different folder, click Browse.

C:\Users\sysadmin\AppData\Local\Programs\Microsoft VS Code\

Browse...

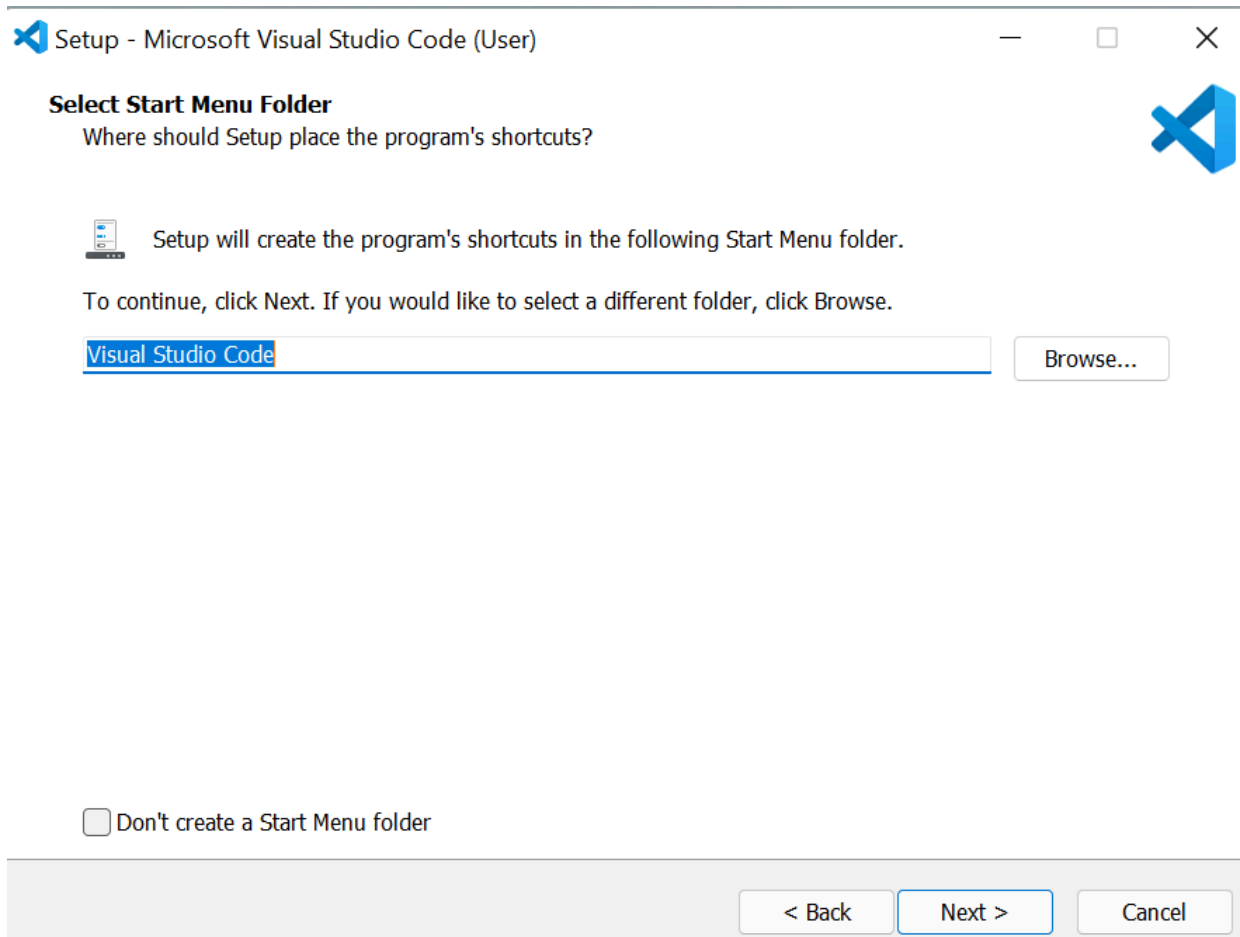
At least 306.2 MB of free disk space is required.

< Back

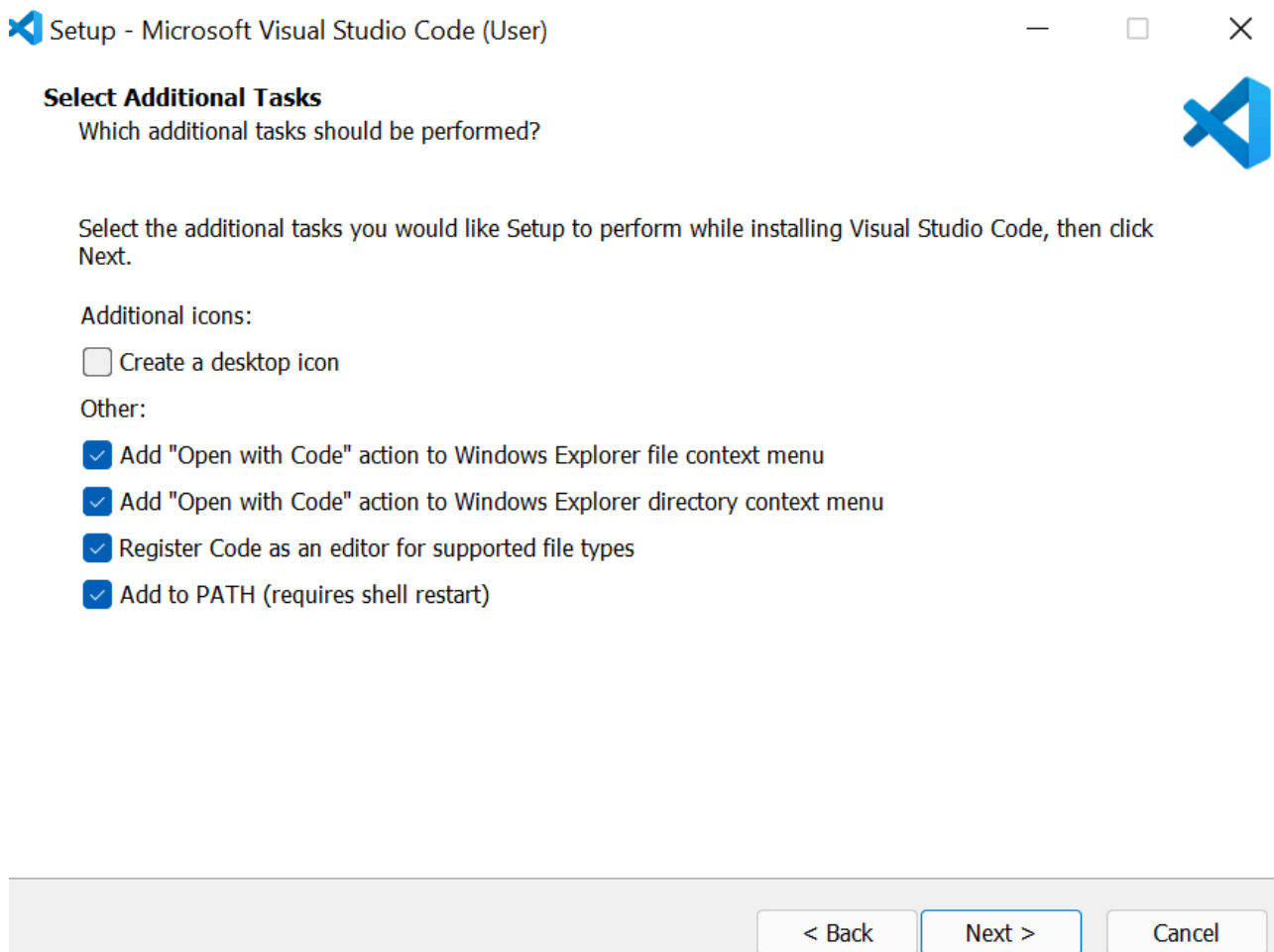
Next >

Cancel

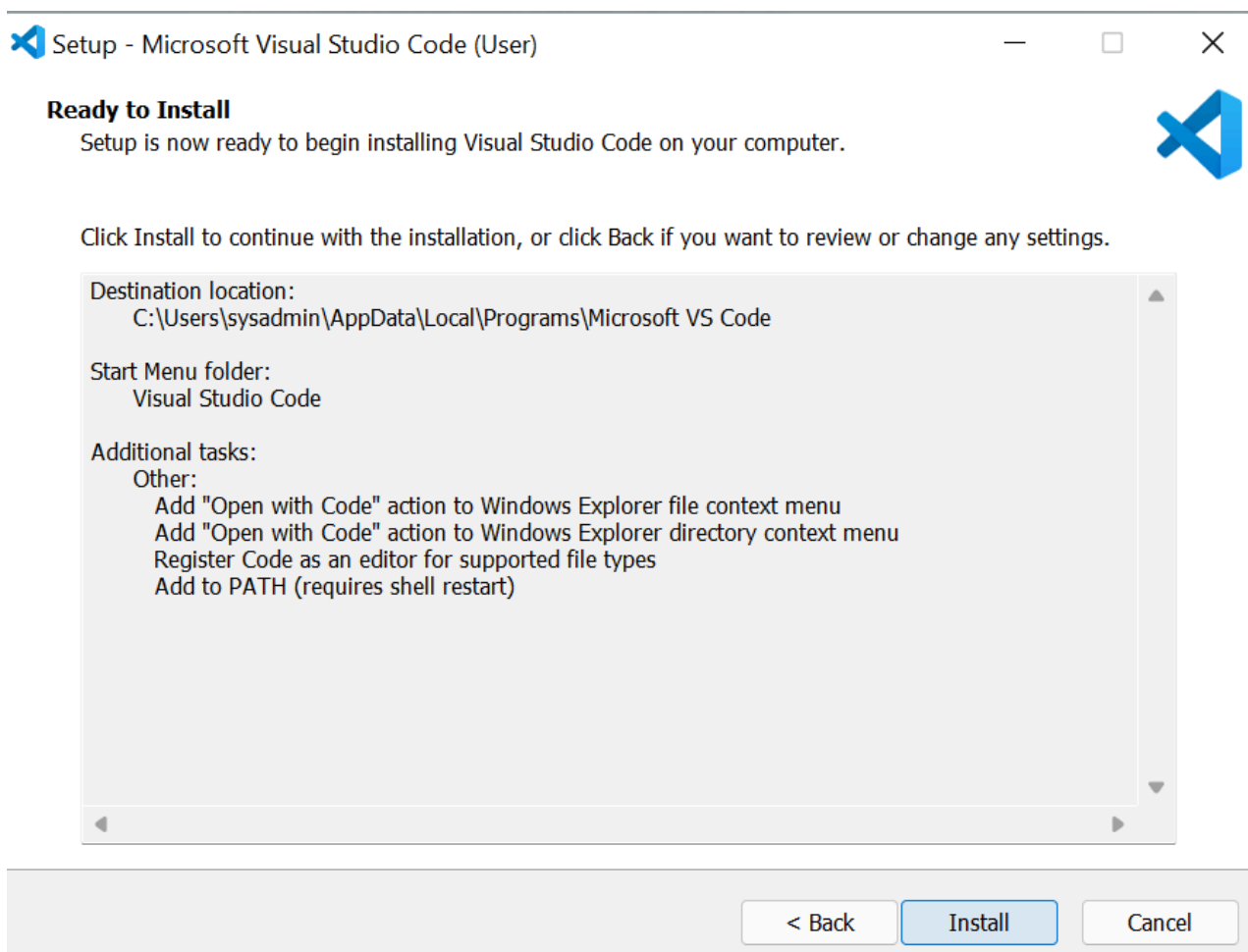
5. Select the folder name for the VS Code setup files.



6. Select the additional task, you want to do by the installer. I wanted to have "Open with Code" added to both the File and Directory content menu, hence I selected those.



7. Check if all the settings. Click on "< Back" if you need to change anything.



8. Click on "Install", and the installation process will start.

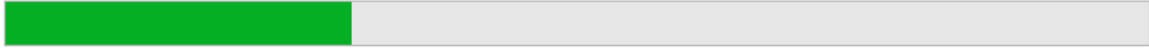
**Installing**

Please wait while Setup installs Visual Studio Code on your computer.



Extracting files...

C:\Users\sysadmin\AppData\Local\Programs\Microsoft VS Code\Code.exe



Cancel

9. After installation, click "Finish".

## Completing the Visual Studio Code Setup Wizard

Setup has finished installing Visual Studio Code on your computer. The application may be launched by selecting the installed shortcuts.

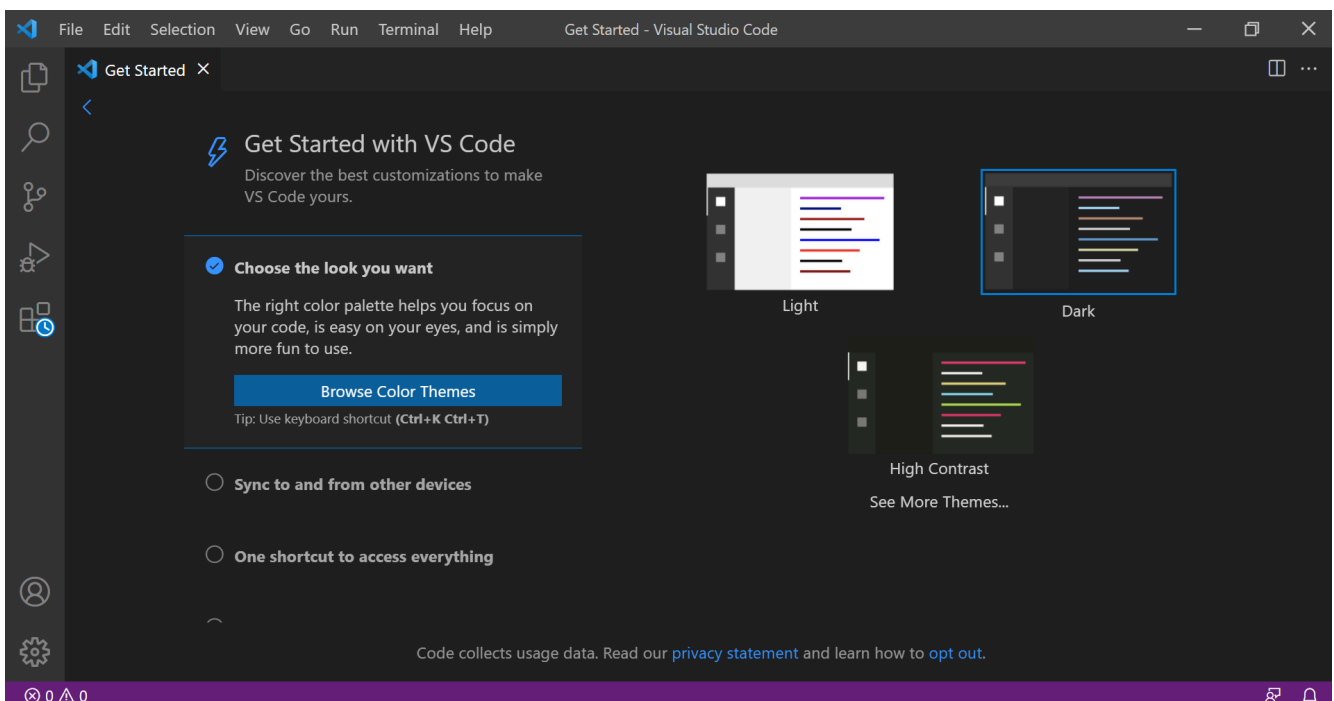
Click Finish to exit Setup.



☒ Launch Visual Studio Code

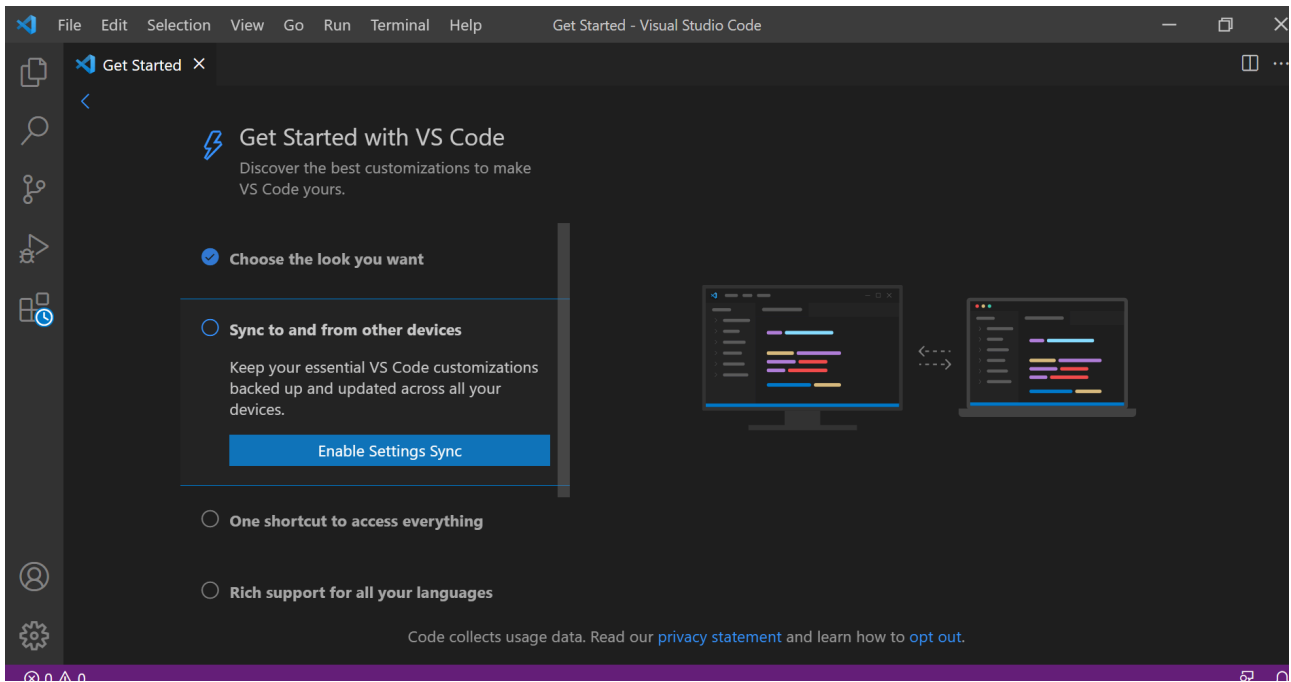
Finish

10. After VS Code opens, select the color them.



You can sync all your setting either with GitHub or Microsoft Account.





That is all about installing visual studio code.

## ( c ) HOW TO SET UP VERSION CONTROL SYSTEM (GIT)

### 1.Install Git on Windows

1. Navigate to the latest **[Git for Windows installer](#)** and download the latest version.
2. Once the installer has started, follow the instructions as provided in the **Git Setup** wizard screen until the installation is complete.
3. Open the windows command prompt (or **Git Bash** if you selected not to use the standard Git Windows Command Prompt during the Git installation).
4. Type `git version` to verify Git was installed.

### 2.Install Git on Windows through Visual Studio Code

GitHub integration is provided through the [GitHub Pull Requests and Issues extension](#).

To get started with the GitHub in VS Code, you'll need to create an account and install the GitHub Pull Requests and Issues extension.

Once you've installed the [GitHub Pull Requests and Issues extension](#), you'll need to sign in. Follow the prompts to authenticate with GitHub and return to VS Code.

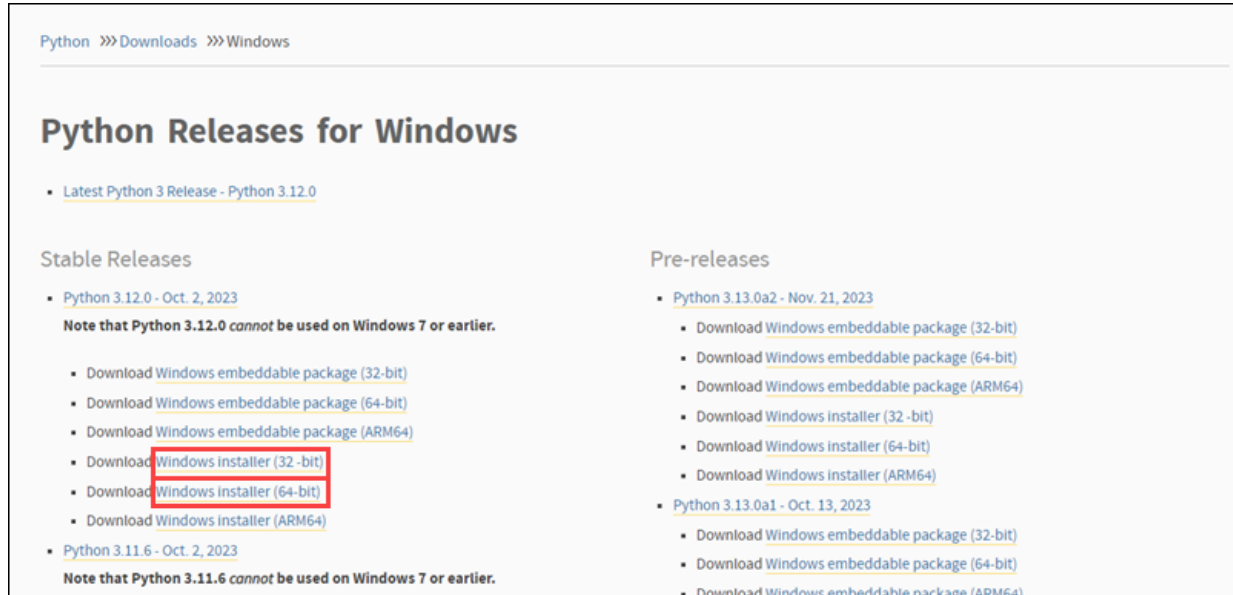
## PYTHON INSTALLATION ON WINDOWS

### • Select Python Version

I recommend **Python 3**, as Python 2 reached its end of life in 2020.

## • Download Python Executable Installer

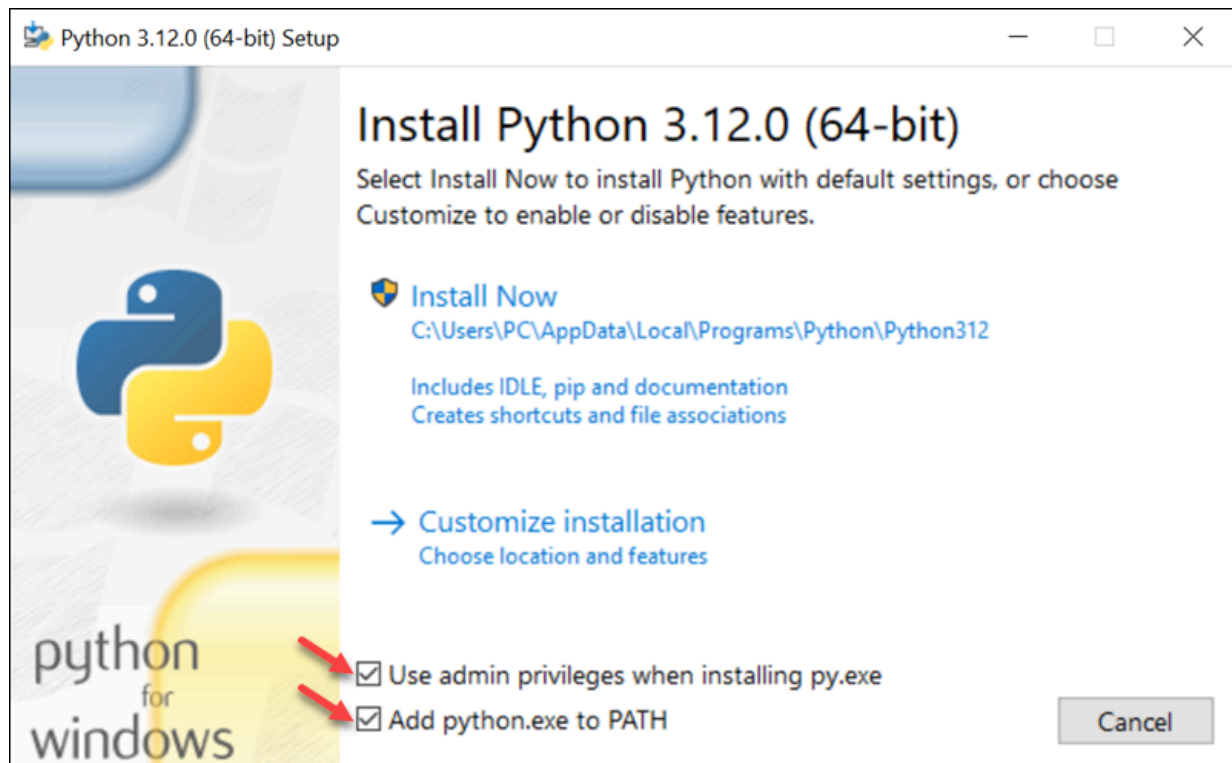
1. Open a web browser and navigate to the [Downloads for Windows section](#) of the official Python website.
2. Locate the desired Python version.



## • Run Executable Installer

The steps below guide you through the installation process:

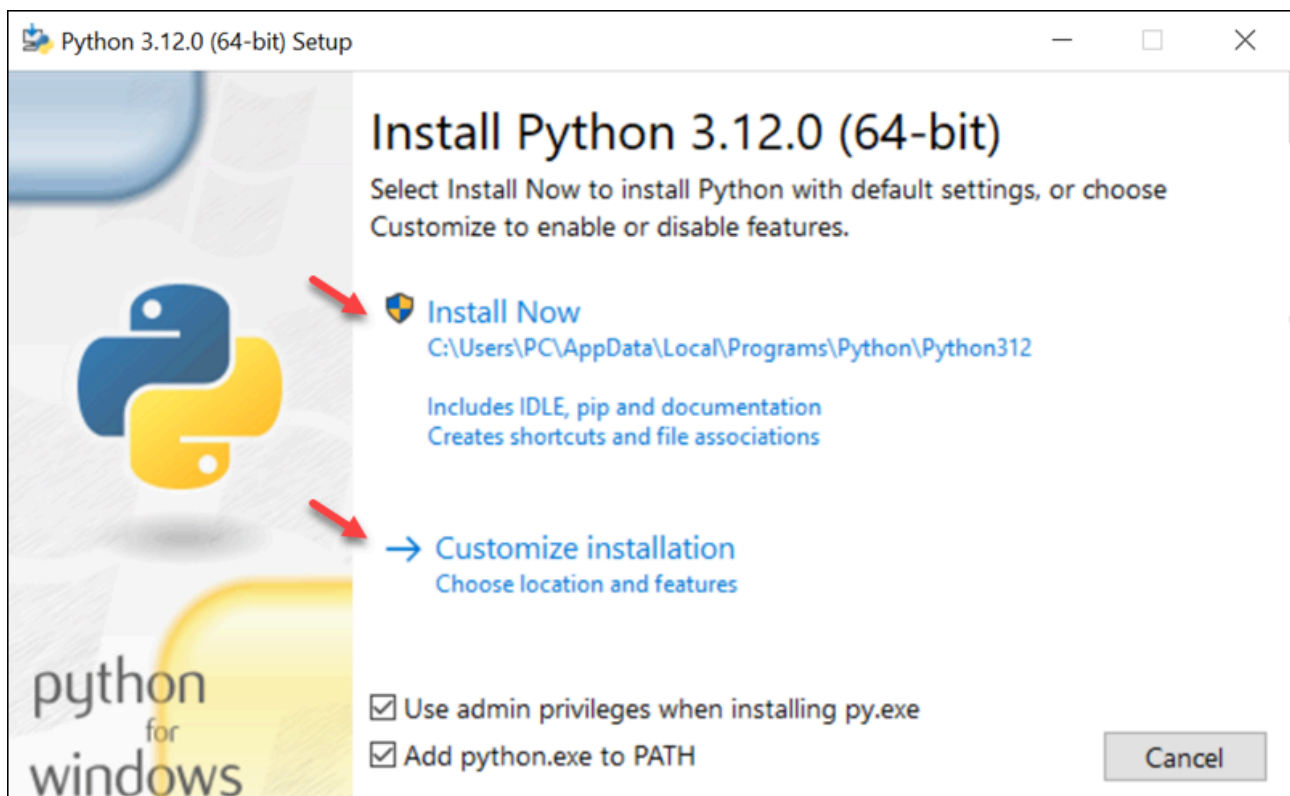
1. Run the downloaded **Python Installer**.
2. The installation window shows two checkboxes:
  - **Admin privileges.** The parameter controls whether to install Python for the current or all system users. This option allows you to change the installation [folder](#) for Python.
  - [Add Python to PATH.](#) The second option places the executable in the PATH variable after installation. You can also add Python to the PATH environment variable manually later.



For the most straightforward installation, we recommend ticking both checkboxes.

3. Select the **Install Now** option for the recommended installation (in that case, skip the next two steps).

To adjust the default installation options, choose **Customize installation** instead and proceed to the following step.

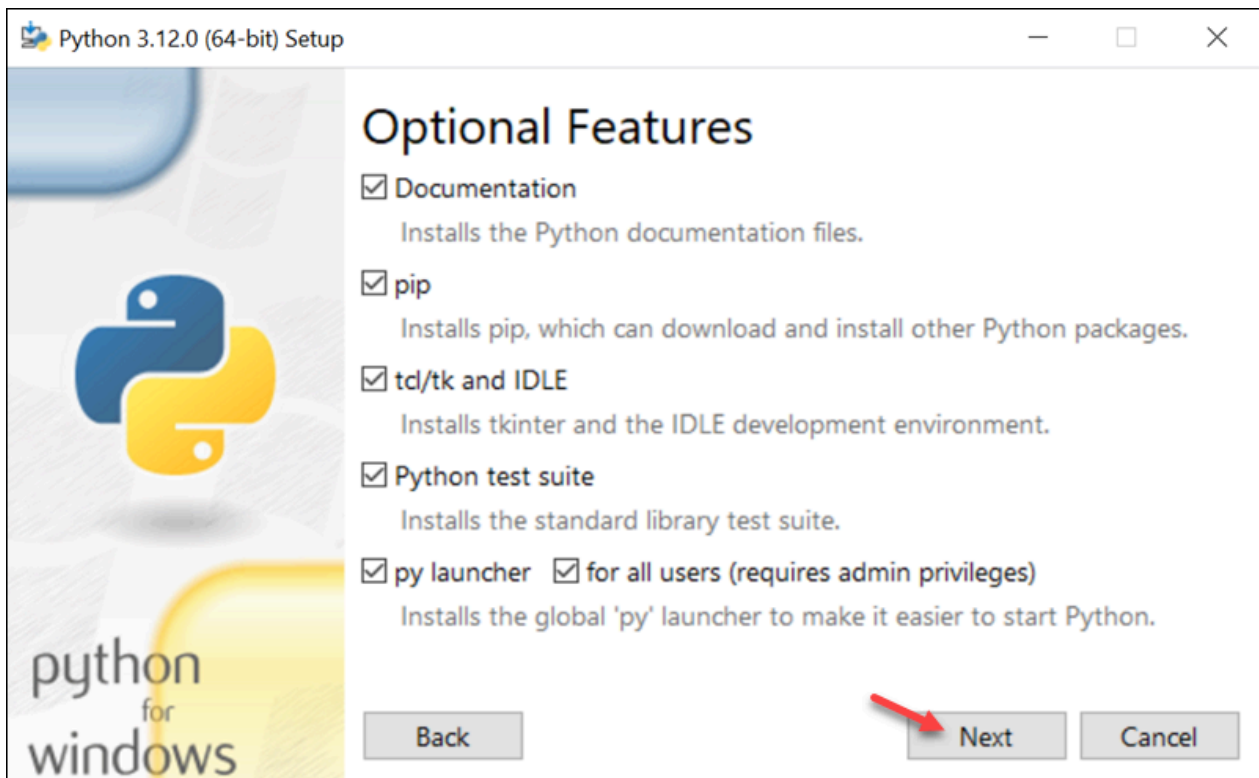


The default installation installs Python to `C:\Users\[user]\AppData\Local\Programs\Python\Python[version]` for the current user. It includes

IDLE (the default [Python editor](#)), the PIP package manager, and additional documentation. The installer also creates necessary shortcuts and file associations.

Customizing the installation allows changing these installation options and parameters.

4. Choose the optional installation features. Python works without these features, but adding them improves the program's usability.

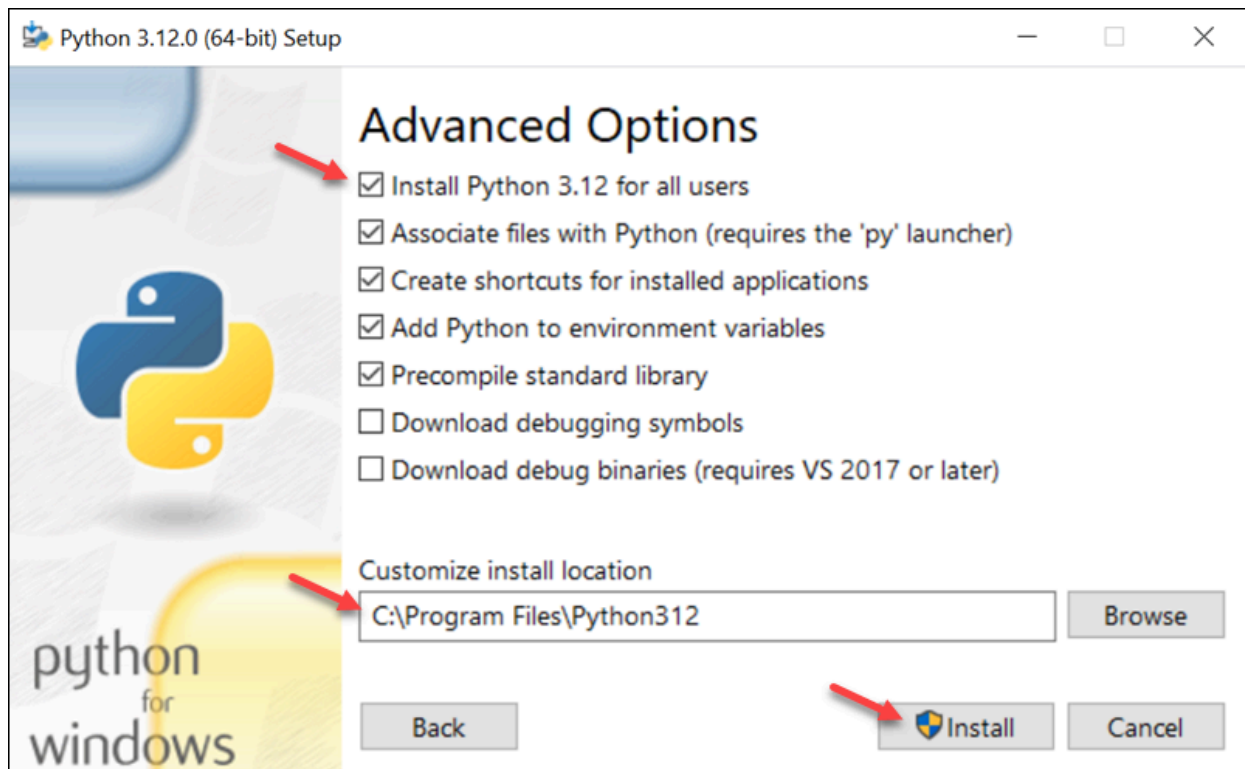


Click **Next** to proceed to the Advanced Options screen.

5. The second part of customizing the installation includes advanced options.

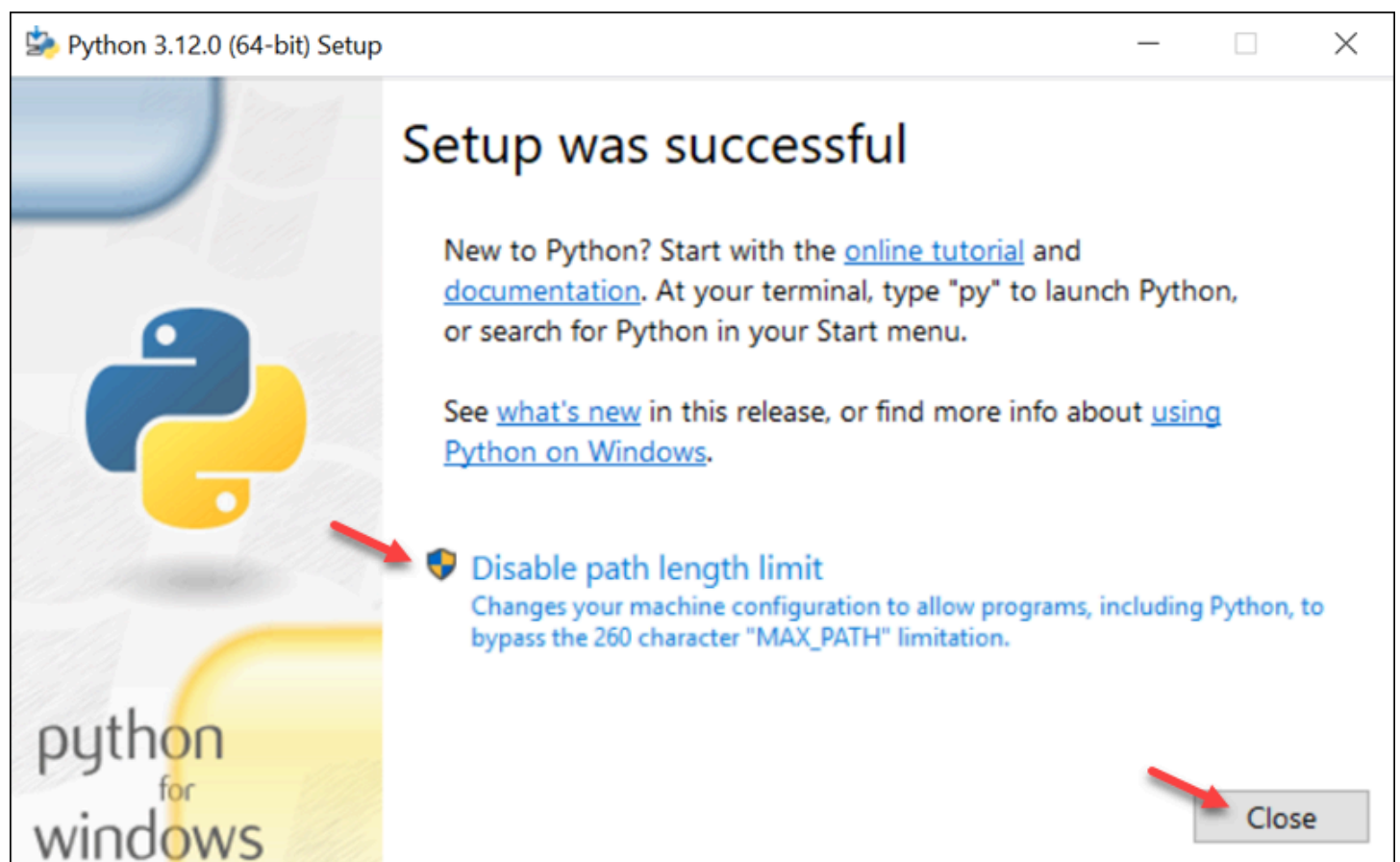
Choose whether to install Python for all users. The option changes the install location to *C:\Program Files\Python[version]*. If selecting the location manually, a common choice is *C:\Python[version]* because it avoids spaces in the path, and all users can access it. Due to administrative rights, both paths may cause issues during package installation.

Other advanced options include creating shortcuts, file associations, and adding Python to PATH.



After picking the appropriate options, click **Install** to start the installation.

6. Select whether to disable the path length limit. Choosing this option will allow Python to bypass the 260-character **MAX\_PATH** limit.



## HOW TO INSTALL PACKAGE MANAGER (PIP) IN PYTHON

Open command prompt and type the following command:

**“pip --version”**

If pip is installed in your pc the following message will display

**“C:\Users\DELL>pip --version**

**pip 24.0 from C:\Users\DELL\AppData\Local\Programs\Python\Python312\Lib\site-packages\pip (python 3.12)”**

that is the message my pc has produced as an output of command prompted indicating pip is installed.

## **HOW TO EXPLORE EXTENSION AND PLUGINS ON CHOSEN TEXT EDITOR.**

My chosen text editor is **Visual studio code** it has several plugins include

- DART
- DOCKER
- FLUTTER
- JUPYTER
- GIT HUB PULL REQUEST

Also it has several plugins embedded in it such as

- Gitlens
- Vscode-icons
- Spell checker

the above mentions are among the plugins available in visual studio code text editor.

## **HOW TO INSTALL MySQL ON YOUR COMPUTER(WINDOWS)**

1. Open up a browser and go to: **<http://dev.mysql.com/downloads/mysql/>**
2. Scroll to the list of available downloads. Click the 'Download' button next to the applicable download.
  - Windows 64 bit - Windows (x86, 64-bit), MSI
  - Windows 32 bit - Windows (x86, 32-bit), MSI
3. Mine is 64 bit so i will choose installer for 64bit.
4. To begin the download, you must either login using pre-existing credentials by clicking the 'Proceed' button under the New Users section or click the 'No thanks, just start my download' link at the bottom of the screen.
5. Save the file to your desktop.
6. Double click the file.
7. On the Welcome screen click '**Next**'.
8. Accept the terms in the license agreement and click '**Next**'.

9. When presented with a list of available Setup Types, Select '**Typical**'.
10. When ready to install, click '**Install**'.
11. If a system message pops up asking if you want the software to be installed on your machine, click '**Yes**'.
12. If a MySQL enterprise pop up window appears, click '**Next**' until it disappears.
13. When the Setup Wizard has completed, Click '**Finish**'.
14. If you receive another pop up message asking if you want the software to be installed on your machine, click '**Yes**'.
15. When the Server Instance Configuration Wizard displays, Click '**Next**'.
16. When displayed the available Server Instance Configuration types select 'Standard Configuration' and click '**Next**'.
17. When on the Windows Options scree, keep 'Install as a Service' selected as well as 'Launch the MySQL Server automatically'. Select the 'Include Bin Directory in Windows PATH' option and select '**Next**'.
18. On the Security Options scree, specify a new root password and select 'Next'. Remember this password as it will be needed later!
19. When the Ready to Execute screen displays, click '**Execute**'.
20. After all the Configuration steps have successfully run, Click '**Finish**'.
21. You have successfully installed **MySQL**.

### **Reflection on challenges and solutions encountered.**

**As a junior software developer I had encountered some several challenges when dealing with setting up environment as a developer.**

1. First I struggled on downloading **window 11** and install it in the computer especially the part that needed me to create bootable flash drive, It was a new experience but I manage to succussed.
2. Another challenge encountered was during installation of MySQL, previously I had installed SQL lite which was interfering with the new installation, I had to uninstall sql lite using control panel but I encountered some errors when installing MySQL until I decided to used powerful uninstaller (Iobit)