

Python Setup on Windows

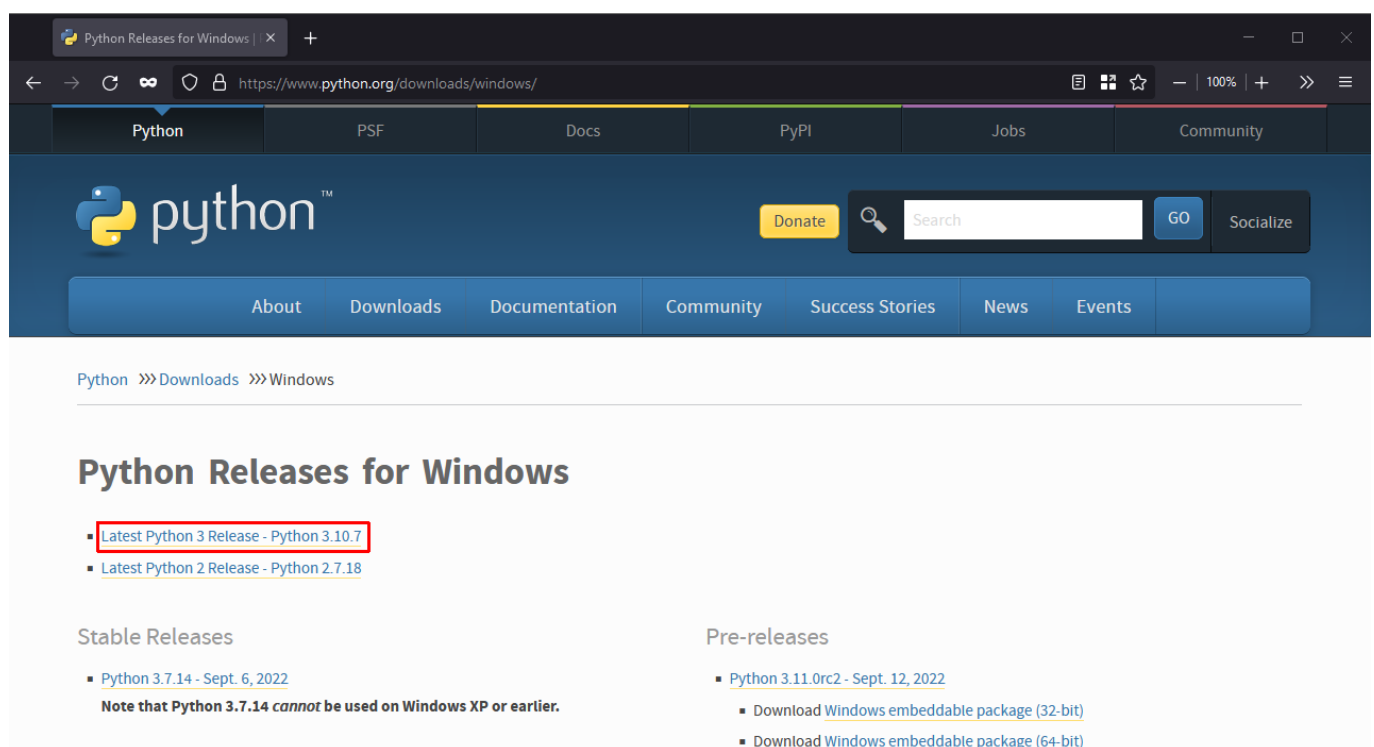
Only complete these steps if Python isn't already installed!

Downloading Python

We will download the Python installer file from the Python website
(<https://www.python.org/downloads/windows/>).



The current stable version of Python (as of September 2022) is Python 3.10.xx. Note, this may be different at the time of reading but we are looking for the Latest Python 3 Release.



Clicking on the link highlighted in red will take us to the following page

Python Release Python 3.10.7 | X +

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https://www.python.org/downloads/release/python-3107/

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conjugate properties maintain their approximate meaning, as the mathematical framework of quantum physics does not support the notion of simultaneously well-defined conjugate properties expressed by a single value. The uncertainty principle implies that it is in general not possible to predict the value of a quantity with arbitrary certainty, even if all initial conditions are specified.

[Full Changelog](#)

Files

Version	Operating System	Description	MD5 Sum	File Size	GPG	Sigstore
Gzipped source tarball	Source release		1aea68575c0e97bc83ff8225977b0d46	26006589	SIG	CRT SIG
XZ compressed source tarball	Source release		b8094f007b3a835ca3be6bdf8116cccc	19618696	SIG	CRT SIG
macOS 64-bit universal2 installer	macOS	for macOS 10.9 and later	4c89649f6ca799ff29f1d1dffcb9393	40865361	SIG	CRT SIG
Windows embeddable package (32-bit)	Windows		7e4de22bfe1e6d333b2c691ec2c1fcee	7615330	SIG	CRT SIG
Windows embeddable package (64-bit)	Windows		7f90f8642c1b19cf02bce91a5f4f9263	8591256	SIG	CRT SIG
Windows help file	Windows		643179390f5f5d9d6b1ad66355c795bb	9355326	SIG	CRT SIG
Windows installer (32-bit)	Windows		58755d6906f825168999c83ce82315d7	27779240	SIG	CRT SIG
Windows installer (64-bit)	Windows	Recommended	bfbe8467c7e3504f3800b0fe94d9a3e6	28953568	SIG	CRT SIG

https://www.python.org/ftp/python/3.10.7/python-3.10.7-amd64.exe

In this page, click on the Windows Installer (64-bit) which will download the installer file on to your computer.

Note: By default, this will be downloaded to your Downloads folder.

Downloads

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📁 This PC > Downloads >

★ Quick access

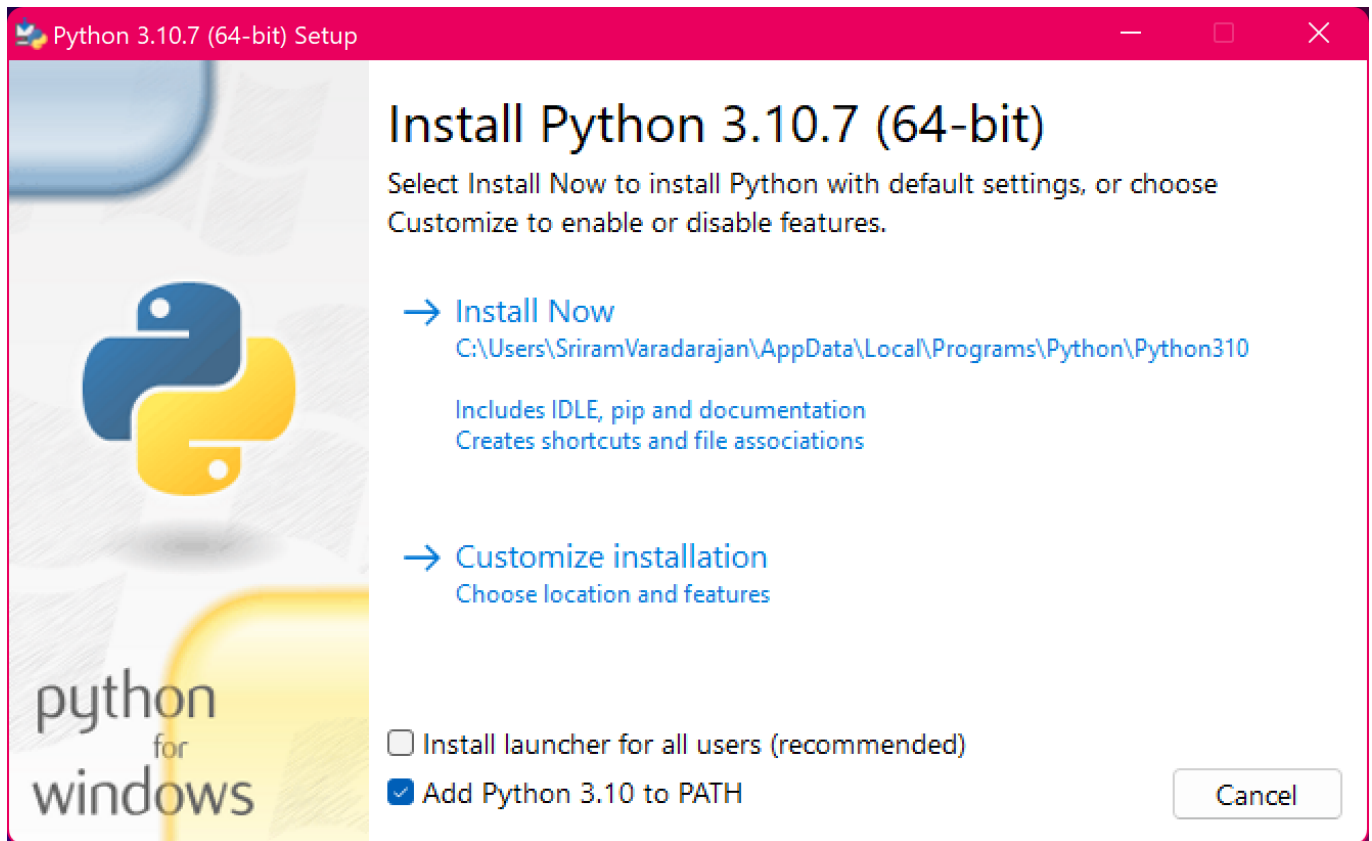
📁 Windows (C:)

📁 Videos

Name	Date modified	Type	Size
Yesterday (1)			
python-3.10.7-amd64.exe	22/09/2022 06:28	Application	28,275 KB

Installing Python

Double click on this file to start the installation process.



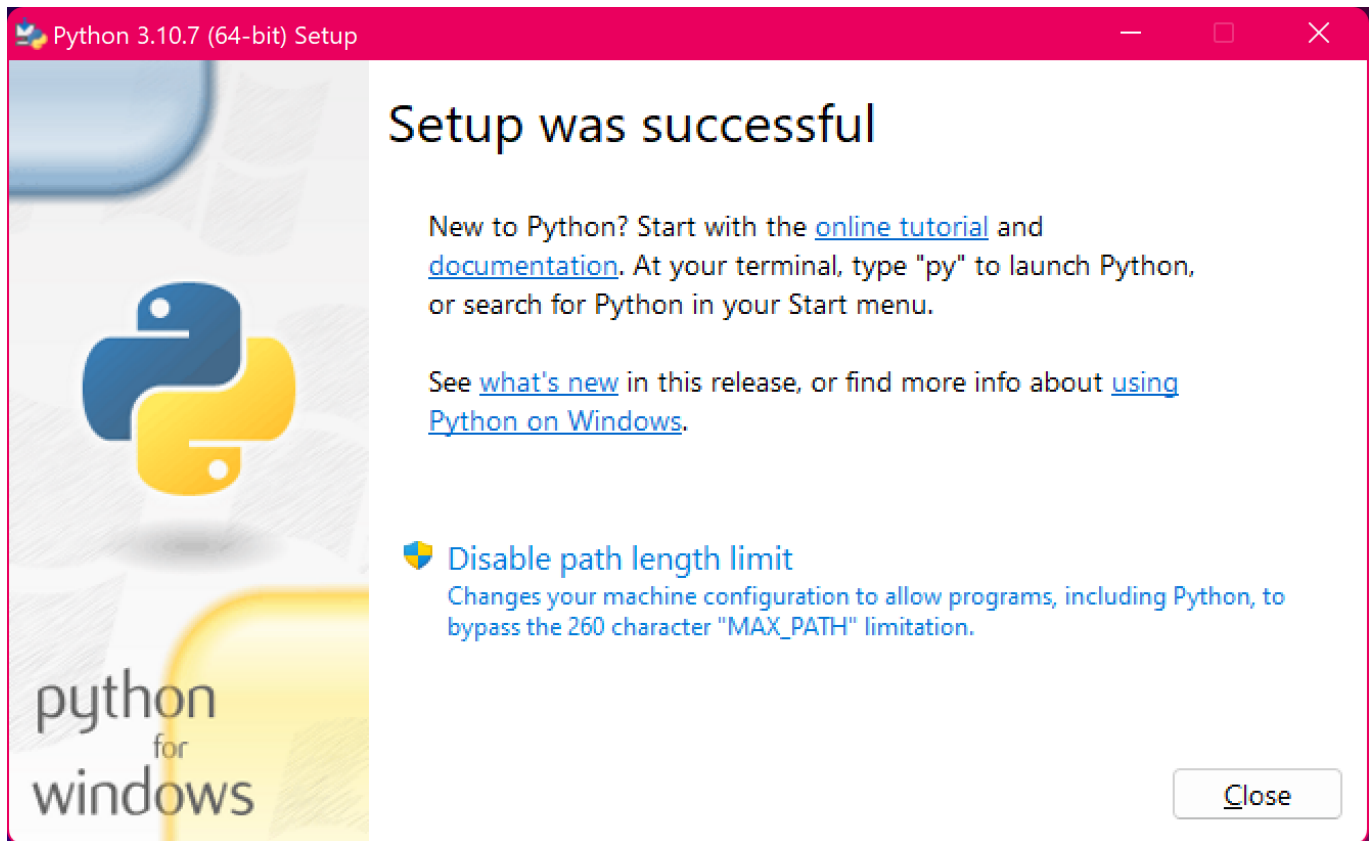
In the installation window (see screenshot above), choose the options as mentioned below:

- ☐ (**Untick**) "Install launcher for all users (recommended)"
- ☒ (**Tick**) " Add Python 3.10 to PATH"

After making these changes, click on "Install Now". This should typically install Python 3.10 to "C:\Users\
<username>\AppData\Local\Programs\Python\Python310" where <username> is your Windows username.
For example, for a user called JohnSmith, this will be
"C:\Users\JohnSmith\AppData\Local\Programs\Python\Python310".

If your installation window displays another folder, make a note of this folder path.

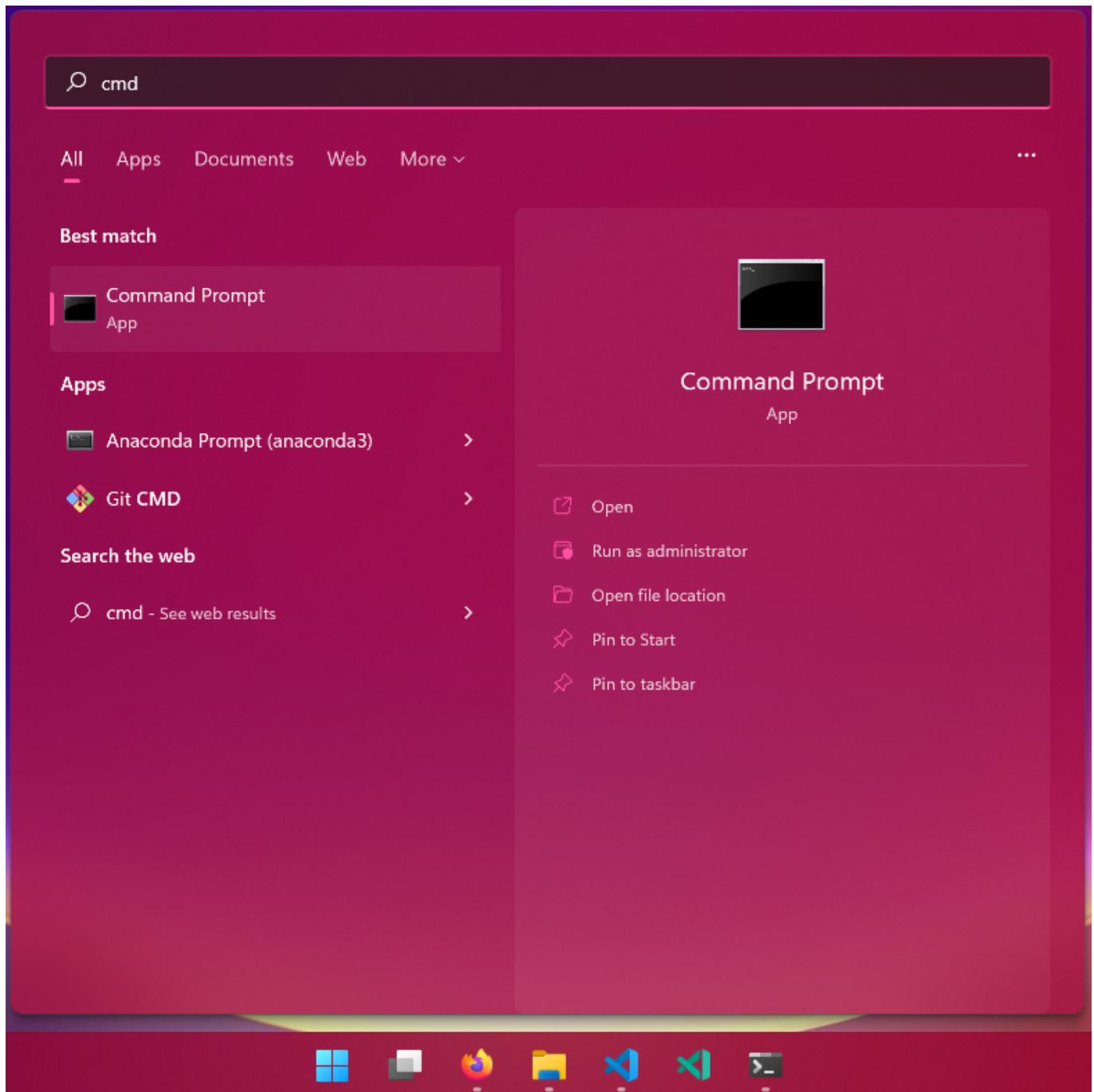
After the installation is complete, you should see the following screen.



Click on **"Close"** to complete the installation.

Verifying Python installation

Click on Start and search for Command Prompt and open the app.



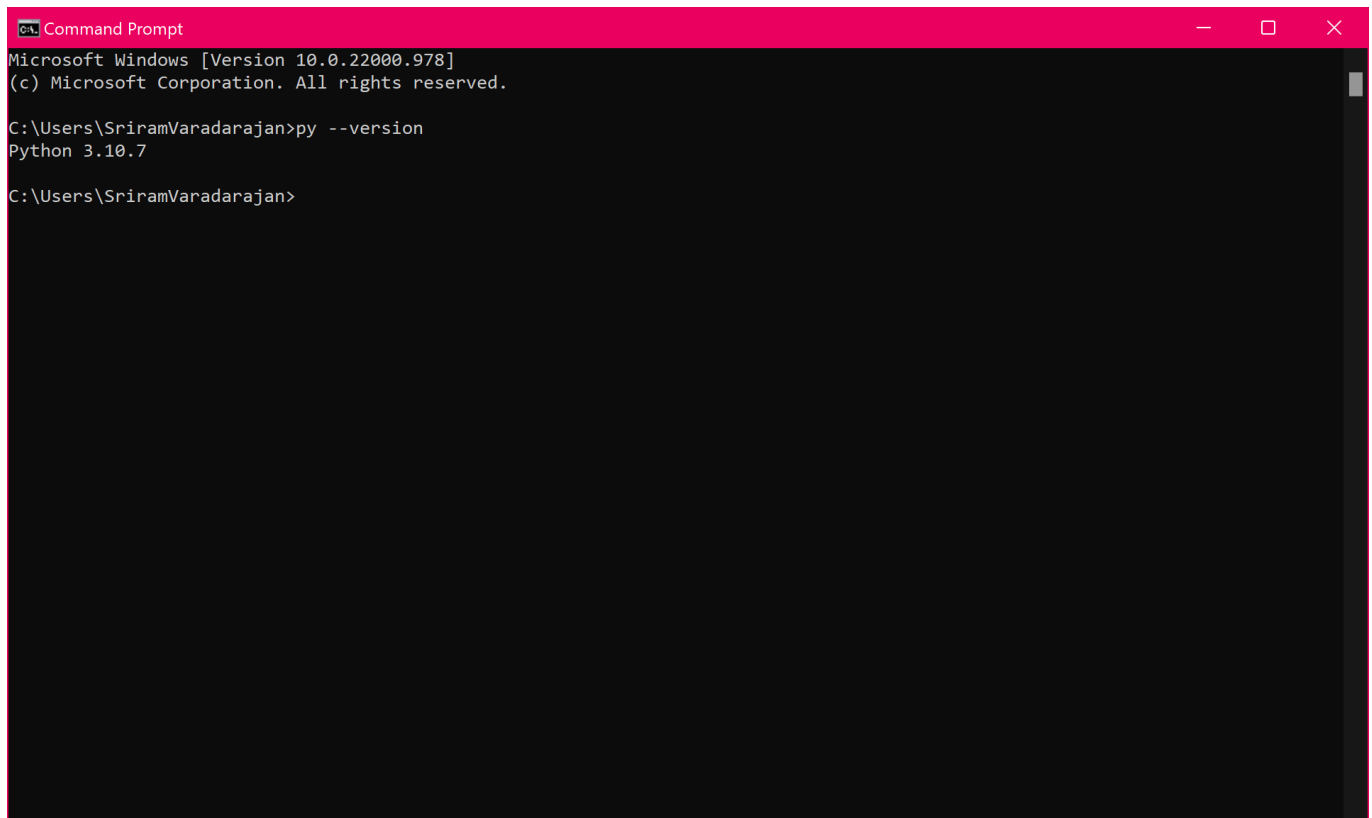
In the Command Prompt window, type the following `python --version` (i.e. python followed by a space followed by double dashes and version) or `py --version` and hit Enter.

Note

On Windows computers, `python ...` or `py ...` commands will both work, however, on UNIX or MacOS computers, only `python ...` commands will work.

If the commands do not work, then it means the Python executable file is not added to PATH environment variable.

If Python was installed correctly, you should see the Python version (same as the version we downloaded from python.org) displayed on screen.



```
Command Prompt
Microsoft Windows [Version 10.0.22000.978]
(c) Microsoft Corporation. All rights reserved.

C:\Users\SriramVaradarajan>py --version
Python 3.10.7

C:\Users\SriramVaradarajan>
```

Install Jupyter to run Python in notebooks

Jupyter notebooks (<https://jupyter.org/>) provide an accessible interface that makes it easy to learn Python as we get instantaneous visual feedback on the Python code snippets we execute. Jupyter notebooks are also widely used by data scientists and data analysts to run experiments, analyse data etc. and Jupyter notebooks can also be used with other programming languages such as Julia and R.

We can install jupyter from the command prompt using the command `python -m pip install jupyter` or `py -m pip install jupyter`. Type this command in the command prompt window and hit Enter. This should install the required packages and you should see a message at the end that says "Successfully installed ...".

```

C:\Users\SriramVaradarajan>python --version
Python 3.10.7

C:\Users\SriramVaradarajan>python -m pip install jupyter
Collecting jupyter
  Downloading jupyter-1.0.0-py2.py3-none-any.whl (2.7 kB)
Collecting jupyter-console
  Downloading jupyter_console-6.4.4-py3-none-any.whl (22 kB)
Requirement already satisfied: ipykernel in c:\users\sriramvaradarajan\appdata\roaming\python\python310\site-packages (from jupyter) (6.15.3)
Collecting ipywidgets
  Downloading ipywidgets-8.0.2-py3-none-any.whl (134 kB)
----- 134.4/134.4 kB 3.9 MB/s eta 0:00:00
Collecting qtconsole
  Downloading qtconsole-5.3.2-py3-none-any.whl (120 kB)
----- 120.8/120.8 kB 6.9 MB/s eta 0:00:00
Collecting nbconvert
  Downloading nbconvert-7.0.0-py3-none-any.whl (271 kB)
----- 271.3/271.3 kB 16.3 MB/s eta 0:00:00
Collecting notebook
  Downloading notebook-6.4.12-py3-none-any.whl (9.9 MB)
----- 9.9/9.9 MB 37.3 MB/s eta 0:00:00

```

```

Requirement already satisfied: pyparsing!=3.0.5,>=2.0.2 in c:\users\sriramvaradarajan\appdata\roaming\python\python310\site-packages (from packaging->ipykernel->jupyter) (3.0.9)
Requirement already satisfied: parso<0.9.0,>=0.8.0 in c:\users\sriramvaradarajan\appdata\roaming\python\python310\site-packages (from jedi=>0.16->ipython=>7.23.1->ipykernel->jupyter) (0.8.3)
Collecting attrs>=17.4.0
  Downloading attrs-22.1.0-py2.py3-none-any.whl (58 kB)
----- 58.8/58.8 kB 3.2 MB/s eta 0:00:00
Collecting pyrsistent!=0.17.0,!0.17.1,!0.17.2,>=0.14.0
  Downloading pyrsistent-0.18.1-cp310-cp310-win_amd64.whl (61 kB)
----- 61.6/61.6 kB 3.4 MB/s eta 0:00:00
Collecting cffi>=1.0.1
  Downloading cffi-1.15.1-cp310-cp310-win_amd64.whl (179 kB)
----- 179.1/179.1 kB 11.3 MB/s eta 0:00:00
Requirement already satisfied: executing in c:\users\sriramvaradarajan\appdata\roaming\python\python310\site-packages (from stack-data->ipython=>7.23.1->ipykernel->jupyter) (1.0.0)
Requirement already satisfied: pure-eval in c:\users\sriramvaradarajan\appdata\roaming\python\python310\site-packages (from stack-data->ipython=>7.23.1->ipykernel->jupyter) (0.2.2)
Requirement already satisfied: asttokens in c:\users\sriramvaradarajan\appdata\roaming\python\python310\site-packages (from stack-data->ipython=>7.23.1->ipykernel->jupyter) (2.0.8)
Collecting pycparser
  Downloading pycparser-2.21-py2.py3-none-any.whl (118 kB)
----- 118.7/118.7 kB ? eta 0:00:00
Installing collected packages: webencodings, Send2Trash, mistune, ipython-genutils, fastjsonschema, widgetsnbextension, tinycss2, soupsieve, pywinpty, pyrsistent, pycparser, prometheus-client, pandocfilters, markupsafe, lxml, jupyterlab-widgets, jupyterlab-pygments, defusedxml, bleach, attrs, terminado, qtpy, jsonschema, jinja2, cffi, beautifulsoup4, nbformat, ipython, argon2-cffi-bindings, nbclient, argon2-cffi, qtconsole, nbconvert, jupyter-console, ipywidgets, notebook, jupyter
Successfully installed Send2Trash-1.8.0 argon2-cffi-21.3.0 argon2-cffi-bindings-21.2.0 attrs-22.1.0 beautifulsoup4-4.11.1 bleach-5.0.1 cffi-1.15.1 defusedxml-0.7.1 fastjsonschema-2.16.2 ipython-8.5.0 ipython-genutils-0.2.0 ipywidgets-8.0.2 jinja2-3.1.2 jsonschema-4.16.0 jupyter-1.0.0 jupyter-console-6.4.4 jupyterlab-pygments-0.2.2 jupyterlab-widgets-3.0.3 lxml-4.9.1 markupsafe-2.1.1 mistune-2.0.4 nbclient-0.6.8 nbconvert-7.0.0 nbformat-5.6.0 notebook-6.4.12 pandocfilters-1.5.0 prometheus-client-0.14.1 pycparser-2.21 pyrsistent-0.18.1 pywinpty-2.0.8 qtconsole-5.3.2 qtpy-2.2.0 soupsieve-2.3.2.post1 terminado-0.15.0 tinycss2-1.1.1 webencodings-0.5.1 widgetsnbextension-4.0.3

C:\Users\SriramVaradarajan>

```

Summary

- Download the Windows Installer (64-bit) for the Latest Python 3 Release
- Install it on your computer with the following options:
 - ☐ Install launcher for all users
 - ☒ Add Python to PATH
- Verify the installation by opening Command Prompt and running `python --version`

- Install jupyter by running `python -m pip install jupyter` in Command Prompt.

Next steps

Follow the instructions in the `2_starting_jupyter_notebooks` file.