



Installing Python 3

<https://www.python.org/downloads/windows/>

Download: **Windows x86-64 executable installer**

Python Releases for Windows

- [Latest Python 3 Release - Python 3.8.3](#)
- [Latest Python 2 Release - Python 2.7.18](#)

Stable Releases

- [Python 3.8.3 - May 13, 2020](#)

Note that Python 3.8.3 cannot be used on Windows XP or earlier.

- Download [Windows help file](#)
- Download [Windows x86-64 embeddable zip file](#)
- Download [Windows x86-64 executable installer](#)
- Download [Windows x86-64 web-based installer](#)
- Download [Windows x86 embeddable zip file](#)
- Download [Windows x86 executable installer](#)
- Download [Windows x86 web-based installer](#)
- [Python 3.8.3rc1 - April 29, 2020](#)

Run the exe:

- Check **Add Python 3.8 to PATH**
- Click **Install Now** with default settings



Test that Python is installed successfully by running cmd prompt and type in:
> python [enter]

```
Command Prompt - python
Microsoft Windows [Version 10.0.18363.900]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\ptych>python
Python 3.8.3 (tags/v3.8.3:6f8c832, May 13 2020, 22:37:02) [MSC v.1924 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>>
```

Create Virtual Environment with venv

It is a good idea to create a virtual environment to isolate your project's package dependencies.

In the directory you want to keep your course projects (e.g. D:/PeterGit/VGP337), type in:
> python -m venv myenv [enter]

This will create a new environment called "myenv". To activate your environment, run the activate batch file by typing:

> env\Scripts\activate [enter]



You should see a prefix to your command prompt with the environment name.

```
(myenv) >
```

From here on, anything you install for python will be applied to just this environment only, keeping your machine's global python packages clean.

Install JupyterLab

JupyterLab is a web browser based IDE which enables you to work with documents and activities such as Jupyter notebooks, text editors, terminals, and custom components in a flexible, integrated, and extensible manner.

https://jupyterlab.readthedocs.io/en/stable/getting_started/overview.html

<https://jupyter.org/install.html>

To install JupyterLab, open cmd prompt, then type:

```
(myenv) > pip install jupyterlab [enter]
```

To start the JupyterLab server from any location, navigate to the desired directory on your computer, then type:

```
(myenv) > jupyter lab [enter]
```

This will start the server and launch the UI in your browser.

Next read through this page to get familiar with the Jupyter Notebook shortcut keys:

<https://towardsdatascience.com/jupyter-notebook-shortcuts-bf0101a98330>

Install Pygame, TensorFlow, Matplotlib, scikit-learn

<https://www.pygame.org/wiki/GettingStarted>

<https://www.tensorflow.org/overview>

<https://matplotlib.org/>

<https://scikit-learn.org/stable/>

```
(myenv) > pip install pygame [enter]
```

```
(myenv) > pip install tensorflow [enter]
```

```
(myenv) > pip install matplotlib [enter]
```

```
(myenv) > pip install scikit-learn [enter]
```