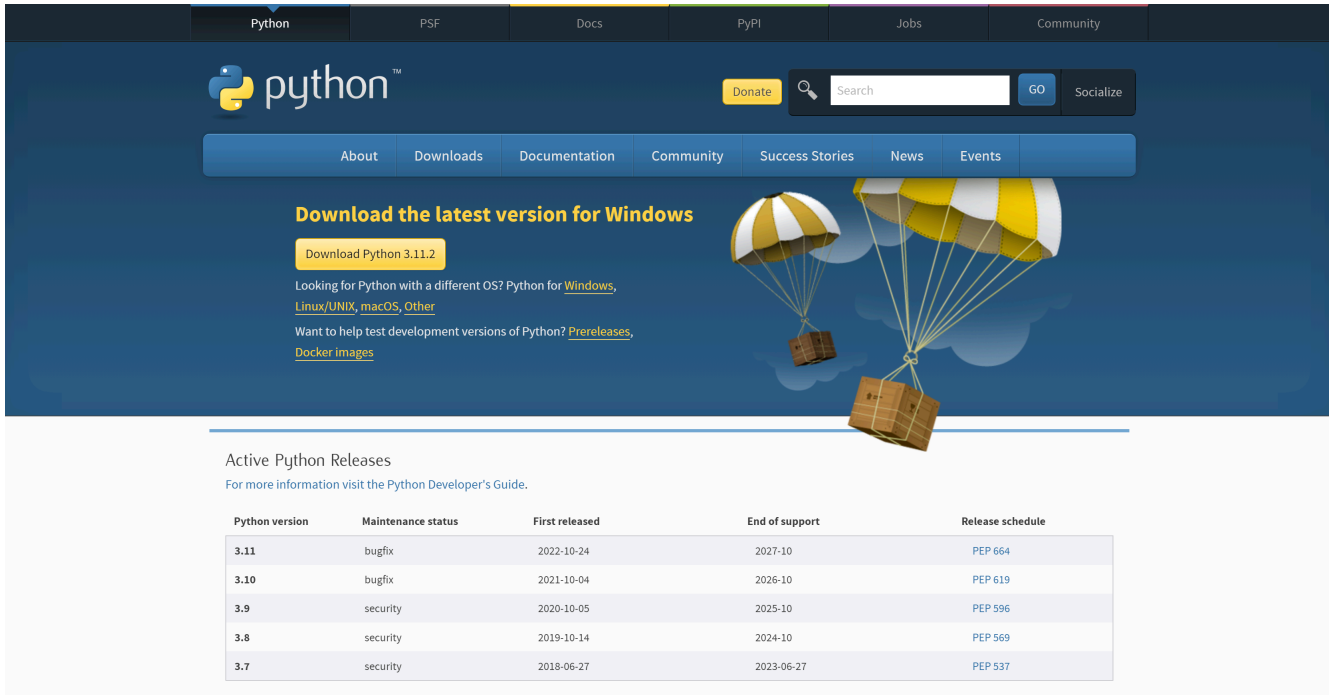


Getting started with python

Installing python, virtualenv and jupyter on windows

Get python

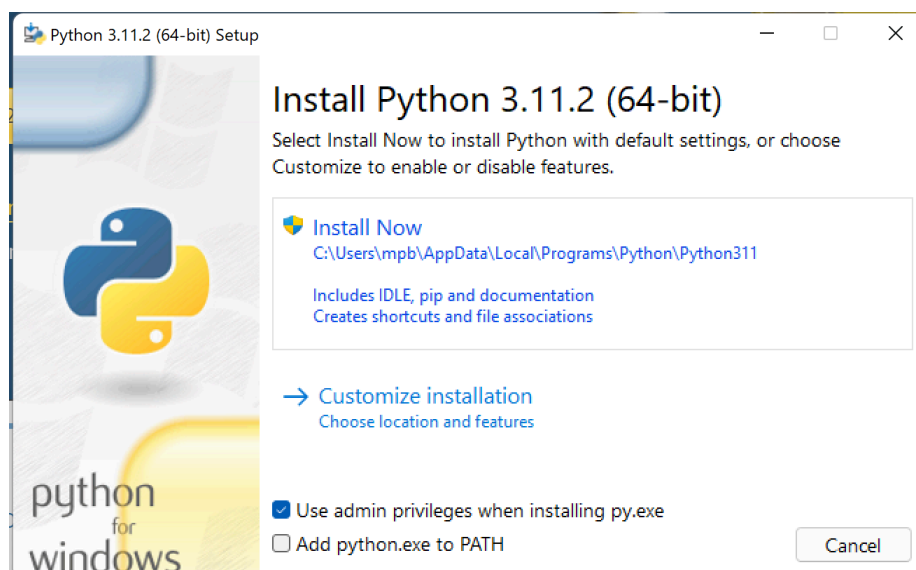
1. Download python to your computer:



The screenshot shows the Python.org website. The main navigation bar includes links for Python, PSF, Docs, PyPI, Jobs, and Community. A secondary navigation bar has links for About, Downloads, Documentation, Community, Success Stories, News, and Events. The main content area features a large banner with the text "Download the latest version for Windows" and a button to "Download Python 3.11.2". Below this, there are links for "Looking for Python with a different OS?" and "Want to help test development versions of Python?". A table titled "Active Python Releases" provides details on various Python versions.

Python version	Maintenance status	First released	End of support	Release schedule
3.11	bugfix	2022-10-24	2027-10	PEP 664
3.10	bugfix	2021-10-04	2026-10	PEP 619
3.9	security	2020-10-05	2025-10	PEP 596
3.8	security	2019-10-14	2024-10	PEP 569
3.7	security	2018-06-27	2023-06-27	PEP 537

2. Install python by running the downloaded exe-file:



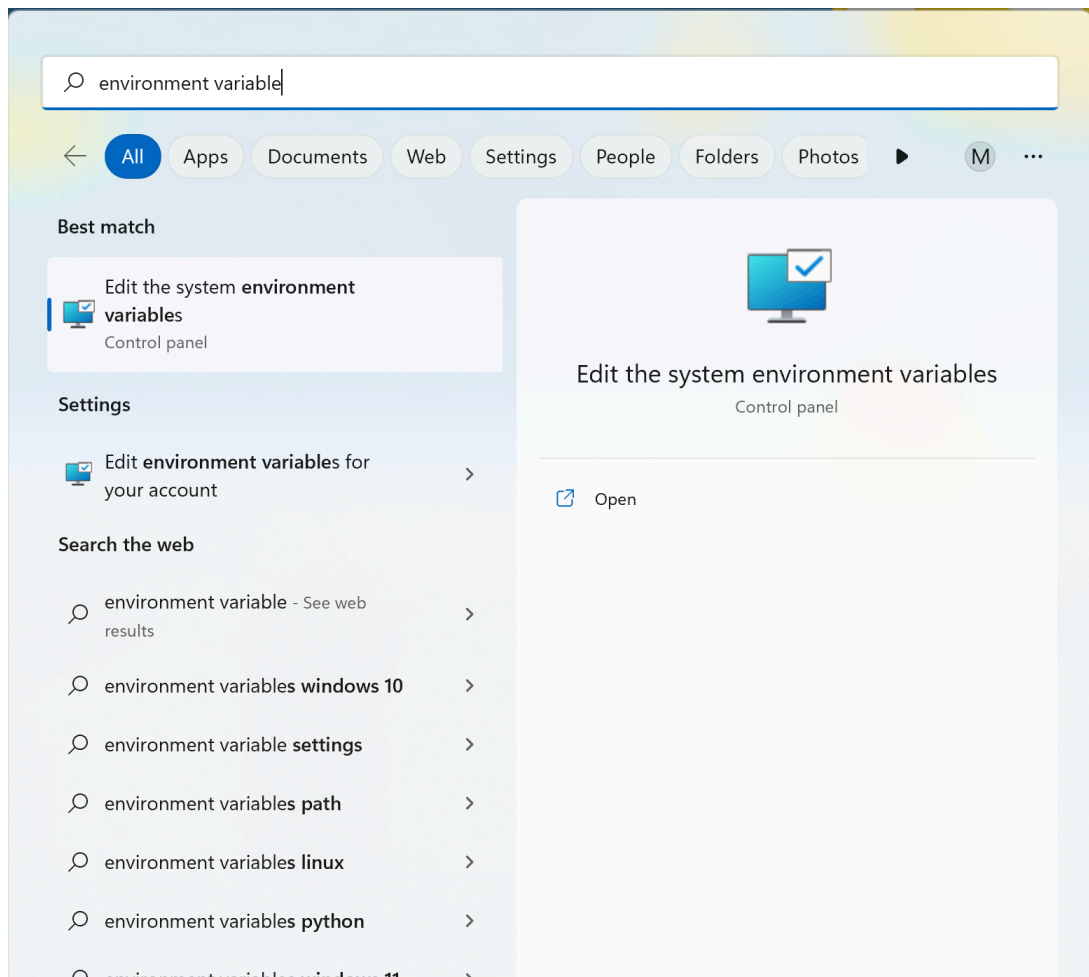
Install python in the default location which should be:

C:\Users<YOUR USER>\AppData\Local\Programs\Python\Python

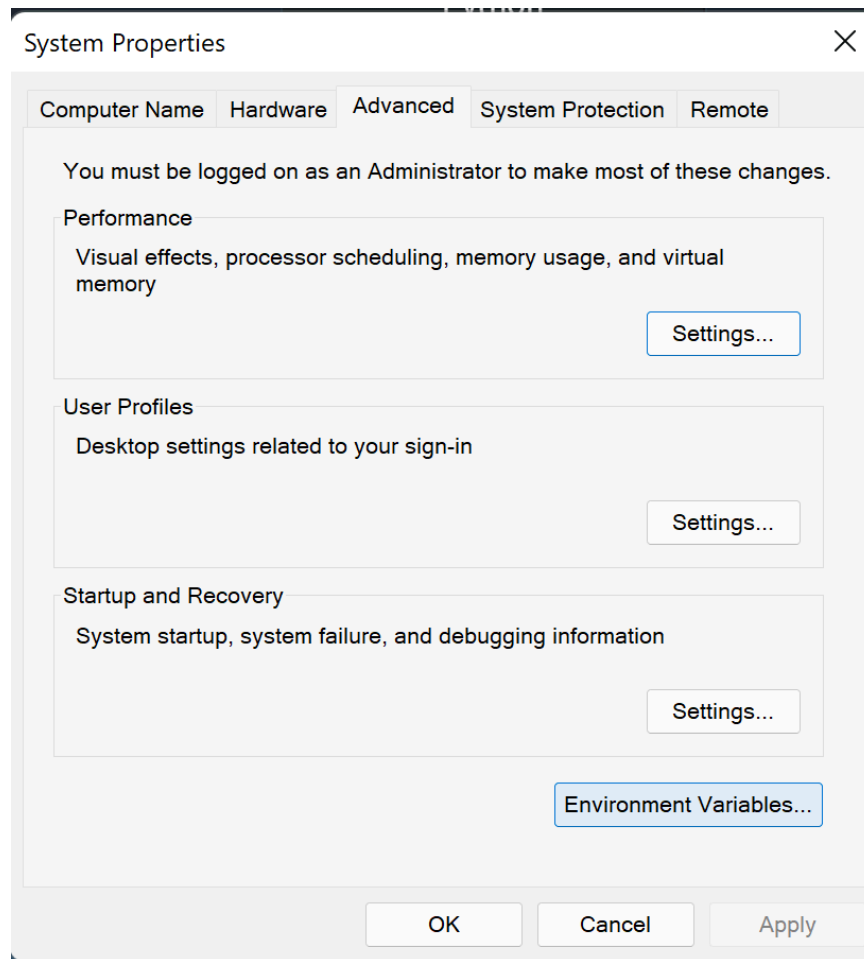
Set path

Set "Python37" path and "Python37/Scripts" path to environment variable.

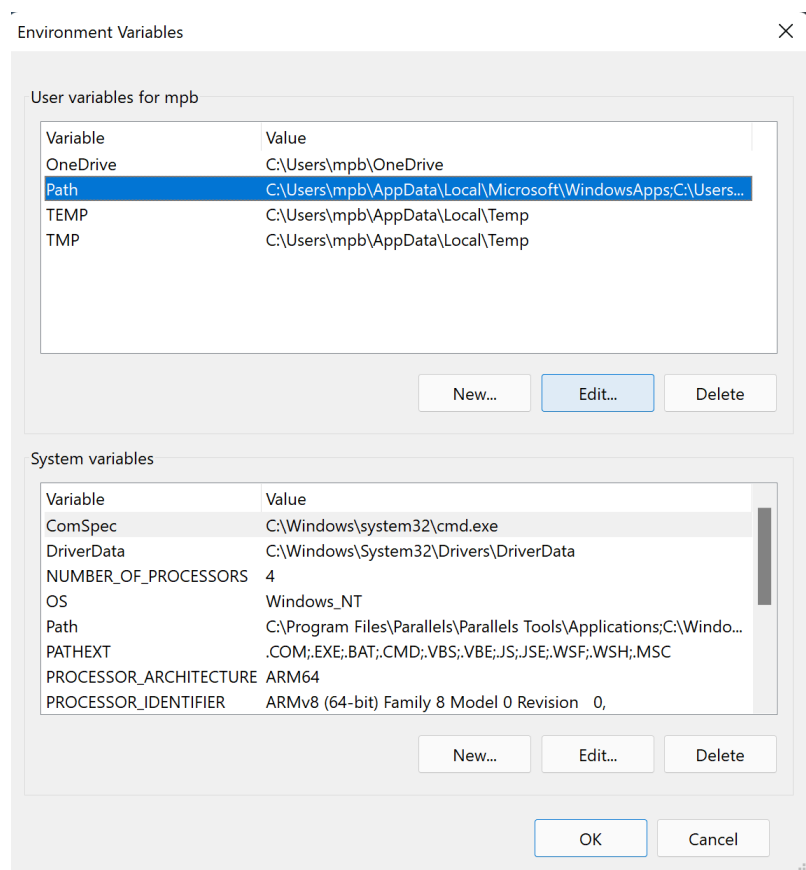
1. From the start menu search for "environment variable" and click "Edit the system environment variables"



2. Click "Environment variables":



3. Mark "Path" under "User variables for " and click on "Edit"



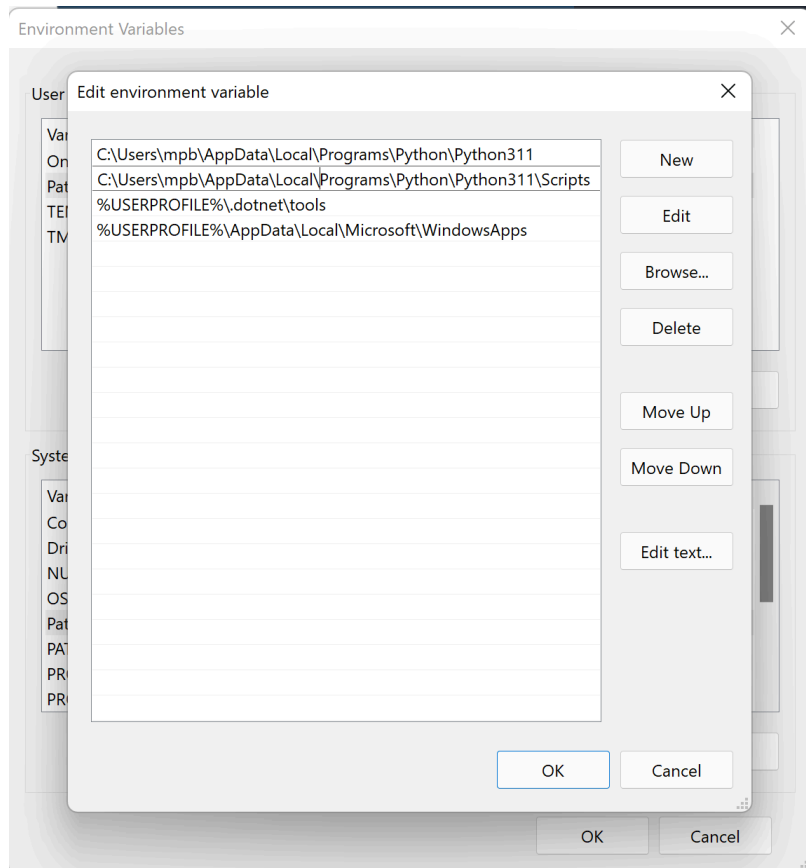
4. Click on New and paste the path to the python.exe in your system which should be placed during installation at this destination:

C:\Users<YOUR USER>\AppData\Local\Programs\Python\Python

- Click on New and paste the path to:

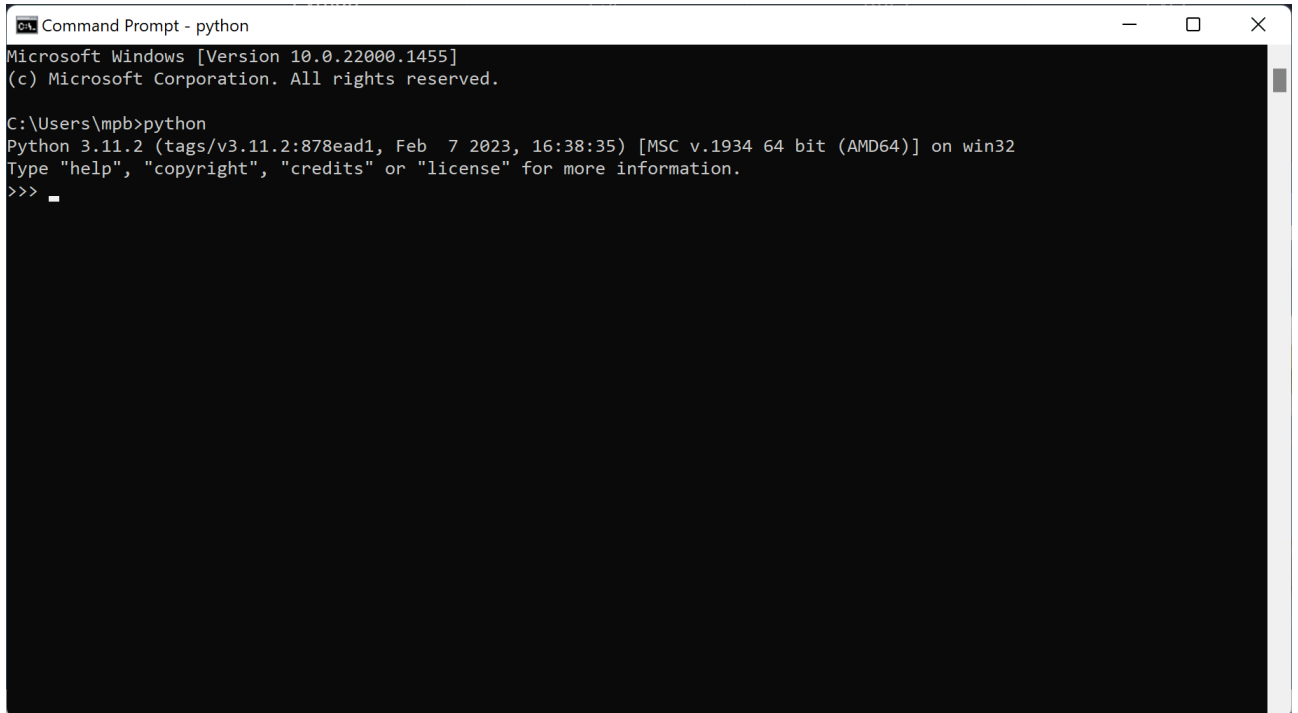
C:\Users<YOUR USER>\AppData\Local\Programs\Python\Python\Scripts

- Make sure to keep your python above the windows app (if exists). Use the arrows to direct your python above the Microsoft.



Check the installation.

- Open command prompt (go to the start menu in windows and search for cmd)
- Type `python` and validate you see the following:



Install Jupyter in virtual environment

1. Open command prompt (go to the start menu in windows and search for cmd)
2. Creates a python virtual environment named pythoncourse (we will run a jupyter notebook from within this environment). Type:

```
pip install virtualenv
```

```
virtualenv <THE NAME OF YOUR VIRTUAL PYTHON ENVIRONMENT>
```

3. Activate virtual environment

```
<THE NAME OF YOUR VIRTUAL PYTHON ENVIRONMENT>\Scripts\activate
```

4. Install Jupyter

```
pip install jupyter
```

If the installation hangs, then press the Enter key after 20-30 seconds

Open Jupyter Notebook

1. From Command Prompt type:

```
jupyter notebook
```

2. You should see the output

```
Command Prompt - jupyter notebook
(pythondcourse) C:\Users\mpb>jupyter notebook
[I 11:59:45.098 NotebookApp] Writing notebook server cookie secret to C:\Users\mpb\AppData\Roaming\jupyter\runtime\notebook_cookie_secret

      |
      |      .
      |     / \
      |    /   \
      |   /     \
      |  /       \
      | /         \
      |/_         \_

Read the migration plan to Notebook 7 to learn about the new features and the actions to take if you are using extensions.

https://jupyter-notebook.readthedocs.io/en/latest/migrate_to_notebook7.html

Please note that updating to Notebook 7 might break some of your extensions.

[I 11:59:45.676 NotebookApp] Serving notebooks from local directory: C:\Users\mpb
[I 11:59:45.676 NotebookApp] Jupyter Notebook 6.5.3 is running at:
[I 11:59:45.676 NotebookApp] http://localhost:8888/?token=00d9692e6915547ceff40b02f98bf9e310be45b00d115ac7
[I 11:59:45.692 NotebookApp] or http://127.0.0.1:8888/?token=00d9692e6915547ceff40b02f98bf9e310be45b00d115ac7
[I 11:59:45.692 NotebookApp] Use Control-C to stop this server and shut down all kernels (twice to skip confirmation).
[C 11:59:45.725 NotebookApp]

To access the notebook, open this file in a browser:
file:///C:/Users/mpb/AppData/Roaming/jupyter/runtime/nbserver-11896-open.html
Or copy and paste one of these URLs:
http://localhost:8888/?token=00d9692e6915547ceff40b02f98bf9e310be45b00d115ac7
or http://127.0.0.1:8888/?token=00d9692e6915547ceff40b02f98bf9e310be45b00d115ac7
0.00s - Debugger warning: It seems that frozen modules are being used, which may
0.00s - make the debugger miss breakpoints. Please pass -Xfrozen_modules=off
0.00s - to python to disable frozen modules.
0.00s - Note: Debugging will proceed. Set PYDEVD_DISABLE_FILE_VALIDATION=1 to disable this validation.
```

3. At the same time your browser should open and give you the following window:



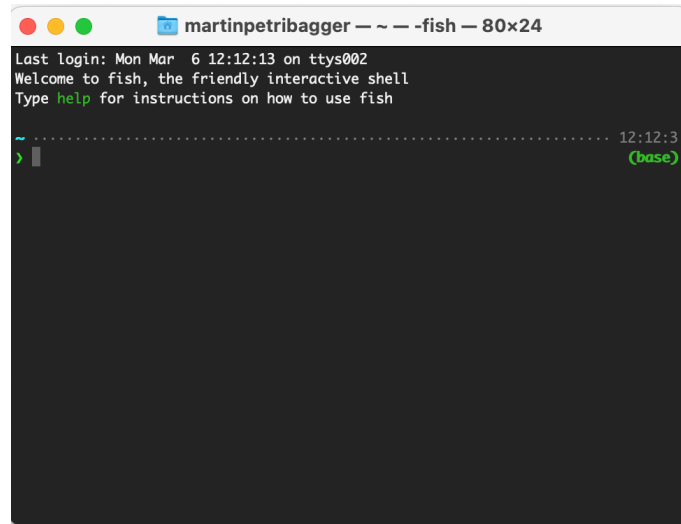
Congratulations – You now have installed

- Python
- A virtual environment
- jupyter notebook

on mac

Install python 3

1. Xcode is Apple's Integrated Development Environment (IDE). You might already have Xcode on your Mac. If not, you can get Xcode from Apple appstore. [Xcode](#)
2. Open a terminal window



3. Install HomeBrew

```
/bin/bash -c "$(curl -fsSL  
https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"
```

4. Install python 3

```
brew install python3
```

Install virtualenv and create virtual environment

1. Install virtualenv:

```
python3 -m pip install --user virtualenv
```

2. Navigate to where you want to save your environment dependencies:

```
cd <PATH FOR ENVIRONMENT>
```

3. Create directory for your dependencies and navigate to it:

```
mkdir <NAME OF FOLDER FOR ENVIRONMENT>
```

```
cd <NAME OF FOLDER FOR ENVIRONMENT>
```

4. Create the virtual environment:

```
virtualenv <THE NAME OF YOUR VIRTUAL PYTHON ENVIRONMENT>
```

Install Jupyter and open notebook

1. Activate virtual environment

```
source <THE NAME OF YOUR VIRTUAL PYTHON ENVIRONMENT>/bin/activate
```

2. Install Jupyter

```
pip install jupyter
```

3. Open Jupyter notebook

```
jupyter notebook
```

Congratulations – You now have installed

- Python 3
- A virtual environment
- jupyter notebook

Daily work

When you want to start working in python you will have to tell your system that you want to work in your virtual environment and from which directory you want to start.

1. Open
 - your **command prompt (cmd)** if you are on a windows computer
 - your **terminal** if you are on a mac
2. navigate to where you put the folder for your virtual environment `cd <NAME OF FOLDER FOR ENVIRONMENT>`
3. activate your virtual environment
 - Windows: `<THE NAME OF YOUR VIRTUAL PYTHON ENVIRONMENT>\Scripts\activate`
 - mac: `source <THE NAME OF YOUR VIRTUAL PYTHON ENVIRONMENT>/bin/activate`
4. (optional) Navigate to the folder you want as the root for your Jupyter workspace.
type `cd <NAME OF FOLDER>`
5. Start your jupyter notebook session
type `jupyter notebook`