

Getting started with Python & Jupyter Notebook

Python Installation Guide

We will be using Python 3.7 in this course. The installation guide for Windows and MacOS is provided below.

Installing Python 3.7 on Windows

- Download Python 3.7.6 from the following link:
- <https://www.python.org/ftp/python/3.7.6/python-3.7.6-amd64.exe>
- The file named python-3.7.6-amd64.exe will start downloading.
- Open the file python-3.7.6-amd64.exe from your downloads folder. A pop-up window will be shown.



- **Important:** Select both the checkboxes at the bottom: **Install launcher for all users** and **Add Python 3.7 to PATH**.
- Click 'Install Now'.
- (optional) If you see the message: "Disable path length limit," click it.



- Click the 'close' button.
- To verify if Python has been installed successfully, open Command Prompt, type **python**, and press enter.

```
Command Prompt - python
Microsoft Windows [Version 10.0.18362.592]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\User>python
Python 3.7.6 (tags/v3.7.6:43364a7ae0, Dec 19 2019, 00:42:30) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>>
```

- Type **exit()** and press enter to terminate Python.

```
Command Prompt - python
Microsoft Windows [Version 10.0.18362.592]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\User>python
Python 3.7.6 (tags/v3.7.6:43364a7ae0, Dec 19 2019, 00:42:30) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> exit()
```

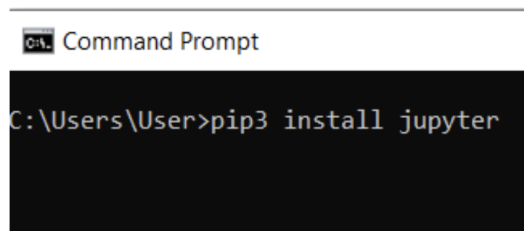
Installing Python 3.7 on MacOS

- Download Python 3.7.6 from the following link:
<https://www.python.org/ftp/python/3.7.6/python-3.7.6-macosx10.6.pkg>
- Navigate to your Downloads folder (or wherever you saved the installer).
- Double-click on the .pkg file that you downloaded. This should initiate the installation process.

- Follow the on-screen instructions. You will be guided through the installation process step by step.
- When prompted, ensure that the "Add Python 3.7 to PATH" option is selected.
- Once the installation is complete, open the Terminal application. You can do this by navigating to Applications > Utilities > Terminal or simply searching for "Terminal" in Spotlight.
- To verify if Python has been installed successfully, open Command Prompt, type **python**, and press enter.

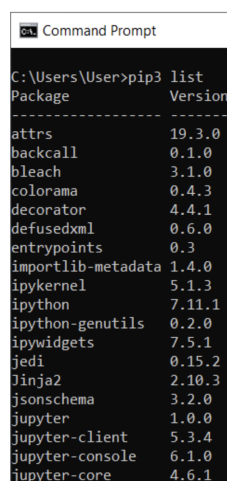
Jupyter Notebook Installation Guide

- To install Jupyter Notebook, open Command Prompt, type `pip3 install jupyter` and press enter.
 - You can install numpy, matplotlib, and other standard Python packages using pip.



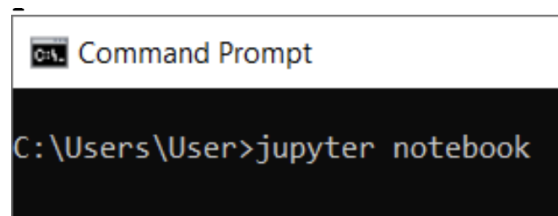
```
Command Prompt
C:\Users\User>pip3 install jupyter
```

- To confirm if Jupyter Notebook has been installed successfully, open Command Prompt, type `pip3 list`, and press enter.

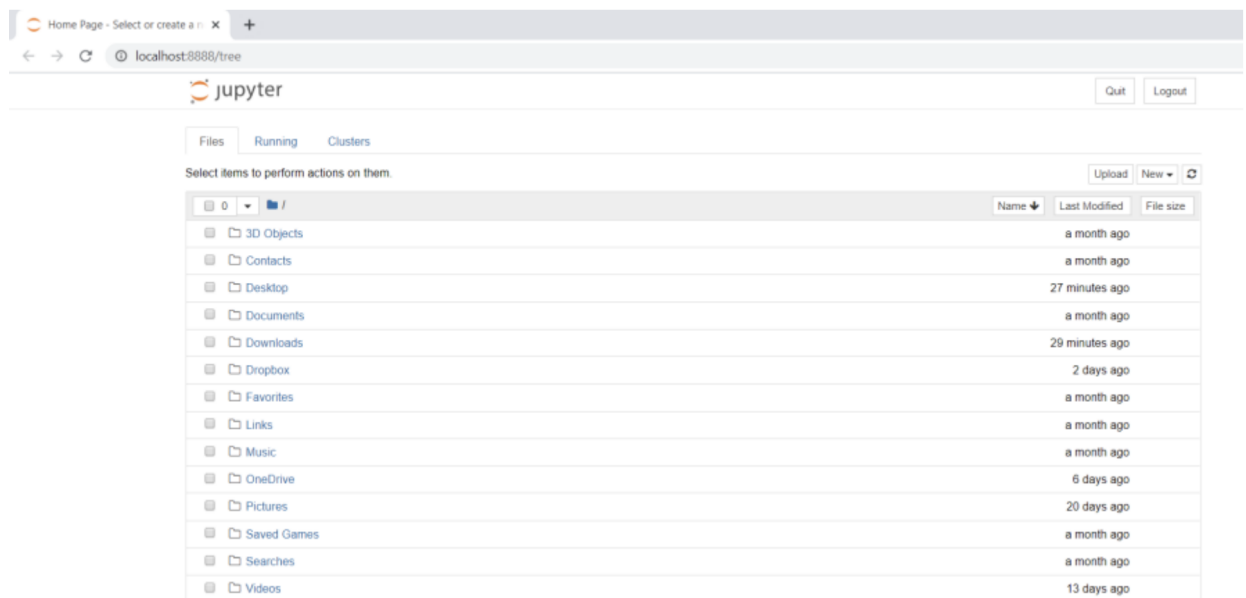


```
Command Prompt
C:\Users\User>pip3 list
Package            Version
-----
attrs              19.3.0
backcall           0.1.0
bleach             3.1.0
colorama           0.4.3
decorator          4.4.1
defusedxml         0.6.0
entrypoints        0.3
importlib-metadata 1.4.0
ipykernel          5.1.3
ipython            7.11.1
ipython-genutils   0.2.0
ipywidgets         7.5.1
jedi               0.15.2
Jinja2             2.10.3
jsonschema         3.2.0
jupyter            1.0.0
jupyter-client     5.3.4
jupyter-console    6.1.0
jupyter-core       4.6.1
```

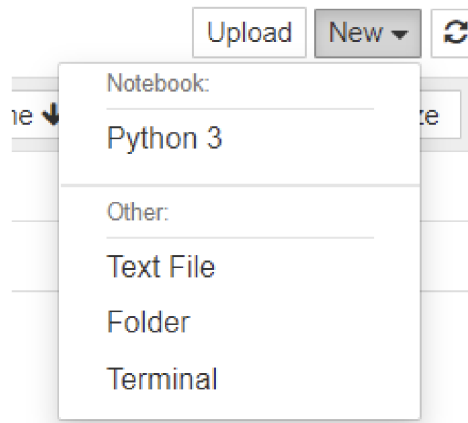
- To run jupyter notebook server, open Command Prompt, type **jupyter notebook**, and press enter.



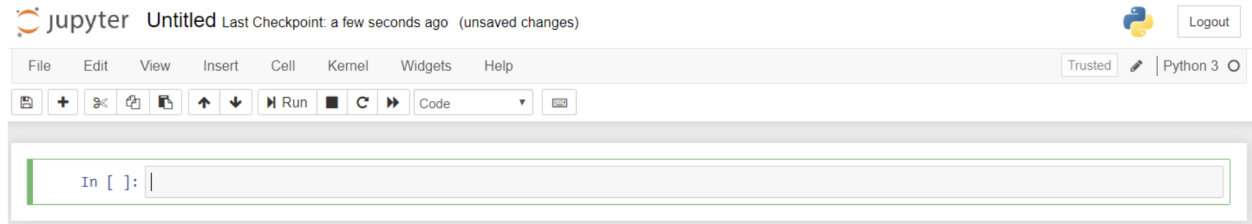
- Information about the notebook server will be printed in your terminal. This includes the URL of the jupyter notebook server as well, which is <http://localhost:8888> by default. It will then open the notebook in your browser.



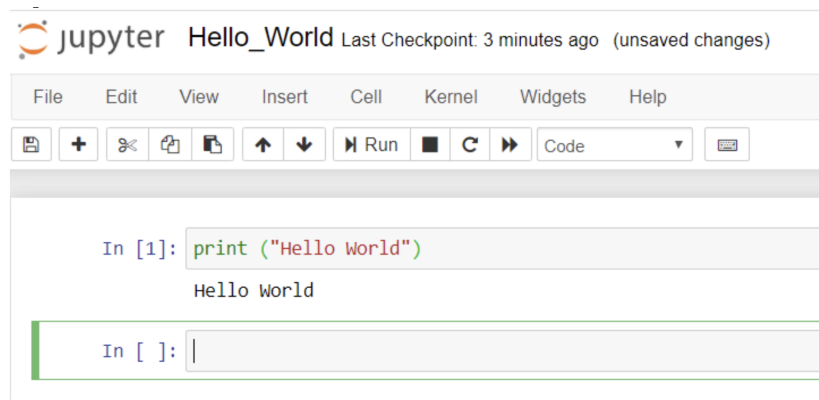
- Click on **New** and then **Python 3** from the top right.



- A new notebook will open.

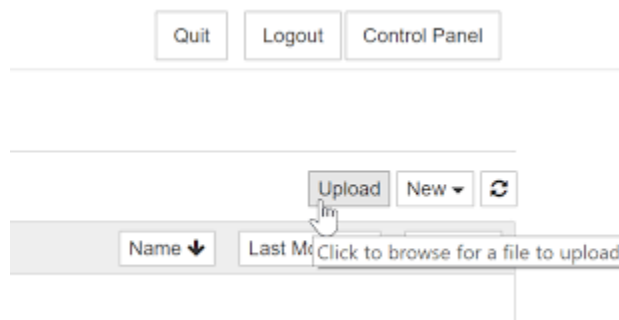


- Type **print ("Hello World")** in the first code cell and click the Run button (or press shift + enter). You can rename the notebook to your preferred name by clicking Untitled at the top.



Opening the jupyter notebooks provided in assignments

In each programming assignment, you will be given a jupyter notebook containing the relevant questions. To open that notebook, click "upload" button at the top right and select the notebook that you have downloaded.



Next Steps

- Read this [Introductory blog on Jupyter Notebook](#).
- Start working on Programming Assignment 1.