

# Getting Started with Python & Jupyter Notebook

## Python

We will use Python 3.7 throughout this course.

### Downloading:

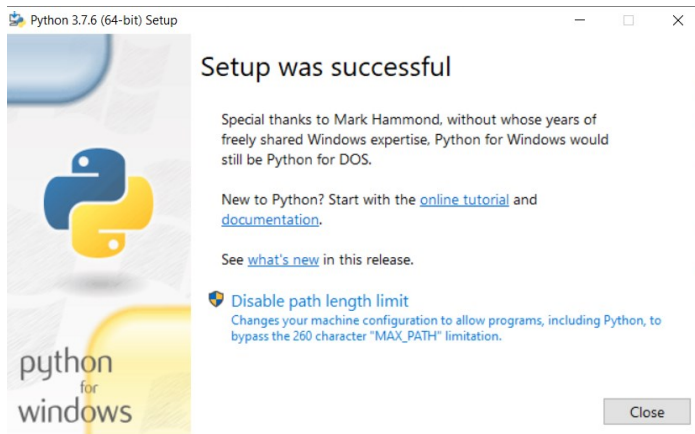
- Download the latest stable version of [Python 3.7 from here](#). The current latest (as of Spring 2020) is Python 3.7.6.  
The file named **python-3.7.6-amd64.exe** should start downloading into your standard download folder.
- Start the **Installing** instructions directly below.

### Installing:

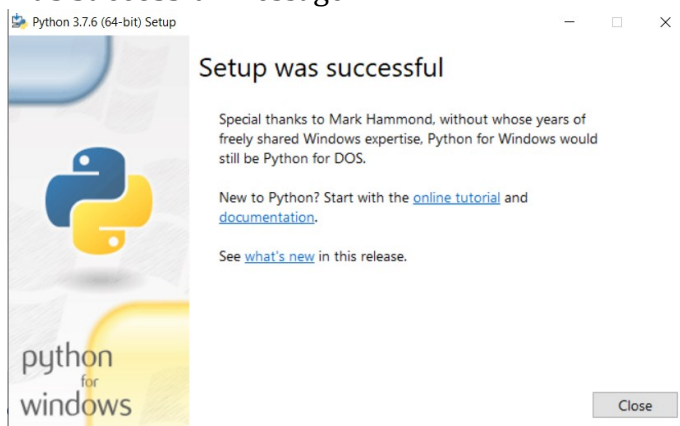
- Double-click the file **python-3.7.6-amd64.exe**.  
A **Python 3.7.6 (64-bit) Setup** pop-up window will appear.



- Ensure that the **Install launcher for all users (recommended)** and the **Add Python 3.7 to PATH** checkboxes at the bottom are checked.
- Highlight the **Install Now** message, and then click it.  
When run, a **User Account Control** pop-up window may appear on your screen. I could not capture its image, but it asks, **Do you want to allow this app to make changes to your device**. Click the **Yes** button.
- **(optional)** You may encounter a **Disable path length limit**. Click it.



- Soon, a new **Python 3.7.6 (64-bit) Setup** pop-up window will appear with a **Setup was successful** message.



- Click the **Close** button.

## Verifying:

- To verify Python installation, 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()
  
```

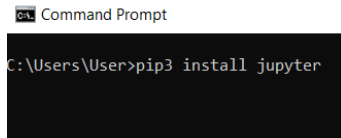
## Jupyter Notebook

Python uses [pip](#) to install packages from the [Python Package Index](#) and other indexes. By default **pip** is installed with Python.

## Installing:

- To install **Jupyter Notebook**, open **Command Prompt**, type ``pip3 install jupyter`` and press **enter**.

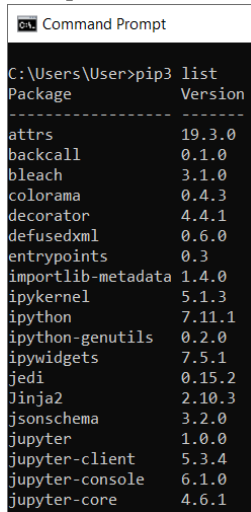
**(Note)** Similarly, you can install **numpy**, **matplotlib** and other standard Python packages using **pip**.



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

## Verifying:

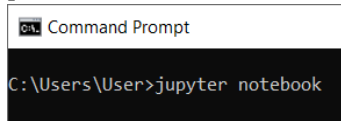
- To verify **Jupyter Notebook** installation, open **Command Prompt**, type ``pip3 list`` and press **enter**.



```
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
```

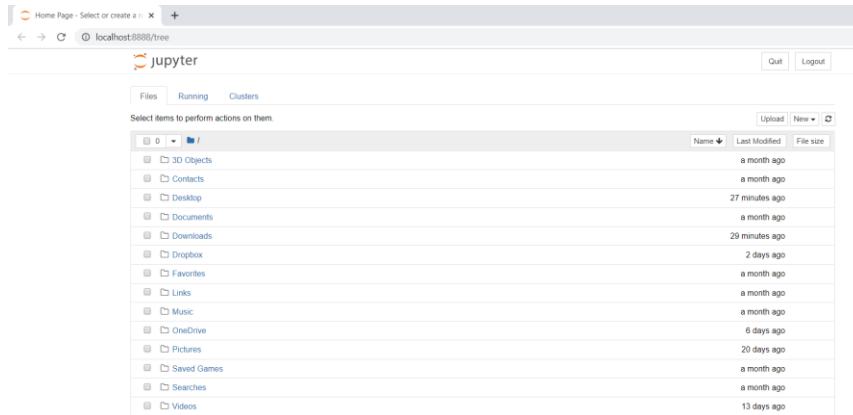
## Running:

- To run **Jupyter Notebook**, open **Command Prompt**, type ``jupyter notebook`` and press **enter**.

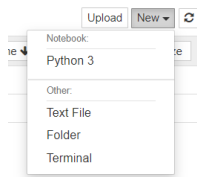


```
Command Prompt
C:\Users\User>jupyter notebook
```

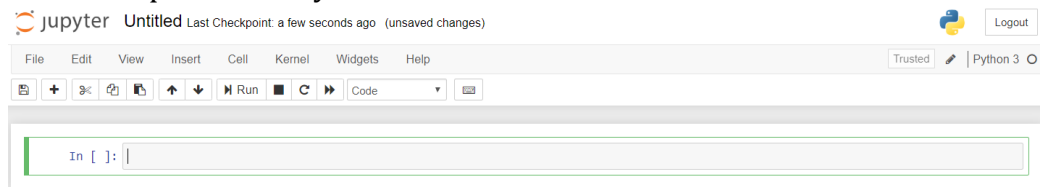
- This will print some information about the notebook server in your terminal, including the URL of the web application (by default, <http://localhost:8888>). It will then open your default web browser to this URL.



- Click on **New** and then **Python 3**.

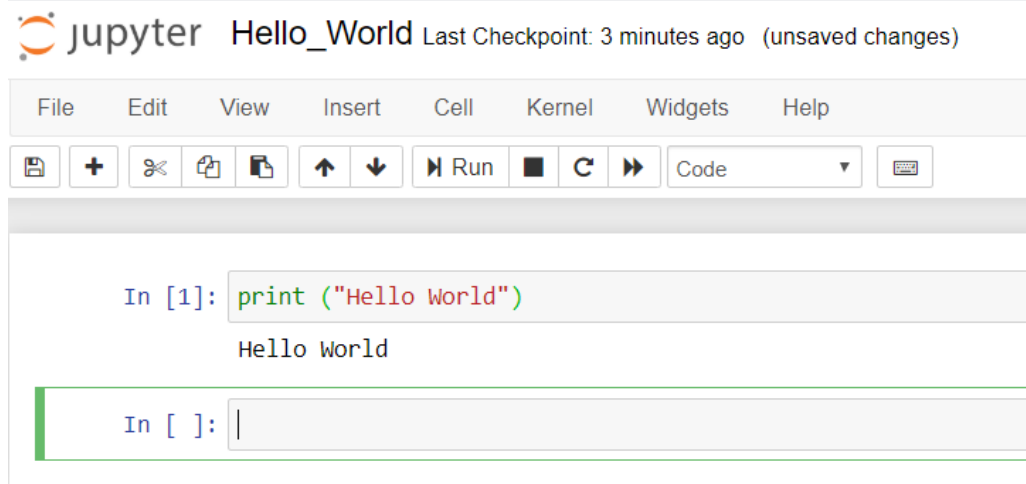


- This will open a new Python 3 notebook in new browser tab.



- Type `print ("Hello World")` in the first code cell and click **Run** button (or press **shift + enter**).

You can rename the notebook to your preferred name by clicking **Untitled** at the top.



## Next Steps:

- Read this [Introductory blog on Jupyter Notebook](#).
- Start working on Programming Assignment 0.