Tutorial 1

You can also find this tutorial in the video format via this link: https://youtu.be/dgZfvYo99Tk

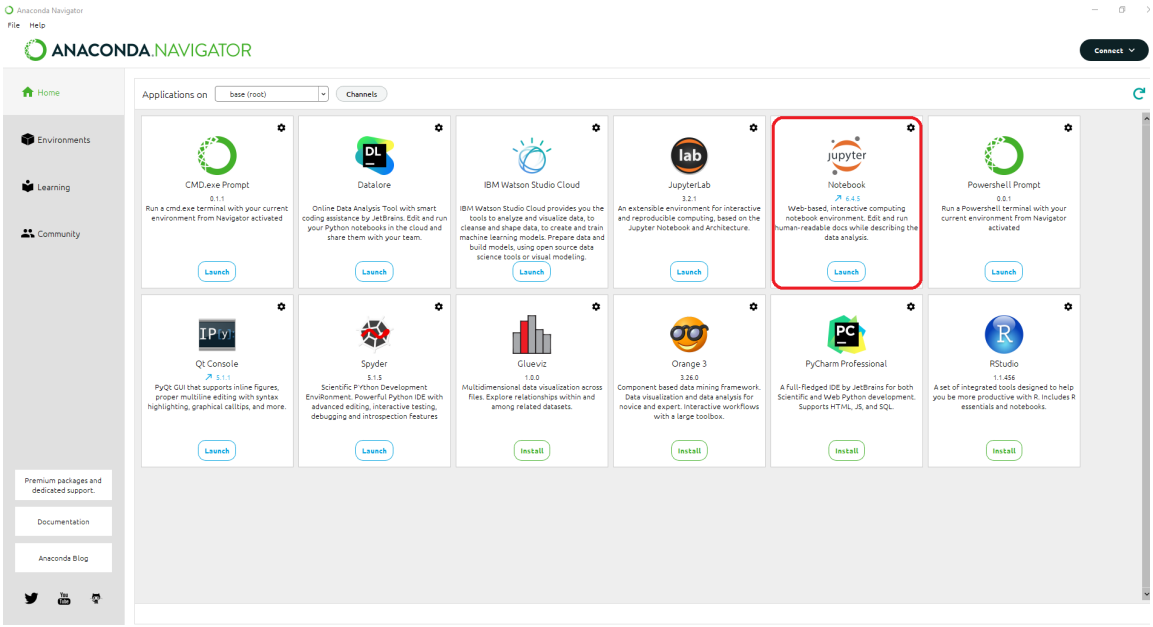
Installation

We will be using Jupyter Notebook for most programing exercises. The easiest way to get it is to download and install Individual version of Anaconda Navigator.

Link: https://www.anaconda.com/products/individual

If you need more help with installing it, see the instructions here: https://docs.anaconda.com/anaconda/install/

This will install Jupyter Notebook, Python and all needed libraries. When it is installed, open it and you will see the following window:

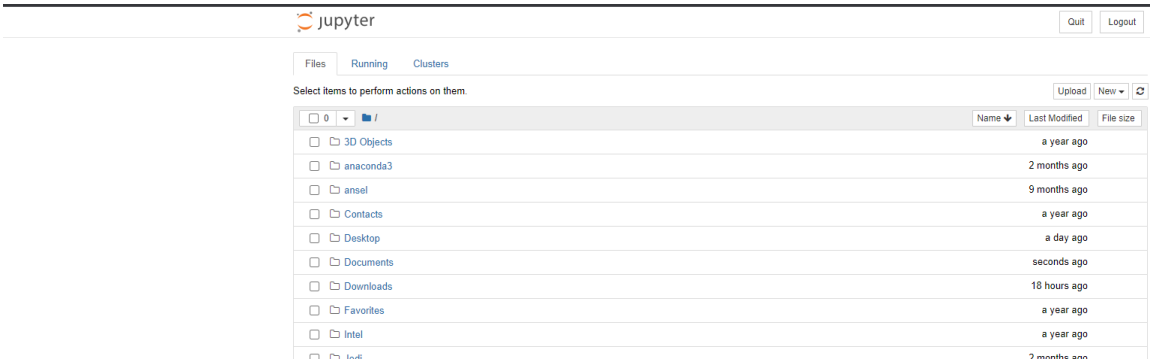


Here is a Jupyter Notebook (highlighted in red above). As you can see, there are other applications there as well. Most of them may be useful to you in the future if you are planning to do Data Science.

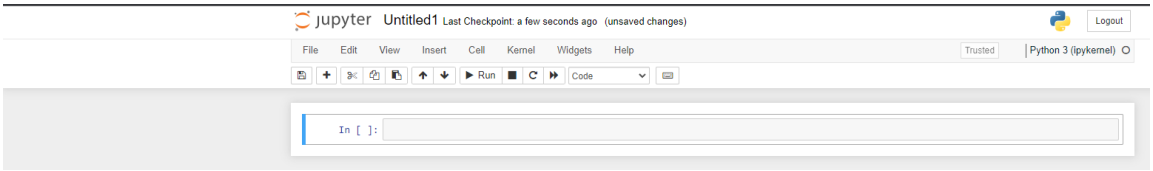
Quick note, if in the future you find that you are missing any needed libraries, you can install them either in the Environment tab on the left or through pip command in the Powershell Prompt (a terminal).

Jupyter Notebook.

Now open Jupyter Notebook. It will open in your browser:



Navigate to where you want to keep your projects. You can create new folder in the tab "New" on the right side. Also in that tab, you will be able to create a new Notebook file (you will see something like "Notebook: Python 3 (ipykernel)"). When you click to create a new notebook you will see:

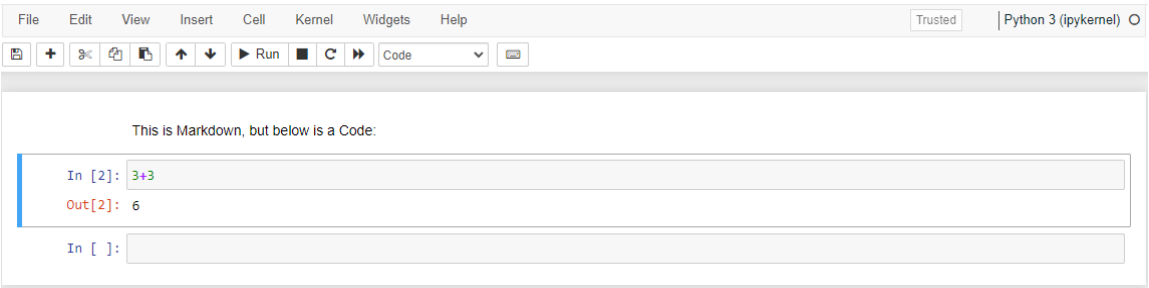


This is the Jupyter Notebook.

In the file tab, you can rename it and save it as notebook (.ipynb file). Go through the menues to see what you can do. See "Help" tab for Keyboard shortcuts and Interface Tour.

Below the menues you can see an Input Cell. The blue color means you have selected that cell. If it has green color, it means you are editing the cell.

On top, you have a dropdown menu for each input cell, you can select either "Code" (default choice) or "Markdown". Markdown is for text and Code is for code:



Whenever you write markdown or a code and you need to see the outcome, click `"Run"` when the correct cell is selected.

Now, open Tutorial2.ipynb file in the Notebook.

Online Alternatives to Notebook

There are two alternatives to Jupyter that is fully online. However, if you plan to stufy Data Science, you should use downloadable Anaconda package as it comes with other tools that are very useful for Data Science. From the following online options, Google Colab is a bit better as it doesn't have limit on processing power and so it is faster.

2. Google Colab: https://colab.google/

   ```
   Uses your google account.
   ```

3. Anaconda Cloud: https://anaconda.cloud/

   ```
   Sign up and click "Launch notebook"
   ```

ipynb to PDF convert

Go to `File/Save and Export Notebook As`. Choose Webpdf. It will open a PDF file that you can save on your computer.

If you are using Google Colab or older version of Anaconda, you can go to `File/Print` and print to PDF.

In [ ]: