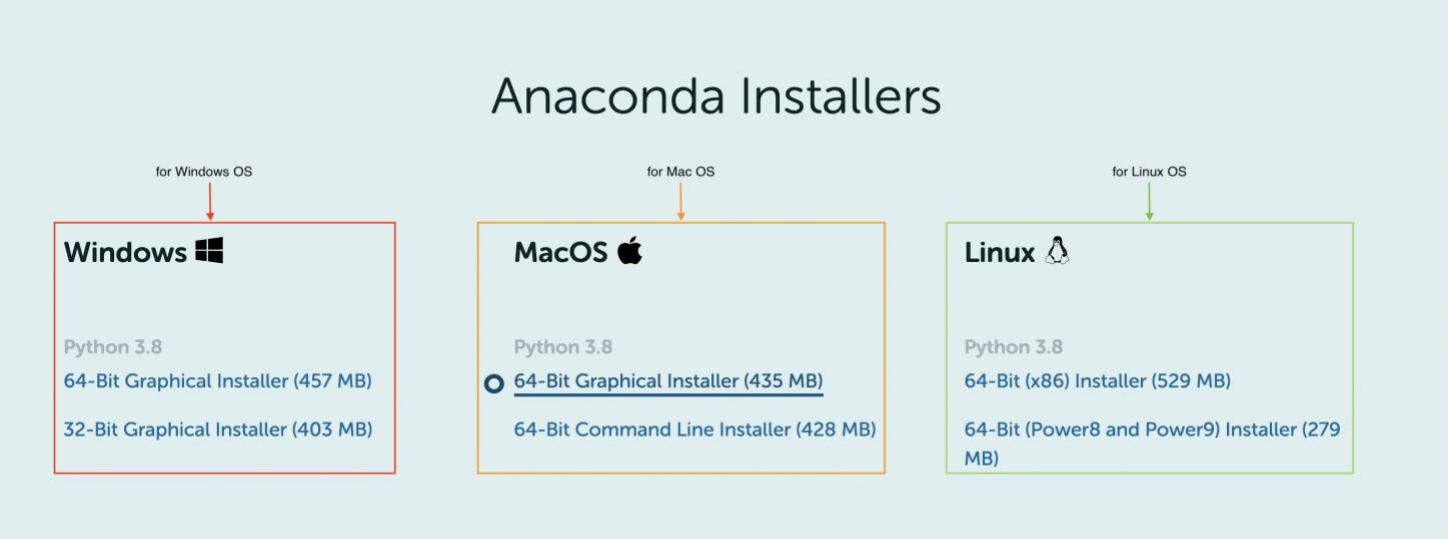
Environment Set-Up and Overview

Set-up and Installation Anaconda Navigator

Anaconda is distribution of Python. This means it includes not only python, but many libraries that we use in the course, as well as its own virtual environment system. It's all-in-one install that is extremely popular on data science and machine learning.

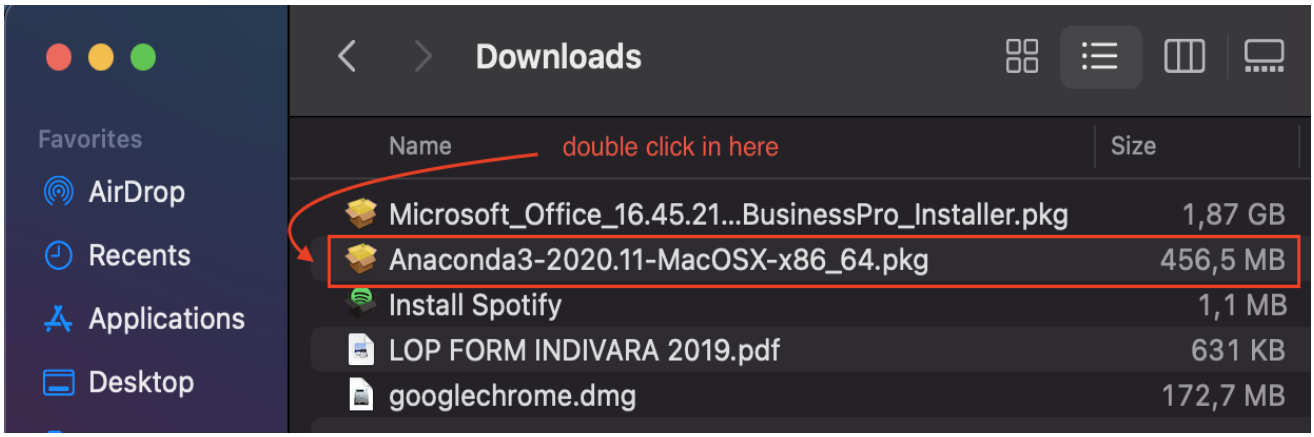
Step 1

Paste this link in your browser https://www.anaconda.com/products/individual , and scroll down until you meet this page.

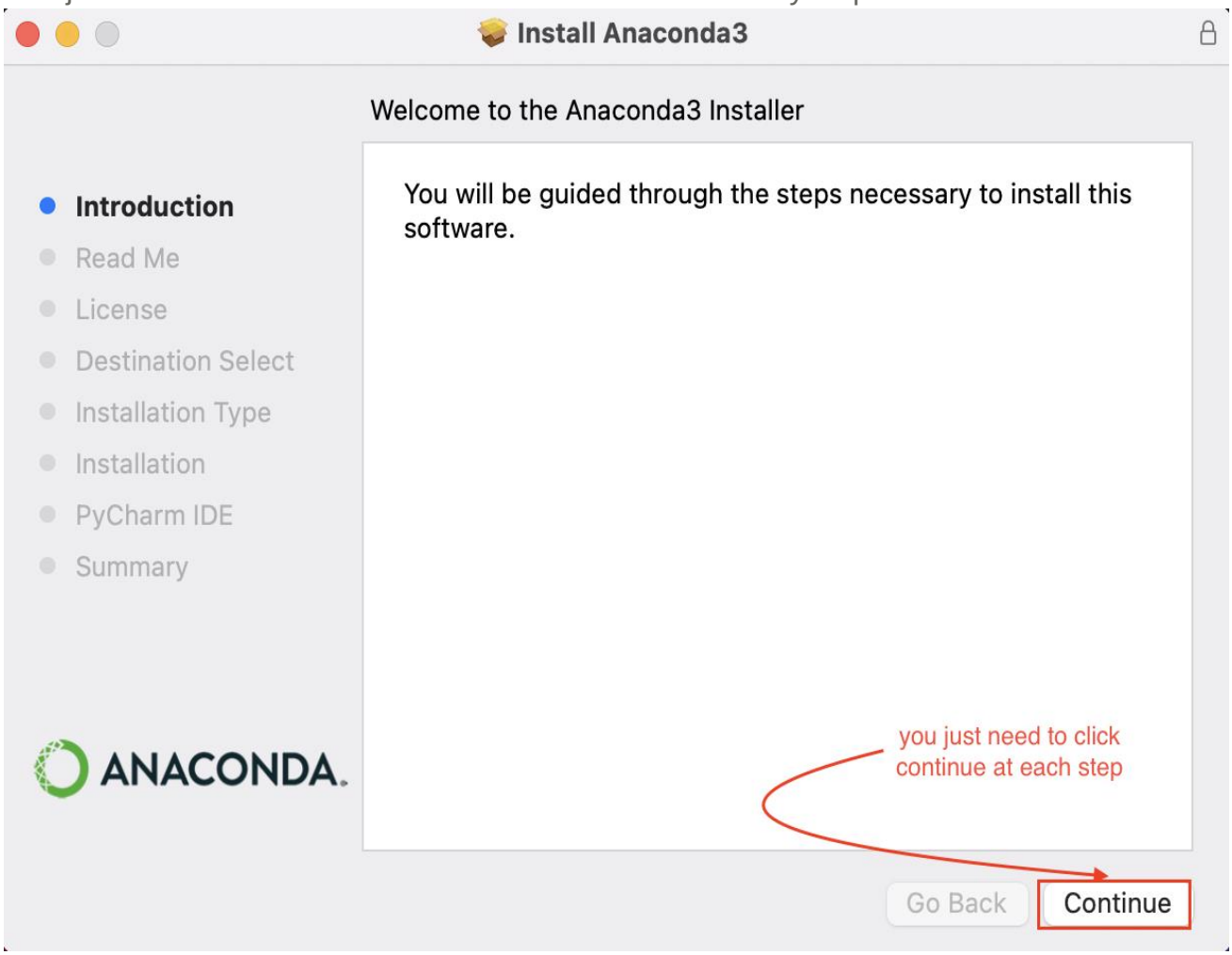


Step 2

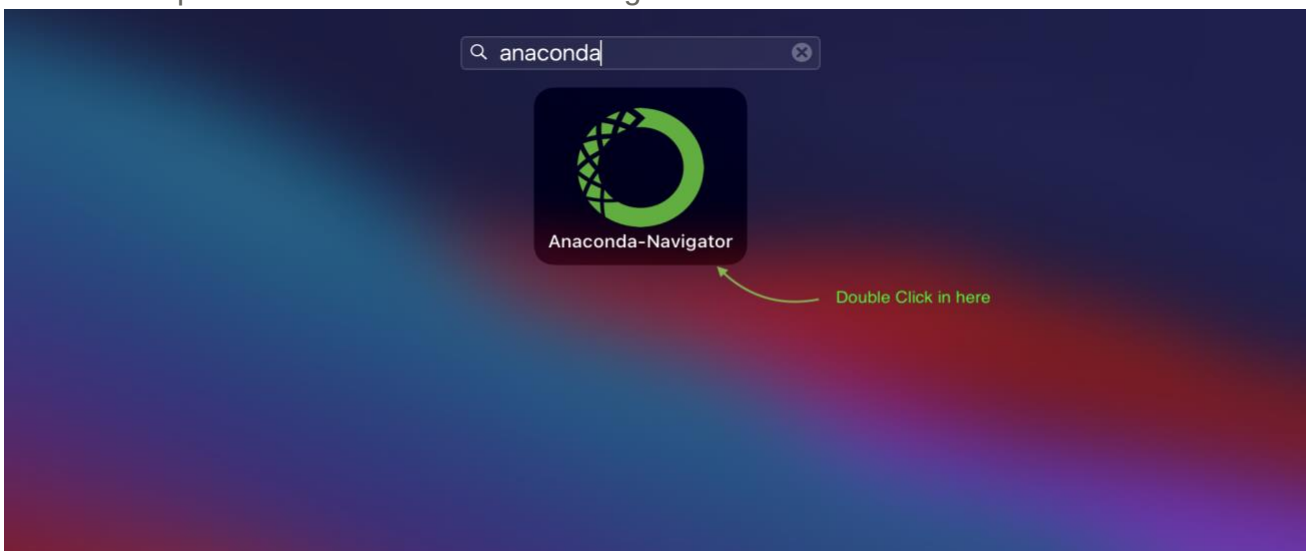
a. Open your download folder and install the program, below how to install on MacOS.



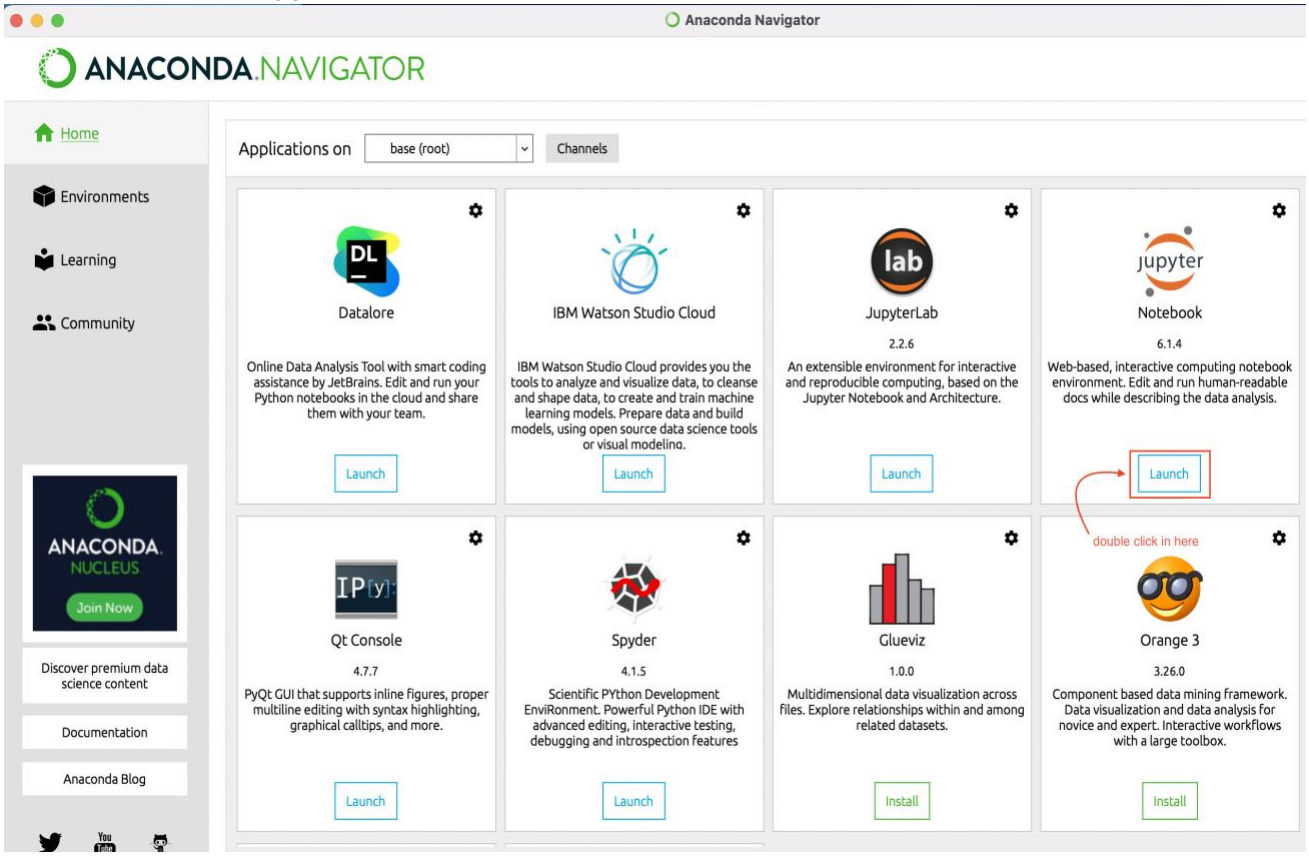
b. You just need to click continue at introduction until summary step



c. Click launchpad and search Anaconda Navigator

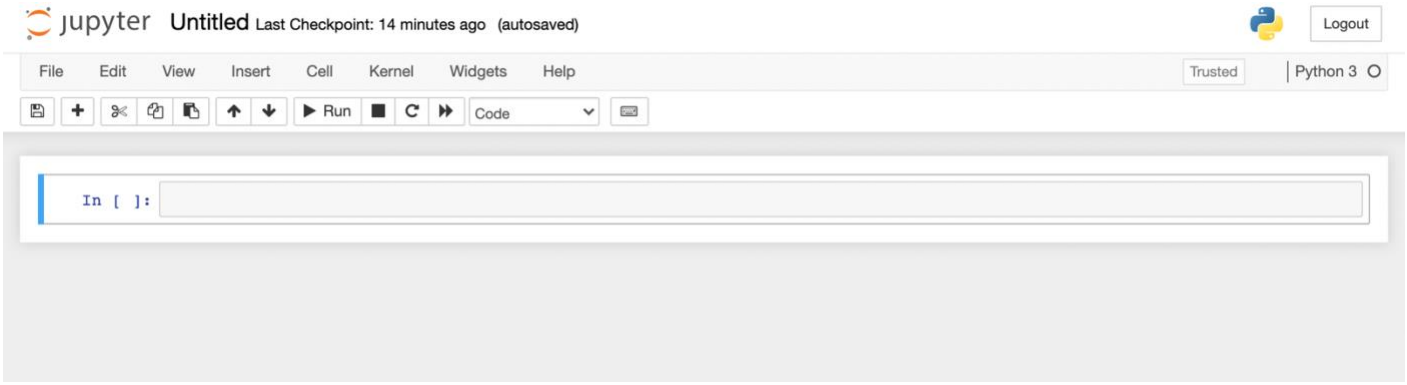


d. Click Launch on Jupyter Notebook



Step 3

Now, you can start to coding in Jupyter Notebook

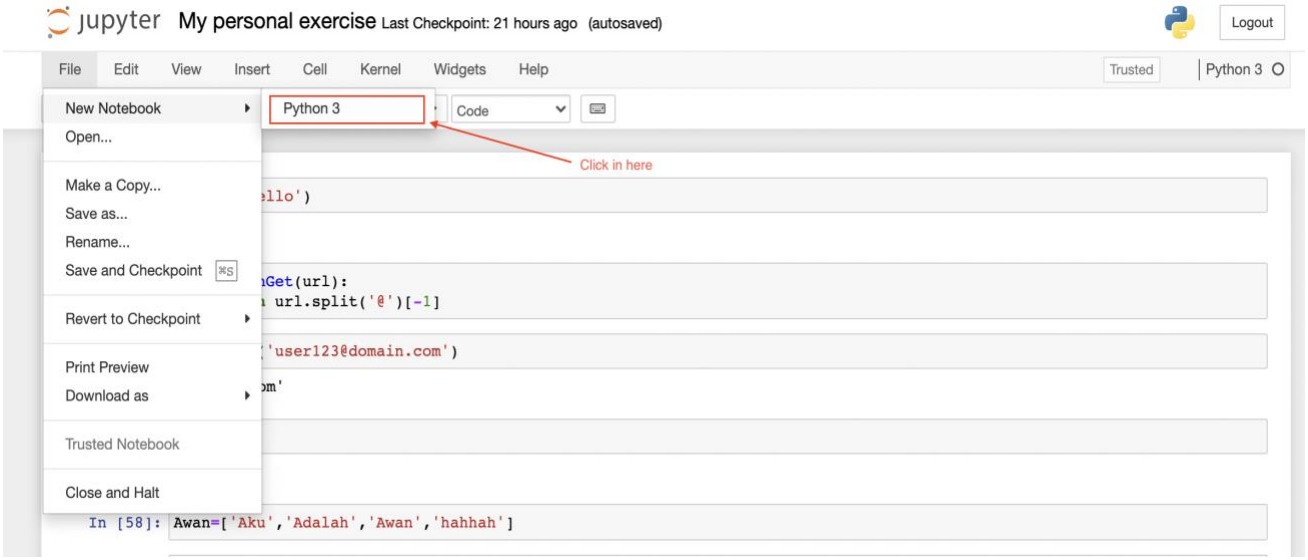


Jupyter Notebook Overview

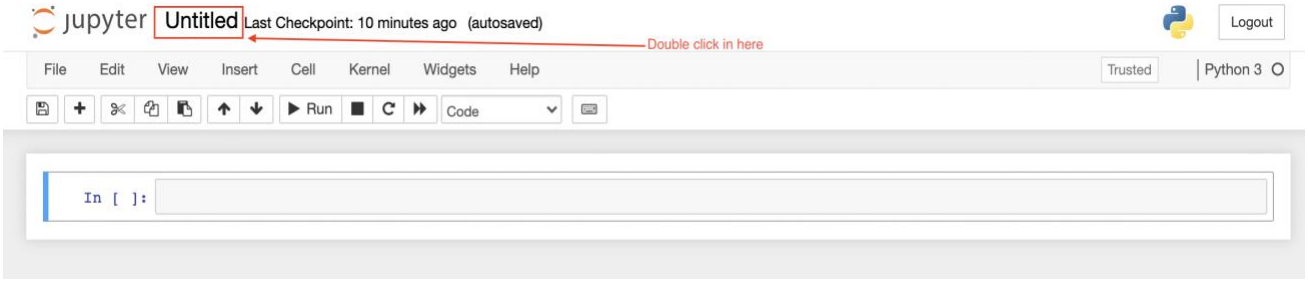
Jupyter Notebooks are one of those tools for data science and machine learning. Jupyter Notebook is an open-source web application that lets you create and share documents containing live code, equations, visualizations, and explanatory text. Its uses include : data cleaning and transformation, numerical simulation, statistical modeling, machine learning, and much more.

Let me go ahead and explain how the Jupiter notebook system in general works:

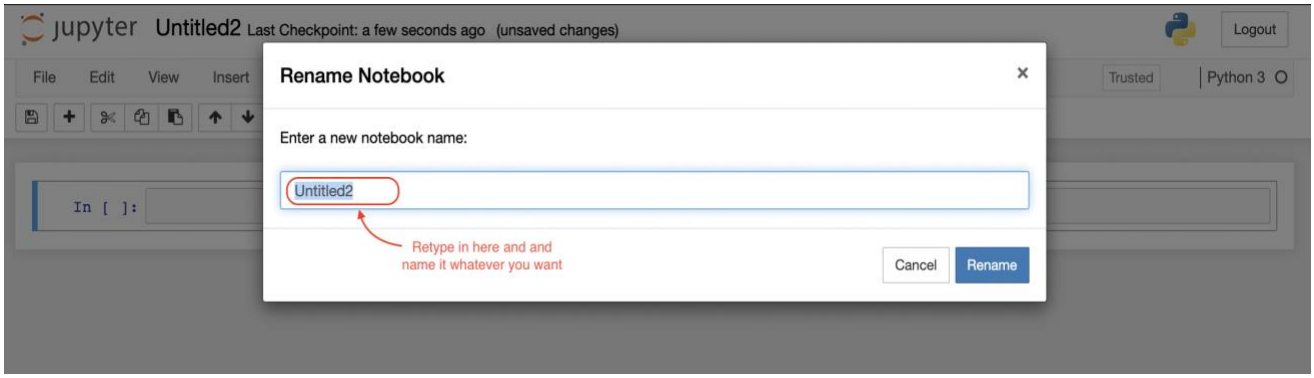
1. Create a new notebook



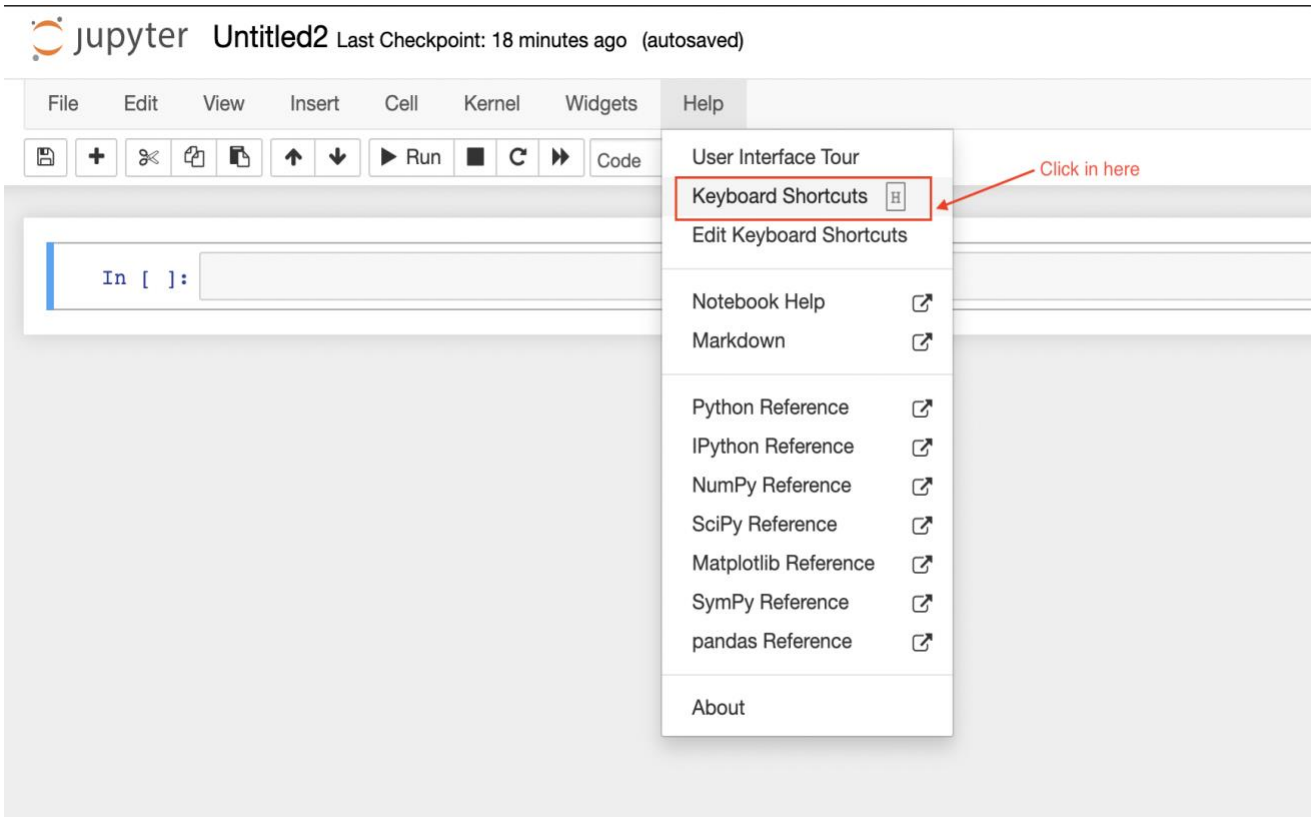
2. For rename, you can just click new whatever it says in notebooks. You should be fine to click on it, you'll get something like this to retitle this notebook.



System will show this this screen, you don't just click here under the untitled section and name it whatever you want. After that you can click button Rename.

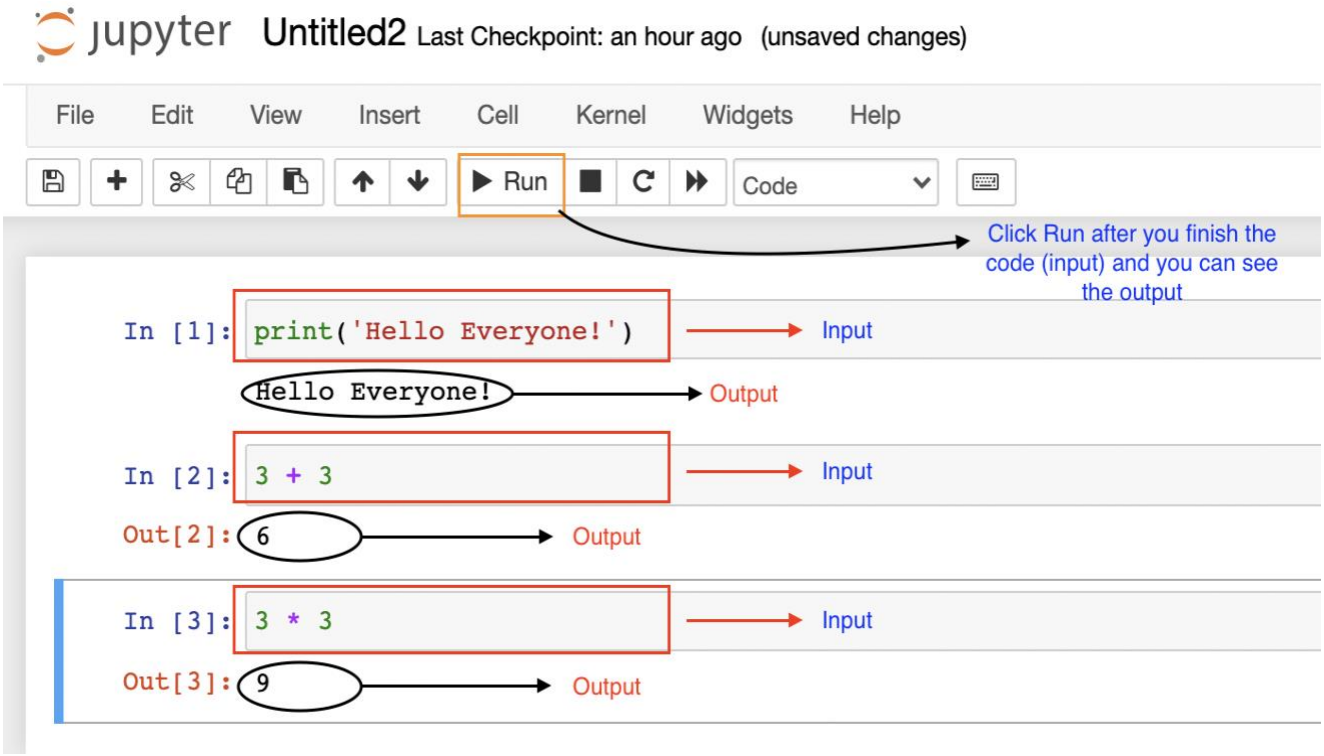


3. If you need Keyboard Shortcuts, you can press button H on keyboard. Or in juptyer notebook you can go to menu bar/ help/ keyboard shortcuts and you can see all the tips of keyboard shortcuts.

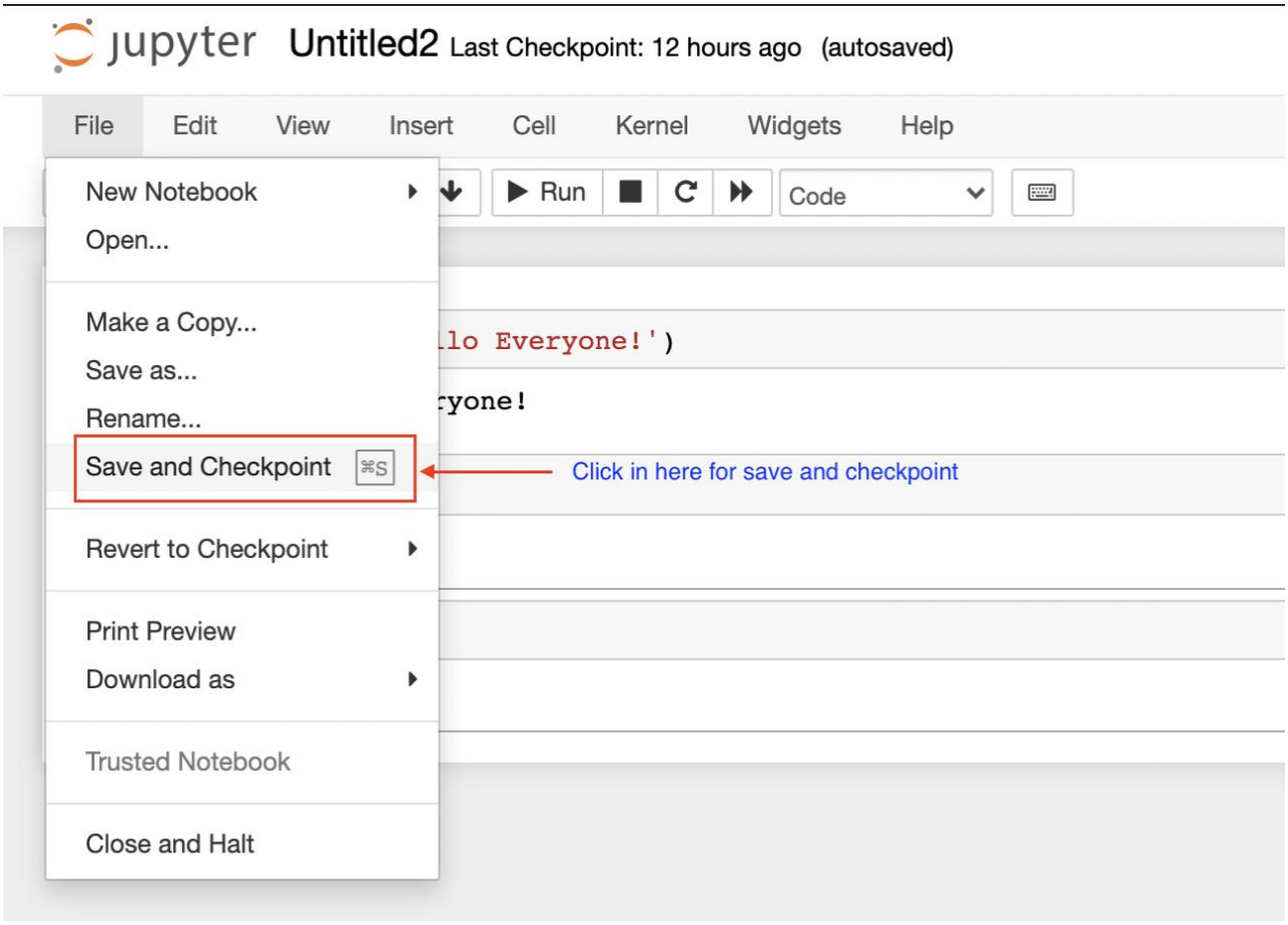


4. Basic code.
   This is a code cell which means I can type in Python code into the cell and then run it as a very basic example I can say prints hello everyone and then I can run the cell by clicking here on run and I'll go ahead and run and show me the output below the cell, and run and show me the output below the cell.

   I can also do the same thing for basically any Python code if I wanted to know what three plus three is six and others operation number



Now you may be wondering how can I save this notebook. Can either do "control s" on windows and "command s" on MacOs or click here on the little floppy disk save actually has an autosave feature surround every two minutes auto save. Or you can just say file and you can do a save and checkpoint here.



5. Kernel
   Basically what happens is this notebook is connected to a kernel and a kernel is kind of just an instance of Python running. And if something's wrong where Python is crashing maybe you actually wrote a script that just infinitely loops or takes a really long time.
   You can always just stop everything by coming over to kernel and clicking restart can also interrupt if you just want to interrupt that specific cell but sometimes it doesn't work. If you get a really bad while loop that runs forever just keep that in mind.