Problem Set 1

Due Friday, September 7 at 10am via Moodle

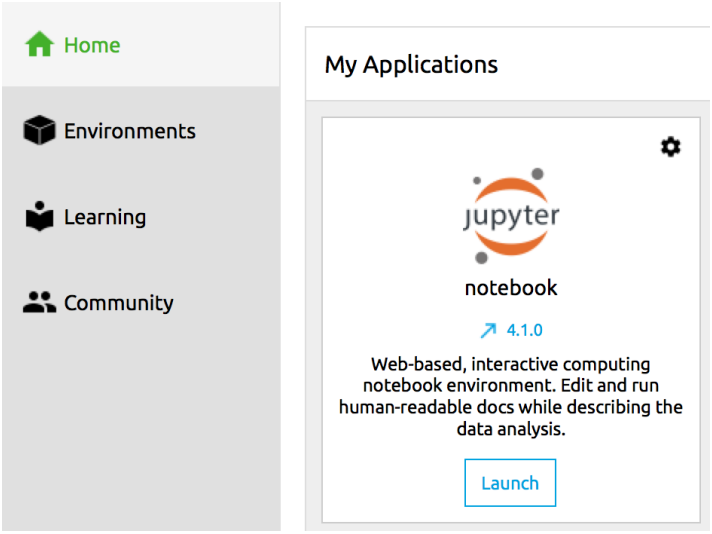
Setup - Installing the Anaconda Python Distribution

Anaconda is the world's most widely-used data science platform for the Python programming language. It is a "package manager" for Python, i.e., it has (nearly) all of the software packages we will need in ASTR 228 built into it. It also makes updating existing programs and installing new ones much simpler.

The download and installation is fairly straightforward. The package is free and available for Windows, Mac, and Linux computers:

https://www.anaconda.com/download/

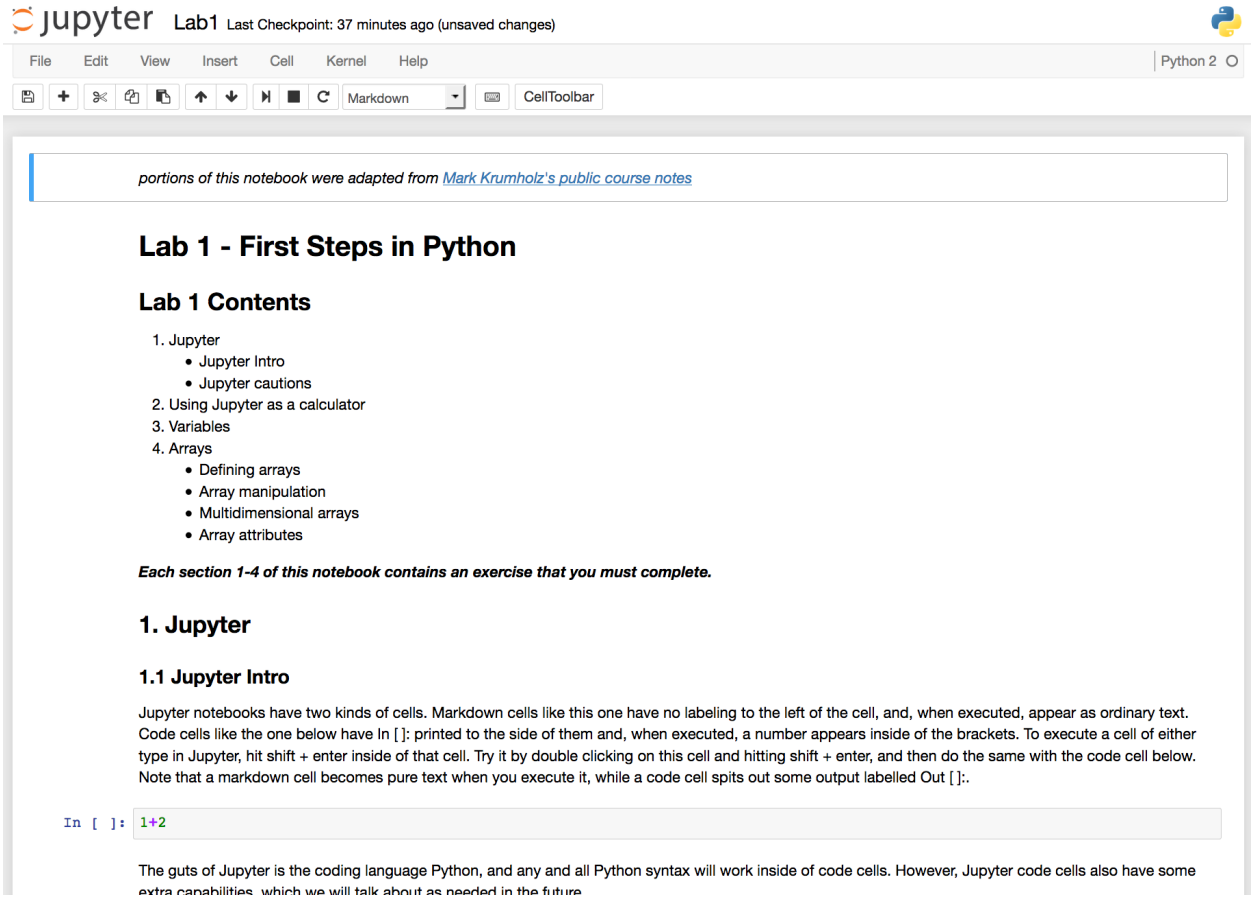
Once Anaconda is installed, it will create a desktop icon named "Navigator". Open this program (it may take a few minutes to run the first time). You are now ready to use the Jupyter notebook, by clicking on the "Launch" button. The Jupyter notebook will then open as a new tab or window in your computer's default web browser.



Exercise #1: First Steps in Python

To work through Exercise #1, first download the file "Exercise1.zip" from the course website at www.katefollette.com/teaching/courses/ast228f18/homework

Once you've downloaded and unzipped this file on your computer, you can navigate to it through the Jupyter notebook interface within your browser. Once there, click on "Exercise1.ipynb" and follow the tutorial. Within your browser, it should look like this:

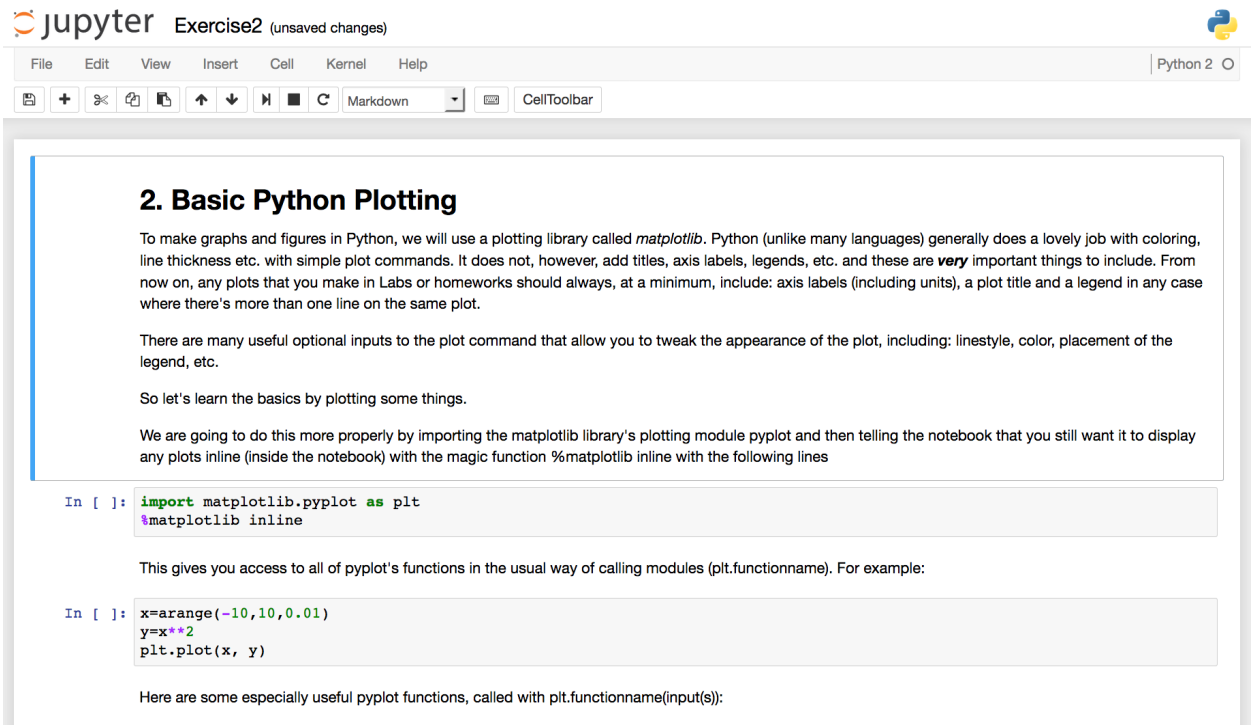


You can now walk through the tutorial and run code within the notebook.

Exercise #2: Basic Plotting in Python

As before, download the zip file from the course website and save it to a directory on your computer, then navigate to that directory within a Jupyter notebook.

Once the file is unzipped, you should see the "Exercise2.ipynb" notebook and be able to open it within your browser:



Once completed, zip Exercise1.ipynb and Exercise2.ipynb together into one file and submit them both to the course Moodle site by the start of class on Friday, September 7.