# DATA 115 Python Installation Links

This document provides some additional instructions and links for getting started with installing python. The second page provides links to the two cloud services that we talked about in class.

## 1 Installing Python

- You can install python through Anaconda by going to anaconda.com and selecting individual edition under products in the top menu bar. That page has a download link where you can select the installer for your particular operating system. I recommend simply accepting the defaults throughout the installation process unless you really know what you are doing.
- You can see a step by step guide for your operating system by going to https://docs.anaconda.com/anaconda/install/ (feel free to skip the recommended step #2)
- Once you have gotten through the installation process the first step is to create a new environment for the class.
- Begin by opening up a terminal (on Mac or Linux this is your regular terminal - on Windows, Anaconda installs a new 'anaconda prompt' that you can search for in the start menu).
- You should see the word (base) in parentheses to the left of your path and cursor.
- Now type:

  ```
  conda create --name DATA115
  ```

  and then hit the enter key
- Next, we need to activate the environment so type

  ```
  conda activate DATA115
  ```

  and hit enter again. Now the text to the left of your path should say (DATA115).
- Finally, try to launch a jupyter notebook in your browser by typing (and then hitting enter):

  ```
  jupyter notebook
  ```

- If this works, great!
- If not, you will have to install jupyter by typing:

  ```
  >>> conda install jupyter
  ```

  it will think for a while and then ask you for permission to proceed. Type 'y' and hit enter and it will take care of the rest for you.
- You can read more about how jupyter notebooks interact with the python ecosystem here: https://problemsolvingwithpython.com/02-Jupyter-Notebooks/02.00-Introduction/

## 2 Notebooks in the cloud

If you are unable to install python on your computer, you can still run python programs and notebooks in the cloud using services provided by CoCalc or CoLab. Having python installed on your computer means that you won't be reliant on internet access to be able to run programs and that you won't need to worry about space limits or computation time limits that the service providers place on the free accounts.

- https://cocalc.com provides a notebook interface that you can access without even making an account. Just click the green 'Run CoCalc Now' button on the main page. This will take you to a new page where you need to choose a 'kernel' for you notebook - for this class you want to select the one that says python3. If you do register for an account you will be able to save your notebooks in the cloud instead of needing to start over from scratch every time.
- https://colab.research.google.com is a google (Alphabet?) hosted option that is also free as long as you have a google/gmail account. No need to select a kernel here (they are all python) you can just click file and then new to get started. If many people from class end up using this option, I will start hosting the .ipynb files we use in class on github, in which case you will be able to directly import the class material to your colab workspace.