Python Training

The steps below outline the process for downloading Anaconda, which is the open source distribution of the programming language Python that will also allow you access to Jupyter Notebook. Jupyter is the interface we will be using to code in Python, much like RStudio is used to code R (and make it look pretty).

1. Mac OS Users: To prevent permissions problems, we recommend that you upgrade to macOS 10.12.3 or later before installing Anaconda.

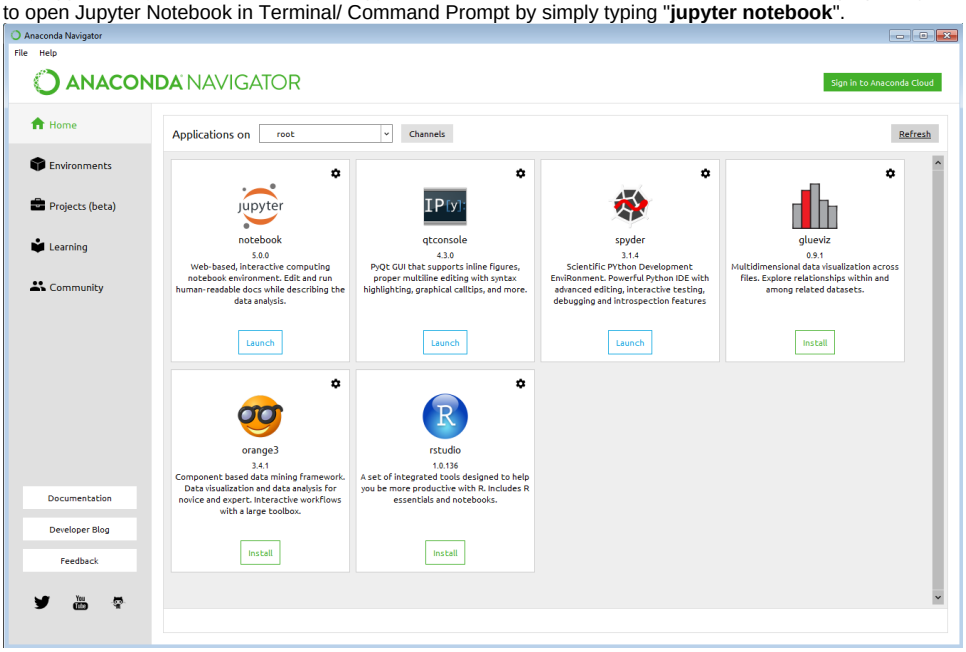
Step-by-step guide

If you are having difficulty with any of the steps on this page, please reach out to your fellow students. They will be your best resource for this course, and collaboration is encouraged! If you are still having trouble, come to office hours or reach out to Juan (jfg98).

Download the latest version of Anaconda with Python Version 3.6 here.

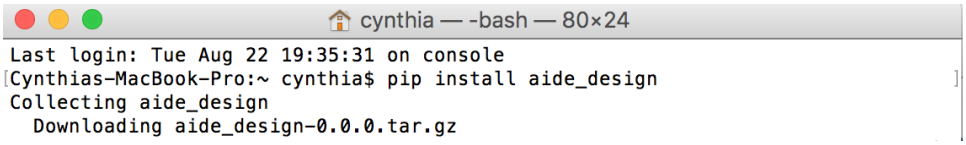
a. Download the graphical installers and follow the guided installation.

b. Anaconda Navigator should be downloaded onto your computer now and it looks like this. Python will be automatically downloaded. The only application you need to access is Jupyter notebook. For future access, you can either keep opening Anaconda Navigator or choose to open Jupyter Notebook in Terminal/ Command Prompt by simply typing "**jupyter notebook**".



c. Install aide_design on your computer. AIDE stands for AguaClara Infrastructure Design Engine. aide_design is a Python package that AguaClara has developed which allows you to use the AguaClara design code, which contains many useful functions and databases that will be in your assignments. Additionally, it will download Pint, which is a package that can handle units and calculations with units in Python. To install aide_design, you will need to access your PC's command line or your Mac's terminal. PC users can open **Anaconda Prompt** (which should have installed automatically when you installed Anaconda) instead of Command Prompt. Mac users can open the terminal by using the instructions here.

d. Type into the prompt (command prompt for mac users, anaconda prompt for PC users) "**pip install aide_design**". If you'd like to update aide_design later, type in "**pip install -U --no-deps aide_design**". If this does not work for you, type in "**sudo pip install aide_design --upgrade**" and enter your password. Note that your password and keys you are pressing will not show up, just hit ENTER. Only use sudo in cases of emergency because it directly messes with your OS.



e. Congrats if this happened smoothly! Also congrats if it happened at all! Continue to the Python Tutorial.
f. Download the Python tutorial to your local computer. Make sure Jupyter Notebook is open and refreshed to reflect that the Python Tutorial is on your local and can be opened.
g. Make sure to complete the two questions and send your completed tutorial to your RA to be graded.

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- Understanding the Settings of the Floc Size and Count Application