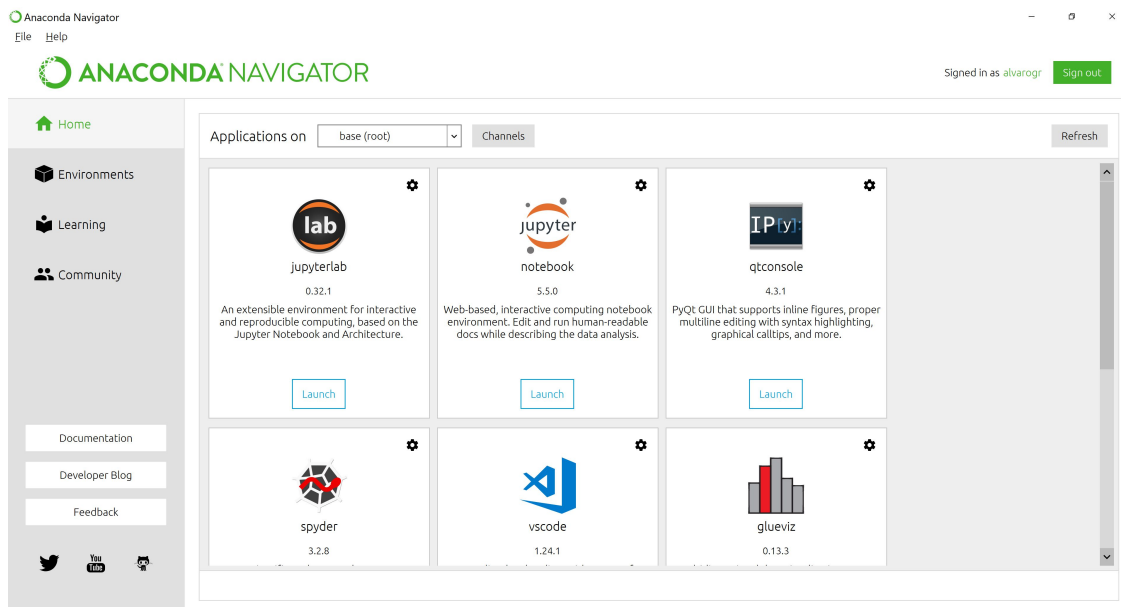# Installing the Environment, Class 1

July 4, 2018

Anaconda and Jupyter environments.

What is Anaconda? Anaconda is a distribution of the Python and R programming languages for data science and machine learning related applications (large-scale data processing, predictive analytics, scientific computing) (wikipedia)

Included packages: NumPy, SciPy, Pandas, Matplotlib, Seaborn, Bokeh, Plotly, SciKit-learn, Tensorflow, etc

```
In [32]: from IPython.display import Image
         Image(filename="img/Anaconda.jpg", width = 500, height = 300)
```

Out[32]:

What is JuPyteR? Jupyter Notebook, or just Notebook, is a browser based environment. A Notebook document is a JSON document, it contains an ordered list of input and output cells. These can contain code, text (as Markdown), math, plots and other media.

Notebooks can be presented in a large number of formats, such as HTML, presentation slides, LaTeX, PDF, ReStructuredText, Markdown, Python. Jupyter supports several dozen languages

title

and its name is a reference to 3 core languages supported: Julia, Python and R, and it's a reference to Galileo's notebooks regarding his discovery of Jupiter's moons.
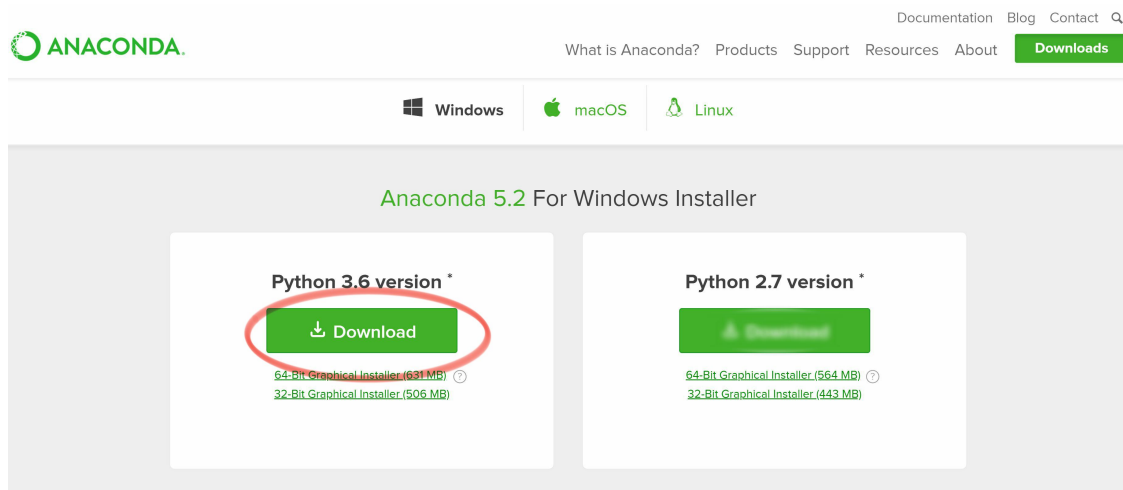
Convinced? good!

We are going to use Python ver 3.6 in this course (* note: if you have version 2.7 or older installed, it is best that you uninstall this older version) For Window please go to:

https://docs.anaconda.com/anaconda/install/windows.html
https://www.anaconda.com/download/#windows

```
In [42]: from IPython.display import Image
         Image(filename="img/Ana Win Install.jpg", width = 500, height = 300)
```

```
Out[42]:
```


For MacOS:
https://docs.anaconda.com/anaconda/install/mac-os
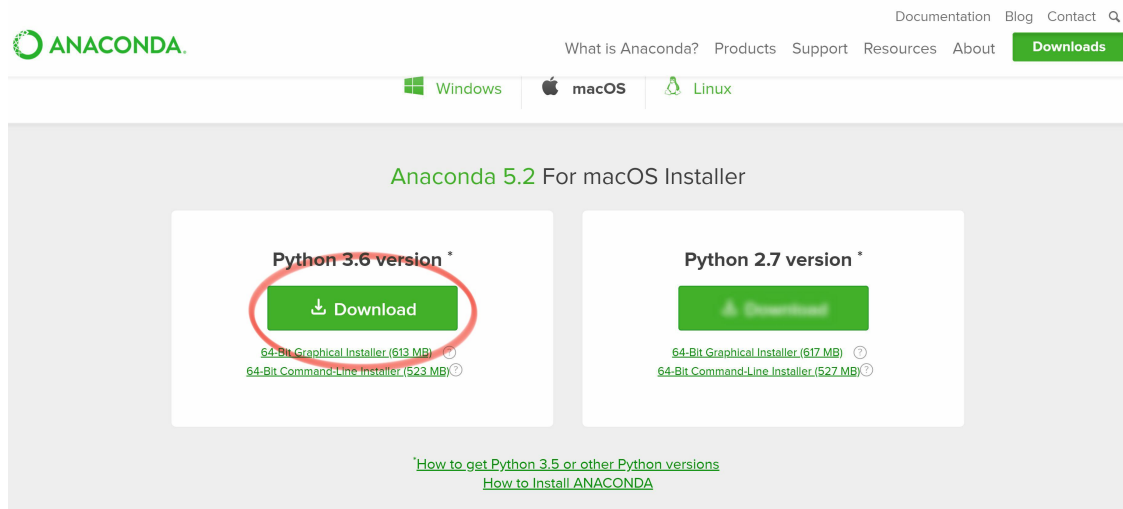
```
In [43]: from IPython.display import Image
         Image(filename="img/Ana OS Install.jpg", width = 500, height = 300)
```

Out[43]:

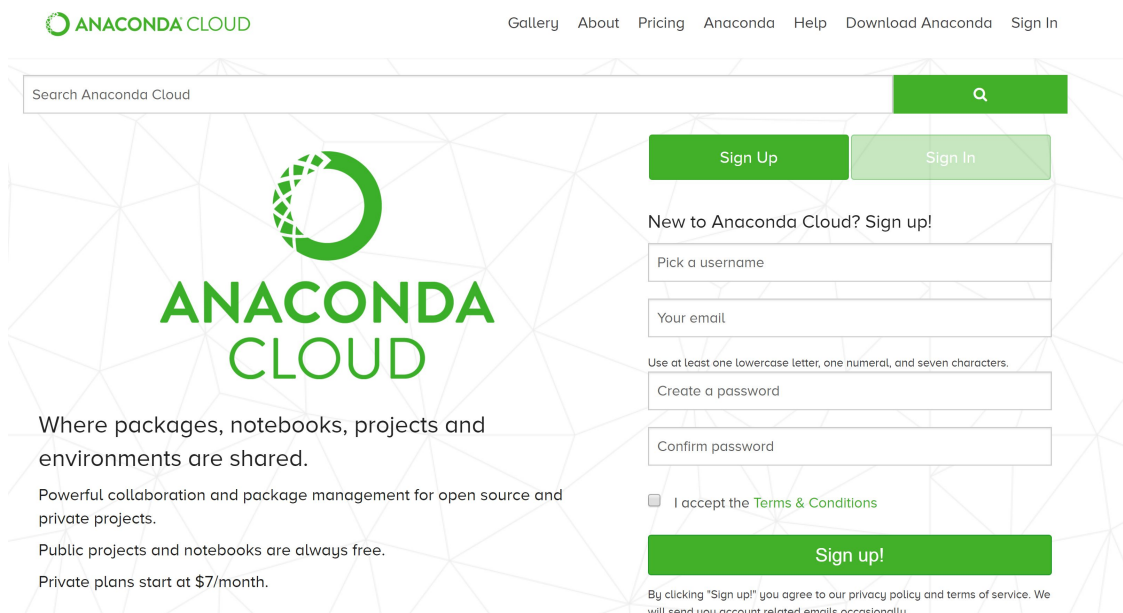Please also sign up to Anaconda cloud:
https://anaconda.org/

```
In [44]: from IPython.display import Image
         Image(filename="img/Ana Cloud.jpg", width = 500, height = 300)
```
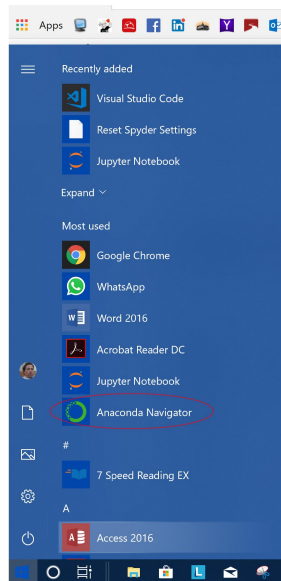
Out[44]:

Windows Users: Find your Anaconda Navigator on your Startup Menu

```
In [45]: from IPython.display import Image
         Image(filename="img/Win Start.jpg", width = 500, height = 300)
```
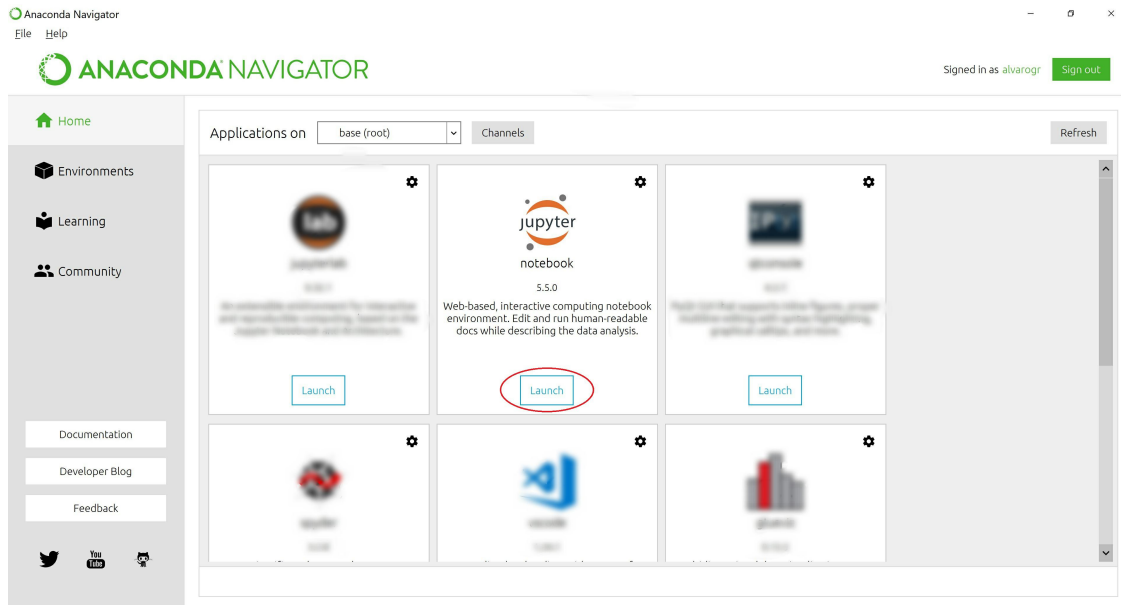
Out[45]:

Select a Jupyter notebook

```
In [41]: from IPython.display import Image
         Image(filename="img/Anaconda2.jpg", width = 500, height = 300)
```

Out[41]:

An in browser file navigator should appear. Click on "New" button, located near your upper right corner

```
In [52]: from IPython.display import Image
         Image(filename="img/Jup Dir.jpg", width = 700, height = 500)
```
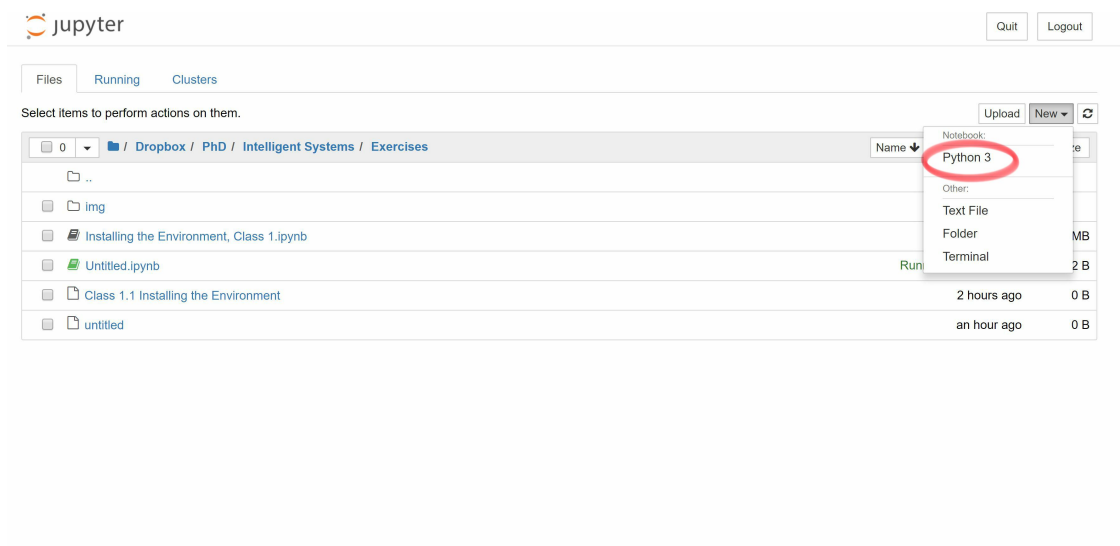
Out[52]:

A dropdown menu should appear, Select Python 3 to start a New Python Notebook

```
In [53]: from IPython.display import Image
         Image(filename="img/Jup Dir New.jpg", width = 700, height = 500)
```

`Out[53]:`

Your Notebook, and shell, should appear. You can switch between coding and text by selecting your choice on the "code" or "markdown" option on the drop down menu.

```
In [54]: from IPython.display import Image
         Image(filename="img/Untitled.jpg", width = 700, height = 500)
```

`Out[54]:`