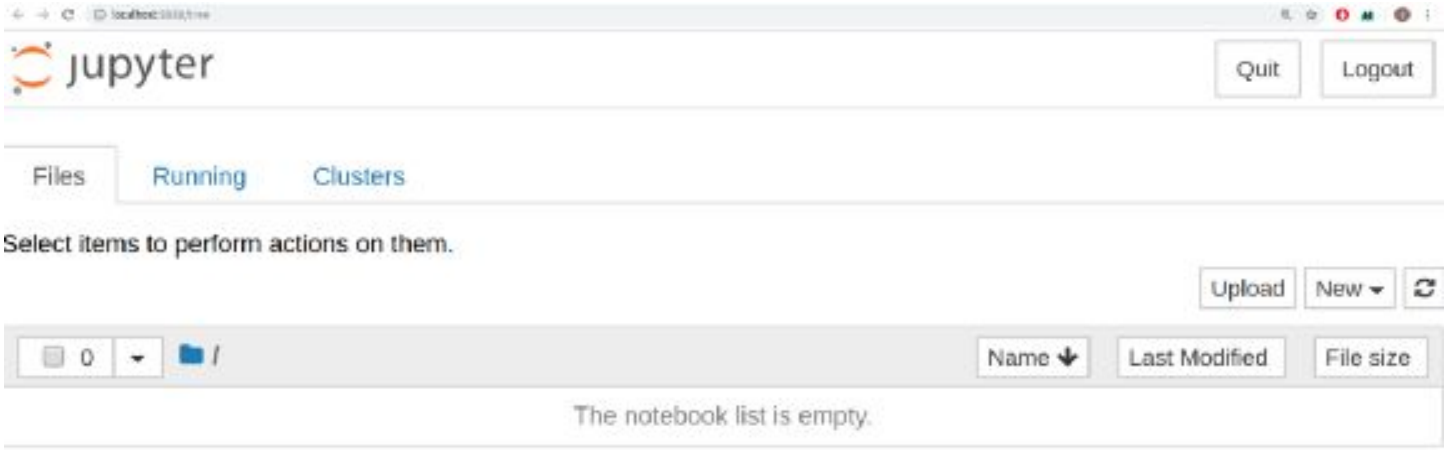
Introduction to Jupyter Notebooks

Jupyter Notebook

- A Jupyter Notebook is a powerful tool for interactively developing and presenting Data Science projects.
- Notebooks integrate your code and its output into a single document.
- That document can contain the text, mathematical equations, and visualizations.
- Kaggle Kernels, Google Colab are compatible with Jupyter Notebooks.

Setting up a Jupyter Notebook

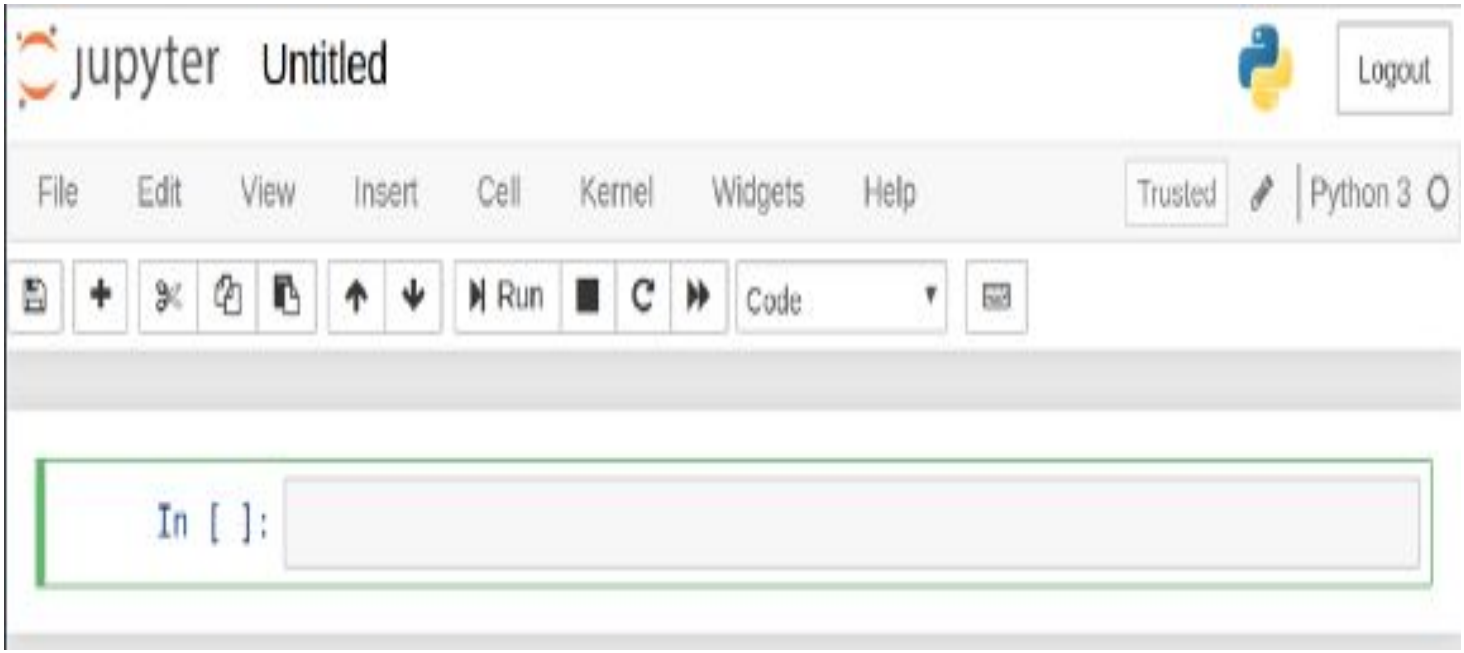
- Install the Jupyter library from Python, using pip3 install jupyter.
  - Then start up Jupyter with the following command: jupyter notebook
  - Or use Anaconda prompt to start Jupyter
- This will start up a Jupyter server and your browser will open up a new tab to the following URL: http://localhost:8888/tree. It'll look a little something like this:



The Basics of Jupyter Notebooks

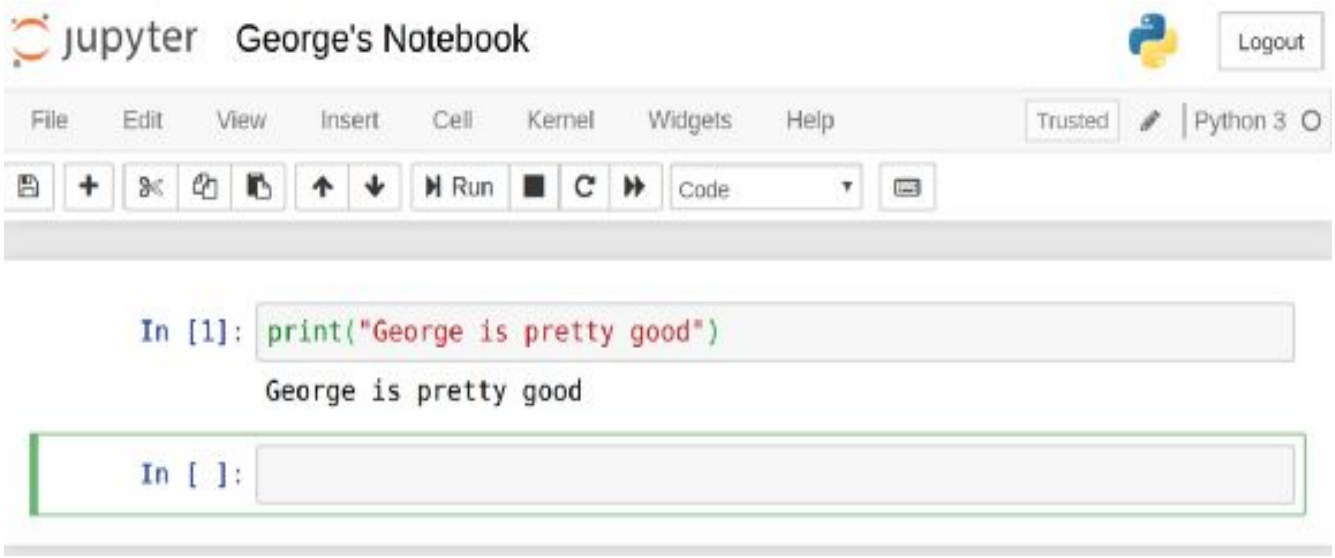
INTERNSHIPSTUDIO

- To create a notebook, click on the “new” menu in the top right and select “Python 3”. At this point your web-page will look similar to this:



Jupyter Notebooks

- Notice how the first line of your Notebook is marked with an In [] next to it. That keyword specifies that what you are going to type is an input. Let's try writing a simply print statement there. Recall that your print statement must have Python 3 syntax since this is a Python 3 Notebook. Once you write your print statement in the cell, press the Run button.



The Menus

- The File menu allows you to create, copy, rename, and save your notebooks to file. The most notable item in the File menu is the Download as drop down menu which lets you download your notebook in a variety of formats including pdf, html, and slides — perfect for creating a presentation!
- The Edit menu lets you do the good'ol can cut, copy, and paste of code. You can also reorder cells here, perhaps if you're creating a notebook for an interactive presentation and want to show your audience things in a certain order.
- The View menu lets you play around with things like displaying line numbers and modifying the toolbar. The best feature in this menu is definitely the Cell Toolbar where you can add tags, notes, and attachments to each cell. You can even select the formatting you would want for this cell if you turned the notebook into a slide show!
- The Insert menu is just for inserting cells above or below the currently selected cell. The Cell menu is where you go to run your cells in a specific order or change the cell type.
- Finally you have the Help menu! The help menu gives you direct access to important documentation

Quiz section

1. Install and run Jupyter notebook
2. Practice on followings Jupyter notebook
   - Create a new file
   - Run a simple command
   - create, copy, rename, and save the files
   - Explore Download button and use it for a python file
   - Using edit button try copy & paste or cut the code
   - Use View menu to displaying line numbers and modifying the toolbar.
3. Explore all the buttons on File, Edit, View and Insert
4. Save the file and rename it