

# Worksheet 1-3

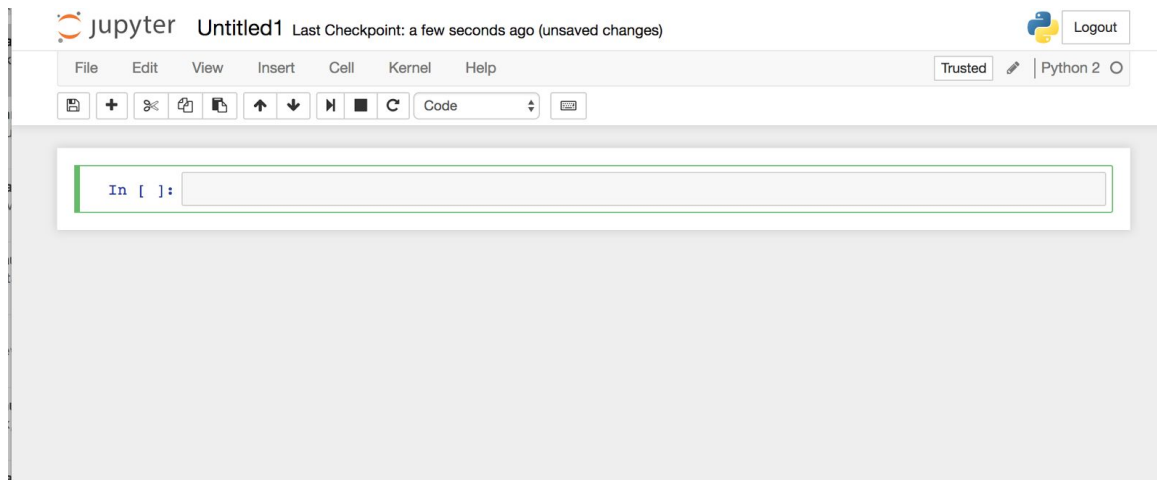
## Part 1: Making basic plots - Lines, bars, pies, and scatterplots

Prerequisite: Make sure you have python, jupyter, and pandas installed before you get here

1. Go to your computer's command terminal/line and type
  - a. jupyter notebook
2. copy the URL and go to the browser



3. On the top right, click "new" > "Python 2" to open your own notebook file



1. You can use the tools to change the "cell" from code to writing. Open a new cell by clicking "Insert"
2. Run a cell by clicking "Cell" >> "Run all"

in the first cell write:

```
in [1] %matplotlib inline
import matplotlib.pyplot as plt
import numpy as np
```

then insert a new cell and write

```
in [2] x = np.linspace(0, 20)
y1 = np.sin(x)
y2 = np.sin(x - np.pi)

plt.figure()
plt.show()

plt.plot(x, y1)
plt.plot(x, y2)
;
```

Now try running all, and you should get something like this:

```
In [68]: %matplotlib inline
import matplotlib.pyplot as plt
import numpy as np
```

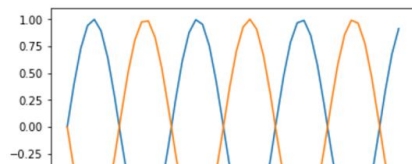
this is an example

```
In [69]: x = np.linspace(0, 20)
y1 = np.sin(x)
y2 = np.sin(x - np.pi)

plt.figure()
plt.show()

plt.plot(x, y1)
plt.plot(x, y2)
#
<matplotlib.figure.Figure at 0x1060446d0>
```

Out[69]: ''



Continue copying the code and get through the end of this tutorial to make lines, bars, pies, and scatterplots.

<https://github.com/rhievery/python-data-visualization-course/blob/master/Section%203%20-%20Data%20visualization%20in%20Python%20-%20matplotlib/Making%20basic%20plots%20-%20Lines%2C%20bars%2C%20pies%2C%20and%20scatterplots.ipynb>

## Part 2: Basic Plot Exercises

You try! Make graphical representations of the three data tables below.

See the three data tables.

Kerry's height since age one	
Age (in years)	Height (in inches)
1	27
2	32
3	37
4	40
5	42
6	45
7	48
8	50
8	52
10	54

<b>Favorite cafeteria food</b>	<b>Number of students</b>	<b>Percentage of students</b>
Pizza	8	40%
Hamburgers	5	25%
Chicken Nuggets	3	15%
Other	4	20%
<b>Total</b>	<b>20</b>	<b>100%</b>

<b>Kind of Pet</b>	<b>Number of Students who have at least one of this kind of Pet</b>
Dog	6
Cat	7
Fish	8
Rodents	5
Others	3