Statistics from Stock Data

In this lab we will load stock data into a Pandas Dataframe and calculate some statistics on it. We will be working with stock data from Google, Apple, and Amazon. All the stock data was downloaded from yahoo finance in CSV format. In your workspace you should have a file named GOOG.csv containing the Google stock data, a file named AAPL.csv containing the Apple stock data, and a file named AMZN.csv containing the Amazon stock data. (You can see the workspace folder by clicking on the Jupyter logo in the upper left corner of the workspace.) All the files contain 7 columns of data:

Date Open High Low Close Adj_Close Volume

We will start by reading in any of the above CSV files into a DataFrame and see what the data looks like.

In [23]:
```
# We import pandas into Python
import pandas as pd

# We read in a stock data data file into a data frame and see what it lo
oks like
df = pd.read_csv('./GOOG.csv')

# We display the first 5 rows of the DataFrame
df.head()
```

Out[23]:

	Date	Open	High	Low	Close	Adj Close	Volume
0	2004-08-19	49.676899	51.693783	47.669952	49.845802	49.845802	44994500
1	2004-08-20	50.178635	54.187561	49.925285	53.805050	53.805050	23005800
2	2004-08-23	55.017166	56.373344	54.172661	54.346527	54.346527	18393200
3	2004-08-24	55.260582	55.439419	51.450363	52.096165	52.096165	15361800
4	2004-08-25	52.140873	53.651051	51.604362	52.657513	52.657513	9257400

We clearly see that the Dataframe has automatically labeled the row indices using integers and has labeled the columns of the DataFrame using the names of the columns in the CSV files.

To Do

You will now load the stock data from Google, Apple, and Amazon into separte DataFrames. However, for each stock data you will only be interested in loading the `Date` and `Adj Close` columns into the Dataframe. In addtion, you want to use the `Date` column as your row index. Finally, you want the DataFrame to recognize the dates as actual dates (year/month/day) and not as strings. For each stock, you can accomplish all theses