USA Stock Market Analysis using Python, pandas, NumPy

The aim of the project is to extract information about various technology stocks mainly - Google, Apple, Microsoft and Amazon from the online stock trading sites - Yahoo Finance and to visualize different aspects of the stocks like the Adjusted Closing Prices, Volumes of stocks traded on a particular day, moving averages of the closing price-to get a basic idea of which way the price is moving by cutting down noise from the data and the daily returns on the stocks.

Create Correlation plots for the daily percentage return and Closing prices of the stocks to check how correlated two stocks are.

It was obvious that all technology stocks are positively correlated but few like Amazon and Microsoft were highly correlated with each other.

The information gathered on daily percentage returns was further used for Risk Analysis by calculating the Expected Return (Average / mean return of the stock) and standard deviation (measurement of Risk -> Greater the std. dev. greater is the risk and vice versa).

A scatter plot was created for comparing the Expected return of stocks to its risk. This helped in visualizing the risk factor of various stocks (stocks with high standard deviation and low return).