Project 1- Stock Analysis

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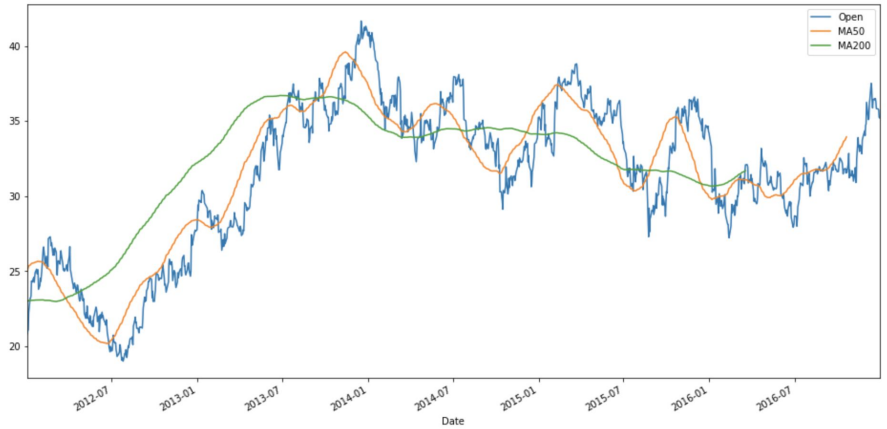
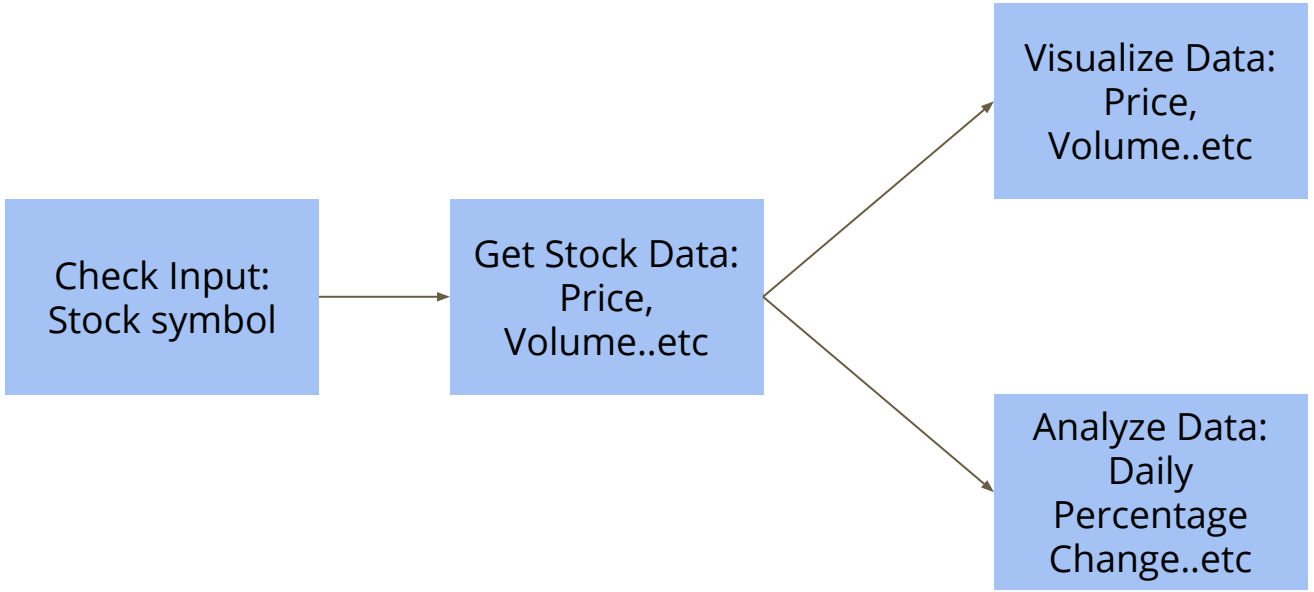
Object - Visualized and Analysis the Stock Price

- Visualized
  - Open Price
  - Volume
  - Total Traded
  - Moving Averages(MA50, MA200)
  - Scatter Matrix
- Analysis
  - Daily Percentage Change Histogram
  - Daily Percentage Change Boxplot
  - Cumulative Return
  - Scatter Matrix



Code Overview



Class and Method

Class	Stock	Plot	Plot3Stock (child class of Plot)	Analyze	Analyze3Stock (child class of Analyze)
Aim	Get the stock data	Visualize the one stock data	Visualize 1~3 stock data	Analyze the one stock data	Analyze 1~3 stock data
Method	__init__ getData output_To_Csv	__init__ plotOpen plotVolume plotTotalTraded plotMovingAverages	__init__ plotOpen plotVolume plotTotalTraded plotScatterMatrix	__init__ dailyPercentageChangeHist dailyPercentageChangeBox cumulativeReturn	__init__ dailyPercentageChangeHist dailyPercentageChangeBox dailyPercentageChangeScatterMatrix cumulativeReturn

Accomplishment

- Object-Oriented Programming for the stock analysis Project
- Class inheritance and overriding
- Get the stock data by pandas
- Visualize data by matplotlib
- Learned basic finance analysis

Challenge

- The source of getting the Stock Data
- Stock Data can pass through different class
- Learn finance equations
- Visualize the stock data

Future State

- Use machine learning to forecasting the stock prices
- My Stock analysis algorithm can get funded from Quantopian

  (https://www.quantopian.com/)