

Python:

1. Write a web-scraping code to download the stocks data for all the Broad Market Indices from https://www1.nseindia.com/live_market/dynaContent/live_watch/equities_stock_watch.htm and store in different csv files.
2. Use the symbols/tickers from the above csv file of Nifty 50 to get the Fundamental data points from yahoo_fin and apply the following filters sequentially on the data to get the desired stocks:
 - a. Businesses which have demonstrated earning power (i.e., earnings per share is more than 4)
 - b. Businesses which are quoted at low valuations (i.e., $P/E < 30$ $P/B < 15$)
 - c. Businesses earning good returns (>20) on equity while employing little or no debt ($<75\%$)
 - d. Management having substantial ownership in the business ($>30\%$)and save the tickers obtained in a csv file with name "final.csv"
3. Please use the price data to find the portfolio with Max Sharpe:
 - a. Use yfinance to download the prices (Open, High, Close, Low, Adj. Close) of the stocks in final.csv
 - b. Plot the Adj. Close of last 5 years stock prices using matplotlib
 - c. Use pypfopt package to get the weights of these stocks for the Max Sharpe portfolio (use reference 1 for further details) using the last 5 years data

References:

1. <https://pyportfolioopt.readthedocs.io/en/latest/MeanVariance.html>
2. http://theautomatic.net/yahoo_fin-documentation/
3. <https://matplotlib.org/>
4. <https://pypi.org/project/yfinance/>