CIS 3120, Section ETRA

Prof Nanda Kumar

Group Project Presentation

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Stock Parameters Extraction, Analysis, Display and Ranking System

(SPEADARS)

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Stock Parameters Extraction, Analysis, Display and Ranking System (SPEADARS)

We used Python concepts learnt in the class to develop a data analytics system, which extracts stock data from yahoo finance website and provides information about user defined parameters. Salient statistical analysis and Python concepts used for the package are - Pandas, factor plot using Seaborn, matplotlib.pyplot, , dataframe, import, requests, numpy, conditional statements (if, elif, else), for and while loops, python dictionary etc.

Program Execution Steps

1. Run the file speaderspangilinanognjanovicratan.ipynb in Jupiter software

2. Input Stock tickers for the stocks on which we want to run Analytics and enter the desired price (open, high, low, close, Adj close) or volume :

```
Input the Stocks, separate each stock by ',': AAPL,FB,MSFT

Enter which price you want to analyze - Open/High/Low/Close/Adj Close/Volume: Adj Close
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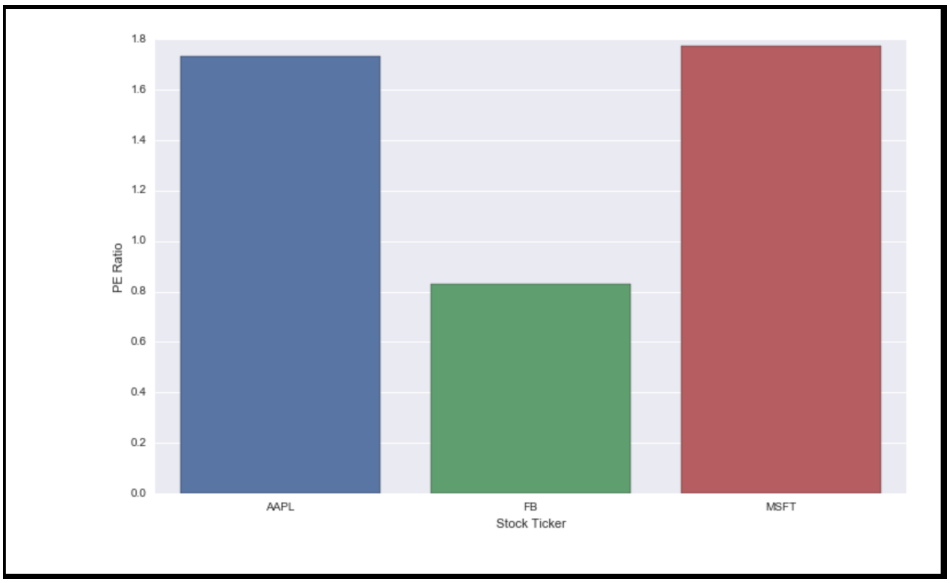
Open *– Stock Price at the opening bell,* ***High*** *– Highest price during the day,* ***Low*** *– Lowest price during the day,* ***Close*** *= Unadjusted closing price of the day,* ***Adj Close*** *- Adjusted closing price of the day, Volume – How much stock volume was traded during the day*

3. Based on the inputs, the SPEADARS extracts the stock price data from www.finance.yahoo.com and provides following data / analytics for the selected stocks :

a) Displays last five days Adjusted Closing Price and Stores extracted data in a Python Dictionary.

	AAPL	FB	MSFT
Date			
2016-12-12	113.300003	117.769997	62.169998
2016-12-13	115.190002	120.309998	62.980000
2016-12-14	115.190002	120.209999	62.680000
2016-12-15	115.820000	120.570000	62.580002
2016-12-16	115.970001	119.870003	62.299999



b) Summarizes technical data viz P/E ratio, % Price Change, Short Ratio and time.

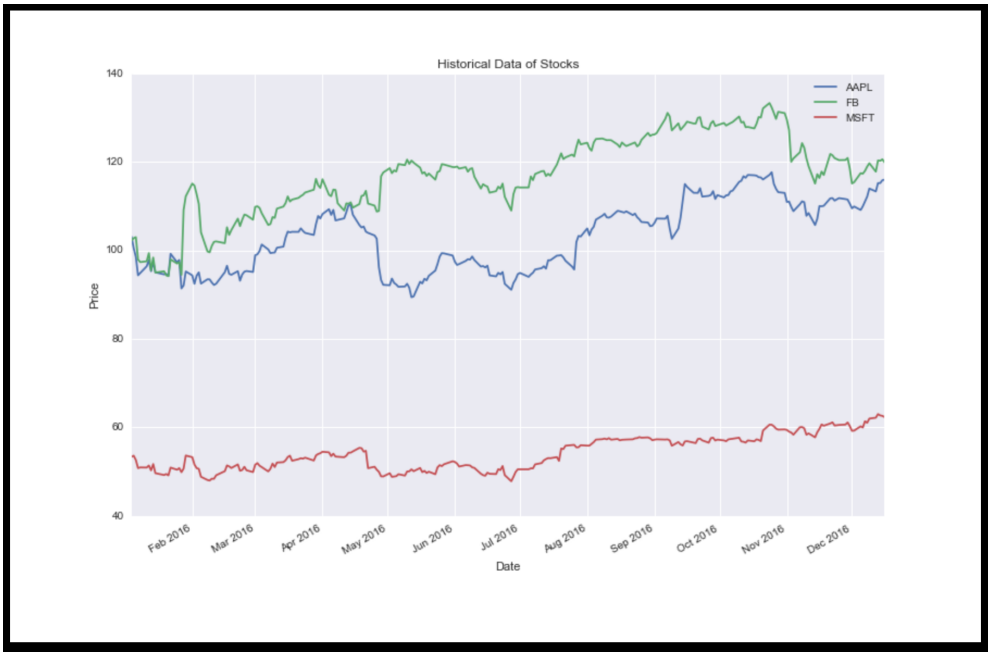
	PE	change_pct	last	short_ratio	time
AAPL	13.96	0.13	115.97	1.73	4:00pm
FB	46.28	-0.58	119.87	0.83	4:00pm
MSFT	29.53	-0.45	62.30	1.77	4:00pm

c) Calculates EPS and stores it in Python Dictionary

```
Earnings per Share

AAPL : 8.30730666189
FB : 2.59010378133
MSFT : 2.10971889604
```

d) Displays line graph representing Historical stock price movement over the last one year.



e) Input desired parameter to rank the stocks. The system ranks and displays stocks based on user selected technical parameter. Data is arranged in Python dictionary.

```
Choose a field to order by: short_ratio

Ticker : short_ratio

MSFT : 1.77
AAPL : 1.73
FB : 0.83
```