

Homework Assignment: Find all dividends

Data Preparation

Use the 6 stocks ['IBM', 'MSFT', 'GOOG', 'AAPL', 'AMZN', 'FB'] historical data of 2018 from Yahoo.

For example, to download IBM data, use the following link to go to yahoo finance page. Find the "Download Data" link to download the csv file to you local disk. <https://finance.yahoo.com/quote/IBM/history?period1=1514782800&period2=1546232400&interval=1d&filter=history&frequency=1d>

Replace "IBM" with other stock symbol in the above URL, you will be able to download data for other stocks.

Load the data to dataframes

You will have 6 dataframes.

Understand how to compute the dividends

There are two columns in each csv file, "Close" and "Adj Close". If we compute the ratio of previous day's "Close" price and today's "Close" price, then compare with the ratio of previous day's "Adj Close" price and today's "Adj Close" price, on most of days, the two ratios should be equal. On dividend day, the two ratios will have a difference. The difference times today's "Close" price, you will get the dividend. As the example below, you should be able to use the method to reproduce the \$1.5 dividend on 2/8/2018.

Date	Open	High	Low	Close	Adj Close	Volume				
2/7/2018	154.17	155.34	153.28	153.85	142.1145	6149200	1.009685	1.009685	-5.70463E-08	-8.7766E-06
2/8/2018	152.48	153.16	147.5	147.59	137.6743	6779100	1.032252	1.042415	-0.010163263	-1.49999597

The result

You result will have 6 dataframes, each of them have two columns, Date and Dividend. The dataframe should only have the rows that represent the dividend day and amount.

Submit

Due in one week from today.

Submit your jupyter notebook file and HTML format with all intermediate results and the final dataframe.