Stock Price Analysis

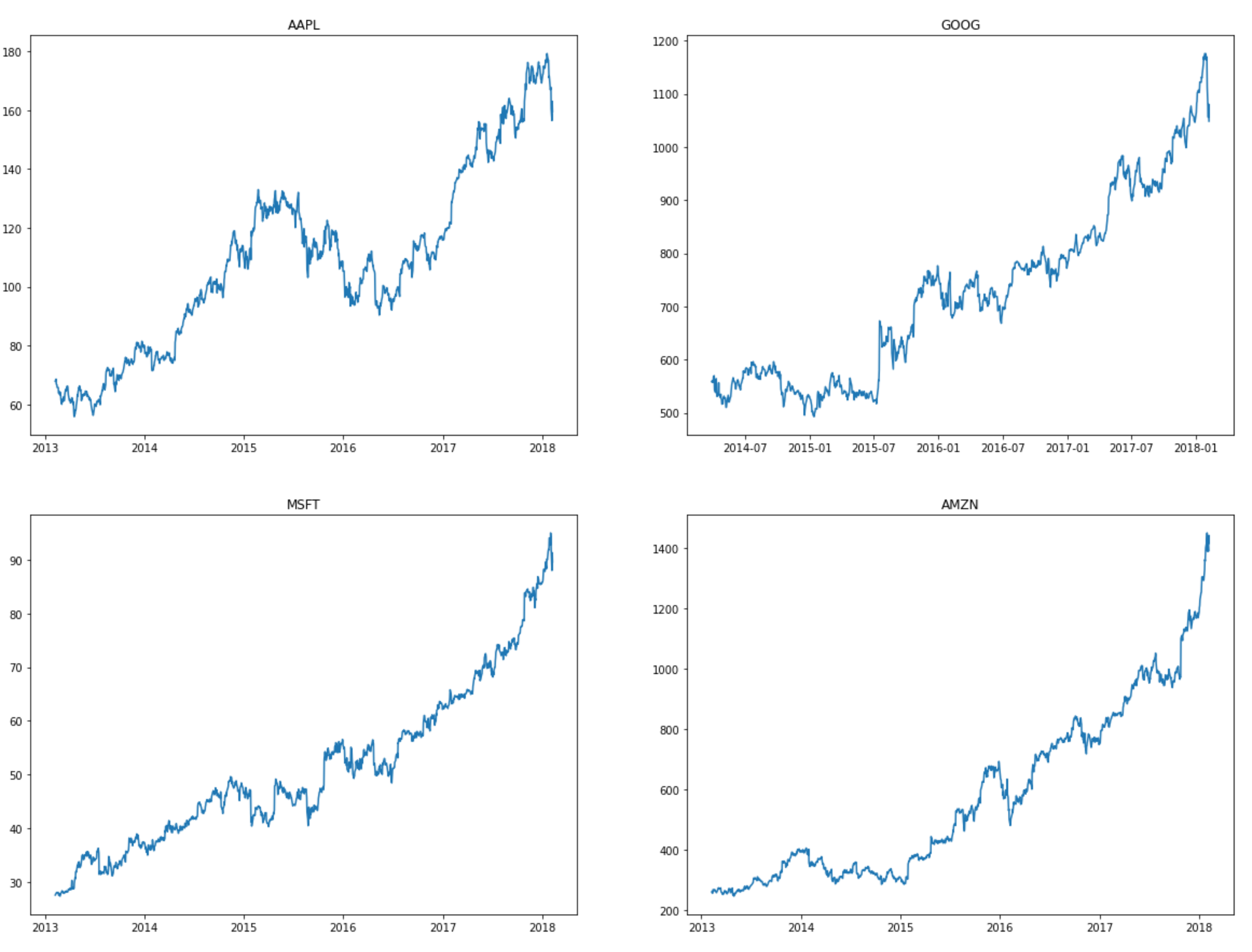
Getting the datasets we will use

	date	open	high	low	close	volume	Name
0	2013-02-08	67.7142	68.4014	66.8928	67.8542	158168416	AAPL
1	2013-02-11	68.0714	69.2771	67.6071	68.5614	129029425	AAPL
2	2013-02-12	68.5014	68.9114	66.8205	66.8428	151829363	AAPL
3	2013-02-13	66.7442	67.6628	66.1742	66.7156	118721995	AAPL
4	2013-02-14	66.3599	67.3771	66.2885	66.6556	88809154	AAPL

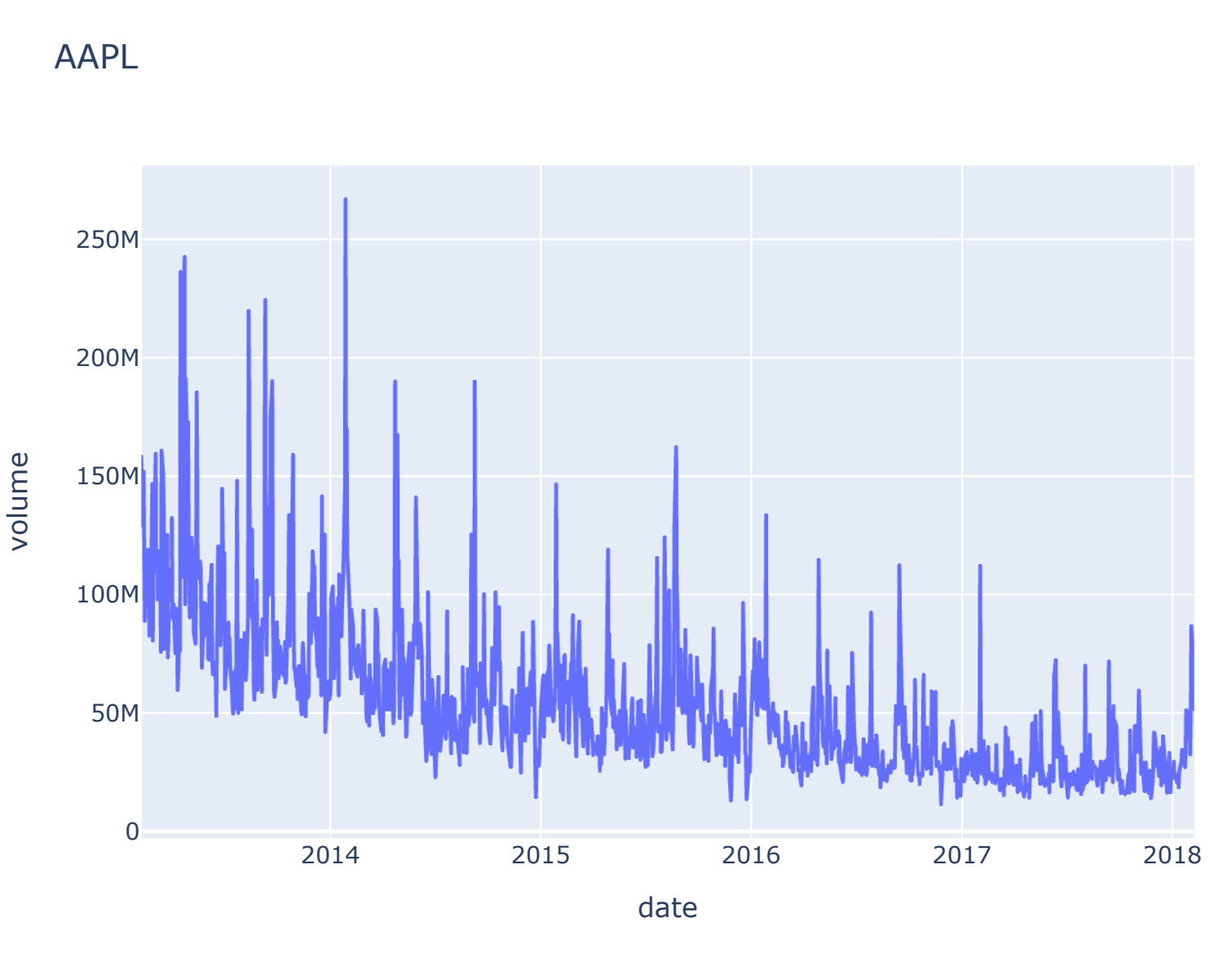
Analyizing the closing price of stocks

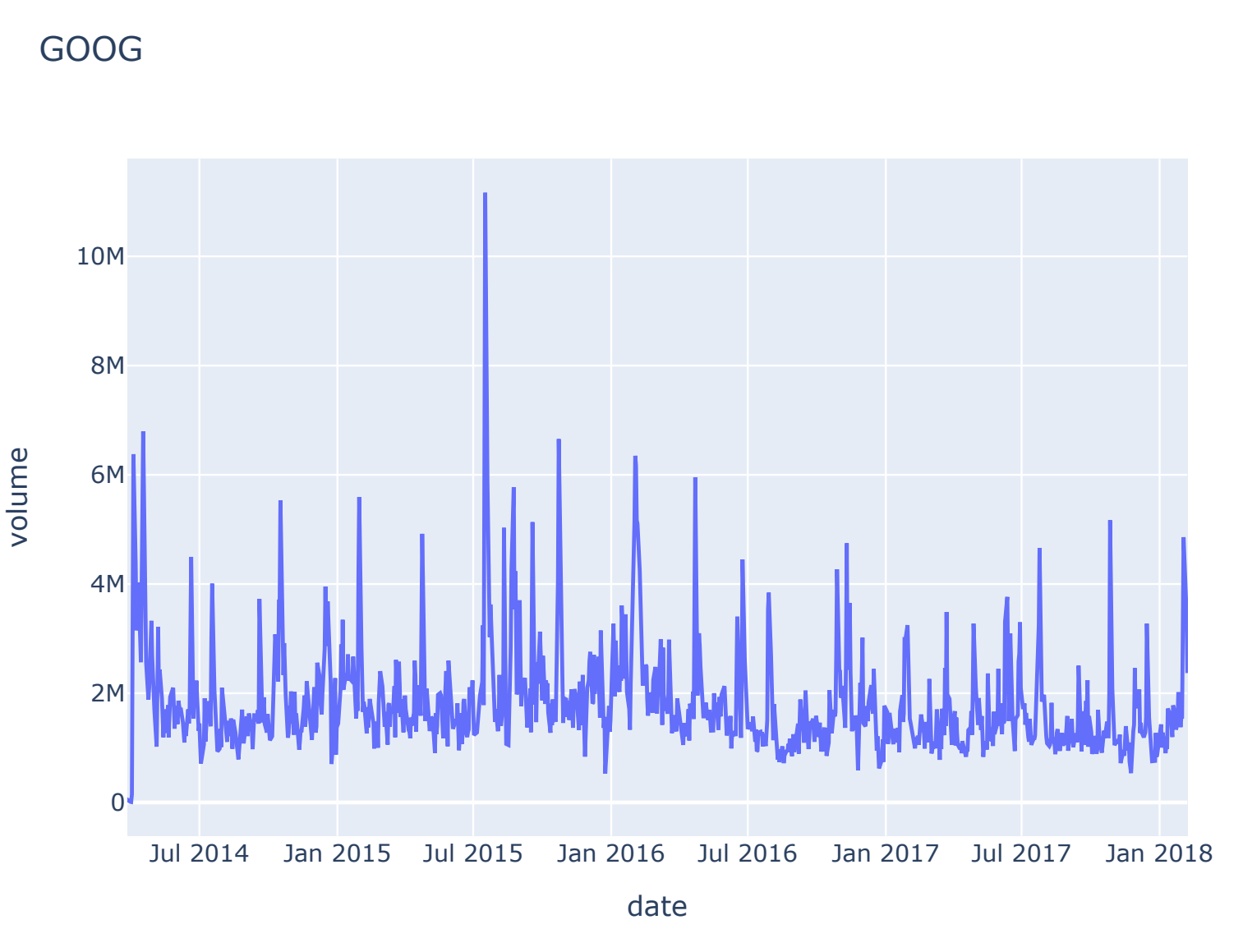
tech_list

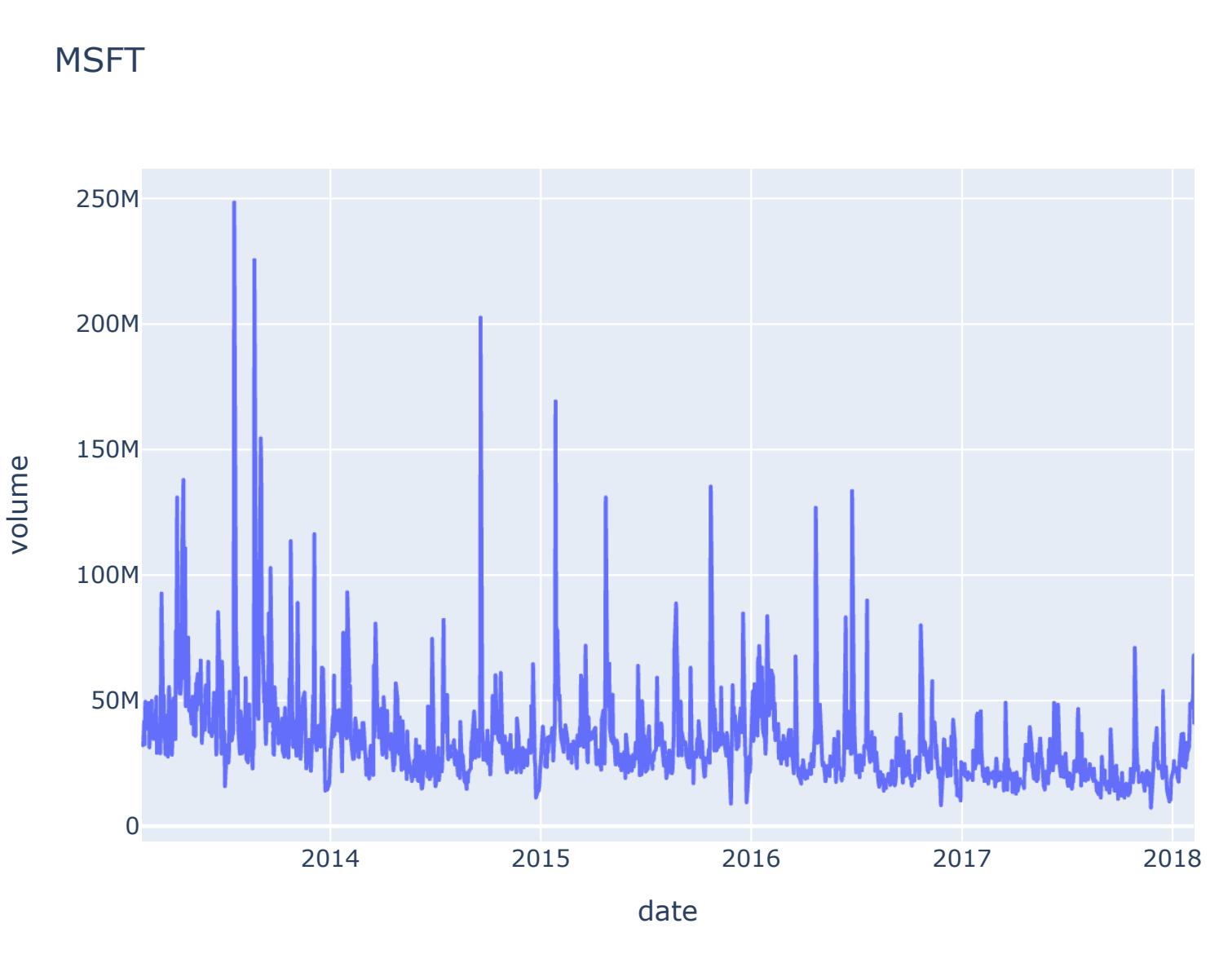
```
array(['AAPL', 'GOOG', 'MSFT', 'AMZN'], dtype=object)
```

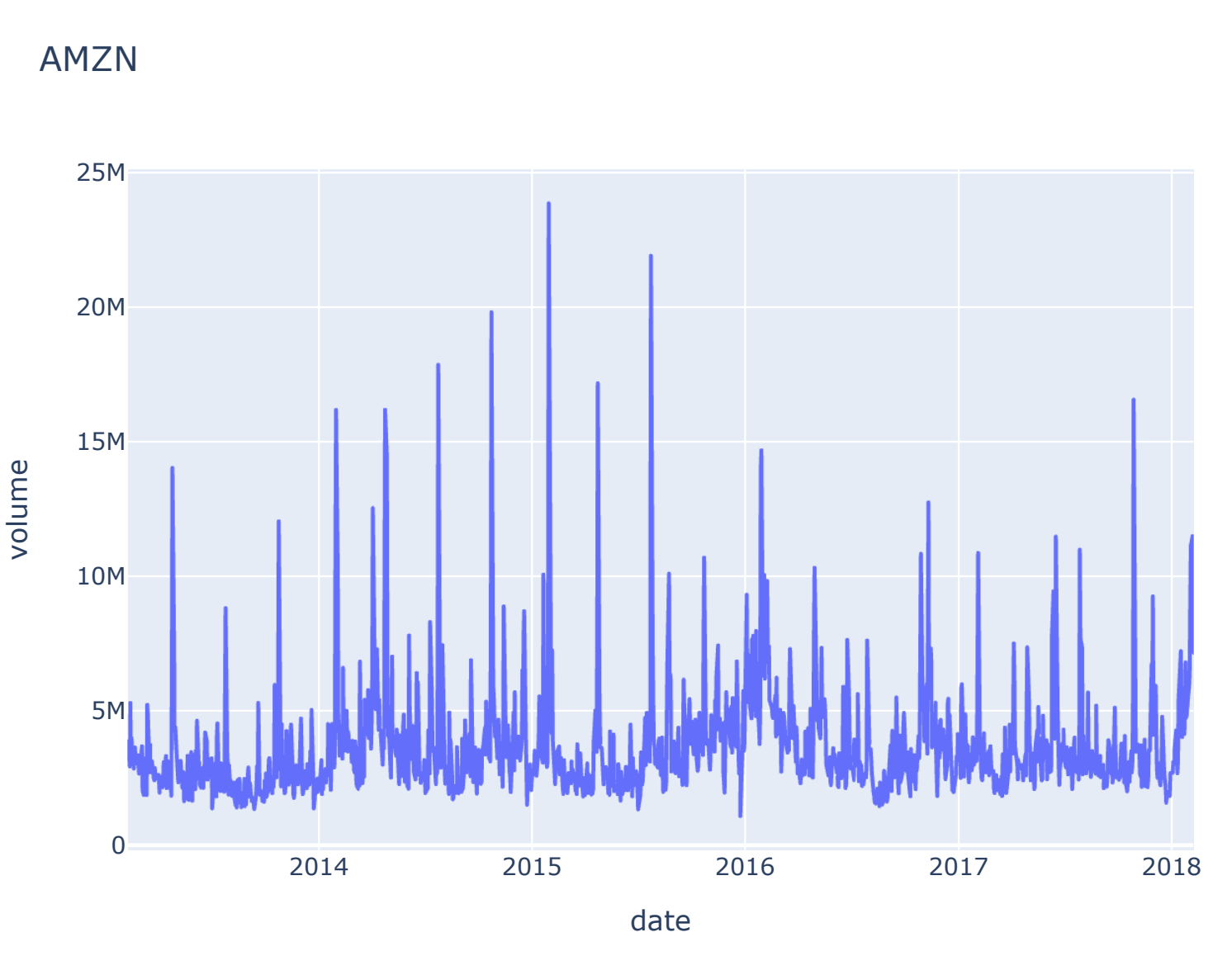


Analyizing total volume of stock being traded



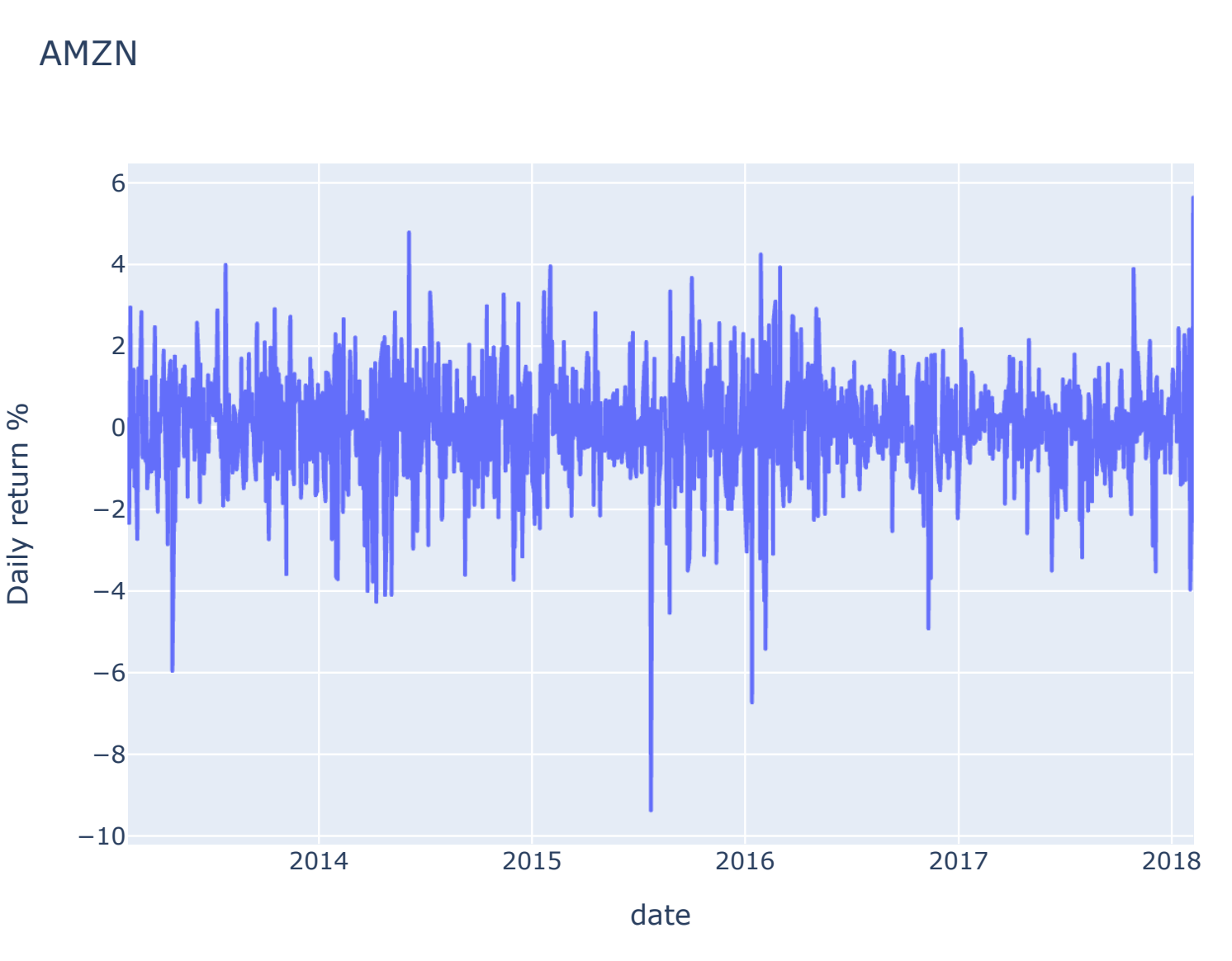






Analyzing the daily price changes

Visualising using plotly



Analyzing Daily Returns between some dates

```
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  Text(0, 0, ''),
  Text(0, 0, ''),
  Text(0, 0, ''),
  Text(0, 0, ''),
  Text(0, 0, '')])
```
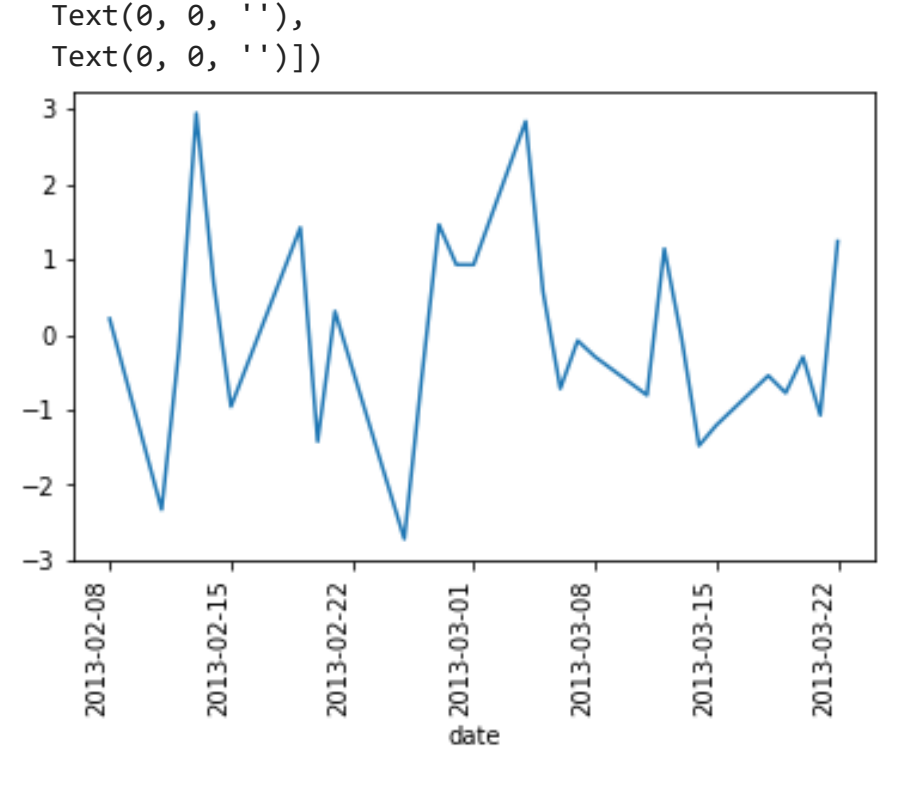
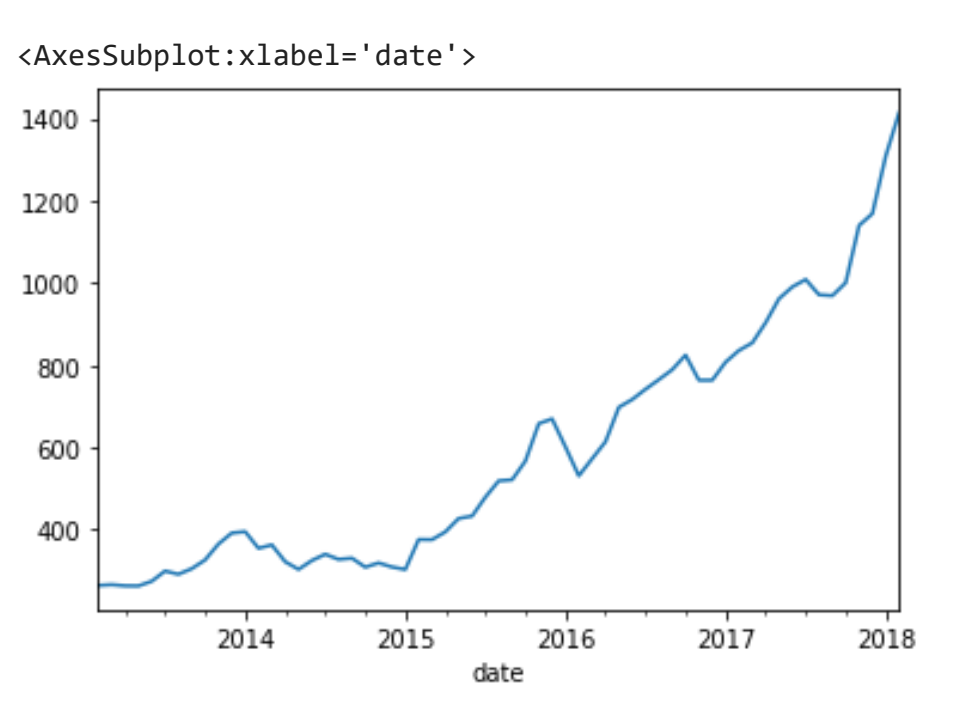



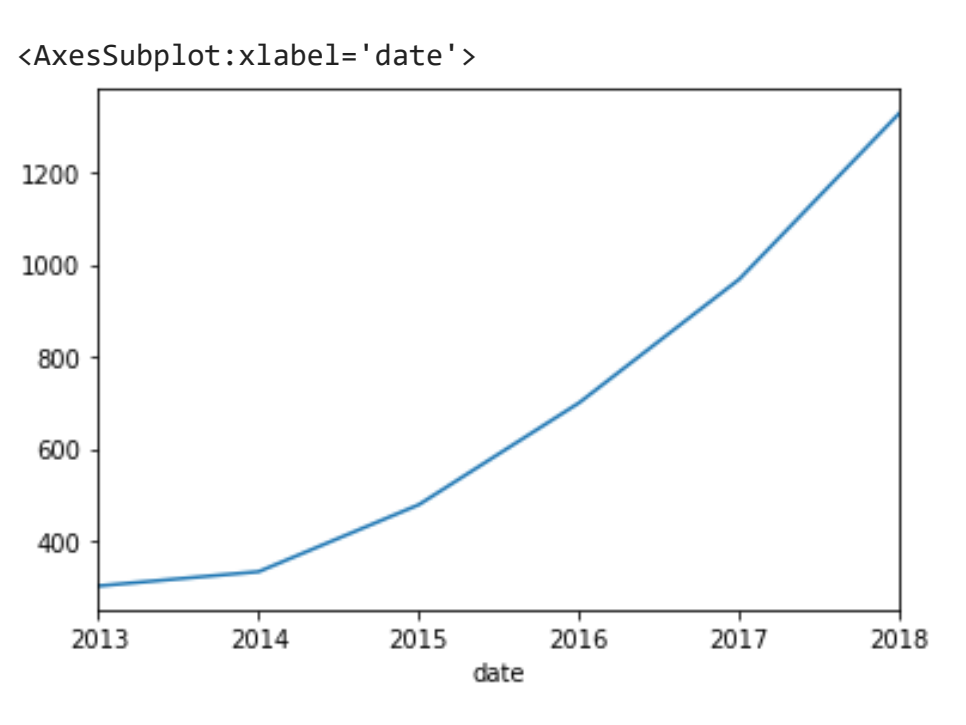
Analyzing monthly mean of closing price

```
<AxesSubplot:xlabel='date'>
```



Analyzing monthly mean of closing price

```
<AxesSubplot:xlabel='date'>
```



Checking correlation between different companies closing prices

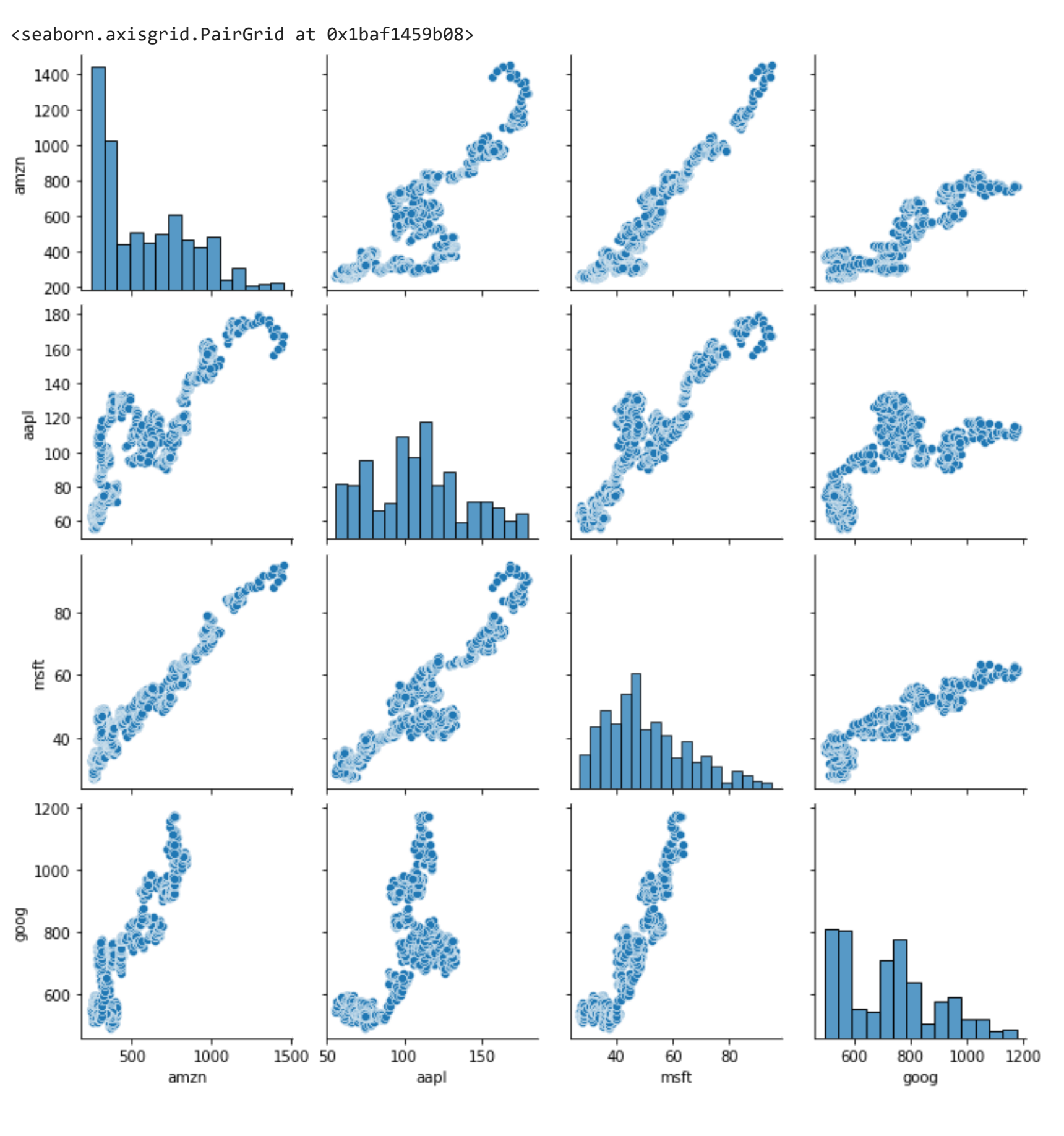
	date	open	high	low	close	volume	Name
0	2013-02-08	27.35	27.71	27.31	27.55	33318306	MSFT
1	2013-02-11	27.65	27.92	27.50	27.86	32247549	MSFT
2	2013-02-12	27.88	28.00	27.75	27.88	35990829	MSFT
3	2013-02-13	27.93	28.11	27.88	28.03	41715530	MSFT
4	2013-02-14	27.92	28.06	27.87	28.04	32663174	MSFT

Creating a data frame with closing values of different companies

	amzn	aapl	msft	goog
0	261.95	67.8542	27.55	558.46
1	257.21	68.5614	27.86	559.99
2	258.70	66.8428	27.88	556.97
3	269.47	66.7156	28.03	567.16
4	269.24	66.6556	28.04	567.00

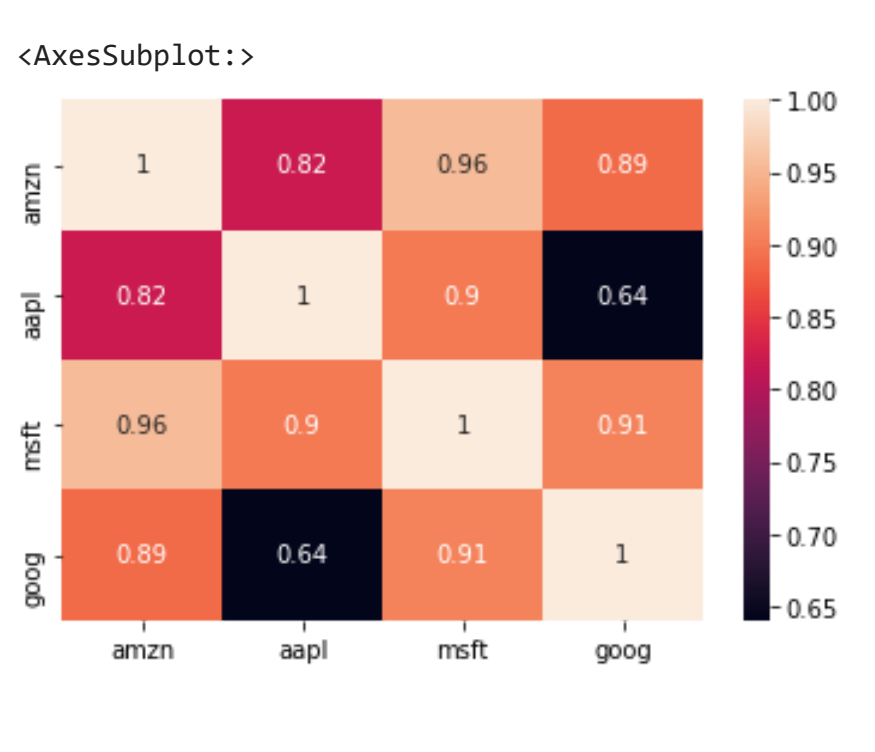
Ploting a pairwise plot for different companies closing price

```
<seaborn.axisgrid.PairGrid at 0x1baf1459b08>
```



Plotting Heatmap

```
<AxesSubplot:>
```

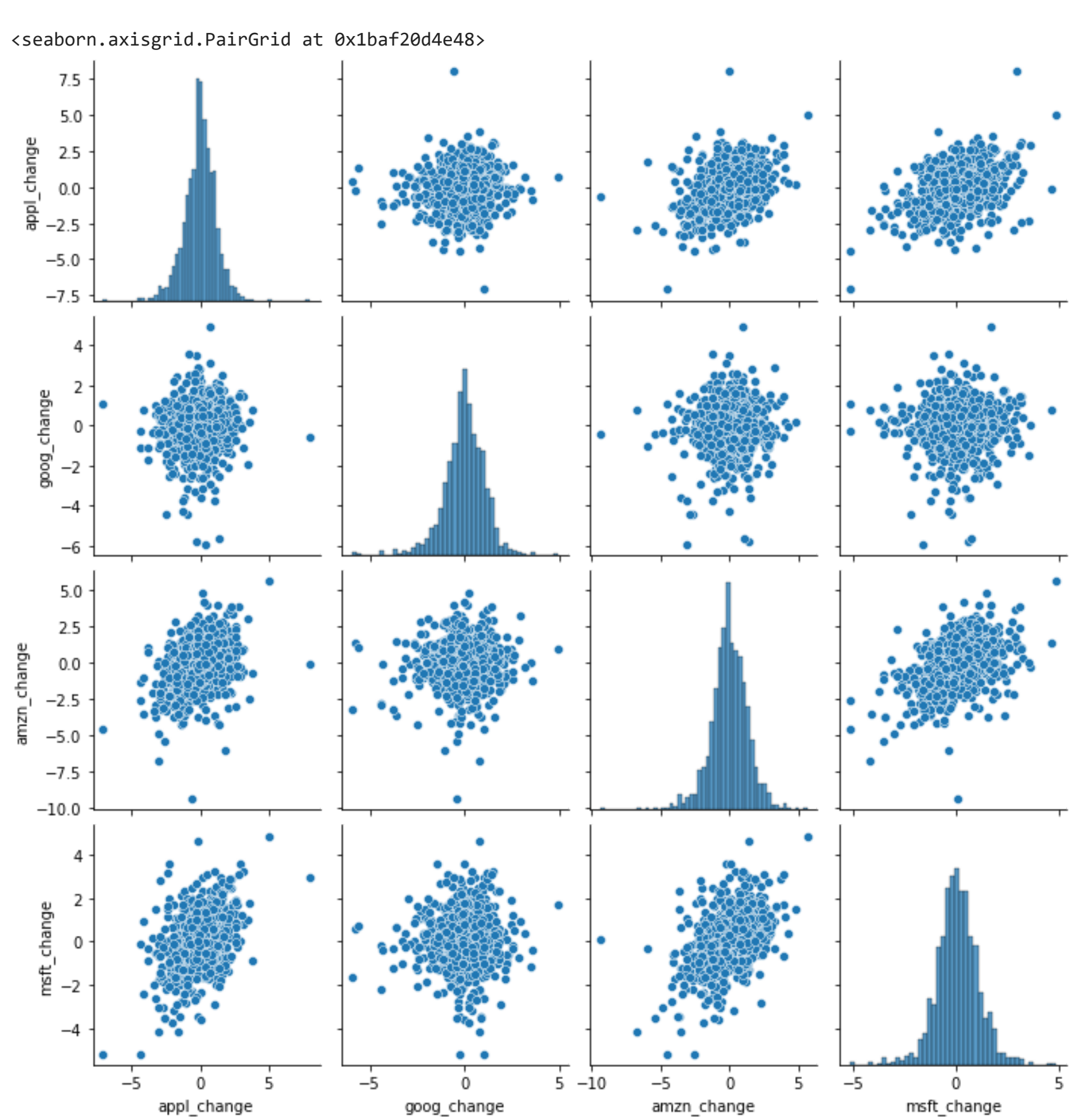


From the above plots we can the amazon and microsoft closing prices are highly correalted

checking correlations for daily returns

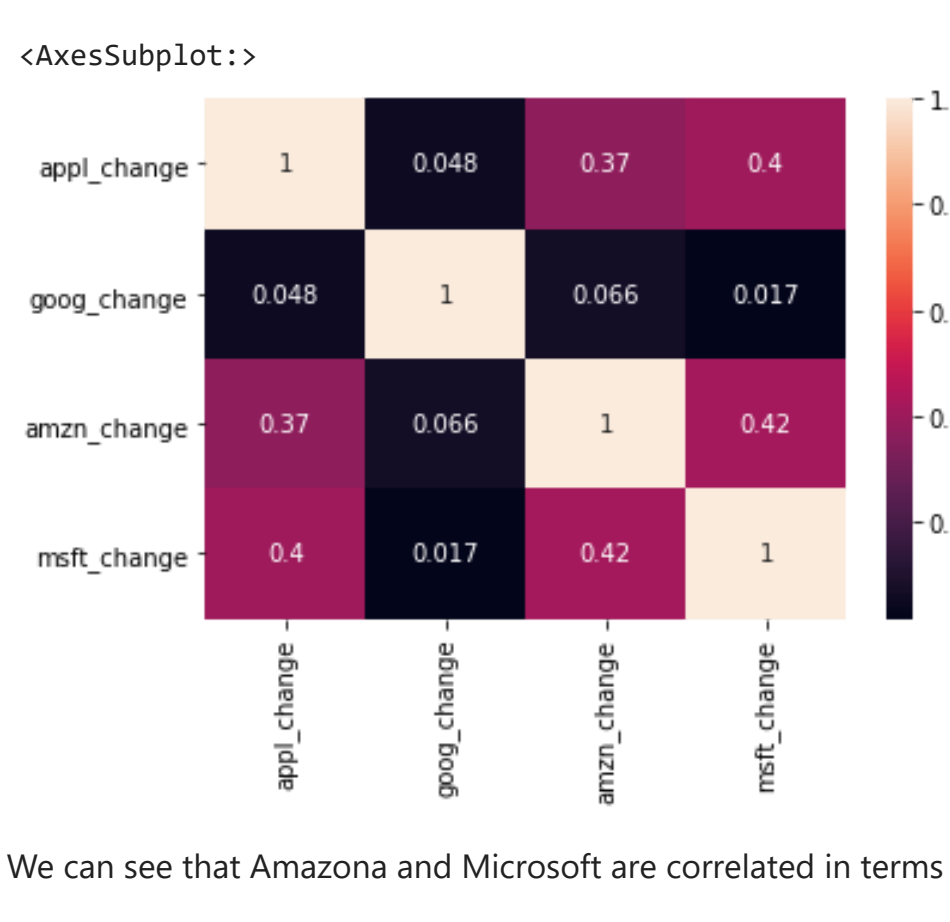
Pairwise plot

```
<seaborn.axisgrid.PairGrid at 0x1baf20d4e48>
```



Correaltion Heatmap plot for daily returns

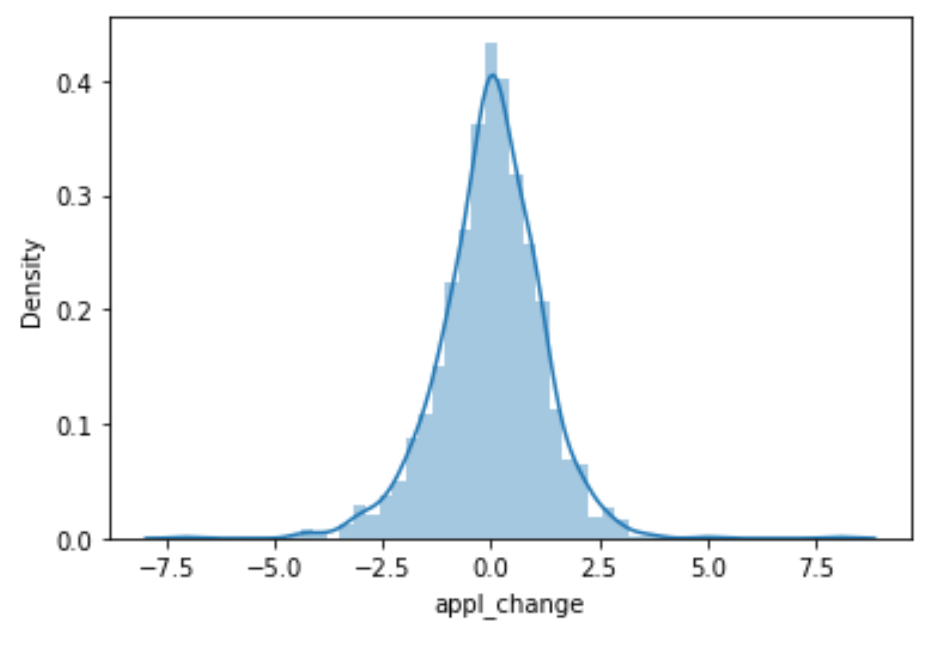
```
<AxesSubplot:>
```



We can see that Amazona and Microsoft are correlated in terms of daily returns

Value risk analysis of AAPL

```
<AxesSubplot:xlabel='appl_change', ylabel='Density'>
```



We can notice it shows normal distribution

data['appl_change'].std()

```
1.1871377131421237
```

data['appl_change'].quantile(0.1)

```
-1.4246644227944307
```

1.4246644227944307 means that 90% of the times the worst daily Loss will not exceed 1.42