**ADS-1 Assignment-1**

Name: Veera Raghunatha Reddy Naguru

Student Id: 22028322

Submitted to: University of Hertfordshire

Data link: <https://www.kaggle.com/datasets/aayushmishra1512/faang-complete-stock-data>

Repository link: <https://github.com/veeraraghu/22028322_ADS-1_Visualisation.git>

Code link in repository: <https://github.com/veeraraghu/22028322_ADS-1_Visualisation/blob/32b877079760fa4436d0de76d4f7826c5ce2c0cd/main_code.py>

**Visualization 1: Stock Performance over time between 2013 and 2020**

Chart, histogram

Description automatically generated

Over years from 2013 to 2020, Amazon stock price increased from 300$ to above 3000$. Amazon stock price raised above Google stock price around 2017. We can see an exponential growth in Amazon stock price after 2020 with a slight downfall.

If we see just before 2019 and after 2020 there is a common downfall in all stocks. This may be due to a social cause which might have affected the overall economy.

We can see that all stocks price increased over years and can be trusted to invest for long time.

**Visualization 2: Distributions of Daily Returns of each Company**

Chart, box and whisker chart

Description automatically generated

By looking at the distributions of returns of each company, we can notice that the loss and profit on daily returns are of similar percentile. It is very risky to trade these stocks daily, since the loss and profit on daily returns are unpredictable. So, it is not recommended to trade these stocks on daily basis.

**Visualization 3: Total Volume of Shares sold or traded by Company.**Chart, bar chart

Description automatically generated

By looking at the bar plot, we can say that the most traded stock is Apple with 447614.1584Millions of shares sold or traded between 18th May 2012 and 3rd Aug 2020. With this data we can say that the Apple Company is a true interest to many traders.

Since the Volume is very high, there is a chance that many traders are trading on daily return basis for this company stock.