

# FINANCE & RISK ANALYTICS CAPSTONE PROJECT

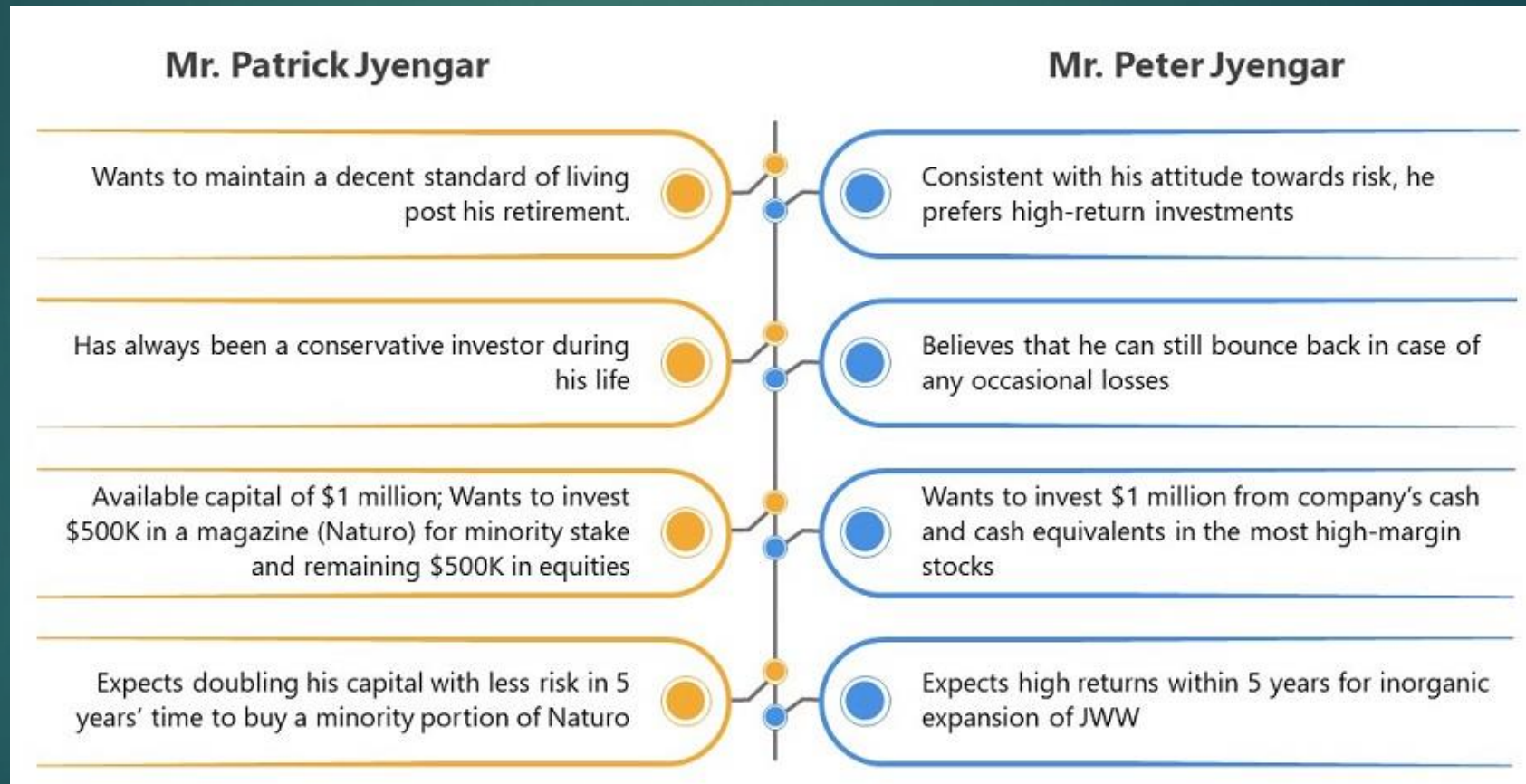
BY

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# Business Requirement and Goal

- ▶ Being a portfolio manager, the task is to provide consultation to two different investors, considered as Private Clients, i.e Mr Patrick Jyenger and Mr Peter Jyenger based on their requirements and financial objectives
- ▶ The primary goal of this Case Study:
  1. To Suggest a Portfolio of stocks to Mr Patrick Jyenger based on his risk profile to meet his goal on doubling the amount of 500K Dollars in five years of timespan to buy a minority stake in Naturo.
  2. To provide a High risk stock to Mr Peter Jyenger based on his risk profile to accomplish his goal on earning greater returns for the invested amount of 1 Million Dollars over a five years of timeframe to use it for the expansion of JWW.

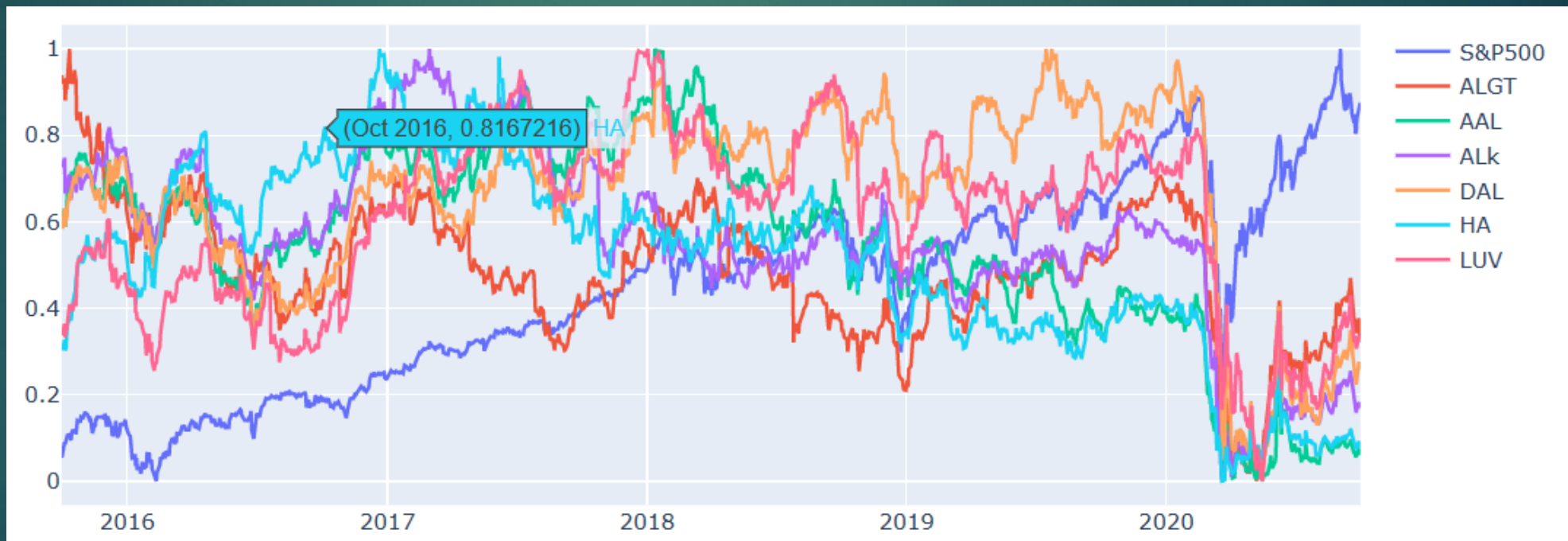
# INVESTOR PROFILES:



# Sector Wise Analysis

## Aviation Sector

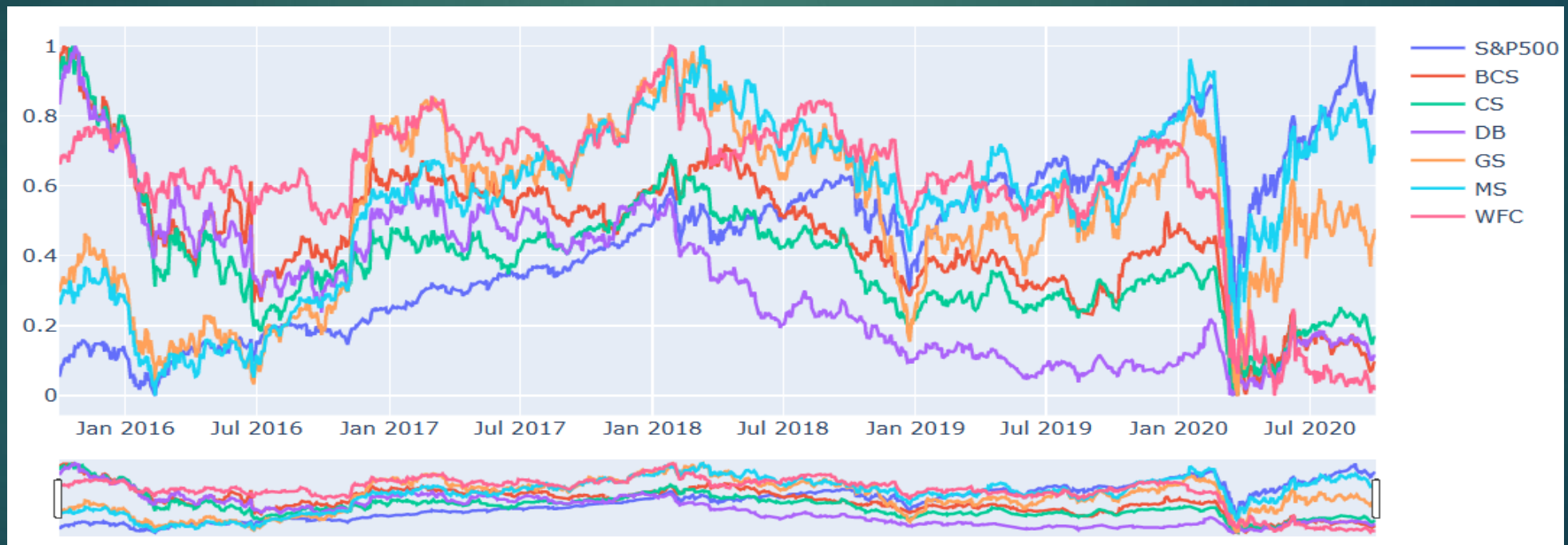
Due to Corona Pandemic hit in March 2020 Aviation sector has faced a major crisis and the sector has not recovered there after even though the market index has gone up.



# Sector Wise Analysis

## Finance Sector

- Due to Corona Pandemic hit in March 2020 Finance sector has also faced a major crisis and the sector has recovered a bit although majority of stocks has been hit.
- Morgan Stanley & Goldman Sachs have performed well when compared to other stocks.

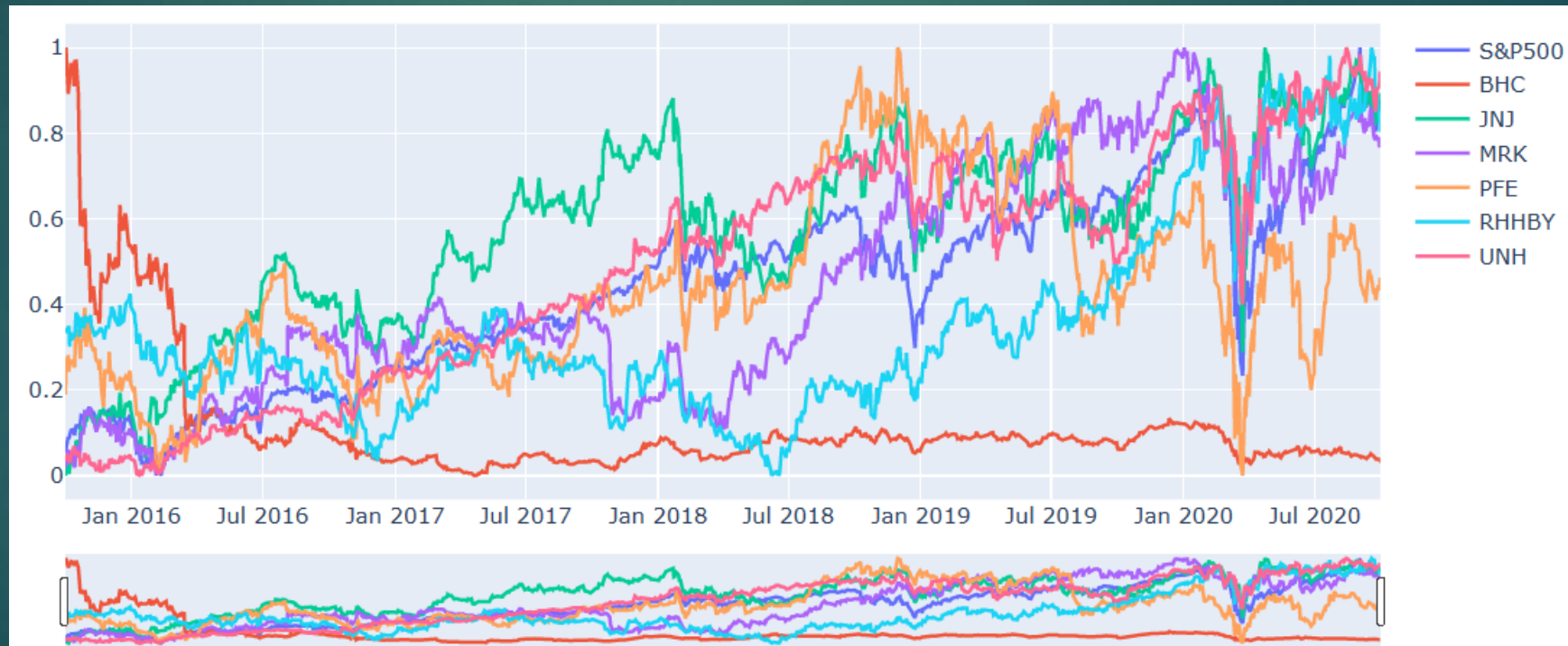




# Sector Wise Analysis

## Pharma Sector

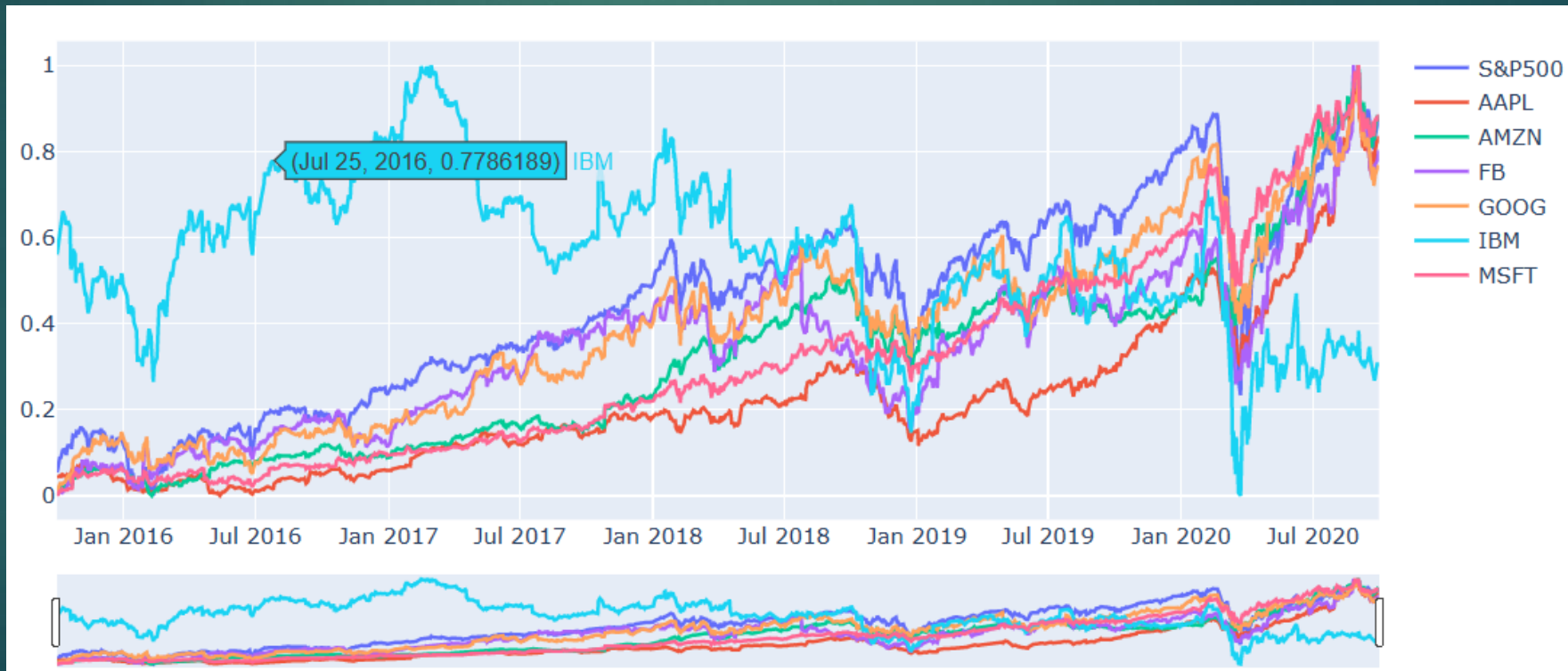
- Due to Corona Pandemic hit in March 2020 Pharma & Health care sector has also faced a major crisis and the recovery rate shown by this sector is commendable.
- United Health, Johnson & Johnson have performed well when compared to S&P Index.
- Bausch Health is consistently performed very badly over the years when compared to other stocks in the same sector.



# Sector Wise Analysis

## Technology Sector

- Due to Covid Pandemic hit in March 2020 Technology Sector has also faced crisis but the recovery rate shown by this sector is commendable.
- Microsoft, Amazon, Apple, Facebook & Google have performed well along with Market index.
- The stock performed very badly over the years when compared to other stocks in the same sector is IBM.







# stocks performance predictions

At the end of 5 years we can see that the top 8 stocks having returns of greater than 80% are as follows

- AMZN gives 40.59% annual returns
- MSFT gives 34.95% annual returns
- AAPL gives 33.32% annual returns
- FB gives 26.45% annual returns
- UNH gives 23.72% annual returns
- GOOG gives 21.02% annual returns
- MS gives 14.55% annual returns
- S&P500 gives 13.04% annual returns

	Avg Daily Returns	Risk	Min	Max	Annualized_Returns	Annualized_Risk	Sharpe_Ratio	Cumulative Returns
AMZN	0.16	1.90	-7.92	13.22	40.59	30.11	1.32	504.69
MSFT	0.14	1.75	-14.74	14.22	34.95	27.84	1.23	371.49
AAPL	0.13	1.87	-12.86	11.98	33.32	29.73	1.10	322.74
FB	0.10	2.04	-18.96	15.52	26.45	32.31	0.80	187.96
UNH	0.09	1.78	-17.28	12.80	23.72	28.27	0.81	167.36
GOOG	0.08	1.65	-11.10	10.45	21.02	26.23	0.77	140.41
MS	0.06	2.18	-15.60	19.77	14.55	34.62	0.40	53.49
S&P500	0.05	1.21	-11.98	9.38	13.04	19.18	0.64	74.81
MRK	0.05	1.41	-8.90	10.41	12.88	22.33	0.54	68.02
JNJ	0.05	1.25	-10.04	8.00	11.35	19.78	0.54	59.79
GS	0.03	1.99	-12.71	17.58	7.64	31.59	0.22	14.17
RHHBY	0.03	1.35	-8.96	13.01	7.38	21.45	0.31	28.87
LUV	0.02	2.29	-15.11	14.44	6.16	36.37	0.15	-2.37
PFE	0.02	1.38	-7.73	8.96	5.25	21.95	0.21	15.26
DAL	0.00	2.65	-25.99	21.02	1.05	42.03	0.01	-32.66
HA	0.00	3.31	-26.50	24.58	0.86	52.60	0.00	-47.88
IBM	-0.00	1.61	-12.85	11.30	-0.04	25.54	-0.03	-15.27
ALGT	-0.00	2.91	-28.33	29.24	-1.19	46.20	-0.04	-45.04
ALk	-0.03	2.69	-23.24	20.31	-6.44	42.71	-0.17	-54.34
AAL	-0.03	3.47	-25.22	41.10	-8.47	55.12	-0.17	-68.65
WFC	-0.04	2.03	-15.87	14.53	-10.44	32.30	-0.35	-54.30
CS	-0.04	2.28	-18.26	16.34	-11.01	36.26	-0.32	-58.61
DB	-0.05	2.77	-17.49	14.02	-13.33	44.04	-0.32	-68.33
BCS	-0.05	2.51	-21.85	15.10	-13.82	39.87	-0.37	-66.62
BHC	-0.09	4.46	-51.46	33.74	-22.60	70.72	-0.33	-91.35

# Portfolio Analysis

## Patrick Jyengar Portfolio

As per his profile Low risk stocks like JNJ,RHHBY and MRK is suitable to invest on. But overall returns with these three stocks wouldn't reach the target what Mr.Patrick is investing for. So one portion of his wealth can be invested on MSFT to gain the desired returns.

	MSFT	JNJ	RHHBY	MRK	portfolio_daily_return
Date					
2020-09-24	4.554808	1.552753	1.345575	1.684221	2.106791
2020-09-25	4.658597	1.563379	1.349187	1.679765	2.122417
2020-09-28	4.694911	1.578942	1.327815	1.676322	2.122342
2020-09-29	4.646043	1.578405	1.305539	1.658902	2.102224
2020-09-30	4.714862	1.597939	1.288682	1.680170	2.116465
Cumulative Return from the Portfolio					

After calculating various factors like ROI, Risk and Sharp ratio, we can say that if Mr.Patrick jyengar invests 500 Thousand Dollar in equities i.e the above Portfolio. Returns that he would fetch after 5 years is 1.05 Million Dollar with 558.23 Thousand dollar of gain on investment.

# Portfolio Analysis

## Peter Jyengar Portfolio

Mr. Peter Jyengar on the other hand Consistent with his attitude towards risk, he prefers high-return investments. Believes that he can still bounce back in case of any occasional losses. He Wants to invest \$1 million from company's cash and cash equivalents in the most high-margin stocks Expects high returns within 5 years for inorganic expansion of his company. As per his profile High risk/High Returns stocks like AMZN is suitable to invest on. Overall returns with these stocks would fetch him Maximum returns and also cater the Risk.

AMZN portfolio_daily_returns		
Date		
2020-09-24	5.799259	5.799259
2020-09-25	5.943943	5.943943
2020-09-28	6.095503	6.095503
2020-09-29	6.039484	6.039484
2020-09-30	6.046878	6.046878

## Cumulative Return from the Portfolio

The cumulative returns suggests that the portfolio has achieved a cumulative return of 5.04% in the given period. After calculating various factors like ROI, Risk and Sharp ratio, Mr.Peter jyengar invests 1 Million Dollar on equities i.e the above Portfolio. Returns that he would fetch after 5 years is more than 6 Million Dollars with 5+ Million dollars of gain on investment.

THANK YOU