**7. Suggest your favourite trading strategy and provide an intuitive motivation for your strategy. Code your rule and assess your strategy (with respect to the risk you take) using the Monte Carlo simulation (in 7).**

**Favourite Strategy:**

Our motto is “Don’t put all your eggs in one basket”. Diversification is the best way to reduce the risk.

Here we took two high-risk and high-return stocks(Apple and Microsoft) and two low-risk and low-return stocks (Coca-cola and Walmart). We gave equal weightage to all four stocks.

Also, we have 2 techs, 1 retailer (Walmart) and 1 Non-alcoholic Beverage Company stock so that any sudden changes in tech stocks don’t affect the other sectors. Hence our portfolio will be stable. This can be shown in the correlation chart.

**Outcome of our strategy:**

Mean of our portfolio- 0.0005765597

The standard deviation of our portfolio - 0.01053233

**Chart

Description automatically generated**

When we compare the SD of our portfolio with other individual stocks, its I far better, as it has the lowest SD among others. It means that the risk is lower.

We went with a balanced approach and mean of our portfolio is better than Coca-cola, Walmart, and Intel

Price of our Portfolio at day 1 - $153.8175

Average Price of our Portfolio at end of 4 years - $302.413

Difference between initial and final price - $148.5955

% Increase – 96.60509

Our Portfolio has grown 1.96 times in a span of 4 years with minimal risk

**Chart

Description automatically generated**

Only 7 out of 300 simulations are below the starting price. i.e. only 2.3% of the simulations will result in loss.