**###Yearly Stock Analysis**

**##Overview**

The purpose of the project is to analyze the stocks over the last few years. To improve efficiency and performance, refactor the code to loop through all the records and summarize the data faster. Also determine the time taken for execution of the code and analyze the performance.

**##Results**

**#2017**

Stocks for 2017 are summarized across 12 tickers by totaling the stock volumes by ticker and analyzing the returns. The returns are evaluated by the percentage of annual return based on the starting and closing price of the year.

The highest return by value is on ticket “DQ” which almost doubled over the year, while the lowest is on “TERP” which decreased by 7.2%. There are 4 stocks that has returns over 100%, while 2 stocks that grew by over 50%.

The overall performance increased significantly, and results are displayed in 1.125 Seconds.

Graphical user interface, application, table, Excel

Description automatically generated

**#2018**

Stocks for 2018 are summarized across 12 tickers by totaling the stock volumes by ticker and analyzing the returns. The returns are evaluated by the percentage of annual return based on the starting and closing price of the year.

The highest return by value is on ticket “RUN” at 84%, while the lowest is on “DQ” which decreased by 62.6%. 10 stocks have decreased over the year, while only two stocks showed growth. 7 out of 12 stocks showed more than 20% decrease.

The overall performance increased significantly, and results are displayed in 0.714 Seconds.

Graphical user interface, application, table, Excel

Description automatically generated

**# Summary**

Refactoring refers to the attempts to make the code more efficient by reducing the steps, using less memory, or improving the logic of the code to make it easier for future users to read.

Refactoring is a continuous improvement process till the code becomes more optimal because first attempts at code won’t always be the best way to accomplish a task.

After refactoring the code, it only looped once across all the records which improved the execution time to just over 1 second for 2017 and less than 1 second 2018 to summarize the stock performance.