**Starter code VBS**

**Overview of Project**

Background:

Steve wants to expand the dataset to include the entire stock market over the last few years. He wants to analyze an entire dataset at a click of button for thousands of stocks.

Purpose:

Refactor code to loop through all the data one time to collect the same information and make the code more efficient by taking fewer steps, using less memory, or improving the logic of the code to make it easier for future users to read.

**Results**

Analysis**:** As per the stock analysis the performance is measured for the 12 tickers with the total daily volumes of the shares and their returns in 0.1523 seconds for the year 2017 & 0.070 seconds for the year 2018.

**Comparing stock performance:**

It shows overall the stocks performed well in the year 2017 with higher positive returns for all the tickers except the “TERP” which has a negative return of 7.2%.

Table

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The stock did not perform that well in the year 2018 showing negative returns for the all the tickers except the “ENPH” & “RUN” with a positive return of 81.9% & 84%.

Graphical user interface, application, table, Excel

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It also shows that the stock “RUN” performed well in the year 2018 as compared to 2017 with a positive return of 84%. In the year 2017, stock “DQ” has the highest positive return of 199.4% and the lowest negative return of 62.6% in the year 2018.

**Execution times of the original and refactored script**.

Graphical user interface, application, table

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Graphical user interface, application, table, Word

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**Summary:**

1. What are the advantages or disadvantages of refactoring code?

Advantages:

Refactoring includes reducing scope, replacing complex instructions with simpler or built‐in instructions, and combining multiple statements into one statement. By transforming the code with refactoring techniques, it will be faster to change, execute, and download. It is an excellent best practice to adopt for programmers wanting to improve their productivity.

Disadvantages:

* *Time Consuming* **-**You may have no idea how much time it may take to complete the process. It may also land you into a situation where you have no idea where to go.
* *Chance of Mistakes* **-** In case if it went wrong, you would have to waste much more time in solving the problem and there are probable chances that it may go wrong due to complexity of the code.

1. How do these pros and cons apply to refactoring the original VBA script?

By transforming the code with refactoring technique, it resulted in faster run times. In this exercise, since the data was not too large the performance was minimal in executing the code. Likewise, if the data were too large it would have been worth spending the time in refactoring the code to get faster results.