**Report: Deliverable 2 Requirements**

**The Aim of this Project**

This project deploys a technic of refactoring code to explore ways to edit an existing code designed to analyze data of Stock Market Dataset by adding new functionality. The primary aim is to “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.” To achieve such objective, this project downloaded an existing VBA starter code and refactored it to deliver an efficient output analysis of a given stock dataset within a very short time.

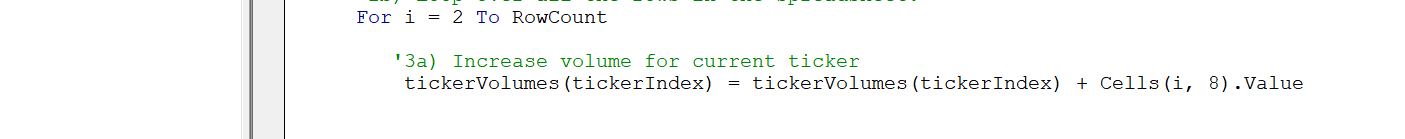
**Written Analysis of Results**

* The first step of refactoring the starter code is creating a tickerIndex and set it equal to zero before looping over the rows.

Text

Description automatically generated

* The above image also demonstrates the creation of Arrays for tickers, tickerVolumes, tickerStartingPrices, and tickerEndingPrices.
* The below image shows how tickerIndex is used to access the stock ticker index for the tickers, tickerVolumes, tickerStartingPrices, and tickerEndingPrices arrays



* Below is the image of a refactored script looping through stock data, reading and storing all of the following values from each row: tickers, tickerVolumes, tickerStartingPrices, and tickerEndingPrices

A picture containing graphical user interface

Description automatically generated

* After running my refactored script the outputs for the 2017 and 2018 stock analyses in the VBA\_Challenge.xlsm workbook match the outputs from the AllStockAnalysis in the module

Graphical user interface, table

Description automatically generated

**Image: Result of VBA Analysis 2017**

Table

Description automatically generated

**Image: Result of VBA Analysis 2018**

**Summary [[1]](#footnote-1)**

**Advantages**

* Code Refactoring makes the code more extensible for adding many other functions to it. It also helps increase the flexibility of the code and by this, the capability of code increases.
* After refactoring, the code is fresher, easier to understand or read, less complex and easier to maintain.

**Disadvantages**

* It is time-consuming sometimes and one can get lost on how to proceed with the coding process.
* Sometimes I made a mistake; it took me a while to find where the mistake was.

**Pros**

* The main goal of code refactoring is to make it easy to enhance and maintain in the future

**Cons**

* There is a high possibility of introducing a bug into a code when refactoring. For instance, in my effort at refactoring the VBA script for the assignment, I encountered many bugs that I had to find ways to debug after getting error 9 messages.

1. https://anarsolutions.com/code-refactoring-concept-analysis/ [↑](#footnote-ref-1)