**VBA Homework - The VBA of Wall Street**

**Background**

You are well on your way to becoming a programmer and Excel master! In this homework assignment you will use VBA scripting to analyze real stock market data. Depending on your comfort level with VBA, you may choose to challenge yourself with a few of the challenge tasks.

**Before You Begin**

1. Create a new repository for this project called VBA-challenge. **Do not add this homework to an existing repository**.
2. Inside the new repository that you just created, add any VBA files you use for this assignment. These will be the main scripts to run for each analysis.

**Files**

* [Test Data](/SMU-Coding-Bootcamp/smu-dal-data-pt-06-2020-u-c/blob/master/02-Homework/02-VBA-Scripting/Instructions/Resources/alphabetical_testing.xlsx) - Use this while developing your scripts.
* [Stock Data](/SMU-Coding-Bootcamp/smu-dal-data-pt-06-2020-u-c/blob/master/02-Homework/02-VBA-Scripting/Instructions/Resources/Multiple_year_stock_data.xlsx) - Run your scripts on this data to generate the final homework report.

**Stock market analyst**

Image

**Instructions**

* Create a script that will loop through all the stocks for one year and output the following information.
  + The ticker symbol.
  + Yearly change from opening price at the beginning of a given year to the closing price at the end of that year.
  + The percent change from opening price at the beginning of a given year to the closing price at the end of that year.
  + The total stock volume of the stock.
* You should also have conditional formatting that will highlight positive change in green and negative change in red.
* The result should look as follows.

**CHALLENGES**

1. Your solution will also be able to return the stock with the "Greatest % increase", "Greatest % decrease" and "Greatest total volume". The solution will look as follows:
2. Make the appropriate adjustments to your VBA script that will allow it to run on every worksheet, i.e., every year, just by running the VBA script once.

**Other Considerations**

* Use the sheet alphabetical\_testing.xlsx while developing your code. This data set is smaller and will allow you to test faster. Your code should run on this file in less than 3-5 minutes.
* Make sure that the script acts the same on each sheet. The joy of VBA is to take the tediousness out of repetitive task and run over and over again with a click of the button.

**Submission**

* To submit please upload the following to Github:
  + A screen shot for each year of your results on the Multi Year Stock Data.
  + VBA Scripts as separate files.
* After everything has been saved, create a sharable link and submit that to <https://bootcampspot-v2.com/>.

**Copyright**

Sub stock()

'do dimensions

Dim ws As Worksheet

Dim Total As Double

Dim J As Integer

Dim i As Long

For Each ws In Worksheets

'set variables for each sheet

Total = 0

J = 0

'obtain row number of the last row of data

RowCount = Cells(Rows.Count, "A").End(xlUp).Row

'do title for the rows

ws.Range("I1").Value = "Ticker"

ws.Range("J1").Value = "Total Stock Volume"

For i = 2 To RowCount

'if ticker change, print data

If ws.Cells(i + 1, 1).Value <> ws.Cells(i, 1).Value Then

'print ticker

ws.Range("I" & 2 + J).Value = ws.Cells(i, 1).Value

'print total

ws.Range("J" & 2 + J).Value = Total

'reset total

Total = 0

'move to next row

J = J + 1

'or else keep adding to the total volume

Else

Total = Total + ws.Cells(i, 7).Value

End If

Next i

Next ws

End Sub