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Data Analytics Bootcamp – June 10 Class

Homework 2 - VBA

VBA Script (Solves Easy, Moderate, Hard, and Challenge Analysis)

Sub Ticker\_Summary()

'Loop through each worksheet by date

Dim ws As Worksheet

For Each ws In ActiveWorkbook.Worksheets

ws.Activate

' Set an initial variable for holding the ticker name

Dim Ticker\_Name As String

' Set an initial variable for holding the total per ticker name

Dim Ticker\_Total As Double

Ticker\_Total = 0

' Set an initial variable for holding the ticker open price

Dim Ticker\_Open As Double

Ticker\_Open = Cells(2, 3).Value

' Set an initial variable for holding the ticker close price

Dim Ticker\_Close As Double

Ticker\_Close = 0

' Keep track of the location for each ticker name in the summary table

Dim Summary\_Table\_Row As Integer

Summary\_Table\_Row = 2

'Add headers to Summary Tables

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

Range("L1").Value = "Total Stock Volume"

Range("J1").Value = "Yearly Change"

Range("K1").Value = "Percent Change"

Range("P1").Value = "Ticker"

Range("Q1").Value = "Value"

Range("O2").Value = "Greatest % Increase"

Range("O3").Value = "Greatest % Decrease"

Range("O4").Value = "Greatest Total Volume"

' Loop through all ticks

For i = 2 To 800000

' Check if we are still within the same ticker name, if it is not...

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

' Set the Ticker name

Ticker\_Name = Cells(i, 1).Value

'Set the Ticker Close price

Ticker\_Close = Cells(i, 6).Value

' Add to the Ticker Total

Ticker\_Total = Ticker\_Total + Cells(i, 7).Value

' Print the Ticker Name in the Summary Table

Range("I" & Summary\_Table\_Row).Value = Ticker\_Name

' Print the Ticker Total to the Summary Table

Range("L" & Summary\_Table\_Row).Value = Ticker\_Total

' Print the Price Change to the Summary Table

Range("J" & Summary\_Table\_Row).Value = Ticker\_Close - Ticker\_Open

'Cell fill colors for positive (green) and negative (red) yearly changes

If Range("J" & Summary\_Table\_Row).Value > 0 Then

Range("J" & Summary\_Table\_Row).Interior.ColorIndex = 4

ElseIf Range("J" & Summary\_Table\_Row).Value < 0 Then

Range("J" & Summary\_Table\_Row).Interior.ColorIndex = 3

End If

' Print the Percent Change to the Summary Table

If Ticker\_Open <> 0 Then

Range("K" & Summary\_Table\_Row).Value = (((Ticker\_Close - Ticker\_Open) / Ticker\_Open) \* 100) & "%"

Else

Range("K" & Summary\_Table\_Row).Value = "NA"

End If

' Add one to the summary table row

Summary\_Table\_Row = Summary\_Table\_Row + 1

' Reset the Ticker Total

Ticker\_Total = 0

'Set the new Ticker Open price

Ticker\_Open = Cells(i + 1, 3).Value

' If the cell immediately following a row is the same name...

Else

' Add to the Brand Total

Ticker\_Total = Ticker\_Total + Cells(i, 7).Value

End If

Next i

'Loop through Percent Change column to find Least and Greatest % change & greatest volume

'Create variables and set start value to 0

Dim Greatest\_Change\_Percent As Double

Greatest\_Change\_Percent = 0

Dim Least\_Change\_Percent As Double

Least\_Change\_Percent = 0

Dim Greatest\_Volume As Double

Greatest\_Volume = 0

For i = 2 To 3500

If Cells(i, 11).Value <> "NA" And Cells(i, 11).Value > Greatest\_Change\_Percent Then

Greatest\_Change\_Percent = Cells(i, 11).Value

'Write current greatest value and ticker name to spreadsheet

Range("Q2").Value = (Greatest\_Change\_Percent \* 100) & "%"

Range("P2").Value = Cells(i, 9).Value

ElseIf Cells(i, 11).Value <> "NA" And Cells(i, 11).Value < Least\_Change\_Percent Then

Least\_Change\_Percent = Cells(i, 11).Value

'Write current least value and ticker name to spreadsheet

Range("Q3").Value = (Least\_Change\_Percent \* 100) & "%"

Range("P3").Value = Cells(i, 9).Value

ElseIf Cells(i, 12).Value > Greatest\_Volume Then

Greatest\_Volume = Cells(i, 12).Value

'Write current greatest volume value and ticker name to spreadsheet

Range("Q4").Value = Greatest\_Volume

Range("P4").Value = Cells(i, 9).Value

End If

'Continue going down column checking for greater/lesser values to overwrite

Next i

'Autofit Summary Table

Columns("I:Q").AutoFit

'Go to the next worksheet

Next ws

End Sub