**VBA Home Work**

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**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.

Purpose: Analyze and Organize data using VBA coding in Microsoft Excel.

Challenges: Data mining using such a large data set. Limited background information on stock market and stock trends.

Graphical user interface, application, table, Excel

Description automatically generatedScreen Shots

Coding Format to VBA Scripting

Option Explicit

Sub stockTicker()

'declare worksheet

Dim ws As Worksheet

' Set an initial variable for holding the stock name

Dim Stock\_Name As String

' Set an initial variable for holding the total per stock brand

Dim Stock\_Total As Double

' Declare i

Dim i As Double

' Last Row

Dim LastRow As Double

' Keep track of the location for each stock brand in the summary table

Dim Summary\_Table\_Row As Integer

'open and close

Dim openPrice As Double

Dim closePrice As Double

Dim yearlyChange As Double

Dim percentChange As Double

' --------------------------------------------

' LOOP THROUGH ALL SHEETS

' --------------------------------------------

For Each ws In Worksheets

' init total

Stock\_Total = 0

LastRow = ws.Cells(Rows.Count, 1).End(xlUp).Row

Summary\_Table\_Row = 2

' Open/Close Prices

openPrice = ws.Cells(2, 3).Value

' Loop through all stock purchases

For i = 2 To LastRow

' Add to the Stock Total

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

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

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

'Grab the closing price

closePrice = ws.Cells(i, 6).Value

'Yearly Change

yearlyChange = closePrice - openPrice

'Percent Change

' deal with divide by 0

If openPrice = 0 Then

percentChange = 100 \* (yearlyChange / 0.0000001)

Else:

percentChange = 100 \* (yearlyChange / openPrice)

End If

' Set the stock name

Stock\_Name = ws.Cells(i, 1).Value

' Print the Stock Ticker in the Summary Table

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

' Print the Yearly Change to the Summary Table

ws.Range("J" & Summary\_Table\_Row).Value = yearlyChange

' Conditional Color

If yearlyChange > 0 Then

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

ElseIf yearlyChange < 0 Then

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

Else

ws.Range("J" & Summary\_Table\_Row).Interior.ColorIndex = 2

End If

' Print the Yearly Change to the Summary Table

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

' Print the Stock Amount to the Summary Table

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

' Add one to the summary table row

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

' Reset the Brand Total

Stock\_Total = 0

openPrice = ws.Cells(i + 1, 3)

End If

Next i

Next ws

End Sub