'VBA Module Challenge 2

'note: to complete this challenge I have refer speed run from our tutor Drew and also have gone through past student submitted VBA project to understand the logic and looping.

'https://github.com/ermiasgelaye/VBA-challenge

'https://github.com/anyren/VBA-challenge/tree/main

Sub stock\_analysis()

'set dimension

Dim rowcount As Long

Dim columncount As Long

Dim start As Long

Dim ticker As String

Dim openrate As Double

Dim closerate As Double

Dim yearchange As Double

Dim percentchange As Double

Dim totalvolume As Double

Dim greatestincrease As Double

Dim greatestdecrease As Double

Dim greatest\_totalvolumn As Double

Dim ws As Worksheet

For Each ws In Worksheets

'set title of the rows

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

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

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

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

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

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

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

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

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

'set which row to start

start = 2

'to find row number of the last row with data

rowcount = ws.Cells(Rows.Count, "a").End(xlUp).Row

'MsgBox (rowcount)

For columncount = 2 To rowcount

ticker = ws.Cells(columncount, 1).Value

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

totalvolume = totalvolume + ws.Cells(columncount, 7)

closerate = ws.Cells(columncount, 6).Value

yearchange = closerate - openrate

percentchange = yearchange / openrate

ws.Cells(start, 9).Value = ticker

ws.Cells(start, 10).Value = yearchange

ws.Cells(start, 11).Value = percentchange

ws.Cells(start, 12).Value = totalvolume

If yearchange > 0 Then

ws.Cells(start, 10).Interior.ColorIndex = 4

ElseIf yearchange < 0 Then

ws.Cells(start, 10).Interior.ColorIndex = 3

End If

start = start + 1

totalvolume = 0

Else

totalvolume = totalvolume + ws.Cells(columncount, 7).Value

If ticker <> ws.Cells(columncount - 1, 1).Value Then

openrate = ws.Cells(start, 3).Value

End If

End If

Next columncount

'take max and min

ws.Range("Q2") = "%" & WorksheetFunction.Max(ws.Range("K2:K" & rowcount)) \* 100

ws.Range("Q3") = "%" & WorksheetFunction.Min(ws.Range("K2:K" & rowcount)) \* 100

ws.Range("Q4") = WorksheetFunction.Max(ws.Range("L2:L" & rowcount))

increase\_number = WorksheetFunction.Match(WorksheetFunction.Max(ws.Range("K2:K" & rowcount)), ws.Range("K2:K" & rowcount), 0)

decrease\_number = WorksheetFunction.Match(WorksheetFunction.Min(ws.Range("K2:K" & rowcount)), ws.Range("K2:K" & rowcount), 0)

volume\_number = WorksheetFunction.Match(WorksheetFunction.Max(ws.Range("L2:L" & rowcount)), ws.Range("L2:L" & rowcount), 0)

ws.Range("P2") = ws.Cells(increase\_number + 1, 9)

ws.Range("P3") = ws.Cells(decrease\_number + 1, 9)

ws.Range("P4") = ws.Cells(volume\_number + 1, 9)

Next ws

End Sub