'VBA Homework - The VBA of Wall Street

'1. 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.

'2. You should also have conditional formatting that will highlight positive change in green and negative change in red.

'3. 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:

' \*\*\*\*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.

Sub Wall\_Street()

Dim ws As Worksheet

For Each ws In ActiveWorkbook.Worksheets 'Run on every worksheet, i.e., every year

ws.Select

Call Stock\_Data

Next ws

End Sub

Sub Stock\_Data()

Dim ticker As String

Dim total\_stock As Double

Dim ticker\_count As Long

Dim year\_open As Double

Dim year\_close As Double

Dim yearly\_pct As Double

Dim greatest\_volume As Double

Dim greatest\_volume\_stock As String

Dim gp\_inc As Double

Dim gp\_inc\_stock As String

Dim gp\_dec As Double

Dim gp\_dec\_stock As String

'1-Write headers/ highlight them to yellow

Cells(1, 9).Value = "Ticker" 'The ticker symbol.

Cells(1, 9).Interior.Color = vbYellow

Cells(1, 10).Value = "Yearly Change" 'Yearly change from opening price at the beginning of a given year to the closing price at the end of that year.

Cells(1, 10).Interior.Color = vbYellow

Cells(1, 11).Value = "Percentage Change" 'The percent change from opening price at the beginning of a given year to the closing price at the end of that year.

Cells(1, 11).Interior.Color = vbYellow

Cells(1, 12).Value = "Total Volume" 'The total stock volume of the stock.

Cells(1, 12).Interior.Color = vbYellow

Dim lastrow As Double

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

'Open price for the year for 1st ticker

year\_open = Cells(2, 3).Value

For Row = 2 To lastrow

ticker = Cells(Row, 1).Value

day\_stock\_vol = Cells(Row, 7).Value

day\_open\_price = Cells(Row, 3).Value

day\_close\_price = Cells(Row, 6).Value

next\_stock\_sym = Cells(Row + 1, 1).Value

next\_open\_price = Cells(Row + 1, 3).Value

total\_stock = day\_stock\_vol + total\_stock

If (year\_open = 0) Then

year\_open = day\_open\_price

End If

If (ticker <> next\_stock\_sym) Then

year\_close = day\_close\_price

Cells(ticker\_count + 2, 9).Value = ticker

Cells(ticker\_count + 2, 12).Value = total\_stock

ticker\_count = ticker\_count + 1

'1-calculate yearly change and % change

yearly\_change = (year\_close - year\_open)

Cells(ticker\_count + 1, 10).Value = yearly\_change

If (year\_open = 0) Then

Cells(ticker\_count + 1, 11).Value = "NA" 'Check for divide by zero error

Else

Cells(ticker\_count + 1, 11).Value = yearly\_change / year\_open

End If

Cells(ticker\_count + 1, 11).NumberFormat = "0.00%"

'2-conditional formatting that will highlight positive change in green and negative change in red

If (year\_close < year\_open) Then

Cells(ticker\_count + 1, 10).Interior.Color = vbRed

Else

Cells(ticker\_count + 1, 10).Interior.Color = vbGreen

End If

'3-calculate Greatest % increase, Greatest % decrease and Greatest total volume

If (total\_stock > greatest\_volume) Then

greatest\_volume = total\_stock

greatest\_volume\_stock = ticker

End If

If (year\_open <> 0) Then

If (yearly\_change / year\_open > gp\_inc) Then

gp\_inc = yearly\_change / year\_open

gp\_inc\_stock = ticker

End If

End If

If (year\_open <> 0) Then

If (yearly\_change / year\_open < gp\_dec) Then

gp\_dec = yearly\_change / year\_open

gp\_dec\_stock = ticker

End If

End If

'Reset values

total\_stock = 0

year\_open = next\_open\_price

End If

Next Row

'3- write Greatest % increase, Greatest % decrease and Greatest total volume

Cells(1, 16).Value = "Ticker"

Cells(1, 16).Interior.Color = vbYellow

Cells(1, 17).Value = "Value"

Cells(1, 17).Interior.Color = vbYellow

Cells(2, 15).Value = "Greatest % Increase"

Cells(3, 15).Value = "Greatest % Decrease"

Cells(4, 15).Value = "Greatest Total Volume"

Cells(2, 17).Value = gp\_inc

Cells(2, 17).NumberFormat = "0.00%"

Cells(2, 16).Value = gp\_inc\_stock

Cells(3, 17).Value = gp\_dec

Cells(3, 17).NumberFormat = "0.00%"

Cells(3, 16).Value = gp\_dec\_stock

Cells(4, 17).Value = greatest\_volume

Cells(4, 16).Value = greatest\_volume\_stock

End Sub