' Analyze generated stock market data

' Create a script that loops through all the stocks for one year and outputs 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.

' Note: Make sure to use conditional formatting that will highlight positive change in green and negative change in red.

Sub Stock\_Analysis():

'Declare variables

Dim ticker As String

Dim volume As Double

volume = 0

Dim open\_price As Double

Dim closing\_price As Double

Dim summary\_table\_row As Long

Dim ws As Worksheet

' set up loop to run through all the worksheets

For Each ws In Worksheets

ws.Select

'create Summary Table labels

Cells(1, 9).Value = "Ticker"

Cells(1, 10).Value = "Yearly\_Change"

Cells(1, 11).Value = "Yearly\_Percent\_Change"

Cells(1, 12).Value = "Total Stock Volume"

'set up summary table location

summary\_table\_row = 2

'define last row

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

'Start of the loop

For i = 2 To lastRow

' capture open\_price value

If open\_price = 0 Then

open\_price = Cells(i, 3).Value

End If

ticker = Cells(i, 1).Value

'start checking if ticker name has changed, and if so, and capture last closing price and calculate price change

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

closing\_price = Cells(i, 6).Value

Yearly\_Change = closing\_price - open\_price

'Set up values for the summary table

'set ticker name, volume and percent change value

'set Volume Value

volume = volume + Cells(i, 7).Value

If (open\_price = 0 And close\_price = 0) Then

Percent\_Change = 0

ElseIf (open\_price = 0 And close\_price <> 0) Then

Percent\_Change = 1

Else

Percent\_Change = ((closing\_price - open\_price) / open\_price)

End If

'set up summary table output and fomat the color sheme

Range("J" & summary\_table\_row).Value = Yearly\_Change

Range("K" & summary\_table\_row).Value = Percent\_Change

Range("K" & summary\_table\_row).NumberFormat = "0.00%"

Range("I" & summary\_table\_row).Value = ticker

' format cell fill color

If Percent\_Change < 0 Then

Cells(summary\_table\_row, 10).Interior.ColorIndex = 3

Else

Cells(summary\_table\_row, 10).Interior.ColorIndex = 4

End If

Range("L" & summary\_table\_row).Value = volume

'add to to the row

summary\_table\_row = summary\_table\_row + 1

lastRow = lastRow + 1

'Reset Volume for next ticket count

volume = 0

closing\_price = 0

open\_price = 0

Else

volume = volume + Cells(i, 7).Value

End If

Next i

'BONUS - Add Greatest Increase, Decrease and Greatest Total Volume labels to bonus table

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

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

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

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

Cells(1, 18).Value = "Value"

'collect the max and min values in column "Percent Change" and just max in column "Total Stock Volume"

'collect ticker name, max, min values and highest volume for the table

For i = 2 To summary\_table\_row

'Find the max percent change

If Cells(i, 11).Value = Application.WorksheetFunction.Max(Range("K2:K" & summary\_table\_row)) Then

Cells(2, 17).Value = Cells(i, 9).Value

Cells(2, 18).Value = Cells(i, 11).Value

Cells(2, 18).NumberFormat = "0.00%"

'Find the min percent change

ElseIf Cells(i, 11).Value = Application.WorksheetFunction.Min(Range("K2:K" & summary\_table\_row)) Then

Cells(3, 17).Value = Cells(i, 9).Value

Cells(3, 18).Value = Cells(i, 11).Value

Cells(3, 18).NumberFormat = "0.00%"

'Find the max volume

ElseIf Cells(i, 12).Value = Application.WorksheetFunction.Max(Range("L2:L" & summary\_table\_row)) Then

Cells(4, 17).Value = Cells(i, 9).Value

Cells(4, 18).Value = Cells(i, 12).Value

End If

Next i

Next ws

End Sub