# **Stock Market Analysis: Summarize Data Coding:**

Sub StockMarketAnalysis()

'Define all variables

Dim i As Long

Dim j As Integer

Dim total As Double

Dim change As Double

Dim start As Long

Dim percentChange As Double

Dim ws As Worksheet

'set the counter valriables to zero for each worksheet

For Each ws In Worksheets

j = 0

change = 0

total = 0

start = 2

'create title labels for the summary table

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

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

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

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

'tells computer to start at the end of the worksheet and find the first row with data in the first column "A" (ticker) to begin counting

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

'create a conditional for loop that goes from first row of data (that's row 2) through the last row of data (that's RowCount)

For i = 2 To RowCount

'create conditional statement to compare a row with the one above it since we start from the bottom

'the next if statement addresses the rows with bad data (don't include data with 0 volume cells)

'start finding the non-zero total stock volume for each ticker and store results in variable

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

total = total + ws.Cells(i, 7).Value

If total = 0 Then

ws.Range("I" & 2 + j).Value = Cells(i, 1).Value

ws.Range("J" & 2 + j).Value = 0

ws.Range("K" & 2 + j).Value = "%" & 0

ws.Range("L" & 2 + j).Value = 0

Else

If ws.Cells(start, 3) = 0 Then

For findValue = start To i

If ws.Cells(findValue, 3).Value <> 0 Then

start = findValue

Exit For

End If

Next findValue

End If

'next conditional to find the yearly change and the percent change

change = (ws.Cells(i, 6) - ws.Cells(start, 3))

percentChange = Round((change / ws.Cells(start, 3) \* 100), 2)

'begin on the next stock ticker

start = i + 1

'place results into the same worksheet next to the raw data

ws.Range("I" & 2 + j).Value = ws.Cells(i, 1).Value

ws.Range("J" & 2 + j).Value = Round(change, 2)

ws.Range("K" & 2 + j).Value = "%" & percentChange

ws.Range("L" & 2 + j).Value = total

'color code the yearly change column that ended the year positive (green is 4), negative (red is 3), and no change (white is 0)

If change > 0 Then

ws.Range("J" & 2 + j).Interior.ColorIndex = 4

ElseIf change < 0 Then

ws.Range("J" & 2 + j).Interior.ColorIndex = 3

Else

ws.Range("J" & 2 + j).Interior.ColorIndex = 0

End If

End If

'reset the variables to zero to count for a new stock ticker

j = j + 1

total = 0

change = 0

Else

total = total + ws.Cells(i, 7).Value

End If

Next i

Next ws

End Sub

**Find the Greatest: Bonus Coding**

Sub Bonus()

'Define all variables

Dim GITicker As String

Dim GDTicker As String

Dim GVTicker As String

Dim GreatPctIncr As Double

Dim GreatPctDecr As Double

Dim GreatVol As Double

Dim ws As Worksheet

Dim currentTicker As String

Dim currentValue As Double

' set the counter variables to zero for each worksheet

For Each ws In Worksheets

GreatPctIncr = 0

GreatPctDecr = 0

GreatVol = 0

'create title labels for the summary table

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

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

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

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

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

'tells computer to start at the end of the worksheet and find the ninth row's ("I") column with data to begin counting

RowCount = ws.Cells(Rows.Count, "I").End(xlUp).Row

For i = 2 To RowCount

currentTicker = ws.Cells(i, 9).Value

Value = ws.Cells(i, 11).Value

'comparing and keeping track of the greatest percent decrease values

If Value < GreatPctDecr Then

GreatPctDecr = Value

GDTicker = currentTicker

End If

'comparing and keeping track of the greatest percent increase values

Value = ws.Cells(i, 11).Value

If Value > GreatPctIncr Then

GreatPctIncr = Value

GITicker = currentTicker

End If

'comparing and keeping track of the greatest total volume values

Value = ws.Cells(i, 12).Value

If Value > GreatVol Then

GreatVol = Value

GVTicker = currentTicker

End If

Next i

'place results into the same worksheet next to the summary table data

ws.Range("P2").Value = GITicker

ws.Range("Q2").Value = GreatPctIncr

ws.Range("P3").Value = GDTicker

ws.Range("Q3").Value = GreatPctDecr

ws.Range("P4").Value = GVTicker

ws.Range("Q4").Value = GreatVol

Next ws

End Sub