Sub QuarterlyStockAnalysis()

'Declare variables

Dim ws As Worksheet

Dim lastRow As Long

Dim i As Long

Dim ticker As String

Dim openPrice As Double

Dim closePrice As Double

Dim quarterlyChange As Double

Dim percentageChange As Double

Dim totalVolume As Double

Dim greatestIncrease As Double

Dim greatestDecrease As Double

Dim greatestVolume As Double

Dim greatestIncreaseTicker As String

Dim greatestDecreaseTicker As String

Dim greatestVolumeTicker As String

Dim rowStart As Long

Dim rowEnd As Long

'Loop through each worksheet

For Each ws In ThisWorkbook.Worksheets

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

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

ws.Cells(1, 10).Value = "Quarterly Change"

ws.Cells(1, 11).Value = "Percentage Change"

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

' dimlast row as long

Dim resultRow As Long

' Start output from the second row

resultRow = 2

' Start reading data from the second row

i = 2

' Mark the start of the current ticker block

Do While i <= lastRow

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

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

totalVolume = 0

rowStart = i

' Accumulate volume and move to the next row

Do While ws.Cells(i, 1).Value = ticker

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

i = i + 1

If i > lastRow Then Exit Do

Loop

' Get the closing price of the last day of the quarter

rowEnd = i - 1

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

'Calculate quarterly change

quarterlyChange = closePrice - openPrice

'calculate percent change

percentageChange = (quarterlyChange / openPrice) \* 100

'Format the percentage change column with colors

If quarterlyChange < 0 Then

ws.Cells(resultRow, 10).Interior.Color = RGB(255, 0, 0)

Else

ws.Cells(resultRow, 10).Interior.Color = RGB(0, 255, 0)

End If

' Output the results for the current ticker

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

ws.Cells(resultRow, 10).Value = quarterlyChange

ws.Cells(resultRow, 11).Value = percentageChange

ws.Cells(resultRow, 12).Value = totalVolume

' Track the greatest increase, decrease, and total volume

If percentageChange > greatestIncrease Then

greatestIncrease = percentageChange

greatestIncreaseTicker = ticker

End If

If percentageChange < greatestDecrease Then

greatestDecrease = percentageChange

greatestDecreaseTicker = ticker

End If

If totalVolume > greatestVolume Then

greatestVolume = totalVolume

greatestVolumeTicker = ticker

End If

resultRow = resultRow + 1

Loop

' Output the greatest values

ws.Cells(2, 14).Value = "Greatest % Increase"

ws.Cells(3, 14).Value = "Greatest % Decrease"

ws.Cells(4, 14).Value = "Greatest Total Volume"

ws.Cells(2, 15).Value = greatestIncreaseTicker

ws.Cells(2, 16).Value = greatestIncrease

ws.Cells(3, 15).Value = greatestDecreaseTicker

ws.Cells(3, 16).Value = greatestDecrease

ws.Cells(4, 15).Value = greatestVolumeTicker

ws.Cells(4, 16).Value = greatestVolume

' Reset for next sheet

greatestIncrease = 0

greatestDecrease = 0

greatestVolume = 0

Next ws

End Sub