Sub stock\_analysis\_all\_sheets()

' Set Dimensions: Declares variables for storing various values like total, change, row counts, etc.

Dim ws As Worksheet

Dim Ticker As String

Dim QuarterlyChange As Double

Dim PercentChange As Double

Dim TotalStockVolume As Double

Dim LastRow As Long

Dim SummaryRow As Long

Dim i As Long

Dim StartQuarterOpen As Double

Dim EndQuarterClose As Double

' Variables for max and min percent change and greatest total volume

Dim MaxPercentIncrease As Double

Dim MaxPercentDecrease As Double

Dim MaxTotalVolume As Double

Dim MaxIncreaseTicker As String

Dim MaxDecreaseTicker As String

Dim MaxVolumeTicker As String

' Initialize max and min variables

MaxPercentIncrease = 0

MaxPercentDecrease = 0

MaxTotalVolume = 0

' Loop through each worksheet

For Each ws In ThisWorkbook.Worksheets

' Skip sheets that are not quarterly data

If ws.Name = "Q1" Or ws.Name = "Q2" Or ws.Name = "Q3" Or ws.Name = "Q4" Then

' Activate the worksheet

ws.Activate

' Set Title Row in the current sheet

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

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

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

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

' Initialize the summary row

SummaryRow = 2

' Find the last row of data

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

' Loop Through Data: It loops through each row of stock data.

For i = 2 To LastRow

' If Ticker Changes: If the stock ticker changes from the previous row, it calculates and prints the results for the previous ticker.

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

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

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

TotalStockVolume = 0

End If

' If Ticker is the Same: If the ticker is the same as the previous row, it continues adding up the total volume.

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

' Check if it’s the last row of a ticker or the end of the quarter

If ws.Cells(i, 1).Value <> ws.Cells(i + 1, 1).Value Or Month(ws.Cells(i, 2).Value) Mod 3 = 0 Then

EndQuarterClose = ws.Cells(i, 6).Value

QuarterlyChange = EndQuarterClose - StartQuarterOpen

' Handle Zero Total Volume: If the total volume for a ticker is zero, it prints default values.

If StartQuarterOpen <> 0 Then

PercentChange = (QuarterlyChange / StartQuarterOpen) \* 100

Else

PercentChange = 0

End If

' Print Results: Prints the calculated values for the current ticker.

ws.Cells(SummaryRow, 9).Value = Ticker

ws.Cells(SummaryRow, 10).Value = QuarterlyChange

ws.Cells(SummaryRow, 11).Value = PercentChange

ws.Cells(SummaryRow, 12).Value = TotalStockVolume

' Color Coding: Colors the change values in green for positive changes, red for negative changes, and leaves them white for no change.

If QuarterlyChange > 0 Then

ws.Cells(SummaryRow, 10).Interior.Color = RGB(0, 255, 0) ' Green

ElseIf QuarterlyChange < 0 Then

ws.Cells(SummaryRow, 10).Interior.Color = RGB(255, 0, 0) ' Red

Else

ws.Cells(SummaryRow, 10).Interior.Color = RGB(255, 255, 255) ' White

End If

' Find max and min percent changes and total volume

If PercentChange > MaxPercentIncrease Then

MaxPercentIncrease = PercentChange

MaxIncreaseTicker = Ticker

End If

If PercentChange < MaxPercentDecrease Then

MaxPercentDecrease = PercentChange

MaxDecreaseTicker = Ticker

End If

If TotalStockVolume > MaxTotalVolume Then

MaxTotalVolume = TotalStockVolume

MaxVolumeTicker = Ticker

End If

' Move to next summary row

SummaryRow = SummaryRow + 1

' Reset Variables: Resets variables for the next ticker.

If i < LastRow Then

StartQuarterOpen = ws.Cells(i + 1, 3).Value

End If

TotalStockVolume = 0

End If

Next i

' Output max and min values in the current sheet

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

ws.Range("Q2").Value = MaxPercentIncrease & "%"

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

ws.Range("Q3").Value = MaxPercentDecrease & "%"

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

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

End If

Next ws

End Sub