Sub VBA\_Challenge()

'All variables among nested For "ws" loop & separate For "i" loops

Dim ws As Worksheet

Dim i As Long

Dim LastRow As Long

Dim TLastRow As Long

Dim opening As Double

Dim closing As Double

Dim Ticker As String

Dim YDif As Double

Dim PrChng As Double

Dim col As Range

Dim v As Long

Dim sum As Double

Dim vTicker As String

Dim GI As Double

Dim GD As Double

Dim GTV As Double

'Setup headers for each column

For Each ws In ThisWorkbook.Worksheets

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

TLastRow = ws.Cells(ws.Rows.Count, 11).End(xlUp).Row

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

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

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

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

'Variables used through separate For "i" loops, but consistent in For "ws" loop

y = 2

t = 2

v = 2

g = 1

sum = 0

'Create For Loop to fill TICKER column

For i = 2 To LastRow

'Utilise If function to compare adjacent i,1 values in order to draw out unique values

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

ws.Cells(t, 9).Value = ws.Cells(i, 1).Value

t = t + 1

End If

'Create variable reference to assist drawing correct values for YEARLY CHANGE & PERCENT CHANGE columns

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

'Create fixed reference to co-assist drawing correct values for YEARLY CHANGE & PERCENT CHANGE columns

OpenDateCode = "0102"

CloseDateCode = "1231"

'Utilise references to draw appropriate values for opening for ticker

If Right(ws.Cells(i, 2).Value, 4) = OpenDateCode And ws.Cells(i, 1).Value = Ticker Then

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

End If

'Do the same for closing values. Once both variables have values, manipulate the data so it fits the YEARLY CHANGE & PERCENT CHANGE columns, then adjust the variable reference point so it looks at the next Ticker

If Right(ws.Cells(i, 2).Value, 4) = CloseDateCode And ws.Cells(i, 1).Value = Ticker Then

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

PrChng = closing / opening

YDif = closing - opening

ws.Cells(y, 10).Value = YDif

ws.Cells(y, 11).Value = (PrChng - 1) \* 100 & "%"

y = y + 1

End If

'End For Loop

Next i

'Create new For Loop to fill TOTAL STOCK VOLUME column

For i = 2 To LastRow + 1

'Make reference point in TICKER column

vTicker = ws.Cells(v, 9).Value

'Use the reference point to sum all the TOTAL STOCK VOLUME data for the particular ticker, pull the total to the TOTAL STOCK VOLUME column, reset the "sum" variable, add the current i value & adjust the variable reference point so it can begin summing the values with the next ticker

If ws.Cells(i, 1).Value = vTicker Then

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

ElseIf ws.Cells(i, 1).Value <> vTicker Then

ws.Cells(v, 12).Value = sum

sum = 0 + ws.Cells(i, 7).Value

v = v + 1

End If

'End For Loop

Next i

'Create new For Loop for CONDITIONAL FORMATTING

For i = 2 To LastRow

'Utilise conditional formatting of cell colour in YEARLY CHANGE & PERCENT CHANGE columns. Have green for positive values & red for negative values

If ws.Cells(i, 9).Value = "" Then

ws.Cells(i, 10).Interior.ColorIndex = 0

ws.Cells(i, 11).Interior.ColorIndex = 0

ElseIf ws.Cells(i, 10).Value = 0 Then

ws.Cells(i, 10).Interior.Color = vbYellow

ws.Cells(i, 11).Interior.Color = vbYellow

ElseIf ws.Cells(i, 10).Value > 0 Then

ws.Cells(i, 10).Interior.Color = vbGreen

ws.Cells(i, 11).Interior.Color = vbGreen

Else: ws.Cells(i, 10).Interior.Color = vbRed

ws.Cells(i, 11).Interior.Color = vbRed

End If

'End For Loop

Next i

'Create For Loop to find corresponding TICKERS to values

'Create table for ADDITIONAL STATS

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

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

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

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

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

'Assign desired values to respectable variables

GI = Application.WorksheetFunction.max(ws.Range("K2:K" & TLastRow))

GD = Application.WorksheetFunction.min(ws.Range("K2:K" & TLastRow))

GTV = Application.WorksheetFunction.max(ws.Range("L2:L" & TLastRow))

For i = 2 To TLastRow

If ws.Cells(i, 11).Value = GI Then

ws.Cells(2, 16).Value = ws.Cells(i, 9).Value

ws.Cells(2, 17).Value = ws.Cells(i, 11).Value \* 100 & "%"

End If

If ws.Cells(i, 11).Value = GD Then

ws.Cells(3, 16).Value = ws.Cells(i, 9).Value

ws.Cells(3, 17).Value = ws.Cells(i, 11).Value \* 100 & "%"

End If

If ws.Cells(i, 12).Value = GTV Then

ws.Cells(4, 16).Value = ws.Cells(i, 9).Value

ws.Cells(4, 17).Value = ws.Cells(i, 12).Value

End If

Next i

Next ws

End Sub