**VBA Challenge**

Moderate Solution:

Sub WallStreet()

For Each ws In Worksheets

'Create headings for data summary

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

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

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

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

'Declare Variables

Dim ticker As String

Dim YearlyChange As Double

Dim Count As Long

Dim StockVolume As Double

Dim YearOpen As Double

Dim YearClose As Double

Dim PercentChange As Double

StockVolume = 0

'Use count when printing values

Count = 2

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

'loop through each row of each sheet

For i = 2 To Lastrow

'loop through each stock adding up their total volume

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

'Form the summary table

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

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

'Print ticker symbol

ws.Range("I" & Count).Value = ticker

'Print Total Stock Volume

ws.Range("L" & Count).Value = StockVolume

'Reset StockVolume for next stock

StockVolume = 0

'Calculate Yearly Change

YearOpen = ws.Range("C" & i)

YearClose = ws.Range("F" & i)

YearlyChange = YearClose - YearOpen

'Print Yearly Change

ws.Range("J" & Count).Value = YearlyChange

'Calculate Percent Change

If YearOpen = 0 Then

PercentChange = 0

Else

PercentChange = YearlyChange / YearOpen

End If

'Print Percent Change

ws.Range("K" & Count).Value = PercentChange

'Format the cells to be percentages

ws.Range("K" & Count).Style = "Percent"

'Conditional formatting: Positive = Green, Negative = Red, No Change = Yellow

If YearlyChange > 0 Then

ws.Range("J" & Count).Interior.ColorIndex = 4

ElseIf YearlyChange < 0 Then

ws.Range("J" & Count).Interior.ColorIndex = 3

Else

ws.Range("J" & Count).Interior.ColorIndex = 6

End If

Count = Count + 1

End If

Next i

'Autofit the summary table columns

ws.Columns("I:L").AutoFit

Next ws

End Sub

Hard Solution

Sub WallStreet()

For Each ws In Worksheets

'Create headings for data summary

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

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

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

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

'Create headings for hard solution

ws.Range("O1").Value = "Ticker"

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

ws.Range("N2").Value = "Greatest % Increase"

ws.Range("N3").Value = "Greatest % Decrease"

ws.Range("N4").Value = "Greatest Total Volume"

'Declare Variables

Dim ticker As String

Dim YearlyChange As Double

Dim Count As Long

Dim StockVolume As Double

Dim YearOpen As Double

Dim YearClose As Double

Dim PercentChange As Double

'Declare Variables for Hard solution

Dim GreatestIncrease As Double

Dim GreatestDecrease As Double

Dim GreatestTotal As Double

GreatestIncrease = 0

GreatestDecrease = 0

GreatestTotal = 0

StockVolume = 0

'Use count when printing values

Count = 2

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

'loop through each row of each sheet

For i = 2 To Lastrow

'loop through each stock adding up their total volume

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

'Form the summary table

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

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

'Print ticker symbol

ws.Range("I" & Count).Value = ticker

'Print Total Stock Volume

ws.Range("L" & Count).Value = StockVolume

'Reset StockVolume for next stock

StockVolume = 0

'Calculate Yearly Change

YearOpen = ws.Range("C" & i)

YearClose = ws.Range("F" & i)

YearlyChange = YearClose - YearOpen

'Print Yearly Change

ws.Range("J" & Count).Value = YearlyChange

'Calculate Percent Change

If YearOpen = 0 Then

PercentChange = 0

Else

PercentChange = YearlyChange / YearOpen

End If

'Print Percent Change

ws.Range("K" & Count).Value = PercentChange

'Format the cells to be percentages

ws.Range("K" & Count).Style = "Percent"

'Conditional formatting: Positive = Green, Negative = Red, No Change = Yellow

If YearlyChange > 0 Then

ws.Range("J" & Count).Interior.ColorIndex = 4

ElseIf YearlyChange < 0 Then

ws.Range("J" & Count).Interior.ColorIndex = 3

Else

ws.Range("J" & Count).Interior.ColorIndex = 6

End If

Count = Count + 1

End If

Next i

'Autofit the table columns

ws.Columns("I:P").AutoFit

'Hard solution

'Find the last row of the summary table

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

'Calculate Greatest Values

For j = 2 To LastSummaryRow

'Calculate Greatest % Increase

If ws.Range("K" & j).Value > GreatestIncrease Then

GreatestIncrease = ws.Range("K" & j).Value

'Print Greatest % Increase

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

'Print associated ticker

ws.Range("O2").Value = ws.Range("I" & j).Value

End If

'Calculate Greatest % Decrease

If ws.Range("K" & j).Value < GreatestDecrease Then

GreatestDecrease = ws.Range("K" & j).Value

'Print Greatest % Decrease

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

'Print associated ticker

ws.Range("O3").Value = ws.Range("I" & j).Value

End If

'Calculate Greatest total volume

If ws.Range("L" & j).Value > GreatestTotal Then

GreatestTotal = ws.Range("L" & j).Value

'Print Greatest total Volume

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

'Print associated ticker

ws.Range("O4").Value = ws.Range("I" & j).Value

End If

Next j

ws.Range("P2:P3").Style = "Percent"

Next ws

End Sub