**READ ME:** Where to invest by greatest Stock Values.

**REQUIREMENTS/INSTRUCTIONS:**

1. Create a PIVOT Table for TAB A to get the END of the TICKER with SUM of Volume

* Place Ticker in ROWS
* Volume in VALUES

1. Group by Ticker
2. Sum the Volume - COLUMN 7
3. Write it out in COLUMN 9 and 12.
4. Calculate Yearly Change

* Opening price on the First Row
* Next Row will be the First Row of TAB B
* Closing price on the Last Row of the
* Yearly Change on the last Row
* Will provide the Percentage Change (the percentage is the CLOSING COST OF THE LAST DAY (minus) OPENING COST OF THE FIRST DAY (divided by) FIRST ROW OPEN.

1. COLUMN Creation (ticker, total stock volume, yearly change, and percentage change)
2. Conditional Formatting (Red and Green).
3. Calculated VALUES - Display in the Output.
4. LOOP the VBA SCRIPT through all Sheets
5. SUBMIT GitHub/GitLab:

* Screenshots of the results
* Separate VBA script file
* Read\_me file
* Upload Alphabetical Testing

**SCRIPT:**

Sub doStocks()

' for each row

' add the total VOLUME

' check if next row is the same STOCK

' if it isn't, we've reached the total

' write out to column I and L

' reset the counter

Dim currStock As String

Dim totalVolume As Double

Dim nextStock As String

Dim row As Long

Dim summaryRow As Integer

Dim lastRow As Long

Dim openPrice As Double

Dim closePrice As Double

Dim yearlyChange As Double

Dim percentChange As Double

Dim ws As Worksheet

' Loop through all of the worksheets in the active workbook.

For Each ws In Worksheets

' column headers

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 Volume"

' defaults

totalVolume = 0

summaryRow = 2

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

' first stock's open price

openPrice = ws.Cells(2, 3).Value

' loop through worksheet

For row = 2 To lastRow

currStock = ws.Cells(row, 1).Value

nextStock = ws.Cells(row + 1, 1).Value

' add total

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

If nextStock <> currStock Then

' get close price

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

yearlyChange = closePrice - openPrice

' divide by 0 error handling

If openPrice = 0 Then

percentChange = 0 ' can be a NAN or NULL or !#VAL

Else

percentChange = yearlyChange / openPrice

End If

' write to summary table

ws.Cells(summaryRow, 9).Value = currStock

ws.Cells(summaryRow, 10).Value = yearlyChange

ws.Cells(summaryRow, 11).Value = percentChange

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

' conditional formatting

If yearlyChange < 0 Then

ws.Cells(summaryRow, 10).Interior.ColorIndex = 3

ws.Cells(summaryRow, 11).Interior.ColorIndex = 3

Else

ws.Cells(summaryRow, 10).Interior.ColorIndex = 4

ws.Cells(summaryRow, 11).Interior.ColorIndex = 4

End If

' reset

totalVolume = 0

summaryRow = summaryRow + 1

' open price of next stock

openPrice = ws.Cells(row + 1, 3).Value

End If

Next row

' Another for loop

' summarize the summary table

Dim lastSummaryRow As Long

Dim greatestVolume As Double

Dim greatestVolumeStock As String

Dim greatestIncrease As Double

Dim greatestIncreaseStock As String

Dim greatestDecrease As Double

Dim greatestDecreaseStock As String

' defaults

lastSummaryRow = ws.Cells(ws.Rows.Count, 9).End(xlUp).row

greatestVolume = ws.Cells(2, 12).Value

greatestVolumeStock = ws.Cells(2, 9).Value

greatestIncrease = ws.Cells(2, 11).Value

greatestIncreaseStock = ws.Cells(2, 9).Value

greatestDecrease = ws.Cells(2, 11).Value

greatestDecreaseStock = ws.Cells(2, 9).Value

For row = 2 To lastSummaryRow

' check for new greatest volume

If ws.Cells(row, 12).Value > greatestVolume Then

greatestVolume = ws.Cells(row, 12).Value

greatestVolumeStock = ws.Cells(row, 9).Value

End If

' check for new greatest change

If ws.Cells(row, 11).Value > greatestIncrease Then

greatestIncrease = ws.Cells(row, 11).Value

greatestIncreaseStock = ws.Cells(row, 9).Value

End If

' check for new worst decrease

If ws.Cells(row, 11).Value < greatestDecrease Then

greatestDecrease = ws.Cells(row, 11).Value

greatestDecreaseStock = ws.Cells(row, 9).Value

End If

Next row

' we're done

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

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

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

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

ws.Cells(2, 17).Value = greatestIncrease

ws.Cells(2, 17).NumberFormat = "0.00%" ' make a percent

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

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

ws.Cells(3, 17).Value = greatestDecrease

ws.Cells(3, 17).NumberFormat = "0.00%" ' make a percent

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

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

ws.Cells(4, 17).Value = greatestVolume

' style the columns

ws.Range("J2:J" & summaryRow).NumberFormat = "0.00"

ws.Range("K2:K" & summaryRow).NumberFormat = "0.00%"

Next

End Sub

**SUMMARY ROW:**

For j = 2 To summaryRow

If ws.Cells(j, 12).Value > greatestIncrease Then

' hooray, we have a bigger increase in percent change

greatestIncrease = ws.Cells(j, 12).Value

greatestIncreaseStock = ws.Cells(j, 10).Value

End If

If ws.Cells(j, 12).Value < greatestDecrease Then

' hooray, we have a smaller percent change

greatestDecrease = ws.Cells(j, 12).Value

greatestDecreaseStock = ws.Cells(j, 10).Value

End If

If ws.Cells(j, 13).Value > greatestVolume Then

' hooray, we have a bigger increase in percent change

greatestVolume = ws.Cells(j, 13).Value

greatestVolumeStock = ws.Cells(j, 10).Value

End If

Next j

' we're done

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

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

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

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

ws.Cells(2, 17).Value = greatestIncrease

ws.Cells(2, 17).NumberFormat = "0.00%" ' make a percent

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

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

ws.Cells(3, 17).Value = greatestDecrease

ws.Cells(3, 17).NumberFormat = "0.00%" ' make a percent

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

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

ws.Cells(4, 17).Value = greatestVolume

**RANGES:**

' take the max and min and place them in a separate part in the worksheet

Range("Q2") = "%" & WorksheetFunction.Max(Range("K2:K" & rowCount)) \* 100

Range("Q3") = "%" & WorksheetFunction.Min(Range("K2:K" & rowCount)) \* 100

Range("Q4") = WorksheetFunction.Max(Range("L2:L" & rowCount))

' returns one less because header row not a factor

increase\_number = WorksheetFunction.Match(WorksheetFunction.Max(Range("K2:K" & rowCount)), Range("K2:K" & rowCount), 0)

decrease\_number = WorksheetFunction.Match(WorksheetFunction.Min(Range("K2:K" & rowCount)), Range("K2:K" & rowCount), 0)

volume\_number = WorksheetFunction.Match(WorksheetFunction.Max(Range("L2:L" & rowCount)), Range("L2:L" & rowCount), 0)

**SCREENSHOTS:**

1. **Alphabetical Spreadsheet:**

A screenshot of a computer

Description automatically generated

1. **Multiple Year Spreadsheet 2018:**

**A screenshot of a spreadsheet

Description automatically generated**

1. **Multiple Year Spreadsheet 2019:**

**A screenshot of a spreadsheet

Description automatically generated**

1. **Multiple Spreadsheet Script:**

**A screenshot of a computer

Description automatically generated**

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