***Part 1***

Easy

Create a script that will loop through one year of stock data for each run and return the total volume each stock had over that year.

You will also need to display the ticker symbol to coincide with the total stock volume.

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Sub stockmarketanalyst()

'Looping through the worksheets of the workbook

For Each ws In Worksheets

ws.Activate

'Declairing the variables

Dim Ticker As String

Dim Total\_stock\_volume As Double

Dim Row\_counter As Long

Dim Last\_row As Long

Dim i As Long

'Header column values

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

ws.Range("J1").Value = "Total stock volume"

Last\_row = Cells(Rows.Count, 1).End(xlUp).Row

Row\_counter = 2

Total\_stock\_volume = 0

'Looping across table and comparing the values

For i = 2 To Last\_row

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

'Retriving the ticker and summarizing the associated total stock volume

Ticker = Cells(i, 1).Value

Total\_stock\_volume = Total\_stock\_volume + Cells(i, 7)

ws.Range("I" & Row\_counter).Value = Ticker

ws.Range("J" & Row\_counter).Value = Total\_stock\_volume

Row\_counter = Row\_counter + 1

Total\_stock\_volume = 0

Else

Total\_stock\_volume = Total\_stock\_volume + Cells(i, 7)

End If

Next i

Next ws

End Sub

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**Part 2**

Moderate

Create a script that will loop through all the stocks for one year for each run and take the following information.

The ticker symbol.

Yearly change from opening price at the beginning of a given year to the closing price at the end of that year.

The percent change from opening price at the beginning of a given year to the closing price at the end of that year.

The total stock volume of the stock.

You should also have conditional formatting that will highlight positive change in green and negative change in red.

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Sub stockmarketanalyst2()

'Looping through the worksheet

For Each ws In Worksheets

ws.Activate

'Declairing the variables

Dim Ticker As String

Dim Total\_stock\_volume As Double

Dim Total\_yearly\_change As Double

Dim Yearly\_open\_value As Double

Dim Percentage\_change As Double

Dim Row\_counter As Long

Dim Last\_row As Long

Dim Last\_row\_yearly\_change As Long

Dim i As Long

Dim startop\_row As Long

'Header column values

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

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

ws.Range("K1").Value = "Percentage change"

ws.Range("L1").Value = "Total stock volume"

Last\_row = Cells(Rows.Count, 1).End(xlUp).Row

Total\_stock\_volume = 0

Row\_counter = 2

'startop\_row tracks the open value after each change

startop\_row = 2

'Looping across table and checking the values

For i = 2 To Last\_row

Yearly\_open\_value = Cells(startop\_row, 3).Value

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

'Retriving the ticker and summarizing the associated Total stock volume,Yearly change and Percentage change

Ticker = Cells(i, 1).Value

Total\_stock\_volume = Total\_stock\_volume + Cells(i, 7)

Total\_yearly\_change = (Cells(i, 6).Value - Yearly\_open\_value)

'Percent Change is 0 when the open value is 0 else the percentage yearly change is calculated

If Yearly\_open\_value = 0 Then

Percentage\_change = 0

Else

Yearly\_open\_value = Cells(startop\_row, 3).Value

Percentage\_change = Total\_yearly\_change / Yearly\_open\_value

End If

ws.Range("I" & Row\_counter).Value = Ticker

ws.Range("J" & Row\_counter).Value = Total\_yearly\_change

ws.Range("K" & Row\_counter).Value = Percentage\_change

ws.Range("K" & Row\_counter).NumberFormat = "0.00%"

ws.Range("L" & Row\_counter).Value = Total\_stock\_volume

Row\_counter = Row\_counter + 1

startop\_row = i + 1

Total\_stock\_volume = 0

Total\_yearly\_change = 0

Else

Total\_stock\_volume = Total\_stock\_volume + Cells(i, 7)

End If

Next i

'conditional formating of yearly Change

Last\_row\_yearly\_change = Cells(Rows.Count, 10).End(xlUp).Row

For i = 2 To Last\_row\_yearly\_change

If Cells(i, 10).Value < 0 Then

Cells(i, 10).Interior.ColorIndex = 3

Else

Cells(i, 10).Interior.ColorIndex = 4

End If

Next i

Next ws

End Sub

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**Part 3**

Hard

Your solution will include everything from the moderate challenge.

Your solution will also be able to return the stock with the "Greatest % increase", "Greatest % Decrease" and "Greatest total volume".

Sub stockanalysis3()

'Looping through the worksheet

For Each ws In Worksheets

ws.Activate

'Declairing the variables

Dim Ticker As String

Dim Total\_stock\_volume As Double

Dim Total\_yearly\_change As Double

Dim Yearly\_open\_value As Double

Dim Percentage\_change As Double

Dim Row\_counter As Long

Dim Last\_row As Long

Dim Last\_row\_yearly\_change As Long

Dim i As Long

Dim percentage\_last\_row As Long

Dim max\_percent As Double

Dim min\_percent As Double

Dim max\_ticker As String

Dim min\_ticker As String

Dim greatest\_total\_volume As Double

Dim last\_row\_greatest\_total\_volume As Long

Dim greatest\_total\_volume\_ticker As String

Dim startop\_row As Long

'Header column values

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

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

ws.Range("K1").Value = "Percentage change"

ws.Range("L1").Value = "Total stock volume"

Last\_row = Cells(Rows.Count, 1).End(xlUp).Row

'Total\_stock\_volume = 0

Row\_counter = 2

'startop\_row tracks the open value after each change

startop\_row = 2

'Looping across table and checking the values

For i = 2 To Last\_row

Yearly\_open\_value = Cells(startop\_row, 3).Value

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

'Retriving the ticker and summarizing the associated Total stock volume,Yearly change and Percentage change

Ticker = Cells(i, 1).Value

Total\_stock\_volume = Total\_stock\_volume + Cells(i, 7)

Total\_yearly\_change = (Cells(i, 6).Value - Yearly\_open\_value)

'Percent Change is 0 when the open value is 0 else the percentage yearly change is calculated

If Yearly\_open\_value = 0 Then

Percentage\_change = 0

Else

Yearly\_open\_value = Cells(startop\_row, 3).Value

Percentage\_change = Total\_yearly\_change / Yearly\_open\_value

End If

ws.Range("I" & Row\_counter).Value = Ticker

ws.Range("J" & Row\_counter).Value = Total\_yearly\_change

ws.Range("K" & Row\_counter).Value = Percentage\_change

ws.Range("K" & Row\_counter).NumberFormat = "0.00%"

ws.Range("L" & Row\_counter).Value = Total\_stock\_volume

Row\_counter = Row\_counter + 1

startop\_row = i + 1

Total\_stock\_volume = 0

Total\_yearly\_change = 0

Else

Total\_stock\_volume = Total\_stock\_volume + Cells(i, 7)

End If

Next i

'conditional formating of yearly Change

Last\_row\_yearly\_change = Cells(Rows.Count, 10).End(xlUp).Row

For i = 2 To Last\_row\_yearly\_change

If Cells(i, 10).Value < 0 Then

Cells(i, 10).Interior.ColorIndex = 3

Else

Cells(i, 10).Interior.ColorIndex = 4

End If

Next i

'Finding the greatest percent increase and greatest percentage decrease

max\_percent = 0

min\_percent = 0

percentage\_last\_row = Cells(Rows.Count, 11).End(xlUp).Row

For i = 2 To percentage\_last\_row

If Range("K" & i).Value > max\_percent Then

max\_percent = Range("K" & i).Value

max\_ticker = Range("I" & i).Value

ElseIf Range("k" & i).Value < min\_percent Then

min\_percent = Range("K" & i).Value

min\_ticker = Range("I" & i).Value

End If

Next i

Range("O" & 2).Value = "Greatest % increase"

Range("O" & 3).Value = "Greatest % decrease"

Range("P" & 1).Value = "Ticker"

Range("Q" & 1).Value = "value"

Range("Q" & 2).Value = max\_percent

Range("Q" & 3).Value = min\_percent

Range("Q" & 2).Style = "Percent"

Range("Q" & 3).Style = "Percent"

Range("P" & 2).Value = max\_ticker

Range("P" & 3).Value = min\_ticker

'Finding the greatest total volume

greatest\_total\_volume = 0

last\_row\_greatest\_total\_volume = Cells(Rows.Count, 12).End(xlUp).Row

For i = 2 To last\_row\_greatest\_total\_volume

If Range("L" & i).Value > greatest\_total\_volume Then

greatest\_total\_volume = Range("L" & i).Value

greatest\_total\_volume\_ticker = Range("I" & i).Value

End If

Next i

Range("O" & 4).Value = "Greatest Total Volume"

Range("P" & 4).Value = greatest\_total\_volume\_ticker

Range("Q" & 4).Value = greatest\_total\_volume

Next ws

End Sub