**Sub StockMarketAnalysis()**

**'Set the initial variable for holding the ticker name**

**Dim Ticker\_Name As String**

**'Set an initial variable for holding a total per volume of trade**

**Dim Total\_Volume As Double**

**Total\_Volume = 0**

**'Keep track of the location for each ticker name in the summary table**

**Dim Summary\_Table\_Row As Integer**

**Summary\_Table\_Row = 2**

**Dim Open\_Price As Double**

**'Set an initial open\_price**

**Open\_Price = Cells(2, 3).Value**

**Dim Close\_Price As Double**

**Dim Yearly\_Change As Double**

**Dim Percent\_Change As Double**

**'Input names on the Summary Table**

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

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

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

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

**'Count the number of rows**

**lastrow = Cells(Rows.Count, 1).End(xlUp).Row**

**'Loop through each row (Ticker name column should be sorted and are only string variables)**

**For i = 2 To lastrow**

**'Check if the name of the ticker of the next cell is different than the current one**

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

**'Set the ticker name**

**Ticker\_Name = Cells(i, 1).Value**

**'Add the Total Volume**

**Total\_Volume = Total\_Volume + Cells(i, 7).Value**

**'Print the Ticker Name to the summary table**

**Range("I" & Summary\_Table\_Row).Value = Ticker\_Name**

**'Print the Volume Amount to the summary table**

**Range("L" & Summary\_Table\_Row).Value = Total\_Volume**

**'Formulas for the table:**

**'Yearly Change = (Close Price at the end of the year - Open Price at the beginning of the year)**

**'Percent change =(Close Price at the end of the year - Open Price at the beginning of the year)/Open Price at the beginning of the year)\*100**

**'Set the Closing Price**

**Close\_Price = Cells(i, 6).Value**

**'Calculate Yearly Change**

**Yearly\_Change = (Close\_Price - Open\_Price)**

**'Print the Yearly Change for the ticker to the summary table**

**Range("J" & Summary\_Table\_Row).Value = Yearly\_Change**

**'Check if Open Price is zero (percentage calculation will give error)**

**If Open\_Price = 0 Then**

**Percent\_Change = 0**

**Else**

**Percent\_Change = Yearly\_Change / Open\_Price**

**End If**

**'Print the Yearly Change for the ticker to the summary table**

**Range("K" & Summary\_Table\_Row).Value = Percent\_Change**

**Range("K" & Summary\_Table\_Row).NumberFormat = "0.00%"**

**'Add one to the summary table row**

**Summary\_Table\_Row = Summary\_Table\_Row + 1**

**'Reset Total Volume**

**Total\_Volume = 0**

**'Reset Opening Price**

**Open\_Price = Cells(i + 1, 3)**

**Else**

**'Add to the Total Volume**

**Total\_Volume = Total\_Volume + Cells(i, 7).Value**

**End If**

**Next i**

**'Add conditional formatting that will highlight positive change in green and negative change in red**

**'First find the last row of the summary table**

**lastrow\_summary\_table = Cells(Rows.Count, 9).End(xlUp).Row**

**'Color code yearly change**

**For i = 2 To lastrow\_summary\_table**

**If Cells(i, 10).Value > 0 Then**

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

**Else**

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

**End If**

**Next i**

**'Challenge**

**'Highlight the stock price changes**

**'First label the cells according to the sample .png provided in the assignment**

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

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

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

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

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

**'Max and min values in column "Percent Change" and just max in column "Total Stock Volume"**

**'Then collect the ticker name, and the corresponding values for the percent change and total volume of trade for that ticker**

**'**

**For i = 2 To lastrow\_summary\_table**

**'Find the maximum percent change**

**If Cells(i, 11).Value = Application.WorksheetFunction.Max(Range("K2:K" & lastrow\_summary\_table)) Then**

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

**Cells(2, 17).Value = Cells(i, 11).Value**

**Cells(2, 17).NumberFormat = "0.00%"**

**'Find the minimum percent change**

**ElseIf Cells(i, 11).Value = Application.WorksheetFunction.Min(Range("K2:K" & lastrow\_summary\_table)) Then**

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

**Cells(3, 17).Value = Cells(i, 11).Value**

**Cells(3, 17).NumberFormat = "0.00%"**

**'Find the maximum volume of trade**

**ElseIf Cells(i, 12).Value = Application.WorksheetFunction.Max(Range("L2:L" & lastrow\_summary\_table)) Then**

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

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

**End If**

**Next i**

**End Sub**