Option Explicit

Sub multiple\_year()

Dim ws As Worksheet

For Each ws In Worksheets

ws.Activate

Const FIRST\_DATA\_ROW As Integer = 2

Const IN\_TICKER\_COL As Integer = 1

Const IN\_VOLUME As Integer = 7

Const OUT\_TICKER\_COL As Integer = 9

Const YEARLY\_CHANGE\_COL As Integer = 10

Const PERCENT\_CHANGE\_COL As Integer = 11

Const OUT\_VOLUME\_COL As Integer = 12

Const COLOR\_RED As Integer = 3

Const COLOR\_GREEN As Integer = 4

Const HEADER\_ROW As Integer = 1

Const MAX\_INC\_ROW As Integer = 2

Const MAX\_DEC\_ROW As Integer = 3

Const MAX\_VOL\_ROW As Integer = 4

Const MAX\_LABELS\_COL As Integer = 15

Const MAX\_TICKERS\_COL As Integer = 16

Const MAX\_VALUES\_COL As Integer = 17

Dim currentTicker As String

Dim nextTicker As String

Dim lastRow As Long

Dim inputRow As Long

Dim outputRow As Long

Dim openPrice As Double

Dim closePrice As Double

Dim changeRatio As Double

Dim yearlyChange As Double

Dim stockVolume As LongLong

Dim yearlyChangeColor As Integer

Dim maxIncVal As Double

Dim maxIncTicker As String

Dim maxDecVal As Double

Dim maxDecTicker As String

Dim maxVolVal As LongLong

Dim maxVolTicker As String

lastRow = Cells(Rows.Count, IN\_TICKER\_COL).End(xlUp).Row

'prepare for first stock

outputRow = FIRST\_DATA\_ROW

stockVolume = 0

openPrice = Cells(FIRST\_DATA\_ROW, 3).Value

For inputRow = FIRST\_DATA\_ROW To lastRow

currentTicker = Cells(inputRow, IN\_TICKER\_COL).Value

nextTicker = Cells(inputRow + 1, IN\_TICKER\_COL).Value

stockVolume = Cells(inputRow, IN\_VOLUME).Value + stockVolume

'Last row of current stock

If nextTicker <> currentTicker Then

'inputs

closePrice = Cells(inputRow, 6).Value

'calculations

yearlyChange = closePrice - openPrice

If yearlyChange > 0 Then

yearlyChangeColor = COLOR\_GREEN

Else

yearlyChangeColor = COLOR\_RED

End If

changeRatio = yearlyChange / openPrice

If stockVolume > maxVolVal Then

maxVolVal = stockVolume

maxVolTicker = currentTicker

End If

If changeRatio > maxIncVal Then

maxIncVal = changeRatio

maxIncTicker = currentTicker

End If

If changeRatio < maxDecVal Then

maxDecVal = changeRatio

maxDecTicker = currentTicker

End If

'ouputs

Cells(outputRow, OUT\_TICKER\_COL).Value = currentTicker

Cells(outputRow, YEARLY\_CHANGE\_COL).Value = yearlyChange

Cells(outputRow, YEARLY\_CHANGE\_COL).Interior.ColorIndex = yearlyChangeColor

Cells(outputRow, PERCENT\_CHANGE\_COL).Value = FormatPercent(changeRatio)

Cells(outputRow, OUT\_VOLUME\_COL).Value = stockVolume

'max outputs

Cells(2, 16).Value = maxIncTicker

Cells(3, 16).Value = maxDecTicker

Cells(4, 16).Value = maxVolTicker

Cells(2, 17).Value = maxIncVal

Cells(3, 17).Value = maxDecVal

Cells(4, 17).Value = maxVolVal

'Prepare for next stock

outputRow = outputRow + 1

openPrice = Cells(inputRow + 1, 3).Value

stockVolume = 0

End If

Next inputRow

'create column headers

Cells(HEADER\_ROW, OUT\_TICKER\_COL).Value = "Ticker"

Cells(HEADER\_ROW, YEARLY\_CHANGE\_COL).Value = "Yearly Change"

Cells(HEADER\_ROW, PERCENT\_CHANGE\_COL).Value = "Percent Change"

Cells(HEADER\_ROW, OUT\_VOLUME\_COL).Value = "Total Stock Volume"

'create greatest lables for rows and columns

Cells(HEADER\_ROW, MAX\_TICKERS\_COL).Value = "Ticker"

Cells(HEADER\_ROW, MAX\_VALUES\_COL).Value = "Value"

Cells(MAX\_INC\_ROW, MAX\_LABELS\_COL).Value = "Greatest % Increase"

Cells(MAX\_DEC\_ROW, MAX\_LABELS\_COL).Value = "Greatest % Decrease"

Cells(MAX\_VOL\_ROW, MAX\_LABELS\_COL).Value = "Greatest Total Volume"

Next ws

MsgBox "Done"

End Sub