

Excel window showing a data analysis task:

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Cell Styles

Quarterly | **Percentage** | **Total Volume**

Greatest % | **Greatest %** | **Greatest Total Volume**

MSE | **VNG** | **CHKI**

47.75017 | **-76.7197** | **31828.95**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	<ticker>	<date>	<open>	<high>	<low>	<close>	Ticker	Quarterly	Percentage	Total Volume						
2	AAF	1/2/22	5.02	5.05	5.02	5.03	AAF	0.05	0.996016	308.27						
3	AAF	1/3/22	5.01	5.01	4.98	5.01	AAR	0.15	8.196721	117.76						
4	AAF	1/6/22	5.01	5.01	4.98	4.98	ABJ	0.86	1.888864	2826.51						
5	AAF	1/7/22	4.96	5	4.96	4.96	ABK	0.77	-1.9774	2387.89						
6	AAF	1/8/22	4.98	4.99	4.97	4.98	ABKV	1.58	6.191223	1586.42						
7	AAF	1/9/22	4.98	4.99	4.96	4.96	ACJ	0.1	0.65703	948.36						
8	AAF	1/10/22	4.97	4.99	4.93	4.95	ADB	0.16	0.632911	1548.54						
9	AAF	1/13/22	4.95	5	4.95	5	AEV	-1.79	-4.26597	2466.11						
10	AAF	1/14/22	5	5.03	4.99	4.99	AEY	0.02	1.41844	87.93						
11	AAF	1/15/22	5.01	5.03	4.98	5.03	AGF	0.28	-0.51785	3347.16						
12	AAF	1/16/22	5.02	5.04	5	5	AHAO	0.02	0.184162	674.39						
13	AAF	1/17/22	5	5.02	4.98	4.98	AHQ	0.04	0.338983	730.12						
14	AAF	1/21/22	4.98	4.98	4.93	4.95	AHQK	2.4	10.49869	1442.3						
15	AAF	1/22/22	4.93	4.95	4.89	4.89	AUJ	1.43	1.290264	6931.15						
16	AAF	1/23/22	4.89	4.91	4.89	4.91	AUL	-0.1	-0.69881	878.43						
17	AAF	1/24/22	4.89	4.89	4.86	4.89	AUR	-0.39	-2.34094	1022.34						
18	AAF	1/27/22	4.89	4.96	4.88	4.96	AUS	-0.22	-1.2593	1094.91						
19	AAF	1/28/22	4.96	4.96	4.95	4.96	AKXV	-0.19	-2.16648	543.76						
20	AAF	1/29/22	4.96	5	4.96	4.97	AKUC	-3.15	-7.18358	2611.19						
21	AAF	1/30/22	4.97	4.97	4.94	4.95	ANQ	1.36	2.540157	3341.49						
22	AAF	1/31/22	4.94	4.94	4.91	4.92	ANQ	0.19	2.261905	530.16						
23	AAF	2/3/22	4.91	4.91	4.88	4.88	ANVE	-0.32	-0.90319	2171.33						
24	AAF	2/4/22	4.9	4.94	4.9	4.94	AORS	0.44	-5.33333	498.78						
25	AAF	2/5/22	4.93	4.98	4.93	4.95	APM	-5.09	-6.12368	4495.79						
26	AAF	2/6/22	4.95	4.97	4.95	4.96	AQA	-0.02	-0.68027	181.26						
27	AAF	2/7/22	4.96	5.02	4.96	5.02	AQYW	0.29	5.598456	328.15						
28	AAF	2/10/22	5.02	5.05	5.02	5.04	AREZ	0.82	1.081366	4651.26						
29	AAF	2/11/22	5.05	5.06	5.05	5.05	ASC	-0.69	-3.389	1236.86						
30	AAF	2/12/22	5.05	5.07	5.04	5.06	ASX	-1.18	-2.11356	3437.21						
31	AAF	2/13/22	5.07	5.08	5.05	5.05	ATH	3.36	3.749163	5519.36						
32	AAF	2/14/22	5.04	5.06	5.04	5.06	AUE	0.58	2.752729	1305.75						
33	AAF	2/18/22	5.07	5.07	5.02	5.02	AUD	0.05	0.816993	380.98						
34	AAF	2/19/22	5.03	5.05	5.01	5.01	AVK	-0.8	-2.06754	883.99						
35	AAF	2/20/22	5.01	5.06	4.99	5.06	AWB	1.13	8.502634	855.19						
36	AAF	2/21/22	5.07	5.08	5.04	5.06	AWW	-0.79	-3.93939	1237.92						
37	AAF	2/24/22	5.07	5.1	5.07	5.09	AXD	0.05	0.308642	1002.91						
38	AAF	2/25/22	5.1	5.1	5.07	5.07	AXO	0.39	1.236133	1965.5						
39	AAF	2/26/22	5.06	5.09	5.04	5.04	AXOF	-1.10	-4.452038	1130.35						

Q1 Q2 Q3 Q4 +

Ready Accessibility: Investigate 100%

Multiple_year_stock_data

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	<ticker>	<date>	<open>	<high>	<low>	<close>	Ticker	Quarterly C Percentage	Total Volume			Greatest %	Greatest %	Greatest %	Total Volume	
2	AAF	4/1/22	5.09	5.09	5.08	5.08	AAF	0.36	7.072692	331.68		BGI	RKS	CHKI		
3	AAF	4/2/22	5.09	5.13	5.09	5.13	AAF	0.07	3.553299	126.79		61.23853	-70.649	32126.25		
4	AAF	4/3/22	5.14	5.18	5.13	5.17	ABJ	1.98	4.267241	2959.56						
5	AAF	4/6/22	5.17	5.17	5.14	5.17	ABK	-0.24	-0.62992	2401.16						
6	AAF	4/7/22	5.15	5.18	5.15	5.18	ABKV	-1.58	-5.81738	1685.93						
7	AAF	4/8/22	5.18	5.18	5.13	5.15	ACI	-0.23	-1.50524	953.75						
8	AAF	4/9/22	5.15	5.16	5.12	5.15	ADB	0.05	0.19685	1597.49						
9	AAF	4/13/22	5.15	5.16	5.12	5.12	AEV	-8.25	-20.8702	2084.43						
10	AAF	4/14/22	5.13	5.15	5.12	5.12	AEY	-0.01	-0.70423	90.59						
11	AAF	4/15/22	5.1	5.1	5.05	5.08	AGF	1.06	1.971359	3410.73						
12	AAF	4/16/22	5.09	5.13	5.08	5.09	AHAO	-0.36	-3.30882	661.58						
13	AAF	4/17/22	5.09	5.12	5.09	5.12	AHQ	-0.15	-1.27011	739.14						
14	AAF	4/20/22	5.14	5.15	5.13	5.15	AHQK	1.63	-6.48627	1491.73						
15	AAF	4/21/22	5.15	5.23	5.15	5.21	AJU	0.5	0.44615	7064.94						
16	AAF	4/22/22	5.2	5.22	5.19	5.19	AJL	-0.06	-0.42343	885.71						
17	AAF	4/23/22	5.19	5.2	5.16	5.2	AJR	0.24	1.482397	1020.17						
18	AAF	4/24/22	5.2	5.24	5.2	5.24	AJS	-1.29	-7.5	1046.29						
19	AAF	4/27/22	5.25	5.27	5.25	5.27	AKKV	-0.51	-5.94406	522.96						
20	AAF	4/28/22	5.27	5.3	5.27	5.3	AKUC	3.06	7.54066	2616.88						
21	AAF	4/29/22	5.31	5.33	5.29	5.33	ANO	-2.62	-4.83663	3314.25						
22	AAF	4/30/22	5.33	5.33	5.23	5.23	ANQ	-0.02	-0.23392	533.9						
23	AAF	5/1/22	5.23	5.28	5.23	5.26	ANVE	-0.26	-0.74032	2194.34						
24	AAF	5/4/22	5.27	5.27	5.23	5.25	AORS	-0.3	-3.88601	466.56						
25	AAF	5/5/22	5.26	5.27	5.25	5.26	APM	13.9	17.98189	5125.53						
26	AAF	5/6/22	5.25	5.25	5.21	5.23	AQA	0.05	1.718213	183.63						
27	AAF	5/7/22	5.22	5.23	5.2	5.22	AQFW	0.31	5.730129	353.77						
28	AAF	5/8/22	5.22	5.26	5.21	5.26	AREZ	4.23	5.535925	4966.47						
29	AAF	5/11/22	5.26	5.27	5.25	5.27	ASC	0.45	2.295918	1249.01						
30	AAF	5/12/22	5.25	5.25	5.19	5.19	ASX	1.26	2.308538	3452.27						
31	AAF	5/13/22	5.2	5.26	5.2	5.26	ATH	4.98	5.358872	5969.52						
32	AAF	5/14/22	5.28	5.3	5.28	5.3	AUE	-0.45	-2.09108	1343.66						
33	AAF	5/15/22	5.28	5.29	5.27	5.27	AUD	0.07	-1.13636	386.45						
34	AAF	5/18/22	5.27	5.27	5.24	5.25	AVK	0.78	1.977401	893.47						
35	AAF	5/19/22	5.23	5.29	5.23	5.27	AWB	0.4	2.77585	909.52						
36	AAF	5/20/22	5.25	5.3	5.24	5.3	AWW	-0.15	-0.80645	1150.81						
37	AAF	5/21/22	5.29	5.35	5.28	5.34	AXD	-0.41	-2.52308	1006.51						
38	AAF	5/22/22	5.34	5.34	5.32	5.32	AXO	1.59	4.985889	2057.33						
39	AAF	5/26/22	5.22	5.25	5.22	5.22	AXP	-0.1	-0.360003	3310.1						

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Python-Challenge

NU-VIRT-DATA-PT-10-2--U-LOLC

Screenshot 2025-02-25 19 PM

Screenshot 2025-02-25 03 PM

Crowdfunding_ETL -main

python-api-challenge

VIRT-DATA-0-2 .main.zip

AutoSave Home Insert Draw Page Layout Formulas Data Review View Developer Comments Share

E22 5.46

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	<ticker>	<date>	<open>	<high>	<low>	<close>	Ticker	Quarterly C	Percentage	Total Volume	Greatest %	Greatest %	Greatest %	Total Volume		
2	AAF	7/1/22	5.38	5.44	5.38	5.44	AAF	0.16	2.973978	352.38	YH	BGI	CHKI			
3	AAF	7/2/22	5.44	5.46	5.43	5.45	AAR	0.16	6.862745	131.74	41.61028	-45.8394	32674.71			
4	AAF	7/6/22	5.47	5.48	5.44	5.47	ABJ	-2.05	-4.26195	2967.86						
5	AAF	7/7/22	5.46	5.5	5.46	5.49	ABK	0.33	0.872554	2415.86						
6	AAF	7/8/22	5.49	5.53	5.48	5.5	ABKV	-0.58	-2.27808	1649.28						
7	AAF	7/9/22	5.49	5.49	5.41	5.41	ACI	0.05	0.332668	961.51						
8	AAF	7/10/22	5.42	5.42	5.37	5.37	ADB	0.03	0.117971	1613.13						
9	AAF	7/13/22	5.38	5.4	5.37	5.39	AEV	1.87	6.129138	1952.54						
10	AAF	7/14/22	5.38	5.42	5.38	5.42	AEV	0.05	3.571429	88.89						
11	AAF	7/15/22	5.44	5.47	5.44	5.47	AGF	0.22	0.402857	3480.2						
12	AAF	7/16/22	5.47	5.49	5.46	5.49	AHAO	0.24	2.287893	687.75						
13	AAF	7/17/22	5.49	5.54	5.49	5.5	AHQ	0.16	1.375752	747.23						
14	AAF	7/20/22	5.52	5.52	5.46	5.46	AIQK	2.85	12.17949	1576.99						
15	AAF	7/21/22	5.47	5.47	5.42	5.43	AJU	0.79	-0.65784	7093.86						
16	AAF	7/22/22	5.42	5.43	5.41	5.43	AUL	0.08	0.567376	913.98						
17	AAF	7/23/22	5.43	5.44	5.41	5.41	AUR	-0.14	-0.85055	1050.87						
18	AAF	7/24/22	5.43	5.43	5.37	5.37	AUS	2.19	13.83449	1074.28						
19	AAF	7/27/22	5.39	5.44	5.39	5.44	AKKV	-0.08	-0.99133	504.69						
20	AAF	7/28/22	5.45	5.49	5.45	5.49	AKUC	-1.24	-2.86772	2716.21						
21	AAF	7/29/22	5.5	5.51	5.47	5.47	ANO	-1.74	-3.44691	3185.88						
22	AAF	7/30/22	5.47	5.5	5.46	5.48	ANQ	-0.12	-1.40845	539.78						
23	AAF	7/31/22	5.47	5.49	5.46	5.47	ANVE	-0.09	-0.2584	2211.99						
24	AAF	8/3/22	5.47	5.47	5.46	5.46	AORS	0.01	0.135318	478.86						
25	AAF	8/4/22	5.46	5.49	5.44	5.45	APM	-6.25	-6.88099	5709.4						
26	AAF	8/5/22	5.44	5.44	5.4	5.44	AQA	0.01	0.340136	187.96						
27	AAF	8/6/22	5.44	5.49	5.44	5.48	AQYW	-0.38	-6.69014	345.51						
28	AAF	8/7/22	5.46	5.53	5.45	5.53	AREZ	3.71	3.98263	5266.79						
29	AAF	8/10/22	5.54	5.55	5.53	5.55	ASC	-0.26	-1.29935	1268.16						
30	AAF	8/11/22	5.55	5.56	5.51	5.51	ASX	-3.23	-5.78957	3406.94						
31	AAF	8/12/22	5.51	5.52	5.48	5.48	ATH	3.61	3.710938	6210.83						
32	AAF	8/13/22	5.49	5.5	5.47	5.47	AUE	0.19	0.902184	1361.62						
33	AAF	8/14/22	5.48	5.52	5.48	5.51	AUD	-0.24	-3.95387	378.78						
34	AAF	8/17/22	5.5	5.56	5.5	5.55	AVK	-0.39	-2.28849	911.06						
35	AAF	8/18/22	5.57	5.58	5.54	5.54	AWB	0.28	1.894452	955.4						
36	AAF	8/19/22	5.54	5.57	5.54	5.56	AWW	0.8	4.321988	1170.35						
37	AAF	8/20/22	5.56	5.57	5.56	5.57	AXD	-0.67	-4.25667	1000.51						
38	AAF	8/21/22	5.57	5.57	5.52	5.52	AXO	0.25	0.746938	2150.86						
39	AAF	8/24/22	5.53	5.59	5.52	5.59	AXS	-0.38	-2.35007	3330.55						

Q1 Q2 Q3 Q4 +

Ready Accessibility: Investigate 100%

Excel window showing a data analysis task:

File menu open, showing options like About This Mac, System Settings..., App Store, Recent Items, Force Quit Excel, Sleep, Restart..., Shut Down..., Lock Screen, Log Out Noah Dolan..., and Surf's Up.

The main Excel interface shows a table titled "Multiple_year_stock_data" with 38 rows and 15 columns. The columns are labeled A through P. The data includes tickers, dates, and various financial metrics like Open, High, Low, Close, Quarterly C, Percentage Change, Total Volume, Greatest %, Greatest %, MSE, RKS, CHKI, and Total Volume.

The table has several colored cells indicating trends or specific values. For example, cells in the "Percentage Change" column for rows 2, 4, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, and 38 are red, while others are green.

The ribbon tabs are Home, Insert, Draw, Page Layout, Formulas, Data, Review, View, Developer, Comments, Share, Cells, Editing, Add-ins, Analyze, and Copilot Data.

The status bar at the bottom shows Q1, Q2, Q3, and Q4, with Q4 currently selected. The zoom level is set to 100%.

(General)

```
Sub StockAnalysis()
    Dim ws As Worksheet
    Dim lastRow As Long
    Dim i As Long
    Dim ticker As String
    Dim quarterStartPrice As Double
    Dim quarterEndPrice As Double
    Dim quarterlyChange As Double
    Dim percentChange As Double
    Dim totalVolume As Double
    Dim currentQuarter As Integer
    Dim outputRow As Long
    Dim greatestIncrease As Double
    Dim greatestDecrease As Double
    Dim greatestVolume As Double
    Dim greatestIncreaseTicker As String
    Dim greatestDecreaseTicker As String
    Dim greatestVolumeTicker As String
```

```
' Loop through all worksheets
```

```
For Each ws In ThisWorkbook.Worksheets
```

```
    ' Initialize variables for each worksheet
```

```
    outputRow = 2
```

```
    totalVolume = 0
```

```
    currentQuarter = 0
```

```
    greatestIncrease = 0
```

```
    greatestDecrease = 0
```

```
    greatestVolume = 0
```

```
    greatestIncreaseTicker = ""
```

```
    greatestDecreaseTicker = ""
```

```
    greatestVolumeTicker = ""
```

Multiple_year_stock_data.xlsx - M

(General) StockAna

```
' Find the last row with data
lastRow = ws.Cells(ws.Rows.Count, "A").End(xlUp).Row

' Add headers for output
ws.Cells(1, 7).Value = "Ticker"
ws.Cells(1, 8).Value = "Quarterly Change"
ws.Cells(1, 9).Value = "Percentage Change"
ws.Cells(1, 10).Value = "Total Volume"
ws.Cells(1, 12).Value = "Greatest % Increase"
ws.Cells(1, 13).Value = "Greatest % Decrease"
ws.Cells(1, 14).Value = "Greatest Total Volume"

' Loop through each row of data
For i = 2 To lastRow
    ' Check if the date is valid
    If IsDate(ws.Cells(i, 2).Value) Then
        currentQuarter = GetQuarter(ws.Cells(i, 2).Value)
    Else
        ' Skip this row if the date is invalid
        Debug.Print "Skipping Row " & i & " - Invalid Date: " & ws.Cells(i, 2).Value
        GoTo NextRow
    End If

    ' Check if the ticker symbol has changed or if it's a new quarter
    If ws.Cells(i, 1).Value <> ticker Or currentQuarter <> GetQuarter(ws.Cells(i, 2).Value) Then
        ' Output the results for the previous ticker and quarter
        If ticker <> "" Then
            ws.Cells(outputRow, 7).Value = ticker
            ws.Cells(outputRow, 8).Value = quarterlyChange
            ws.Cells(outputRow, 9).Value = percentChange
            ws.Cells(outputRow, 10).Value = totalVolume

        ' Apply conditional formatting
        If quarterlyChange > 0 Then
```

Multiple_year_stock_data.xlsx - M

(General) StockAna

```
' Find the last row with data
lastRow = ws.Cells(ws.Rows.Count, "A").End(xlUp).Row

' Add headers for output
ws.Cells(1, 7).Value = "Ticker"
ws.Cells(1, 8).Value = "Quarterly Change"
ws.Cells(1, 9).Value = "Percentage Change"
ws.Cells(1, 10).Value = "Total Volume"
ws.Cells(1, 12).Value = "Greatest % Increase"
ws.Cells(1, 13).Value = "Greatest % Decrease"
ws.Cells(1, 14).Value = "Greatest Total Volume"

' Loop through each row of data
For i = 2 To lastRow
    ' Check if the date is valid
    If IsDate(ws.Cells(i, 2).Value) Then
        currentQuarter = GetQuarter(ws.Cells(i, 2).Value)
    Else
        ' Skip this row if the date is invalid
        Debug.Print "Skipping Row " & i & " - Invalid Date: " & ws.Cells(i, 2).Value
        GoTo NextRow
    End If

    ' Check if the ticker symbol has changed or if it's a new quarter
    If ws.Cells(i, 1).Value <> ticker Or currentQuarter <> GetQuarter(ws.Cells(i, 2).Value) Then
        ' Output the results for the previous ticker and quarter
        If ticker <> "" Then
            ws.Cells(outputRow, 7).Value = ticker
            ws.Cells(outputRow, 8).Value = quarterlyChange
            ws.Cells(outputRow, 9).Value = percentChange
            ws.Cells(outputRow, 10).Value = totalVolume

        ' Apply conditional formatting
        If quarterlyChange > 0 Then
```

Multiple_year_stock_data.

(General)

```
    greatestIncrease = percentChange
    greatestIncreaseTicker = ticker
End If
If percentChange < greatestDecrease Then
    greatestDecrease = percentChange
    greatestDecreaseTicker = ticker
End If
If totalVolume > greatestVolume Then
    greatestVolume = totalVolume
    greatestVolumeTicker = ticker
End If

    outputRow = outputRow + 1
End If

' Reset variables for the new ticker and quarter
ticker = ws.Cells(i, 1).Value
quarterStartPrice = ws.Cells(i, 3).Value
totalVolume = 0
End If

' Accumulate the total volume
totalVolume = totalVolume + ws.Cells(i, 5).Value

' Update the quarter end price
quarterEndPrice = ws.Cells(i, 4).Value

' Calculate quarterly change and percentage change
quarterlyChange = quarterEndPrice - quarterStartPrice
If quarterStartPrice <> 0 Then
    percentChange = (quarterlyChange / quarterStartPrice) * 100
Else
    percentChange = 0
End If
```

```
Multiple_yea
(General)

End If

NextRow:
    Next i

' Output the last ticker and quarter
If ticker <> "" Then
    ws.Cells(outputRow, 7).Value = ticker
    ws.Cells(outputRow, 8).Value = quarterlyChange
    ws.Cells(outputRow, 9).Value = percentChange
    ws.Cells(outputRow, 10).Value = totalVolume

' Apply conditional formatting
If quarterlyChange > 0 Then
    ws.Cells(outputRow, 8).Interior.Color = RGB(0, 255, 0) ' Green
ElseIf quarterlyChange < 0 Then
    ws.Cells(outputRow, 8).Interior.Color = RGB(255, 0, 0) ' Red
End If

' Check for greatest % increase, % decrease, and total volume
If percentChange > greatestIncrease Then
    greatestIncrease = percentChange
    greatestIncreaseTicker = ticker
End If
If percentChange < greatestDecrease Then
    greatestDecrease = percentChange
    greatestDecreaseTicker = ticker
End If
If totalVolume > greatestVolume Then
    greatestVolume = totalVolume
    greatestVolumeTicker = ticker
End If
End If
```

```
    End If
End If

' Output greatest % increase, % decrease, and total volume
ws.Cells(2, 12).Value = greatestIncreaseTicker
ws.Cells(2, 13).Value = greatestDecreaseTicker
ws.Cells(2, 14).Value = greatestVolumeTicker
ws.Cells(3, 12).Value = greatestIncrease
ws.Cells(3, 13).Value = greatestDecrease
ws.Cells(3, 14).Value = greatestVolume
Next ws
End Sub
```

```
Function GetQuarter(dateValue As Date) As Integer
Dim monthValue As Integer
monthValue = month(dateValue)

Select Case monthValue
Case 1 To 3
    GetQuarter = 1
Case 4 To 6
    GetQuarter = 2
Case 7 To 9
    GetQuarter = 3
Case 10 To 12
    GetQuarter = 4
End Select
End Function
```
