

Veethika Singh
 Bootcamp
 VBA Module 2 Challenge

Multiple_year_stock_data

Developer

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Record Macro

Visual Basic Macros Use Relative References Add-ins Excel Add-ins

Button Group Box Combo Box Label Check Box Scroll Bar List Box Option Button

J2

A B C D E F G H I J L M N O P Q R S T U V

		<date>	<open>	<high>	<low>	<close>	<vol>	Ticker	Yearly Change	Percentage Change	Total Stock Volume	Greatest % increase	Greatest % decrease	Greatest total volume
1	<ticker>	20180102	24.44	24.56	24.44	24.47	261879	AAB	-3.12	-12.77	765628638			
2	AAB	20180103	24.45	24.45	24.22	24.28	15721045	AAF	-0.44	-7.45	2348251513			
3	AAB	20180104	24.27	24.36	24.27	24.28	5954	AAR	-0.32	-7.11	44163252			
4	AAB	20180105	24.24	24.33	24.22	24.33	58161100	AAT	5.33	42.44	1121804			
5	AAB	20180108	24.28	24.72	24.28	24.72	267347	ABJ	0.2	0.47	866724156			
6	AAB	20180109	24.73	24.73	24.64	24.64	1129348	ABK	1.61	4.8	10391386			
7	AAB	20180110	24.62	24.78	24.57	24.68	5453423	ABKV	2.22	11.57	5324614313			
8	AAB	20180111	24.68	24.85	24.68	24.85	14291	ABM	-1.16	-12.96	1029560425			
9	AAB	20180112	24.86	24.86	24.71	24.86	13701	ACJ	-0.57	-3.7	6169423			
10	AAB	20180116	24.85	24.93	24.79	24.79	101867	ACYQ	2.04	4.79	234097825			
11	AAB	20180117	24.81	24.85	24.68	24.69	515155	ADB	-2.4	-5.54	41980152			
12	AAB	20180118	24.67	24.86	24.67	24.86	657377	ADF	0.36	2.74	13907867898			
13	AAB	20180119	24.89	24.93	24.71	24.71	1106987	AEL	2.33	5.11	4339867319			
14	AAB	20180122	24.66	24.9	24.66	24.85	1418811	AEV	2.79	11.71	843970			
15	AAB	20180123	24.87	24.94	24.8	24.84	52744	AEY	-0.08	-8.98	8274367			
16	AAB	20180124	24.83	24.83	24.56	24.56	3545845	AFZ	0.35	2.7	175801284			
18	AAB	20180125	24.58	24.66	24.54	24.62	3119820	AGF	-1.53	-2.46	1903886691			
19	AAB	20180126	24.71	24.8	24.67	24.67	190060	AGJ	-0.17	-2.75	1251599165			
20	AAB	20180129	24.67	24.7	24.62	24.68	594904	AGM	-0.21	-2.92	36443510			
21	AAB	20180130	24.59	24.64	24.53	24.56	2373	AHAO	-0.16	-1.36	6187850222			
22	AAB	20180131	24.53	24.53	24.41	24.47	134187	AHB	-4.78	-19.8	25640283076			
23	AAB	20180201	24.48	24.66	24.48	24.66	372501	AIC	28.45	23.58	3397556449			
24	AAB	20180202	24.65	24.65	24.54	24.58	5314	AIQ	0.2	1.71	15477463			
25	AAB	20180205	24.55	24.6	24.2	24.2	336163	AIQF	0.01	0.47	913229872			
26	AAB	20180206	24.25	24.43	24.24	24.36	7973461	AIQK	4.9	26.78	315696267			
27	AAB	20180207	24.37	24.49	24.37	24.49	230014	AJA	0.48	21.72	176690673			
28	AAB	20180208	24.46	24.46	24.28	24.28	641540	AUJ	0.69	0.65	1852773			
29	AAB	20180209	24.4	24.45	24.23	24.29	21786910	AIK	2.12	28.61	470622269			
30	AAB	20180212	24.31	24.31	24.02	24.05	50989	AII	0.15	1.16	301470187			
31	AAB	20180213	24	24	23.93	23.97	63617	AIR	0.09	0.49	533445954			
32	AAB	20180214	24.02	24.07	23.89	23.91	1745	AIS	5.2	29.08	909864878			
33	AAB	20180215	23.9	23.93	23.85	23.88	20257	AKKV	-0.14	-7	102624221			
34	AAB	20180216	23.89	23.89	23.82	23.86	3673	AKUC	-3.44	-9.08	2224320862			
35	AAB	20180220	23.87	23.87	23.77	23.77	944	ALZY	3.63	15.91	435013558			
36	AAB	20180221	23.73	23.83	23.73	23.83	72620	AMEW	-3.84	-10.74	182543457			
37	AAB	20180222	23.77	23.93	23.77	23.93	22611665	AMX	1.12	2.43	3857538843			

2018 2019 2020 +

Ready Accessibility: Investigate

Multiple_year_stock_data

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
	<ticker>	<date>	<open>	<high>	<low>	<close>	<vol>		Ticker	Yearly Char	Percentage	Total Stock	Volume							
1	<ticker>								AAB	2.14	-10.54	241980347								
2	AAB	20190102	23.31	23.37	21.23	21.23	10958		AAB	-0.45	-6.43	2818010087								
3	AAB	20190103	21.19	21.3	21.06	21.1	2171964		AAF	0.28	15.05	1212437103								
4	AAB	20190104	21.15	21.17	20.96	21.03	3675		AAR	-4.18	-33.54	971117								
5	AAB	20190107	21.06	21.07	21.03	21.06	1325		AAT	2.55	5.95	6124743753								
6	AAB	20190108	21.04	21.04	20.83	20.83	14382		ABJ	3.79	10.78	13091029								
7	AAB	20190109	20.91	21.11	20.91	21.03	7870		ABK	3.94	18.33	4024167824								
8	AAB	20190110	21	21.29	21	21.29	1225387		ABKV	-0.22	-2.62	581771223								
9	AAB	20190111	21.31	21.39	21.31	21.36	3404027		ABM	0.4	2.7	55208001								
10	AAB	20190114	21.34	21.41	21.3	21.33	25837		ACJ	-1.49	-3.34	190645397								
11	AAB	20190115	21.34	21.36	21.24	21.3	105596		ACYQ	-0.09	-0.68	59386345								
12	AAB	20190116	21.32	21.43	21.29	21.33	1094876		ADB	-1.04	-3.95	31106434								
13	AAB	20190117	21.27	21.37	21.27	21.27	203755		ADF	0.55	4.07	8326026396								
14	AAB	20190118	21.18	21.32	21.18	21.3	9423		AEL	-0.09	-0.19	12723838257								
15	AAB	20190122	21.31	21.31	21.12	21.12	220280		AEV	15.31	57.77	310625								
16	AAB	20190123	21.14	21.24	21.14	21.24	5214		AEV	0.34	31.76	16631656								
17	AAB	20190124	21.23	21.24	21.11	21.13	12912		AFZ	-0.09	-0.68	59386345								
18	AAB	20190125	21.16	21.22	21.12	21.15	235681		AGF	-6.65	-10.97	1814328505								
19	AAB	20190128	21.2	21.2	21.07	21.07	555		AGJ	3.3	55	728384628								
20	AAB	20190129	21.14	21.14	21.01	21.03	557731		AGM	-0.38	-5.47	48439209								
21	AAB	20190130	21.08	21.17	21.08	21.1	526084		AHAO	-0.78	-6.7	10127862044								
22	AAB	20190131	21.03	21.11	20.95	21.11	186		AHB	-1.97	-7.74	9219936469								
23	AAB	20190201	21.09	21.12	21.04	21.05	925610		AIC	-22.67	-15.28	6835421909								
24	AAB	20190204	21.03	21.03	20.79	20.81	718488		AIQ	-0.12	-1.01	9106431								
25	AAB	20190205	20.77	20.82	20.77	20.8	166496		AIQF	0.4	16.76	888186772								
26	AAB	20190206	20.69	20.77	20.64	20.73	6969		AIQK	-0.38	-1.64	301720349								
27	AAB	20190207	20.73	20.75	20.7	20.74	7588084		AIA	-0.08	-3.07	152528235								
28	AAB	20190208	20.72	20.79	20.67	20.79	7134		AU	4.1	5.84	550188								
29	AAB	20190211	20.81	20.83	20.71	20.83	33916		AIK	1.19	12.49	3634766488								
30	AAB	20190212	20.8	20.91	20.8	20.8	2184		AIL	1.2	0.16	224258605								
31	AAB	20190213	20.86	20.92	20.86	20.87	123943		AIR	-1.99	-0.66	275937970								
32	AAB	20190214	20.9	20.9	20.8	20.81	677		AIS	-5.76	-24.83	1265626692								
33	AAB	20190215	20.76	20.86	20.75	20.84	188376		AKKV	0.7	8.64	988017508								
34	AAB	20190219	20.85	20.87	20.79	20.83	16546		AKUC	4.66	11.92	1648179709								
35	AAB	20190220	20.88	20.89	20.78	20.82	295349		ALZY	0.86	3.24	157158158								
36	AAB	20190221	20.77	20.77	20.56	20.66	39923923		AMEW	-3.33	-10.46	421225572								
37	AAB	20190222	20.69	20.8	20.64	20.64	168055		AMX	-0.19	-0.4	2731351352								

Multiple_year_stock_data

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
	<ticker>	<date>	<open>	<high>	<low>	<close>	<vol>		Ticker	Yearly Char	Percentage	Total Stock	Volume								
1	<ticker>								AAB	-0.17	-0.73	455750984									
2	AAB	20200102	23.43	23.57	23.43	23.57	28522		AAB	0.18	3.59	2080570716									
3	AAB	20200103	23.52	23.61	23.43	23.44	1399		AAF	0.42	22.95	39905528									
4	AAB	20200106	23.46	23.48	23.37	23.39	2953		AAR	-2.76	-20.19	843410									
5	AAB	20200107	23.31	23.47	23.28	23.47	64755		AAT	2.41	5.29	127953758									
6	AAB	20200108	23.4	23.61	23.4	23.58	8534		ABJ	-0.73	-2.66	34526036									
7	AAB	20200109	23.6	23.71	23.6	23.71	62083971		ABK	-0.73	-1.87	9527549									
8	AAB	20200110	23.74	23.76	23.52	23.55	7524		ABKV	-3.53	-13.83	440222603									
9	AAB	20200113	23.57	23.79	23.57	23.77	76550		ABM	-0.91	-11.99	593492721									
10	AAB	20200114	23.83	23.88	23.67	23.67	5781390		ACJ	-0.45	-2.96	6081487									
11	AAB	20200115	23.64	23.83	23.61	23.76	53283		ACYQ	0.31	0.72	285144917									
12	AAB	20200116	23.8	23.98	23.8	23.93	2796350		ADB	-0.68	-2.66	34526036									
13	AAB	20200117	23.9	23.95	23.79	23.82	809847		ADF	2.18	15.53	22708794844									
14	AAB	20200121	23.78	23.78	23.61	23.65	37674		AEL	3.33	6.96	5115026297									
15	AAB	20200122	23.67	23.68	23.54	23.68	681		AEV	-8.75	-20.45	196083									
16	AAB	20200123	23.59	23.68	23.56	23.58	14342		AEV	0.08	5.67	14067649									
17	AAB	20200124	23.51	23.62	23.5	23.59	27839		AFZ	0.2	3.27	33091017									
18	AAB	20200127	23.58	23.73	23.58	23.73	315691		AGF	0.25	0.46	2613841972									
19	AAB	20200128	23.8	23.81	23.65	23.65	37896		AGJ	-1.83	-19.67	470205509									
20	AAB	20200129	23.64	23.7	23.51	23.59	122379		AGM	0.26	3.96	289582207									
21	AAB	20200130	23.58	23.58	23.31	23.32	2156		AHAO	0.21	1.93	5606228557									
22	AAB	20200131	23.38	23.53	23.38	23.52	6958347		AHB	0.94	4.01	2444978347									
23	AAB	20200203	23.53	23.62	23.46	23.62	19206		AIC	-2.47	-1.96	3756341852									
24	AAB	20200204	23.67	23.67	23.47	23.47	5012		AIQ	-0.11	-0.93	12394637									
25	AAB	20200205	23.47	23.49	23.32	23.33	353963		AIQF	-0.48	-18.97	319058376									
26	AAB	20200206	23.29	23.41	23.29	23.37	6413149		AIQK	3.44	15.05	236740388									
27	AAB	20200207	23.37	23.48	23.37	23.38	70645		AIA	-0.12	-4.58	310788310									
28	AAB	20200210	23.37	23.41	23.26	23.3	26125		AUJ	0.88	0.79	898554									
29	AAB	20200211	23.3	23.3	23.2	23.23	8271		AIK	1.41	13.17	2250415159									

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Microsoft Visual Basic - Multiple_year_stock_data.xlsx - [Module1 (Code)]

Talking: Raina Gustafson

(General) ticker

```
' Find the last row of each worksheet
' Subtract one to return the number of rows without header
lastrow = ws.Cells(Rows.Count, "A").End(xlUp).Row

'For each worksheet excluding header read the year
worksheetName = ws.Name

begyear = worksheetName & "0102"
endyear = worksheetName & "1231"

'For each row get the next row value to see if it is different
For x = 2 To lastrow

'store starting value of ticker
|Current string
currentstring = ws.Cells(x, 1).Value

'previous counter and value
z = x - 1
previousstring = ws.Cells(z, 1).Value

'next counter
k = x + 1
nextstring = ws.Cells(k, 1).Value

' get open balance at beginning of year
If ws.Cells(x, 2).Value = begyear Then
    openbal = ws.Cells(x, 3).Value
```

Properties - Module1

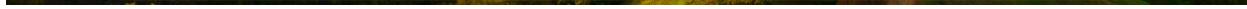
Module1 Module

Alphabetic Categorized

(Name) Module1

Immediate Locals

<Ready>



Microsoft Excel File Edit View Insert Format Debug Run Tools Window

Microsoft Visual Basic - Multiple_year_stock_data.xlsx - [Module1 (Code)]

Talking: Raina Gustafson

(General) ticker

```
openbal = ws.Cells(x, 3).Value
End If

'Get closing balance at end of the year
If ws.Cells(x, 2).Value = endyear Then
    closebal = ws.Cells(x, 6).Value
    baldiff = closebal - openbal
' Get percentage change
If openbal <> 0 Then
    perchg = (baldiff / openbal) * 100
End If
End If

'if current string is not equal to previous string then write the value to the new column
If currentstring <> nextstring Then
    Totalstock = Totalstock + ws.Cells(x, 7).Value
    'write at column y and j
    ws.Cells(y, j).Value = currentstring
    'Sum the total stock volume for same rows
    'write total volume bal diff and per chg
    ws.Cells(y, j + 3).Value = Totalstock

    ws.Cells(y, j + 1).Value = baldiff

    ws.Cells(y, j + 2).Value = Round(perchg, 2)

'Format color
If perchg >= 0 Then
    ws.Cells(y, j + 2).Interior.Color = RGB(0, 300, 0)
Else
```

Properties - Module1

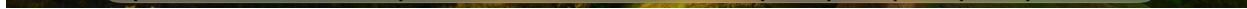
Module1 Module

Alphabetic Categorized

(Name) Module1

Immediate Locals

<Ready>



Microsoft Excel File Edit View Insert Format Debug Run Tools Window

Microsoft Visual Basic - Multiple_year_stock_data.xlsx - [Module1 (Code)]

Talking: Raina Gustafson

(General) ticker

```
ws.Cells(y, j + 2).Value = Round(perchg, 2)
'Format color
If perchg >= 0 Then
    ws.Cells(y, j + 2).Interior.Color = RGB(0, 300, 0)
Else
    ws.Cells(y, j + 2).Interior.Color = RGB(300, 0, 0)
End If

' for next row in summary column
y = y + 1

Totalstock = 0

Else
' keep adding stock volume until end of group
    Totalstock = Totalstock + ws.Cells(x, 7).Value

End If

Next x

' Write Summary values

maxchg = WorksheetFunction.Max(ws.Columns("K"))
ws.Cells(2, 14).Value = "Greatest % increase"
ws.Cells(2, 15).Value = maxchg

minchg = WorksheetFunction.Min(ws.Columns("K"))

Immediate <Ready> Locals
```



Microsoft Excel File Edit View Insert Format Debug Run Tools Window

Microsoft Visual Basic - Multiple_year_stock_data.xlsx - [Module1 (Code)]

Talking: Raina Gustafson

(General) ticker

```
End If

Next x

' Write Summary values

maxchg = WorksheetFunction.Max(ws.Columns("K"))
ws.Cells(2, 14).Value = "Greatest % increase"
ws.Cells(2, 15).Value = maxchg

minchg = WorksheetFunction.Min(ws.Columns("K"))
ws.Cells(3, 14).Value = "Greatest % decrease"
ws.Cells(3, 15).Value = minchg

ws.Cells(4, 14).Value = "Greatest total volume"
maxstock = WorksheetFunction.Max(ws.Columns("L"))
ws.Cells(4, 15).Value = maxstock

Next ws

End Sub
```

