

■ README.md

Unit 2 | Assignment - The VBA of Wall Street

Background

You are well on your way to becoming a programmer and Excel master! In this homework assignment you will use VBA scripting to analyze real stock market data. Depending on your comfort level with VBA, choose your assignment from Easy, Moderate, or Hard below.

Files

- Test Data Use this while developing your scripts.
- Stock Data Run your scripts on this data to generate the final homework report.

Stock market analyst

```
120,000
     +5.34% A
                   350,000
. 34
     +5.97% A
            100.08
                   120,000
    +2.13% ▲
             564.23 900,000
89
    +6.43% ▲
             765.90
                     600,00
             120.34
                     380,0
64
    +23.1 x 🔺
             893.23
                      120,0
             128.98
   +5.56% A
   -3.67% V
             432.12
  +11.3%▲ 765.23
  +2.54x▲ 432.24
```

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.
- Your result should look as follows (note: all solution images are for 2015 data).

<ticker></ticker>	<date></date>	<open></open>	<high></high>	<low></low>	<close></close>	<vol></vol>	Ticker	Total Stock Volume
Α	20150101	40.94	40.94	40.94	40.94	0	Α	645319200
Α	20150102	41.18	41.31	40.37	40.56	1530700	AA	6449104200
Α	20150105	40.32	40.46	39.7	39.8	2042200	AA-B	40441700
Α	20150106	39.81	40.02	39.02	39.18	2084500	AAC	78122300
Α	20150107	39.52	39.81	39.29	39.7	3359600	AAN	179606700
Α	20150108	40.24	40.98	40.18	40.89	2116300	AAP	266930500
Α	20150109	41	41	40.29	40.59	1644900	AAT	48158100
Α	20150112	40.61	40.72	39.95	40.11	2771100	AAV	30229400
Α	20150113	40.47	40.7	39.33	39.55	2013400	AB	71403800
Α	20150114	39.03	39.1	38.21	39.06	5134000	ABB	532805500
Α	20150115	39.33	39.41	37.99	38.01	2630200	ABBV	2643021600
Α	20150116	37.86	38.46	37.76	38.25	3003900	ABC	516218400
Α	20150119	38.25	38.25	38.25	38.25	0	ABEV	3915345800
Α	20150120	38.43	38.66	37.76	37.93	5033600	ABG	82930400
Α	20150121	37.75	38.41	37.68	38.16	2721600	ABM	72539400

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.
- The result should look as follows.

<ticker></ticker>	<date></date>	<open></open>	<high></high>	<low></low>	<close></close>	<vol></vol>	Ticker	Yearly Change	Percent Change	Total Stock Volume
Α	20150101	40.94	40.94	40.94	40.94	0	Α	0.870000005	2.13%	645319200
Α	20150102	41.18	41.31	40.37	40.56	1530700	AA	-17.76000023	-37.49%	6449104200
Α	20150105	40.32	40.46	39.7	39.8	2042200	AA-B	-17.13999939	-33.97%	40441700
Α	20150106	39.81	40.02	39.02	39.18	2084500	AAC	-11.85999966	-38.36%	78122300
Α	20150107	39.52	39.81	39.29	39.7	3359600	AAN	-8.180000305	-26.76%	179606700
Α	20150108	40.24	40.98	40.18	40.89	2116300	AAP	-8.770000458	-5.51%	266930500
Α	20150109	41	41	40.29	40.59	1644900	AAT	-1.460000038	-3.67%	48158100
Α	20150112	40.61	40.72	39.95	40.11	2771100	AAV	0.289999992	6.05%	30229400
Α	20150113	40.47	40.7	39.33	39.55	2013400	AB	-1.980000019	-7.67%	71403800
Α	20150114	39.03	39.1	38.21	39.06	5134000	ABB	-3.420000076	-16.17%	532805500
Α	20150115	39.33	39.41	37.99	38.01	2630200	ABBV	-6.199999809	-9.47%	2643021600
Α	20150116	37.86	38.46	37.76	38.25	3003900	ABC	13.55000019	15.03%	516218400

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".
- · Solution will look as follows.

<ticker></ticker>	<date></date>	<open></open>	<high></high>	<low></low>	<close></close>	<vol></vol>	Ticker	Yearly Change	Percent Change	Total Stock Volume			Ticker	Value
A	20150101	40.94	40.94	40.94	40.94	0	Α	0.870000005	2.13%	645319200		Greatest % Increase	ARR	491.30%
Α	20150102	41.18	41.31	40.37	40.56	1530700	AA	-17.76000023	-37.49%	6449104200		Greatest % Decrease	KMI.W	-98.59%
Α	20150105	40.32	40.46	39.7	39.8	2042200	AA-B	-17.13999939	-33.97%	40441700		Greatest Total Volume	BAC	21277761900
A	20150106	39.81	40.02	39.02	39.18	2084500	AAC	-11.85999966	-38.36%	78122300				
A	20150107	39.52	39.81	39.29	39.7	3359600	AAN	-8.180000305	-26.76%	179606700				
Α	20150108	40.24	40.98	40.18	40.89	2116300	AAP	-8.770000458	-5.51%	266930500				
Α	20150109	41	41	40.29	40.59	1644900	AAT	-1.460000038	-3.67%	48158100				
A	20150112	40.61	40.72	39.95	40.11	2771100	AAV	0.289999992	6.05%	30229400				
Α	20150113	40.47	40.7	39.33	39.55	2013400	AB	-1.980000019	-7.67%	71403800				
A	20150114	39.03	39.1	38.21	39.06	5134000	ABB	-3.420000076	-16.17%	532805500				
Α	20150115	39.33	39.41	37.99	38.01	2630200	ABBV	-6.199999809	-9.47%	2643021600				
Α	20150116	37.86	38.46	37.76	38.25	3003900	ABC	13.55000019	15.03%	516218400				
A	20150119	38.25	38.25	38.25	38.25	0	ABEV	-1.75999999	-28.30%	3915345800				
Α	20150120	38.43	38.66	37.76	37.93	5033600	ABG	-8.479999542	-11.17%	82930400				
A	20150121	37.75	38.41	37.68	38.16	2721600	ABM	-0.180000007	-0.63%	72539400				
Α	20150122	38.51	39.86	38.12	39.65	4856500	ABR	0.379999995	5.61%	37916900				
A	20150123	39.6	39.6	38.76	38.81	1519200	ABR-A	-0.49000001	-1.96%	1243100				

CHALLENGE

- Make the appropriate adjustments to your script that will allow it to run on every worksheet, i.e., every year, just by running it once.
- This can be applied to any of the difficulties.

Other Considerations

- Use the sheet alphabetical_testing.xlsx while developing your code. This data set is smaller and will allow you to test faster. Your code should run on this file in less than 3-5 minutes.
- Make sure that the script acts the same on each sheet. The joy of VBA is to take the tediousness out of repetitive task and run over and over again with a click of the button.

Submission

- To submit please upload the following to Github:
 - A screen shot for each year of your results on the Multi Year Stock Data.
 - VBA Scripts as separate files.
- After everything has been saved, create a sharable link and submit that to https://bootcampspot-v2.com/.

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