

Screenshots of the results:

Create a script that loops through all the stocks for each quarter and outputs the following information:

The ticker symbol.

Quarterly change from the opening price at the beginning of a given quarter to the closing price at the end of that quarter.

The percentage changes from the opening price at the beginning of a given quarter to the closing price at the end of that quarter.

The total stock volume of the stock. The result should match the following image:

Add functionality to your script to return the stock with the "Greatest % increase", "Greatest % decrease", and "Greatest total volume". The solution should match the following image.

Q1:

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
<ticker>	<date>	<open>	<high>	<low>	<close>	<vol>		Ticker	Quarterly Change	Percent Change	Total Stock Volume			Ticker	Value		
AAF	1/2/2022	5.02	5.05	5.02	5.03	879382		AAF	0.05	1.00%	752812510		Greatest % Increase	MSE	47.01%		
AAF	1/3/2022	5.01	5.01	4.98	5.01	6907		AAR	0.14	7.65%	8865652		Greatest % Decrease	VNG	-77.83%		
AAF	1/6/2022	5.01	5.01	4.98	4.98	2503582		ABJ	0.81	1.78%	141569994		Greatest Total Volume	HK	2.64E+11		
AAF	1/7/2022	4.96	5	4.96	4.99	161914		ABK	-0.82	-2.11%	4876577						
AAF	1/8/2022	4.98	4.99	4.97	4.98	563307		ABKV	1.58	6.19%	967446696						
AAF	1/9/2022	4.98	4.99	4.96	4.96	187523		ACJ	0.06	0.39%	1503284						
AAF	1/10/2022	4.97	4.99	4.93	4.95	2295067		ADB	0.12	0.47%	8100755						
AAF	1/13/2022	4.95	5	4.95	5	724593		AEV	-2.27	-5.41%	37848						
AAF	1/14/2022	5	5.03	4.99	4.99	147386		AEY	0.01	0.71%	3813328						
AAF	1/15/2022	5.01	5.03	4.98	5.03	6977393		AGF	-0.37	-0.68%	776480046						
AAF	1/16/2022	5.02	5.04	5	5	209779		AHAO	0.01	0.09%	567614264						
AAF	1/17/2022	5	5.02	4.98	4.98	396340		AIQ	0	0.00%	1959736						
AAF	1/21/2022	4.98	4.98	4.93	4.95	41545		AIQK	2.4	10.50%	65297991						
AAF	1/22/2022	4.93	4.95	4.89	4.89	20380		AJJ	1.28	1.15%	71012						
AAF	1/23/2022	4.89	4.91	4.89	4.91	360920		AJL	-0.14	-0.98%	96387487						
AAF	1/24/2022	4.89	4.89	4.86	4.89	202596		AJR	-0.47	-2.82%	69879769						
AAF	1/27/2022	4.89	4.96	4.88	4.96	1,075,408		AJS	-0.32	-1.83%	178949374						
AAF	1/28/2022	4.96	4.96	4.95	4.96	237208		AKKV	-0.19	-2.17%	314521449						
AAF	1/29/2022	4.96	5	4.96	4.97	26445010		AKUC	-3.33	-7.59%	304714155						
AAF	1/30/2022	4.97	4.97	4.94	4.95	200506		ANO	0.21	0.39%	131090752						
AAF	1/31/2022	4.94	4.94	4.91	4.92	125462		ANQ	0.15	1.79%	174506248						
AAF	2/3/2022	4.91	4.91	4.88	4.88	113514		ANVE	-0.32	-0.90%	120720960						
AAF	2/4/2022	4.9	4.94	4.9	4.94	6459377		AORS	-0.52	-6.30%	822422742						
AAF	2/5/2022	4.93	4.98	4.93	4.95	1141175		APM	-5.12	-6.16%	28090822						
AAF	2/6/2022	4.95	4.97	4.95	4.96	9584622		AQA	-0.03	-1.02%	35324348						

I	J	K	L	M	N	O	P	Q
Ticker	Quarterly Change	Percent Change	Total Stock Volume			Ticker	Value	
AAF	1.00%	1.00%	752812510		Greatest % Increase	MSE	47.01%	
AAR	0.14	7.65%	8865652		Greatest % Decrease	VNG	-77.83%	
ABJ	0.81	1.78%	141569994		Greatest Total Volume	HK	2.64E+11	
ABK	-0.82	-2.11%	4876577					
ABKV	1.58	6.19%	967446696					
ACJ	0.06	0.39%	1503284					
ADB	0.12	0.47%	8100755					
AEV	-2.27	-5.41%	37848					
AEY	0.01	0.71%	3813328					
AGF	-0.37	-0.68%	776480046					
AHAO	0.01	0.09%	567614264					
AIQ	0	0.00%	1959736					
AIQK	2.4	10.50%	65297991					
AJJ	1.28	1.15%	71012					
AJL	-0.14	-0.98%	96387487					
AJR	-0.47	-2.82%	69879769					
AJS	-0.32	-1.83%	178949374					
AKKV	-0.19	-2.17%	314521449					
AKUC	-3.33	-7.59%	304714155					
ANO	0.21	0.39%	131090752					
ANQ	0.15	1.79%	174506248					
ANVE	-0.32	-0.90%	120720960					
AORS	-0.52	-6.30%	822422742					
APM	-5.12	-6.16%	28090822					
AQA	-0.03	-1.02%	35324348					

Q2:

01471																
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
< ticker>	< date>	< open>	< high>	< low>	< close>	< vol>		Ticker	Quarterly Change	Percent Change	Total Stock Volume			Ticker	Value	
AAAF	4/1/2022	5.09	5.09	5.08	5.08	1724		AAAF	0.29	5.70%	231604831		Greatest % Increase	BGI	57.57%	
AAAF	4/2/2022	5.09	5.13	5.09	5.13	690388		AAR	0.07	3.55%	10577420		Greatest % Decrease	RKS	-71.53%	
AAAF	4/3/2022	5.14	5.18	5.13	5.17	18199285		ABJ	1.72	3.71%	45583612		Greatest Total Volume	HK	3.91E+11	
AAAF	4/6/2022	5.17	5.17	5.14	5.17	1462670		ABK	-0.27	-0.71%	1755262					
AAAF	4/7/2022	5.15	5.18	5.15	5.18	251022		ABKV	-1.77	-6.52%	847353538					
AAAF	4/8/2022	5.18	5.18	5.13	5.15	10899		ACJ	-0.25	-1.64%	1213043					
AAAF	4/9/2022	5.15	5.16	5.12	5.15	16664		ADB	0.05	0.20%	8687185					
AAAF	4/13/2022	5.15	5.16	5.12	5.12	53569		AEV	-9.17	-23.20%	65529					
AAAF	4/14/2022	5.13	5.15	5.12	5.12	20698485		AEY	-0.01	-0.70%	3774726					
AAAF	4/15/2022	5.1	5.1	5.05	5.08	15806		AGF	0.85	1.58%	537756937					
AAAF	4/16/2022	5.09	5.13	5.08	5.09	3609880		AHAO	-0.39	-3.58%	512142581					
AAAF	4/17/2022	5.09	5.12	5.09	5.12	517468		AIQ	-0.17	-1.44%	2918858					
AAAF	4/20/2022	5.14	5.15	5.13	5.15	17256106		AIQK	-1.66	-6.61%	48012782					
AAAF	4/21/2022	5.15	5.23	5.15	5.21	6568495		AJJ	0.5	0.45%	554855					
AAAF	4/22/2022	5.2	5.22	5.19	5.19	918046		AJL	-0.06	-0.42%	98135429					
AAAF	4/23/2022	5.19	5.2	5.16	5.2	92653		AJR	0.24	1.48%	55779612					
AAAF	4/24/2022	5.2	5.24	5.2	5.24	9173074		AJS	-1.35	-7.85%	206474415					
AAAF	4/27/2022	5.25	5.27	5.25	5.27	3368588		AKKV	-0.51	-5.94%	358111203					
AAAF	4/28/2022	5.27	5.3	5.27	5.3	2770300		AKUC	2.62	6.46%	503310462					
AAAF	4/29/2022	5.31	5.33	5.29	5.33	130478		ANO	-3.71	-6.85%	146142775					
AAAF	4/30/2022	5.33	5.33	5.23	5.23	58640		ANQ	-0.04	-0.47%	76141573					
AAAF	5/1/2022	5.23	5.28	5.23	5.26	2430144		ANVE	-0.27	-0.77%	117552808					
AAAF	5/4/2022	5.27	5.27	5.23	5.25	272790		AORS	-0.31	-4.02%	419352964					
AAAF	5/5/2022	5.26	5.27	5.25	5.26	24226		APM	13.32	17.23%	483459885					
AAAF	5/6/2022	5.25	5.25	5.21	5.23	59283		AQA	0.03	1.03%	48175139					
AAAF	5/7/2022	5.25	5.25	5.21	5.23	59283		AQA	0.03	1.03%	48175139					

I	J	K	L	M	N	O	P	Q
Ticker	Quarterly Change	Percent Change	Total Stock Volume			Ticker	Value	
AAAF	0.29	5.70%	231604831		Greatest % Increase	BGI	57.57%	
AAR	0.07	3.55%	10577420		Greatest % Decrease	RKS	-71.53%	
ABJ	1.72	3.71%	45583612		Greatest Total Volume	HK	3.91E+11	
ABK	-0.27	-0.71%	1755262					
ABKV	-1.77	-6.52%	847353538					
ACJ	-0.25	-1.64%	1213043					
ADB	0.05	0.20%	8687185					
AEV	-9.17	-23.20%	65529					
AEY	-0.01	-0.70%	3774726					
AGF	0.85	1.58%	537756937					
AHAO	-0.39	-3.58%	512142581					
AIQ	-0.17	-1.44%	2918858					
AIQK	-1.66	-6.61%	48012782					
AJJ	0.5	0.45%	554855					
AJL	-0.06	-0.42%	98135429					
AJR	0.24	1.48%	55779612					
AJS	-1.35	-7.85%	206474415					
AKKV	-0.51	-5.94%	358111203					
AKUC	2.62	6.46%	503310462					
ANO	-3.71	-6.85%	146142775					
ANQ	-0.04	-0.47%	76141573					
ANVE	-0.27	-0.77%	117552808					
AORS	-0.31	-4.02%	419352964					
APM	13.32	17.23%	483459885					
AQA	0.03	1.03%	48175139					

Q3:

H1446																		
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	<ticker>	<date>	<open>	<high>	<low>	<close>	<vol>		Ticker	Quarterly Change	Percent Change	Total Stock Volume						
2	AAF	7/1/2022	5.38	5.44	5.38	5.44	333664		AAF	0.16	2.97%	812229324		Greatest % Increase	YH	37.21%		
3	AAF	7/2/2022	5.44	5.46	5.43	5.45	40777		AAR	0.13	6.37%	13282359		Greatest % Decrease	BGI	-47.15%		
4	AAF	7/6/2022	5.47	5.48	5.44	5.47	10592		ABJ	-2.1	-4.37%	983632290		Greatest Total Volume	HK	4.80E+11		
5	AAF	7/7/2022	5.46	5.5	5.46	5.49	960770		ABK	0.27	0.71%	1182567						
6	AAF	7/8/2022	5.49	5.53	5.48	5.5	297757		ABKV	-0.58	-2.28%	1262340775						
7	AAF	7/9/2022	5.49	5.49	5.41	5.41	4344806		ACJ	0.03	0.20%	1358080						
8	AAF	7/10/2022	5.42	5.42	5.37	5.37	210702		ADB	0.03	0.12%	8782076						
9	AAF	7/13/2022	5.38	5.4	5.37	5.39	1023574		AEV	1.76	5.77%	45218						
10	AAF	7/14/2022	5.38	5.42	5.38	5.42	7599		AEY	0.05	3.57%	2180837						
11	AAF	7/15/2022	5.44	5.47	5.44	5.47	23718054		AGF	0.02	0.04%	794391378						
12	AAF	7/16/2022	5.47	5.49	5.46	5.49	1567039		AHAO	0.22	2.10%	3366198572						
13	AAF	7/17/2022	5.49	5.54	5.49	5.5	6540703		AIQ	0.15	1.29%	6285184						
14	AAF	7/20/2022	5.52	5.52	5.46	5.46	2488667		AIQK	2.82	12.05%	56944349						
15	AAF	7/21/2022	5.47	5.47	5.42	5.43	191890		AJJ	-0.88	-0.78%	138017						
16	AAF	7/22/2022	5.42	5.43	5.41	5.43	2526282		AJL	0.07	0.50%	161335262						
17	AAF	7/23/2022	5.43	5.44	5.41	5.41	89544		AJR	-0.24	-1.46%	34726033						
18	AAF	7/24/2022	5.43	5.43	5.37	5.37	1256290		AJS	2	12.63%	261384589						
19	AAF	7/27/2022	5.39	5.44	5.39	5.44	211198		AKKV	-0.09	-1.12%	152827525						
20	AAF	7/28/2022	5.45	5.49	5.45	5.49	1543380		AKUC	-1.77	-4.09%	1009976826						
21	AAF	7/29/2022	5.5	5.51	5.47	5.47	14555546		ANO	-2.67	-5.29%	104330678						
22	AAF	7/30/2022	5.47	5.5	5.46	5.48	4326414		ANQ	-0.2	-2.35%	97971983						
23	AAF	7/31/2022	5.47	5.49	5.46	5.47	113868		ANVE	-0.09	-0.26%	86733959						
24	AAF	8/3/2022	5.47	5.47	5.46	5.46	1570087		AORS	-0.03	-0.41%	294265718						
25	AAF	8/4/2022	5.46	5.49	5.44	5.45	92877		APM	-7.84	-8.63%	54328089						
26	AAF	8/5/2022	5.44	5.44	5.4	5.44	131325		AQA	0.01	0.34%	18535684						
27	AAF	8/6/2022	5.44	5.44	5.44	5.44	346333		AOVM	0.44	7.33%	23817802						

I	J	K	L	M	N	O	P
Ticker	Quarterly Change	Percent Change	Total Stock Volume			Ticker	Value
AAF	0.16	2.97%	812229324		Greatest % Increase	YH	37.21%
AAR	0.13	6.37%	13282359		Greatest % Decrease	BGI	-47.15%
ABJ	-2.1	-4.37%	983632290		Greatest Total Volume	HK	4.80E+11
ABK	0.27	0.71%	1182567				
ABKV	-0.58	-2.28%	1262340775				
ACJ	0.03	0.20%	1358080				
ADB	0.03	0.12%	8782076				
AEV	1.76	5.77%	45218				
AEY	0.05	3.57%	2180837				
AGF	0.02	0.04%	794391378				
AHAO	0.22	2.10%	3366198572				
AIQ	0.15	1.29%	6285184				
AIQK	2.82	12.05%	56944349				
AJJ	-0.88	-0.78%	138017				
AJL	0.07	0.50%	161335262				
AJR	-0.24	-1.46%	34726033				
AJS	2	12.63%	261384589				
AKKV	-0.09	-1.12%	152827525				
AKUC	-1.77	-4.09%	1009976826				
ANO	-2.67	-5.29%	104330678				
ANQ	-0.2	-2.35%	97971983				
ANVE	-0.09	-0.26%	86733959				
AORS	-0.03	-0.41%	294265718				
APM	-7.84	-8.63%	54328089				
AQA	0.01	0.34%	18535684				
AOVM	0.44	7.33%	23817802				

Q4:

N3		X ✓ fx		Greatest % Decrease														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	<ticker>	<date>	<open>		<low>	<close>	<vol>		Ticker	Quarterly Change	Percent Change	Total Stock Volume						
2	AAF	10/1/2022	5.53	5.56	5.53	5.56	10212793		AAF	-0.33	-5.97%	283924051		Greatest % Increase	MSE	66.35%		
3	AAF	10/2/2022	5.54	5.55	5.52	5.55	582073		AAR	0.09	4.17%	7180097		Greatest % Decrease	RKS	-42.47%		
4	AAF	10/5/2022	5.53	5.55	5.51	5.51	791312		ABJ	1.95	4.24%	57167862		Greatest Total Volume	HK	2.50E+11		
5	AAF	10/6/2022	5.53	5.54	5.51	5.54	137612		ABK	0.22	0.58%	1713143						
6	AAF	10/7/2022	5.55	5.55	5.52	5.53	4141794		ABKV	-2.78	-11.22%	1325081594						
7	AAF	10/8/2022	5.53	5.53	5.49	5.53	2340485		ACJ	-0.29	-1.93%	2007080						
8	AAF	10/9/2022	5.52	5.56	5.51	5.56	863156		ADB	-0.86	-3.38%	8956020						
9	AAF	10/12/2022	5.52	5.52	5.5	5.5	1401089		AEV	0.89	2.75%	47488						
10	AAF	10/13/2022	5.5	5.51	5.48	5.51	1596798		AEY	0.04	2.76%	4298758						
11	AAF	10/14/2022	5.51	5.52	5.49	5.52	47918		AGF	-0.38	-0.69%	505213611						
12	AAF	10/15/2022	5.51	5.51	5.48	5.49	346706		AHAO	0.37	3.46%	1160273140						
13	AAF	10/16/2022	5.48	5.52	5.48	5.5	232992		AIQ	-0.11	-0.93%	1230859						
14	AAF	10/19/2022	5.48	5.48	5.43	5.45	298970		AIQK	0.21	0.80%	66485266						
15	AAF	10/20/2022	5.45	5.49	5.45	5.49	10289359		AJJ	0	0.00%	134670						
16	AAF	10/21/2022	5.48	5.48	5.46	5.47	1241587		AJL	-0.2	-1.41%	162249647						
17	AAF	10/22/2022	5.46	5.47	5.44	5.46	110568		AJR	-0.12	-0.74%	53697777						
18	AAF	10/23/2022	5.46	5.46	5.41	5.41	1422918		AJS	0.22	1.23%	289650220						
19	AAF	10/26/2022	5.39	5.42	5.39	5.41	2837521		AKKV	-0.11	-1.38%	108536855						
20	AAF	10/27/2022	5.4	5.44	5.4	5.43	8448407		AKUC	-1.95	-4.70%	320975640						
21	AAF	10/28/2022	5.41	5.42	5.38	5.42	150170		ANO	-0.45	-0.95%	234024374						
22	AAF	10/29/2022	5.41	5.44	5.41	5.44	6159535		ANQ	-0.07	-0.84%	160411134						
23	AAF	10/30/2022	5.44	5.45	5.41	5.44	807481		ANVE	1.49	4.29%	255254835						
24	AAF	11/2/2022	5.44	5.44	5.37	5.38	10928362		AORS	-0.07	-0.95%	246196717						
25	AAF	11/3/2022	5.4	5.42	5.38	5.4	355773		APM	-0.21	-0.25%	43103336						
26	AAF	11/4/2022	5.41	5.43	5.39	5.4	15058496		AQA	-0.15	-5.08%	20844579						
27	AAF	11/5/2022	5.41	5.43	5.4	5.4	15058496		AQA	-0.15	-5.08%	20844579						

I	J	K	L	M	N	O	P	Q	R
Ticker	Quarterly Change	Percent Change	Total Stock Volume			Ticker	Value		
AAF	-0.33	-5.97%	283924051		Greatest % Increase	MSE	66.35%		
AAR	0.09	4.17%	7180097		Greatest % Decrease	RKS	-42.47%		
ABJ	1.95	4.24%	57167862		Greatest Total Volume	HK	2.50E+11		
ABK	0.22	0.58%	1713143						
ABKV	-2.78	-11.22%	1325081594						
ACJ	-0.29	-1.93%	2007080						
ADB	-0.86	-3.38%	8956020						
AEV	0.89	2.75%	47488						
AEY	0.04	2.76%	4298758						
AGF	-0.38	-0.69%	505213611						
AHAO	0.37	3.46%	1160273140						
AIQ	-0.11	-0.93%	1230859						
AIQK	0.21	0.80%	66485266						
AJJ	0	0.00%	134670						
AJL	-0.2	-1.41%	162249647						
AJR	-0.12	-0.74%	53697777						
AJS	0.22	1.23%	289650220						
AKKV	-0.11	-1.38%	108536855						
AKUC	-1.95	-4.70%	320975640						
ANO	-0.45	-0.95%	234024374						
ANQ	-0.07	-0.84%	160411134						
ANVE	1.49	4.29%	255254835						
AORS	-0.07	-0.95%	246196717						
APM	-0.21	-0.25%	43103336						
AQA	-0.15	-5.08%	20844579						