

# Q1-AAPL

	Open	High	Low	Close	Adj Close	Volume
Date						
2013-01-02	19.78	19.82	19.34	19.61	16.71	560518000
2013-01-03	19.57	19.63	19.32	19.36	16.49	352965200
2013-01-04	19.18	19.24	18.78	18.82	16.04	594333600
2013-01-07	18.64	18.90	18.40	18.71	15.94	484156400
2013-01-08	18.90	19.00	18.62	18.76	15.98	458707200
...	...	...	...	...	...	...
2024-05-15	187.91	190.65	187.37	189.72	189.50	70400000
2024-05-16	190.47	191.10	189.66	189.84	189.62	52845200
2024-05-17	189.51	190.81	189.18	189.87	189.65	41282900
2024-05-20	189.33	191.92	189.01	191.04	190.82	44361300
2024-05-21	191.09	192.73	190.92	192.35	192.13	42309400

# Q1-ORCL

[2000 rows x 7 columns]						
Date	Open	High	Low	Close	Adj Close	Volume
2013-01-02	34.08	34.74	33.93	34.69	29.19	33758400
2013-01-03	34.63	34.75	34.14	34.31	28.87	21819500
2013-01-04	34.45	34.75	34.40	34.61	29.12	21687300
2013-01-07	34.44	34.52	34.21	34.43	28.97	14008300
2013-01-08	34.15	34.51	34.06	34.44	28.98	17408900
...	...	...	...	...	...	...
2024-05-15	120.17	122.09	119.67	121.63	121.29	6604600
2024-05-16	121.94	122.45	121.21	122.16	121.82	5159300
2024-05-17	123.18	123.58	122.08	123.50	123.15	6179400
2024-05-20	123.80	124.68	123.24	124.52	124.17	5989000
2024-05-21	124.46	125.36	123.92	124.63	124.28	5549500

# Q1-TSLA

	Open	High	Low	Close	Adj Close	Volume
Date						
2013-01-02	2.33	2.36	2.31	2.36	2.36	17922000
2013-01-03	2.35	2.36	2.32	2.32	2.32	11130000
2013-01-04	2.32	2.32	2.26	2.29	2.29	10110000
2013-01-07	2.32	2.32	2.26	2.29	2.29	6630000
2013-01-08	2.30	2.30	2.21	2.25	2.25	19260000
...	...	...	...	...	...	...
2024-05-15	179.90	180.00	173.11	173.99	173.99	79663000
2024-05-16	174.10	175.79	171.43	174.84	174.84	59812200
2024-05-17	173.55	179.63	172.75	177.46	177.46	77445800
2024-05-20	177.56	177.75	173.52	174.95	174.95	61727400
2024-05-21	175.51	186.88	174.71	186.60	186.60	115266500

# Q1-YELP

[2000 rows x 8 columns]

	Open	High	Low	Close	Adj Close	Volume
Date						
2013-01-02	19.17	20.59	19.13	19.70	19.70	1587100
2013-01-03	20.00	20.36	19.71	20.15	20.15	1195100
2013-01-04	20.29	21.62	20.11	21.52	21.52	1966800
2013-01-07	21.33	21.36	20.52	21.08	21.08	1079800
2013-01-08	21.00	21.19	20.02	20.83	20.83	918300
...	...	...	...	...	...	...
2024-05-15	38.07	38.37	37.17	38.23	38.23	718300
2024-05-16	38.23	38.44	37.74	37.98	37.98	639900
2024-05-17	38.07	38.12	37.12	37.25	37.25	700900
2024-05-20	37.31	37.59	36.82	37.36	37.36	565800
2024-05-21	37.15	37.32	36.58	36.89	36.89	890900

# Q1-IBM

[Date, Open, High, Low, Close, Adj Close, Volume]						
Date	Open	High	Low	Close	Adj Close	Volume
2013-01-02	185.55	187.72	185.28	187.72	117.72	4428869
2013-01-03	187.07	187.66	185.89	186.68	117.07	3812356
2013-01-04	185.65	185.91	184.30	185.46	116.30	3535689
2013-01-07	184.89	185.26	183.88	184.65	115.80	2993966
2013-01-08	184.44	184.80	183.17	184.39	115.63	3166137
...	...	...	...	...	...	...
2024-05-15	167.94	168.35	167.34	168.26	166.80	4468800
2024-05-16	168.26	169.63	167.79	168.97	167.50	3492300
2024-05-17	168.97	169.11	167.33	169.03	167.56	2956400
2024-05-20	169.00	170.16	168.38	169.92	168.45	2726300
2024-05-21	169.94	174.97	169.94	173.47	171.97	6459800



# Q1-MSFT

	Open	High	Low	Close	Adj Close	Volume
Date						
2013-01-02	27.25	27.73	27.15	27.62	22.45	52899300
2013-01-03	27.63	27.65	27.16	27.25	22.15	48294400
2013-01-04	27.27	27.34	26.73	26.74	21.74	52521100
2013-01-07	26.77	26.88	26.64	26.69	21.70	37110400
2013-01-08	26.75	26.79	26.46	26.55	21.58	44703100
...	...	...	...	...	...	...
2024-05-15	417.90	423.81	417.27	423.08	422.32	22239500
2024-05-16	421.80	425.42	420.35	420.99	420.23	17530100
2024-05-17	422.54	422.92	418.03	420.21	419.45	15352200
2024-05-20	420.21	426.77	419.99	425.34	424.57	16272100
2024-05-21	426.83	432.97	424.85	429.04	428.27	21453300

# Q2

	High (\$)	Low (\$)	Open (\$)	Close (\$)	Volume	Adj Close (\$)
AAPL	76.78	75.21	75.97	76.03	157810582.80	73.86
ORCL	58.83	57.75	58.25	58.29	13778479.24	54.20
TSLA	91.53	87.48	89.58	89.55	113926306.70	89.55
IBM	147.05	144.84	145.93	145.95	4811046.81	111.65
YELP	39.64	38.20	38.91	38.91	1944435.10	38.91
MSFT	149.76	146.83	148.32	148.37	31480014.13	142.64
Maximum Value	149.76	146.83	148.32	148.37	157810582.80	142.64
Minimum Value	39.64	38.20	38.91	38.91	1944435.10	38.91
Maximum company name	149.76	146.83	148.32	148.37	157810582.80	142.64
Minimum company name	39.64	38.20	38.91	38.91	1944435.10	38.91

# Q3

	High (\$)	Low (\$)	Open (\$)	Close (\$)	Volume	Adj Close (\$)
AAPL	3523.64	3379.98	3448.85	3454.86	15108102181120456.00	3496.64
ORCL	584.45	558.47	571.25	571.57	86437021636193.62	632.31
TSLA	11811.75	10762.60	11306.88	11287.22	5924423849981582.00	11287.22
IBM	490.00	491.75	490.24	491.01	8068029377951.12	317.56
YELP	202.57	184.98	194.77	193.07	6273722691626.13	193.07
MSFT	12804.37	12310.04	12563.17	12567.17	264739953238330.62	12701.07
Maximum Value	12804.37	12310.04	12563.17	12567.17	15108102181120456.00	12701.07
Minimum Value	202.57	184.98	194.77	193.07	6273722691626.13	193.07
Maximum company name	12804.37	12310.04	12563.17	12567.17	15108102181120456.00	12701.07
Minimum company name	202.57	184.98	194.77	193.07	6273722691626.13	193.07



# Q4

	High (\$)	Low (\$)	Open (\$)	Close (\$)	Volume	Adj Close (\$)
AAPL	59.36	58.14	58.73	58.78	122915020.16	59.13
ORCL	24.18	23.63	23.90	23.91	9297151.26	25.15
TSLA	108.68	103.74	106.33	106.24	76970279.00	106.24
IBM	22.14	22.18	22.14	22.16	2840427.68	17.82
YELP	14.23	13.60	13.96	13.89	2504740.04	13.89
MSFT	113.16	110.95	112.09	112.10	16270831.36	112.70
Maximum Value	113.16	110.95	112.09	112.10	122915020.16	112.70
Minimum Value	14.23	13.60	13.96	13.89	2504740.04	13.89
Maximum company name	113.16	110.95	112.09	112.10	122915020.16	112.70
Minimum company name	14.23	13.60	13.96	13.89	2504740.04	13.89

# Q5

	High (\$)	Low (\$)	Open (\$)	Close (\$)	Volume	Adj Close (\$)
AAPL	46.31	45.59	45.97	45.97	117386750.00	43.84
ORCL	49.99	49.11	49.49	49.47	11786900.00	44.81
TSLA	21.26	20.62	20.97	21.01	94536000.00	21.01
IBM	141.87	139.89	140.89	140.87	4121906.00	108.03
YELP	36.83	35.61	36.18	36.26	1296100.00	36.26
MSFT	106.67	104.40	105.41	105.55	27539400.00	99.41
Maximum Value	141.87	139.89	140.89	140.87	117386750.00	108.03
Minimum Value	21.26	20.62	20.97	21.01	1296100.00	21.01
Maximum company name	141.87	139.89	140.89	140.87	117386750.00	108.03
Minimum company name	21.26	20.62	20.97	21.01	1296100.00	21.01

## Q6

	Open	High	Low	Close	Adj Close	Volume
Open	1.00	1.00	1.00	1.00	1.00	-0.52
High	1.00	1.00	1.00	1.00	1.00	-0.51
Low	1.00	1.00	1.00	1.00	1.00	-0.52
Close	1.00	1.00	1.00	1.00	1.00	-0.52
Adj Close	1.00	1.00	1.00	1.00	1.00	-0.52
Volume	-0.52	-0.51	-0.52	-0.52	-0.52	1.00

→ Open, High, Low, Close and Adj Close has strong correlation between them. However, the Volume doesn't have a correlation among other values, which means, the volume of the company has almost nothing to do with the other values.

## correlation of AAPL

	Open	High	Low	Close	Adj Close	Volume
Open	1.00	1.00	1.00	1.00	1.00	-0.52
High	1.00	1.00	1.00	1.00	1.00	-0.51
Low	1.00	1.00	1.00	1.00	1.00	-0.52
Close	1.00	1.00	1.00	1.00	1.00	-0.52
Adj Close	1.00	1.00	1.00	1.00	1.00	-0.52
Volume	-0.52	-0.51	-0.52	-0.52	-0.52	1.00

## correlation of ORCL

	Open	High	Low	Close	Adj Close	Volume
Open	1.00	1.00	1.00	1.00	1.00	-0.32
High	1.00	1.00	1.00	1.00	1.00	-0.32
Low	1.00	1.00	1.00	1.00	1.00	-0.33
Close	1.00	1.00	1.00	1.00	1.00	-0.32
Adj Close	1.00	1.00	1.00	1.00	1.00	-0.32
Volume	-0.32	-0.32	-0.33	-0.32	-0.32	1.00

## correlation of TSLA

	Open	High	Low	Close	Adj Close	Volume
Open	1.00	1.00	1.00	1.00	1.00	-0.06
High	1.00	1.00	1.00	1.00	1.00	-0.05
Low	1.00	1.00	1.00	1.00	1.00	-0.06
Close	1.00	1.00	1.00	1.00	1.00	-0.06
Adj Close	1.00	1.00	1.00	1.00	1.00	-0.06
Volume	-0.06	-0.05	-0.06	-0.06	-0.06	1.00

## correlation of IBM

	Open	High	Low	Close	Adj Close	Volume
Open	1.00	1.00	1.00	1.00	0.52	-0.15
High	1.00	1.00	1.00	1.00	0.52	-0.13
Low	1.00	1.00	1.00	1.00	0.52	-0.16
Close	1.00	1.00	1.00	1.00	0.52	-0.15
Adj Close	0.52	0.52	0.52	0.52	1.00	-0.10
Volume	-0.15	-0.13	-0.16	-0.15	-0.10	1.00

## correlation of YELP

	Open	High	Low	Close	Adj Close	Volume
Open	1.00	1.00	1.00	1.00	1.00	0.23
High	1.00	1.00	1.00	1.00	1.00	0.25
Low	1.00	1.00	1.00	1.00	1.00	0.22
Close	1.00	1.00	1.00	1.00	1.00	0.24
Adj Close	1.00	1.00	1.00	1.00	1.00	0.24
Volume	0.23	0.25	0.22	0.24	0.24	1.00

## correlation of MSFT

	Open	High	Low	Close	Adj Close	Volume
Open	1.00	1.00	1.00	1.00	1.00	-0.21
High	1.00	1.00	1.00	1.00	1.00	-0.20
Low	1.00	1.00	1.00	1.00	1.00	-0.21
Close	1.00	1.00	1.00	1.00	1.00	-0.21
Adj Close	1.00	1.00	1.00	1.00	1.00	-0.21
Volume	-0.21	-0.20	-0.21	-0.21	-0.21	1.00

# Q8

	Stock	Standard Deviation
0	AAPL	0.02
1	ORCL	0.02
2	TSLA	0.04
3	IBM	0.01
4	YELP	0.03
5	MSFT	0.02

→ I will recommend IBM as it has the lowest std, and not recommend TSLA since it has the highest std. High std means it is more unpredictable.