

Assignment

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Submitted to- UpGrad

Topic- Stock Market Analysis

Technical Specification

1. Default format for Date column is used with the data type "Date".
2. In question no. 4, the input date is expected in the "Date" format.

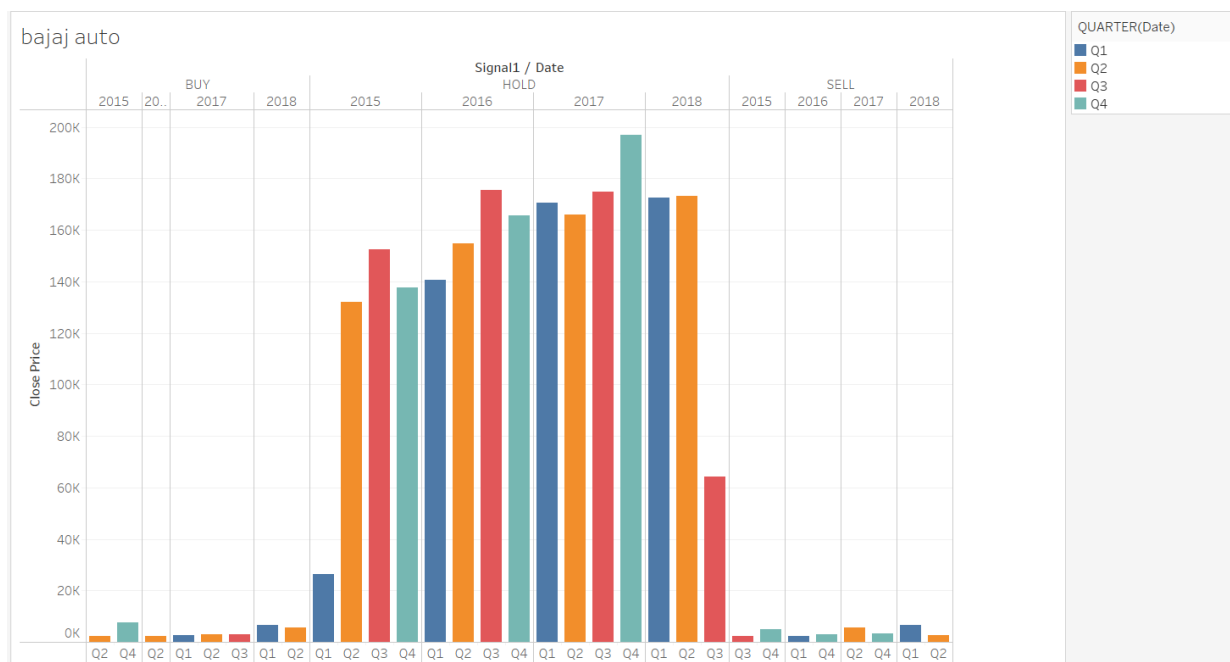
Summary

Below is the table and chart for variation of signal based on dates----"Bajaj auto"

BUY			
Year	Month	Buy	
2015	may	1	total=4
	october	1	
	december	2	
2016	April	1	total=1
2017	january	1	total=3
	may	1	
	august	1	
2018	january	1	total=4
	february	1	
	may	1	
	june	1	
Sell			
Year	Month	Sell	
2015	august	1	total=3
	december	2	
2016	january	1	total=2
	october	1	
2017	april	1	total=3
	june	1	
	december	1	
2018	january	1	total=3
	february	1	
	may	1	

Hold			
Year	Month	Hold	
2015	March	13	total=192
	april	19	
	May	19	
	June	22	
	July	23	
	August	20	
	September	20	
	october	19	
	november	19	
	december	18	
2016	january	19	total=244
	february	21	
	March	20	
	april	17	
	may	22	
	june	22	
	july	20	
	august	22	
	september	20	
	october	18	
	november	21	
	december	22	

2017	january	20	total=241
	february	19	
	march	22	
	april	17	
	may	21	
	june	20	
	july	21	
	august	19	
	september	21	
	october	20	
	november	22	
	december	19	
2018	january	20	total=139
	february	17	
	march	19	
	april	21	
	may	20	
	june	20	
	july	22	



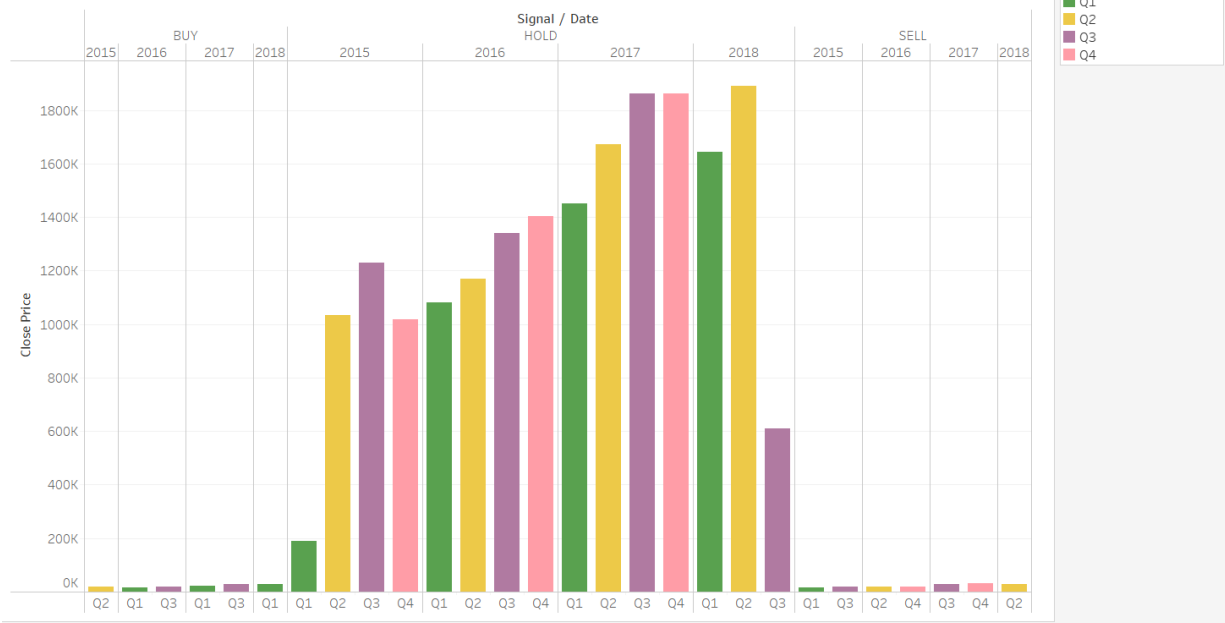
Below is the table and chart for variation of signal based on dates ---“eicher motors”

BUY			
Year	Month	Buy	
2015	may	1	total=1
2016	january	1	total=2
	july	1	
2017	january	1	total=2
	july	1	
2018	march	1	total=1
Sell			
Year	Month	Sell	
2015	march	1	total=2
	august	1	
2016	may	1	total=2
	november	1	
2017	july	1	total=2
	october	1	
2018	june	1	total=1

Hold			
Year	Month	Hold	
2015	March	12	total=195
	april	19	
	May	19	
	June	22	
	July	23	
	August	20	
	September	20	
	october	20	
	november	19	
	december	21	
2016	january	19	total=243
	february	21	
	March	20	
	april	18	
	may	21	
	june	22	
	july	19	
	august	22	
	september	20	
	october	19	
	november	20	
	december	22	

2017	january	20	total=244
	february	19	
	march	22	
	april	18	
	may	22	
	june	21	
	july	19	
	august	21	
	september	21	
	october	19	
	november	22	
	december	20	
2018	january	22	total=144
	february	19	
	march	18	
	april	21	
	may	22	
	june	20	
	july	22	

eicher motors



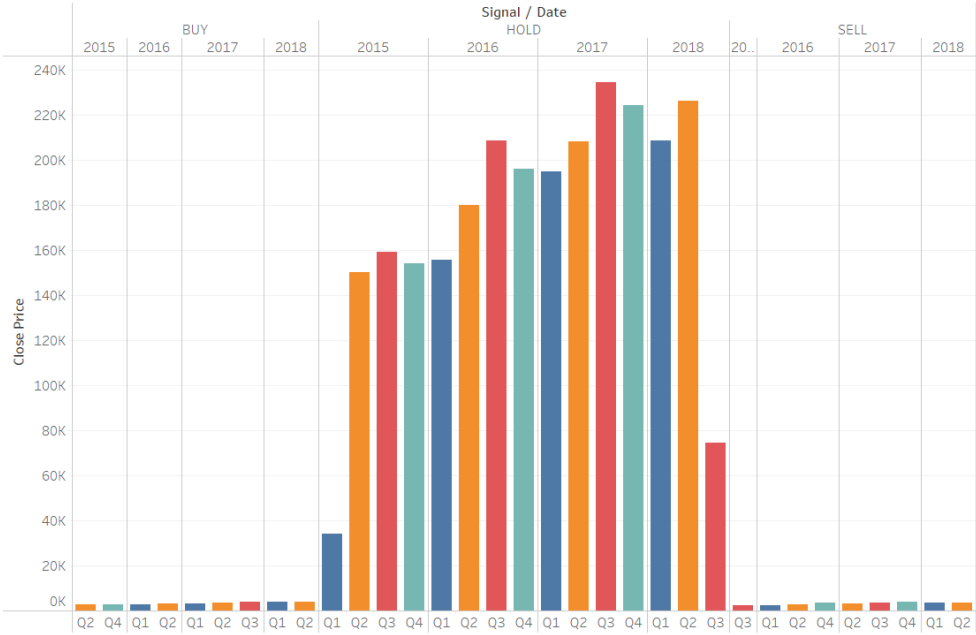
Below is the table and chart for variation of signal based on dates ---“hero motocorp”

BUY			
Year	Month	Buy	
2015	june	1	total=2
	october	1	
2016	march	1	total=2
	may	1	
2017	february	1	total=3
	may	1	
	august	1	
2018	january	1	total=2
	april	1	
Sell			
Year	Month	Sell	
2015	august	1	total=1
2016	january	1	total=3
	may	1	
	october	1	
2017	april	1	total=3
	july	1	
	october	1	
2018	february	1	total=2
	may	1	

Hold			
Year	Month	Hold	
2015	March	13	total=195
	april	19	
	May	20	
	June	21	
	July	23	
	August	20	
	September	20	
	october	19	
	november	19	
	december	21	
2016	january	19	total=242
	february	21	
	March	19	
	april	18	
	may	20	
	june	22	
	july	20	
	august	22	
	september	20	
	october	18	
	november	21	
	december	22	

2017	january	21	total=242
	february	18	
	march	22	
	april	17	
	may	21	
	june	21	
	july	20	
	august	20	
	september	21	
	october	19	
	november	22	
	december	20	
2018	january	21	total=142
	february	18	
	march	19	
	april	20	
	may	21	
	june	21	
	july	22	

hero motors



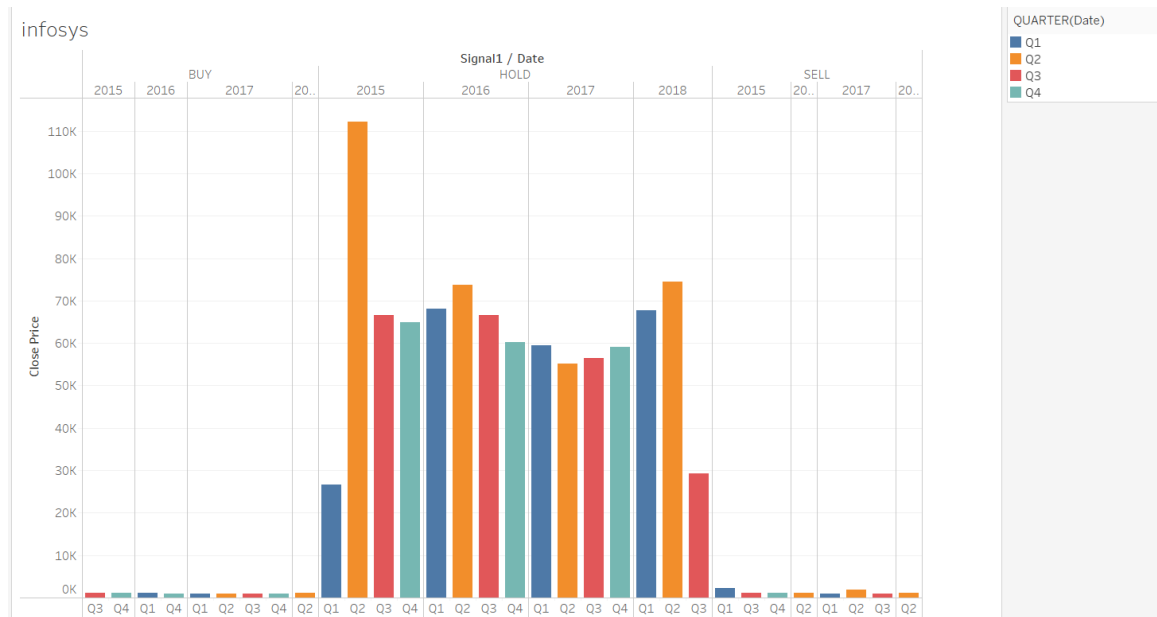
QUARTER(Date)

- Q1
- Q2
- Q3
- Q4

Below is the table and chart for variation of signal based on dates ---“Infosys”

BUY				Hold			
Year	Month	Buy		Year	Month	Hold	
2015	august	1	total=2	2015	March	12	total=194
	october	1			april	19	
2016	january	1	total=2		May	20	
	december	1			June	22	
2017	march	1	total=4		July	23	
	june	1			August	20	
	july	1			September	19	
	october	1			october	19	
2018	may	1	total=1		november	18	
Sell					december	22	
Year	Month	Sell		2016	january	19	total=244
2015	march	1	total=3		february	21	
	september	1			March	20	
	november	1			april	18	
2016	june	1	total=1		may	22	
2017	january	1	total=4		june	21	
	april	1			july	20	
	june	1			august	22	
	august	1			september	20	
2018	april	1	total=1		october	19	
					november	21	
					december	21	

2017	january	20	total=239
	february	19	
	march	21	
	april	17	
	may	22	
	june	19	
	july	20	
	august	19	
	september	21	
	october	19	
	november	22	
	december	20	
2018	january	22	total=144
	february	19	
	march	19	
	april	20	
	may	21	
	june	21	
	july	22	

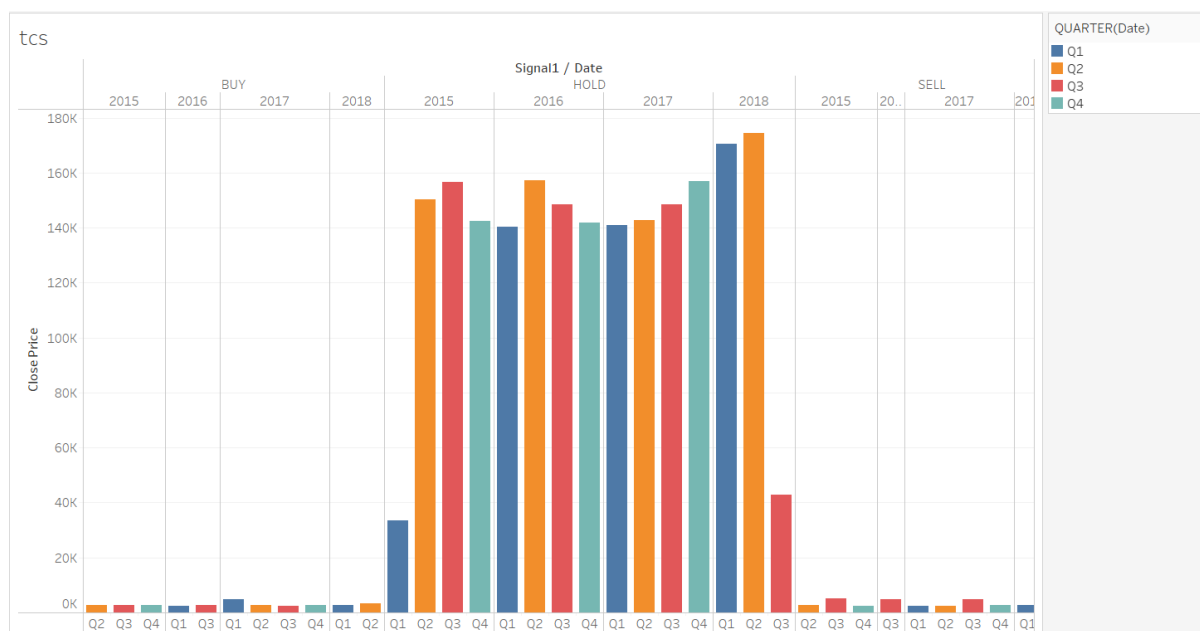


Below is the table and chart for variation of signal based on dates ---“TCS”

BUY		
Year	Month	Buy
2015	june	1
	august	1
	october	1
2016	march	1
	august	1
	october	1
2017	january	1
	february	1
	may	1
2018	january	1
	april	1
Sell		
Year	Month	Sell
2015	april	1
	july	1
	september	1
2016	july	1
	september	1
2017	february	1
	april	1
	july	1
2018	september	1
	december	1
	march	1

Hold		
Year	Month	Hold
2015	March	13
	april	18
	May	20
	June	21
	July	22
	August	20
	September	19
	october	18
	november	19
	december	21
2016	january	20
	february	21
	March	19
	april	18
	may	22
	june	22
	july	19
	august	21
	september	19
	october	19
	november	21
	december	22

2017	january	20	total=238
	february	17	
	march	22	
	april	17	
	may	21	
	june	21	
	july	20	
	august	20	
	september	20	
	october	19	
	november	22	
	december	19	
2018	january	21	total=142
	february	19	
	march	18	
	april	20	
	may	22	
	june	20	
	july	22	

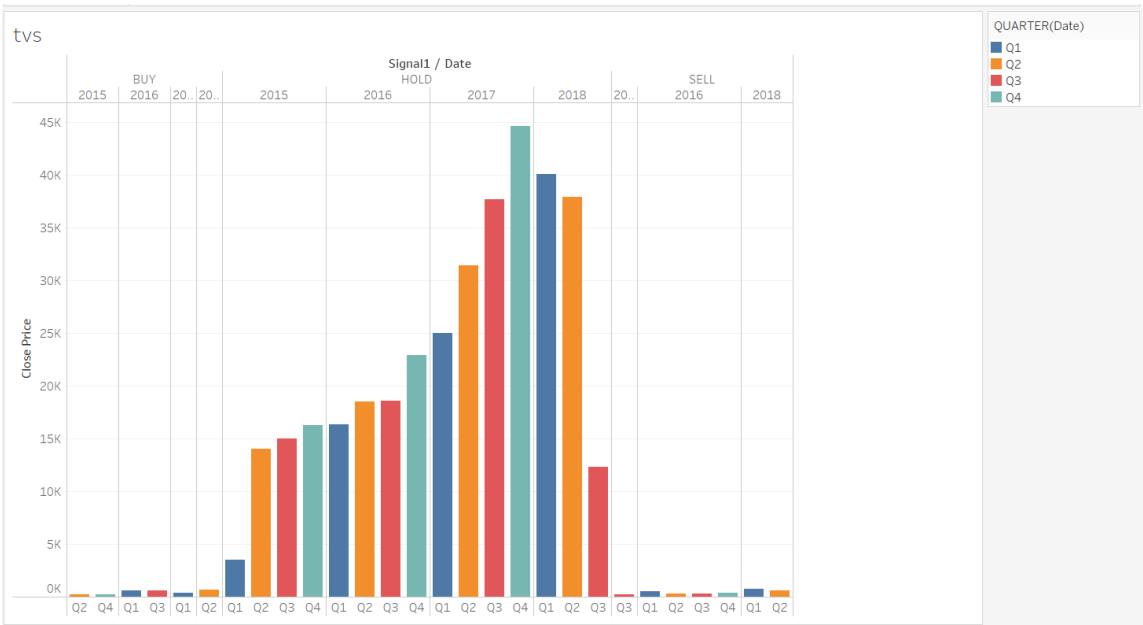


Below is the table and chart for variation of signal based on dates ---“TVS motors”

BUY			
Year	Month	Buy	
2015	june	1	total=2
	october	1	
2016	february	1	total=4
	march	1	
	july	1	
	august	1	
2017	january	1	total=5
	february	1	
	may	1	
	august	1	
	november	1	
2018	january	1	total=1
Sell			
Year	Month	Sell	
2015	august	1	total=1
2016	january	1	total=5
	february	1	
	may	1	
	august	1	
2017	november	1	
			total=0
2018	january	1	total=2
	may	1	

Hold			
Year	Month	Hold	
2015	March	13	total=195
	april	19	
	May	20	
	June	21	
	July	23	
	August	20	
	September	20	
	october	19	
	november	19	
	december	21	
2016	january	19	total=238
	february	19	
	March	19	
	april	18	
	may	21	
	june	22	
	july	19	
	august	20	
	september	20	
	october	19	
	november	20	
	december	22	

2017	january	20	total=247
	february	19	
	march	22	
	april	18	
	may	22	
	june	21	
	july	21	
	august	21	
	september	21	
	october	20	
	november	22	
	december	20	
2018	january	21	total=143
	february	19	
	march	19	
	april	20	
	may	21	
	june	21	
	july	22	



Data for average closing price of all stocks

Year / Qtr	Average of Bajaj	Average of TCS	Average of TVS	Average of Infosys	Average of Eicher	Average of Hero
2015	2328.191903	2538.084615	258.7738866	1550.007287	17391.45587	2602.165385
Qtr1	2233.624194	2568.556452	288.541129	2190.766129	15739.40242	2763.979839
Jan	2414.283333	2508.414286	298.5761905	2090.519048	15316.81429	2932.535714
Feb	2230.745	2588.59	290.4625	2256.1	16004.995	2733.08
Mar	2055.707143	2609.619048	276.6761905	2228.790476	15909.04524	2624.852381
Qtr2	2200.498361	2550.935246	234.2786885	1839.49918	17231.9418	2508.760656
Apr	2035.423684	2535.557895	243.1684211	2124.615789	15432.15789	2466.884211
May	2194.005	2547.6325	228.3175	1987.45	17557.3375	2507.705
Jun	2348.965909	2567.218182	232.0204545	1458.761364	18490.48636	2545.886364
Qtr3	2417.964063	2568.814844	238.2703125	1074.74375	19546.18047	2526.41875
Jul	2531.593478	2540.354348	256.2913043	1018.784783	20429.88043	2617.75
Aug	2435.678571	2610.240476	228.3690476	1111.82619	19953.34286	2589.47381
Sep	2268.69	2558.0475	227.9425	1100.16	18102.405	2355.18
Qtr4	2459.976667	2460.753333	274.7883333	1100.520833	16962.3775	2610.715
Oct	2470.8475	2562.235	247.005	1135.2525	18156.795	2567.2375
Nov	2432.086842	2425.539474	292.1736842	1088.728947	16530.96053	2624.039474
Dec	2474.857143	2395.964286	285.5190476	1078.111905	16215.16667	2640.066667
2016	2607.054858	2418.995547	320.2060729	1100.687247	20522.25101	3055.42085
Qtr1	2340.159836	2339.171311	287.1139344	1134.186066	17984.35328	2635.090164
Jan	2358.55	2327.1775	284.1425	1106.88	16626.32	2515.81
Feb	2348.095238	2298.295238	281.5309524	1123.764286	18256.26667	2564.469048
Mar	2313.4375	2394.085	295.9475	1172.435	19056.8775	2828.5225
Qtr2	2534.404032	2535.15	303.2056452	1208.179839	19185.53952	3000.772581
Apr	2478.113889	2479.063889	322.9805556	1210.638889	19734.93889	2982.427778
May	2496.006818	2530.009091	295.9477273	1209.022727	19147.15909	2935.552273
Jun	2618.856818	2586.179545	294.2840909	1205.325	18774.41136	3081.002273

Qtr3	2831.44032	2513.43951	314.437096	1072.99435	21916.2983	3363.86290
	3	6	8	5	9	3
Jul	2680.985	2501.0675	300.95	1122.695	19900.2625	3214.75
Aug	2864.88636	2622.07045	305.261363	1053.35454	22141.125	3345.77727
	4	5	6	5		3
Sep	2945.105	2406.3175	338.0175	1044.8975	23685.025	3532.87
Qtr4	2717.91048	2286.93387	375.533871	987.929032	22961.8790	3215.17822
	4	1		3	3	6
Oct	2821.42894	2391.41842	392.6	1027.38421	25173.4921	3420.56315
	7	1		1	1	8
Nov	2685.88333	2219.06666	369.876190	951.573809	22143.0523	3120.21666
	3	7	5	5	8	7
Dec	2659.07954	2261.47954	366.195454	988.556818	21833.4568	3128.44545
	5	5	5	2	2	5
2017	2938.96214	2475.27004	560.557692	962.723076	28058.3518	3559.8917
	6		3	9	2	
Qtr1	2796.47096	2389.83064	409.238709	990.053225	23788.8798	3198.22822
	8	5	7	8	4	6
Jan	2732.15952	2312.82381	383.826190	965.288095	22769.0023	3096.34761
	4		5	2	8	9
Feb	2796.48421	2367.33421	412.473684	975.473684	24432.4368	3188.23421
	1	1	2	2	4	1
Mar	2857.84772	2482.76590	430.702272	1026.28409	24206.6	3304.10909
	7	9	7	1		1
Qtr2	2859.51393	2422.71393	514.482786	951.268032	27427.8549	3520.98032
	4	4	9	8	2	8
Apr	2834.66388	2350.11944	475.575	946.408333	25817.2027	3231.51666
	9	4		3	8	7
May	2906.05681	2444.20681	518.384090	957.059090	27763.725	3523.87045
	8	8	9	9		5
Jun	2832.05476	2462.42142	543.745238	949.366666	28456.55	3766.06428
	2	9	1	7		6
Qtr3	2869.20967	2472.29354	598.212903	942.523387	30437.9758	3839.83548
	7	8	2	1	1	4
Jul	2798.23809	2441.6	568.242857	974.454761	28472.5119	3720.92142
	5		1	9		9
Aug	2804.94	2494.785	586.2575	954.6175	31037.3275	3913.3625
Sep	3001.39047	2481.56666	639.569047	899.073809	31832.6285	3888.72381
	6	7	6	5	7	
Qtr4	3229.37258	2615.39435	719.553225	966.862903	30568.5274	3679.89516
	1	5	8	2	2	1
Oct	3201.7375	2535.6275	689.4175	928.0275	31522.5275	3761.915
Nov	3246.50454	2687.41818	713.072727	962.529545	30654.7818	3664.85909
	5	2	3	5	2	1

Dec	3238.1625	2615.935	756.8175	1010.465	29519.6475	3614.415
2018	2953.425685	2729.115068	631.9321918	1191.399658	28798.78048	3590.047945
Qtr1	3093.455833	2933.509167	679.8275	1130.3325	27870.07333	3599.4975
Jan	3256.509091	2880.184091	738.5568182	1101.270455	28031.97045	3674.518182
Feb	3103.981579	3009.042105	657.7526316	1132.739474	27524.02105	3558.952632
Mar	2894.131579	2919.721053	633.9	1161.576316	28028.66579	3553.176316
Qtr2	2836.225	2806.442969	611.8117188	1199.467188	30015.13359	3649.124219
Apr	2833.116667	3175.440476	657.6785714	1148.057143	30444.90238	3732.164286
May	2823.925	3417.663636	599.5818182	1193.234091	30202.44318	3594.979545
Jun	2852.219048	1797.119048	578.7571429	1257.407143	29389.13571	3622.807143
Qtr2	2836.225	2806.442969	611.8117188	1199.467188	30015.13359	3649.124219
Apr	2833.116667	3175.440476	657.6785714	1148.057143	30444.90238	3732.164286
May	2823.925	3417.663636	599.5818182	1193.234091	30202.44318	3594.979545
Jun	2852.219048	1797.119048	578.7571429	1257.407143	29389.13571	3622.807143
Qtr3	2912.472727	1946.722727	559.8409091	1334.477273	27793.13636	3392.418182
Jul	2912.472727	1946.722727	559.8409091	1334.477273	27793.13636	3392.418182
Tota l	2678.838501	2518.87407	421.3392334	1202.320744	23111.29701	3157.682131

