Ds - 203
Excel Assignment
Assignment - 1

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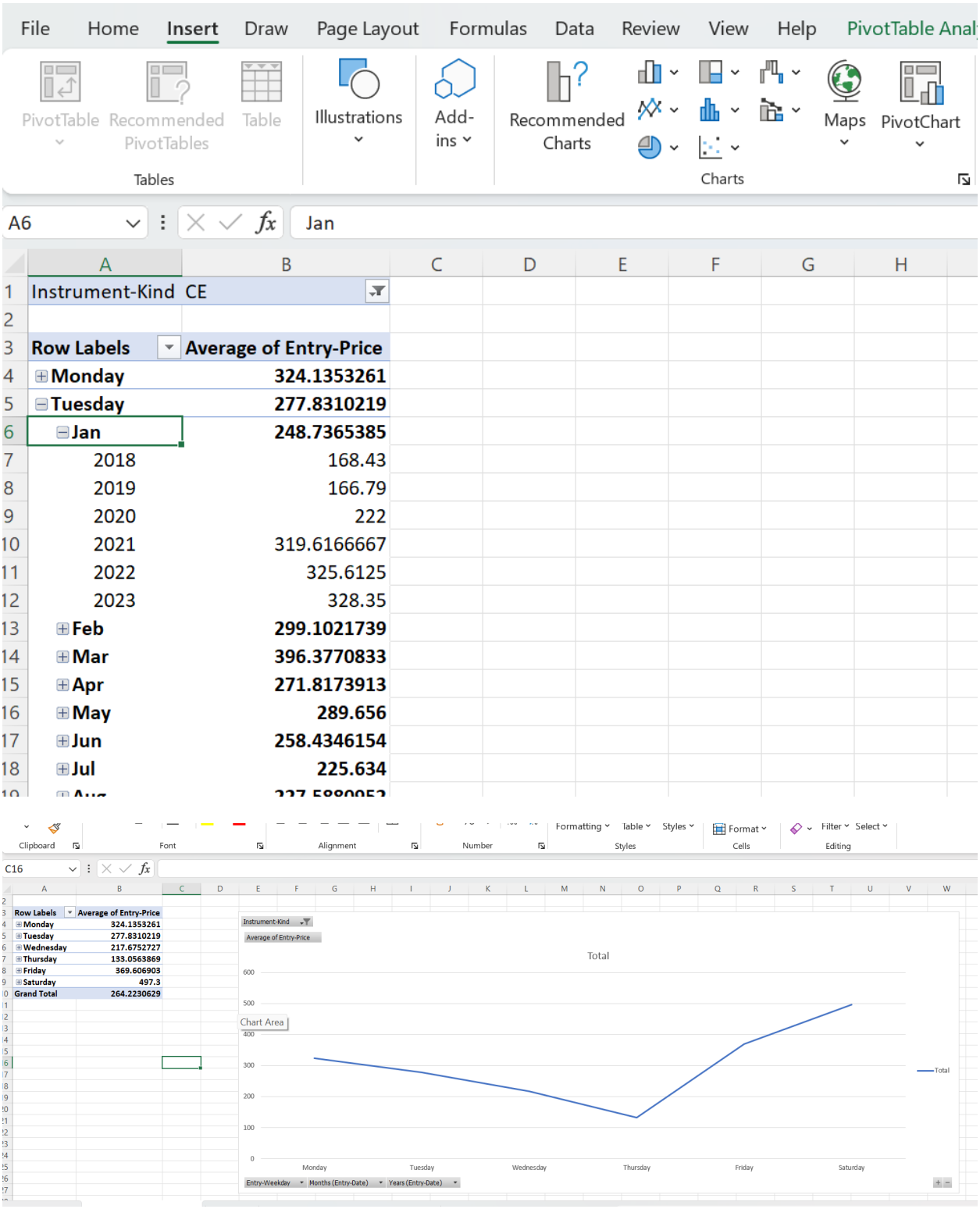
Deliverable - 1
Discrete and Continuous Types

Discrete Elements	Continuous Elements
Instrument-Kind	
Entry-Weekday	
StrikePrice	Entry-Price
Position	Quantity
Position	ExitDate
Exit-Weekday	ExitTime
ExpiryDate	ExitPrice
Remarks	P/L
Entry-Date	P/L-Percentage
Entry-Time	Highest-From-Entry-To-Exit
	Lowest-From-Entry-To-Exit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Jan
Instrument-Kind CE
Row Labels
Average of Entry-Price
Monday 324.1353261
Tuesday 277.8310219
Jan 248.7365385
2018 168.43
2019 166.79
2020 222
2021 319.6166667
2022 325.6125
2023 328.35
Feb 299.1021739
Mar 396.3770833
Apr 271.8173913
May 289.656
Jun 258.4346154
Jul 225.634
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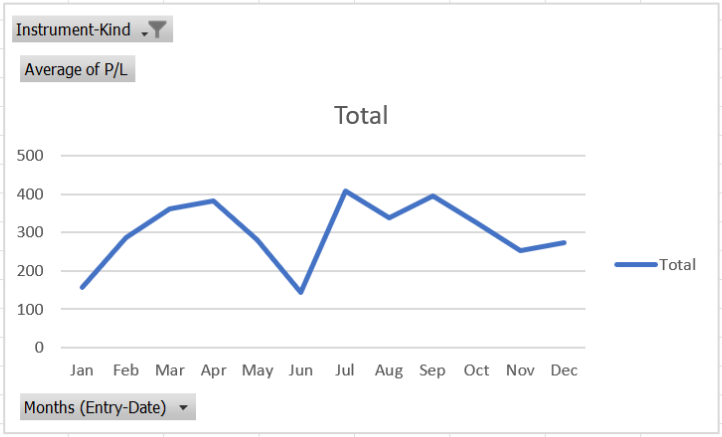
Row Labels
Average of Entry-Price
Monday 324.1353261
Tuesday 277.8310219
Wednesday 217.6752727
Thursday 133.0563869
Friday 369.606903
Saturday 497.3
Grand Total 264.2230629
Total
Chart Area
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday

Deliverable 4 P\L average and P\L percent average plots.

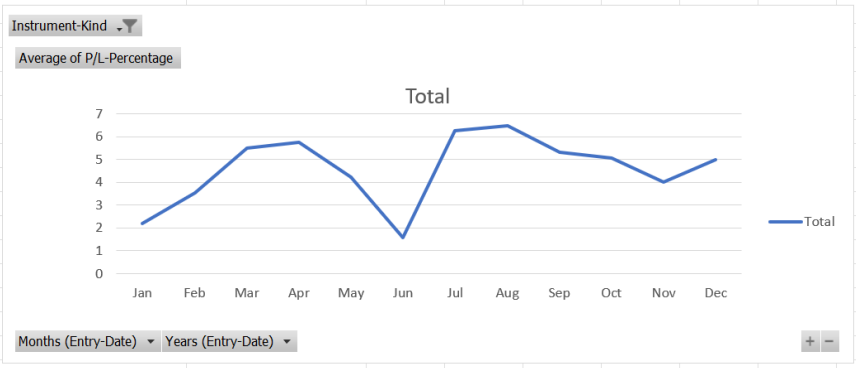
Instrument-Kind	(blank)

Row Labels	Average of P/L
Jan	155.9825581
Feb	287.3256303
Mar	362.1570248
Apr	383.3030973
May	281.6190476
Jun	144.0714286
Jul	408.852
Aug	339.1019417
Sep	396.9779412
Oct	324.9924242
Nov	254.1505102
Dec	273.7430556
Grand Total	**298.2145727**



Instrument-Kind	(Multiple Items)

	Average of P/L-Percentage
Jan	2.177183343
Feb	3.52137831
Mar	5.485408711
Apr	5.740670042
May	4.230465393
Jun	1.590577747
Jul	6.255039205
Aug	6.469610445
Sep	5.324615561
Oct	5.053415985
Nov	4.007201352
Dec	4.970954165
Grand Total	**4.50438955**



Observation for P/L

Profit soars around July - August it also dips in June.There is also a slight fall in September - November.

Interpretation - July - Aug is a good time to invest.

Mar - apr is also good

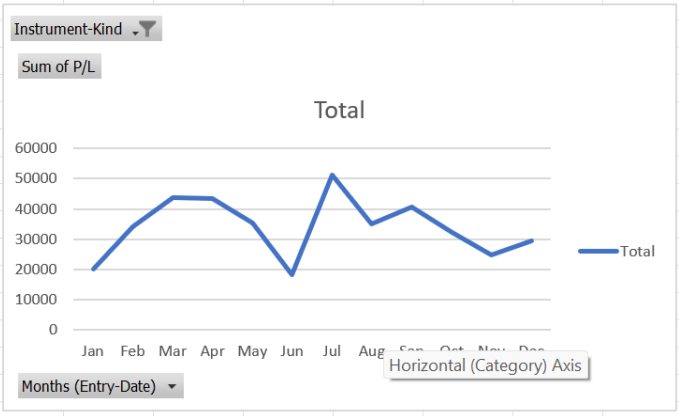
June is not good

One interesting pattern is how this relates to the Entry price, Entry price rises, Profits dip.

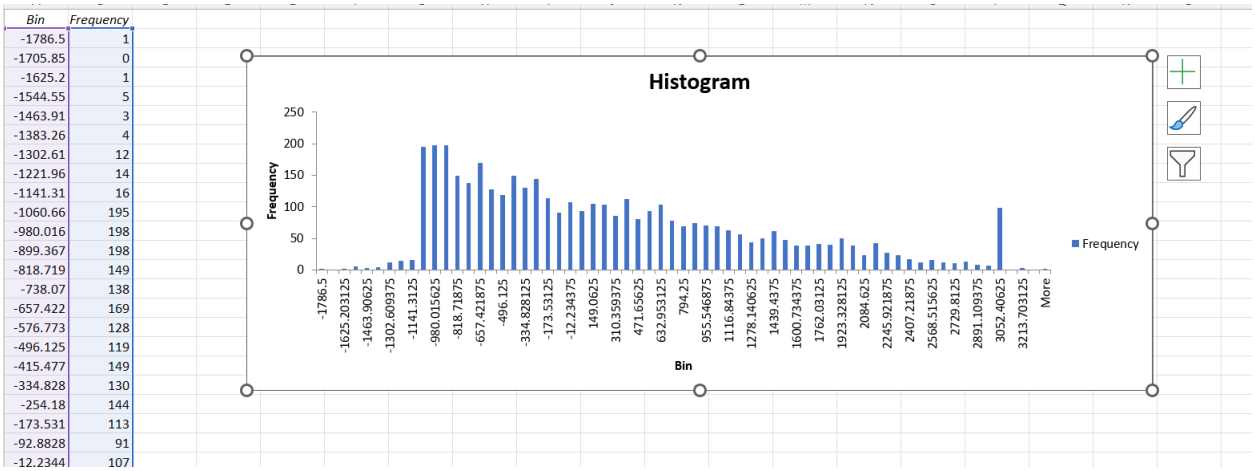
Deliverable 5 Monthly P/L

Instrument-Kind (blank)

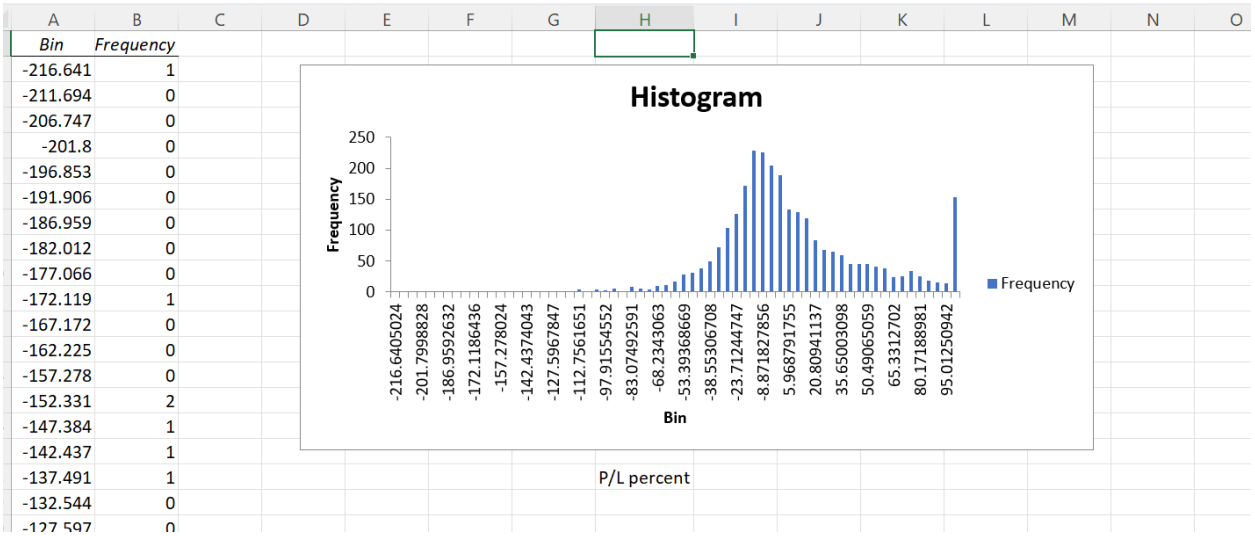
Row Labels	Sum of P/L
Jan	20121.75
Feb	34191.75
Mar	43821
Apr	43313.25
May	35484
Jun	18153
Jul	51106.5
Aug	34927.5
Sep	40491.75
Oct	32174.25
Nov	24906.75
Dec	29564.25
Grand Total	**408255.75**



Deliverable 6



Bin	Frequency
-1786.5	1
-1705.85	0
-1625.2	1
-1544.55	5
-1463.91	3
-1383.26	4
-1302.61	12
-1221.96	14
-1141.31	16
-1060.66	195
-980.016	198
-899.367	198
-818.719	149
-738.07	138
-657.422	169
-576.773	128
-496.125	119
-415.477	149
-334.828	130
-254.18	144
-173.531	113
-92.8828	91
-12.2344	107



Bin	Frequency
-216.641	1
-211.694	0
-206.747	0
-201.8	0
-196.853	0
-191.906	0
-186.959	0
-182.012	0
-177.066	0
-172.119	1
-167.172	0
-162.225	0
-157.278	0
-152.331	2
-147.384	1
-142.437	1
-137.491	1
-132.544	0
-127.597	0

Why the spread of P/L and P/L percent histograms look so different??

->In this Data we have entries, we a few entries with super large profits and several losses, which somewhat add up to a profit Thus, giving it the shape it has.

->In the percent Histogram

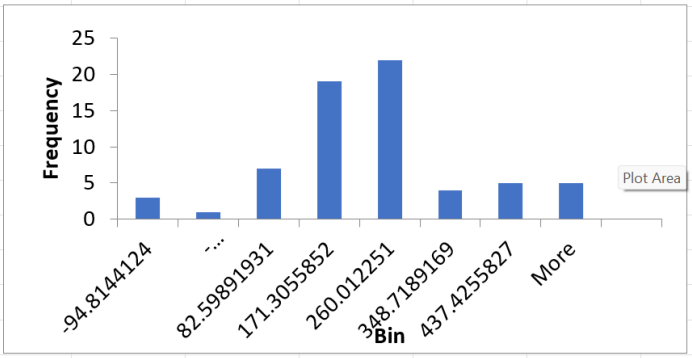
=>The percent sign Normalizes things, meaning a super large profit due to big investment would not be as big as it seems,

This, brings many super High profits to the centre, and though a few anomalies remain, the general distribution looks like the BELL Curve, a common name for Normal Distribution.Also the scale chosen by excel is around 3% for every category, which in money is a lot, Lets say the average strike price is 25800(which is a legitimate guess, here), 3% comes down 774 Rupees, which is a Pretty wide Scale,This also Clusters many Percentages in the center.

Question 14)

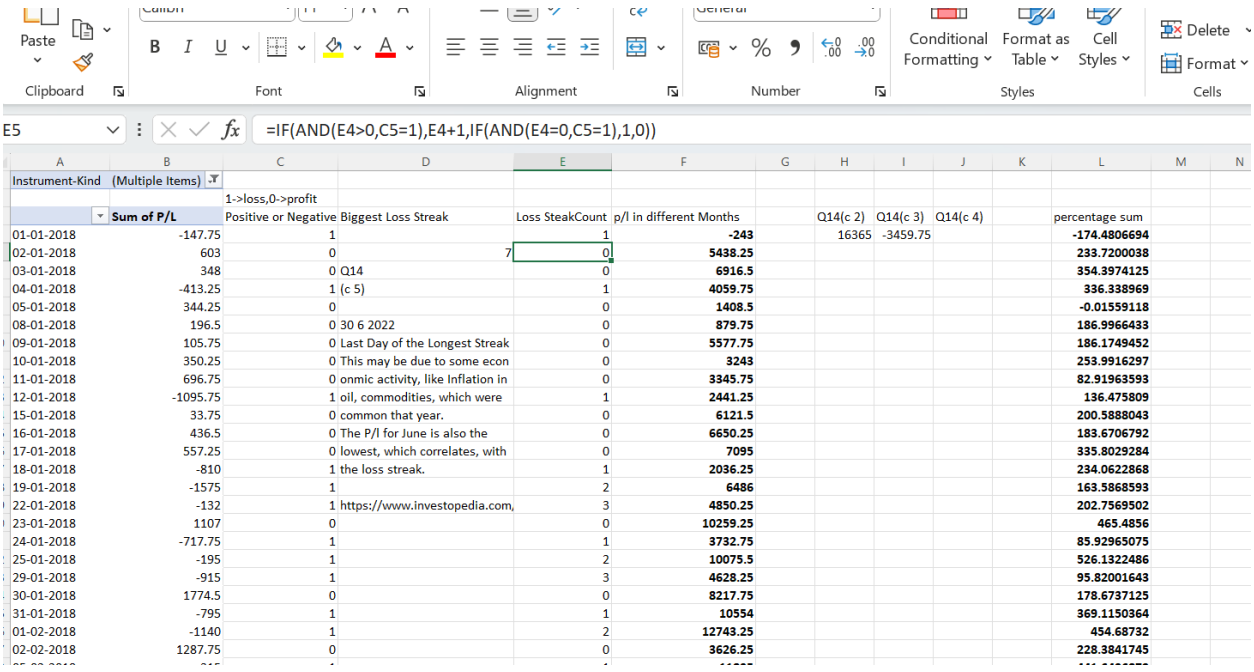
a)In the Analysis, we find out on an average Saturday ends up in a loss.This might be related to increasing Entry and Exit Prices, on Weekends, which cut in and decrease profits.

Bin	Frequency	
-183.521	1	1)
-94.8144	3	profit months
-6.10775	1	62
82.59892	7	
171.3056	19	loss months
260.0123	22	5
348.7189	4	
437.4256	5	
More	5	



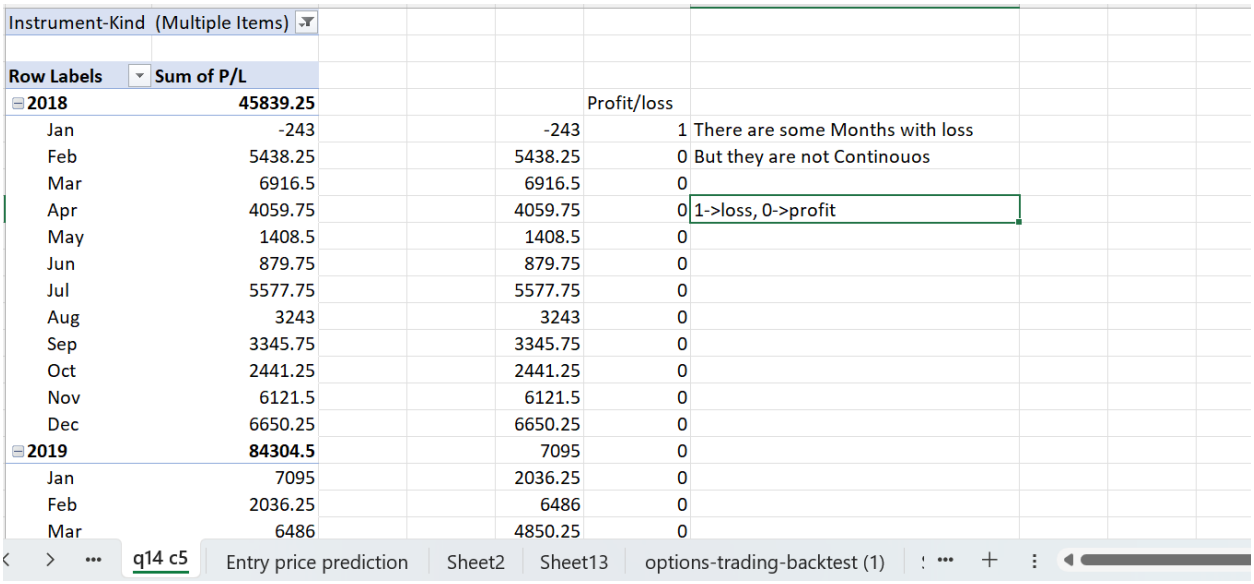
The Analysis of the Months Showing Number of Net Profits and Net Loses.

Also, July and August provide the Most profit, and June Gives the least.
This may be due to lower entry and exit prices as seen in previous graphs.



Instrument-Kind	(Multiple Items)										
		1->loss,0->profit									
	Sum of P/L	Positive or Negative	Biggest Loss Streak	Loss SteakCount	p/l in different Months		Q14(c 2)	Q14(c 3)	Q14(c 4)		percentage sum
01-01-2018	-147.75	1		1	-243		16365	-3459.75			-174.4806694
02-01-2018	603	0	7	0	5438.25						233.7200038
03-01-2018	348	0	Q14	0	6916.5						354.3974125
04-01-2018	-413.25	1	(c 5)	1	4059.75						336.338969
05-01-2018	344.25	0		0	1408.5						-0.01559118
08-01-2018	196.5	0	30 6 2022	0	879.75						186.9966433
09-01-2018	105.75	0	Last Day of the Longest Streak	0	5577.75						186.1749452
10-01-2018	350.25	0	This may be due to some econ	0	3243						253.9916297
11-01-2018	696.75	0	onmic activity, like Inflation in	0	3345.75						82.91963593
12-01-2018	-1095.75	1	oil, commodities, which were	1	2441.25						136.475809
15-01-2018	33.75	0	common that year.	0	6121.5						200.5888043
16-01-2018	436.5	0	The P/l for June is also the	0	6650.25						183.6706792
17-01-2018	557.25	0	lowest, which correlates, with	0	7095						335.8029284
18-01-2018	-810	1	the loss streak.	1	2036.25						234.0622868
19-01-2018	-1575	1		2	6486						163.5868593
22-01-2018	-132	1	https://www.investopedia.com,	3	4850.25						202.7569502
23-01-2018	1107	0		0	10259.25						465.4856
24-01-2018	-717.75	1		1	3732.75						85.92965075
25-01-2018	-195	1		2	10075.5						526.1322486
29-01-2018	-915	1		3	4628.25						95.82001643
30-01-2018	1774.5	0		0	8217.75						178.6737125
31-01-2018	-795	1		1	10554						369.1150364
01-02-2018	-1140	1		2	12743.25						454.68732
02-02-2018	1287.75	0		0	3626.25						228.3841745

This shows the Max and Min Profit in a single Month.
This also Contains the Streak of losses for the trader and also the maximum streak.
The 7 there represents the answer to c - 4



Instrument-Kind	(Multiple Items)				
Row Labels	Sum of P/L				
2018	45839.25			Profit/loss	
Jan	-243		-243	1	There are some Months with loss
Feb	5438.25		5438.25	0	But they are not Continouos
Mar	6916.5		6916.5	0	
Apr	4059.75		4059.75	0	1->loss, 0->profit
May	1408.5		1408.5	0	
Jun	879.75		879.75	0	
Jul	5577.75		5577.75	0	
Aug	3243		3243	0	
Sep	3345.75		3345.75	0	
Oct	2441.25		2441.25	0	
Nov	6121.5		6121.5	0	
Dec	6650.25		6650.25	0	
2019	84304.5		7095	0	
Jan	7095		2036.25	0	
Feb	2036.25		6486	0	
Mar	6486		4850.25	0	

q14 c5 | Entry price prediction | Sheet2 | Sheet13 | options-trading-backtest (1)

This shows no two Consecutive months had losses.

Now, to add more columns to make this Data more Useful for a person, i decided to have a sum of previous three days added to the column and also used Linear regression for profit on all days and got a model, which i then put as a column to see the differences between the actual profit and Profit predicted by Linear Regression

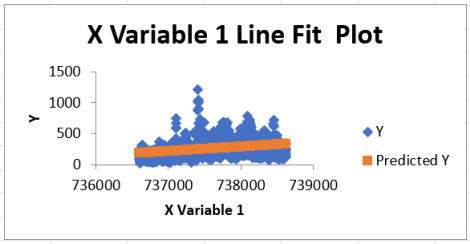
SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.295519
R Square	0.087332
Adjusted F	0.086663
Standard I	138.4357
Observatic	1368

ANOVA

	df	*SS*	*MS*	*F*	*gnificance F*
Regressior	1	2504985	2504985	130.71	5.68E-29
Residual	1366	26178638	19164.45		
Total	1367	28683623			

	Coefficients	*andard Err*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*ower 95.0%*	*pper 95.0%*
Intercept	-53601.2	4711.465	-11.3768	1.02E-28	-62843.7	-44358.7	-62843.7	-44358.7
X Variable	0.073027	0.006387	11.43285	5.68E-29	0.060496	0.085557	0.060496	0.085557



intercept->-53601.2

slope->0.073027

Day	Month	Year	3 day cumulative P/l	Enry-Price Prediction using Linear Regression	Date to Number Conversion
1	1	2018	-147.75		
1	1	2018		190.1980676	736601
1	1	2018		190.1980676	736601
2	1	2018	455.25		
2	1	2018		190.2710941	736602
2	1	2018		190.2710941	736602
3	1	2018	803.25		
3	1	2018		190.3441207	736603
3	1	2018		190.3441207	736603
4	1	2018	537.75		
4	1	2018		190.4171472	736604
4	1	2018		190.4171472	736604
5	1	2018	279		
5	1	2018		190.4901737	736605
5	1	2018		190.4901737	736605
8	1	2018	127.5		
8	1	2018		190.7092534	736608
8	1	2018		190.7092534	736608

This, may have utilities for the person to analyze this, as we can see how off the Linear Regression can be most of the time.

The Cumulative sum of profits, can tell us about the mindset of the trader, undergoing this process, as he might be losing continuously.It might help understand how much of the target Demographic may act. Like we could divide the people into Risk Taker A, Risk Taker B, etc which will be based on how much loss they may have faced and still not stopped trading then and there.

For example a Newbie might drop out of trading altogether, if he faces a cumulative large loss in the previous three days.

That's the use case I have had in my mind while putting this column.