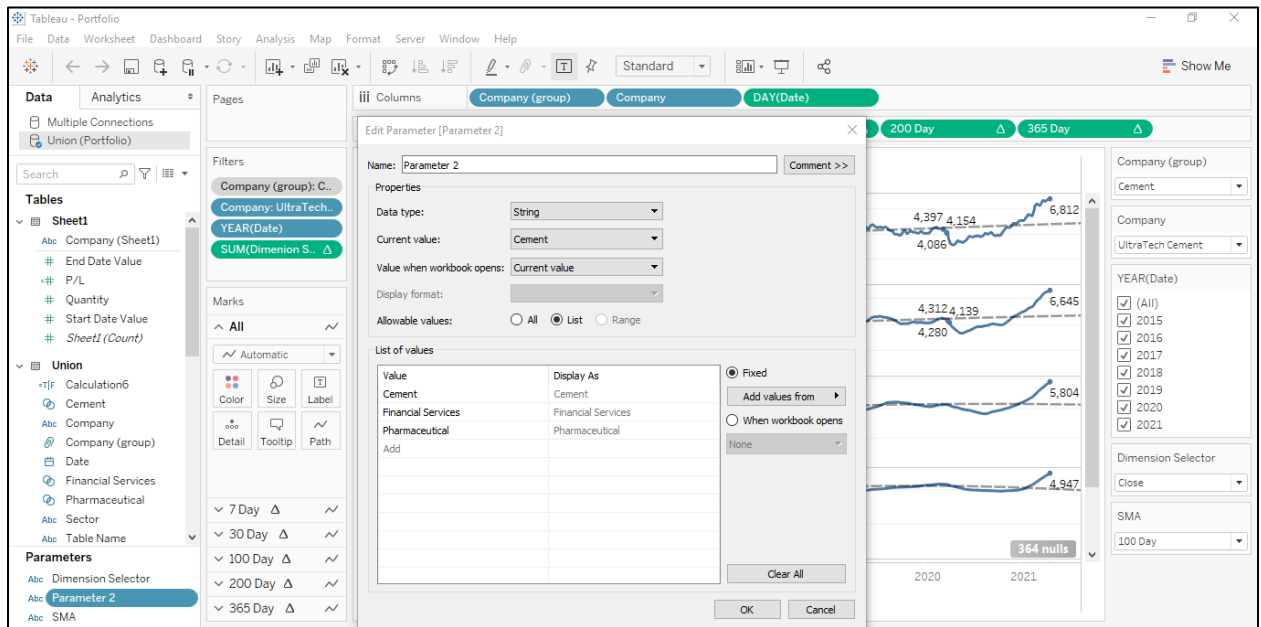


Rut Vyas – 60002180085 , Sameep Chandaliya -60002180094 , Shreya Nayak - 60002180107

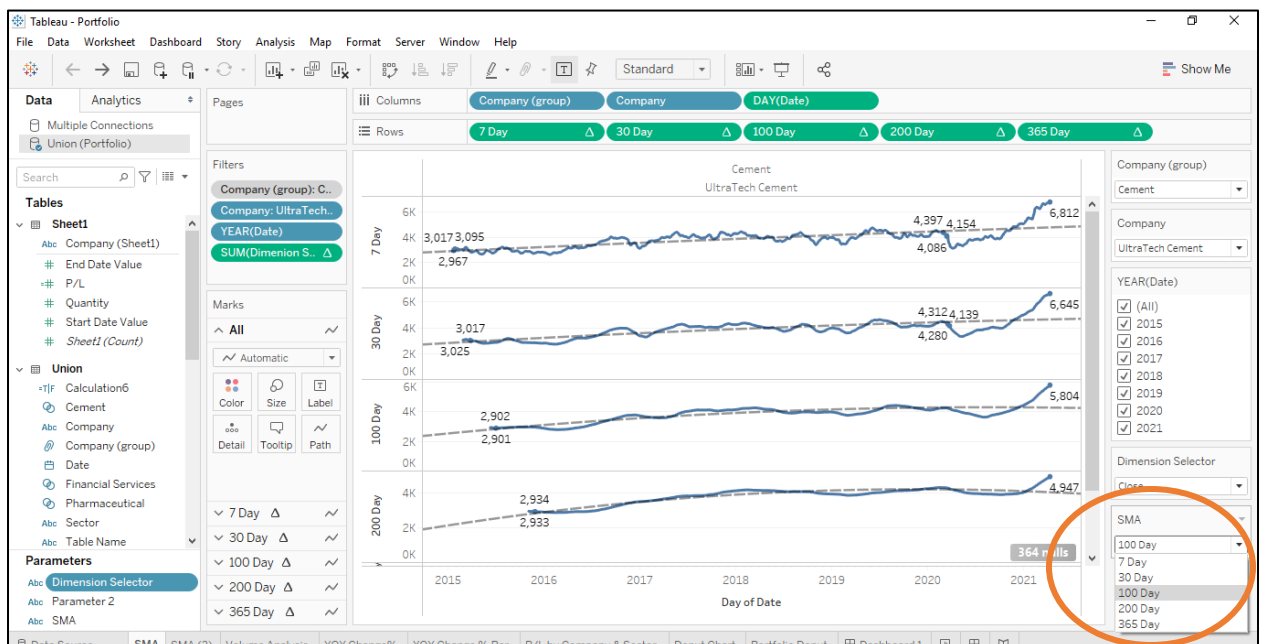
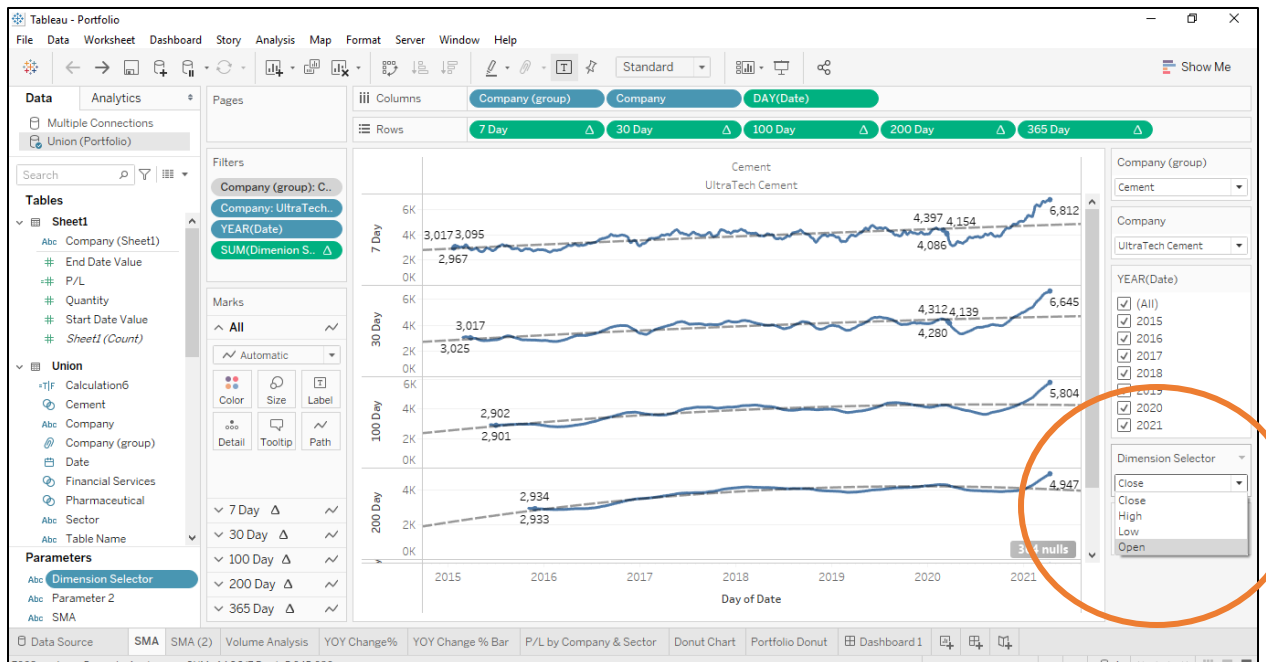
Creating an Algorithmic Trade based on Historical Data

- Creating a parameter to choose year and portfolio depending on the equity stocks selected

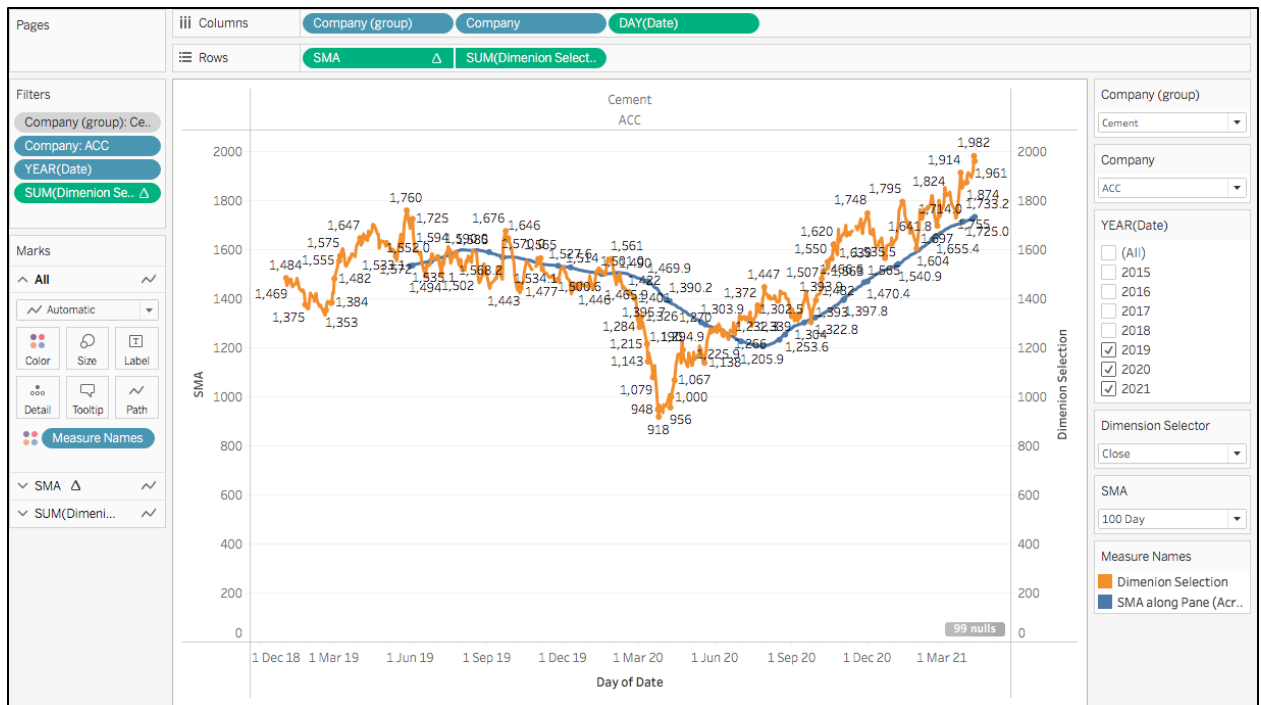


Conclusion: Our portfolio comprised of three companies each from the following sectors: Cement, Financial Services, Pharmaceutical. A parameter to choose based on these sectors was created and a year filter was added, to filter on the basis of years. (2015-2021)

- Based on Open Close - High and Low Values find the 30 day, 100 day, 200 day 365 day for year on year moving average and set an algorithm trade that if 30 day, 100 day, 200 day moving average has been rising give a call to accumulate if volume band is also greater than x ____ (based on median volume- open interest positions use reference line)

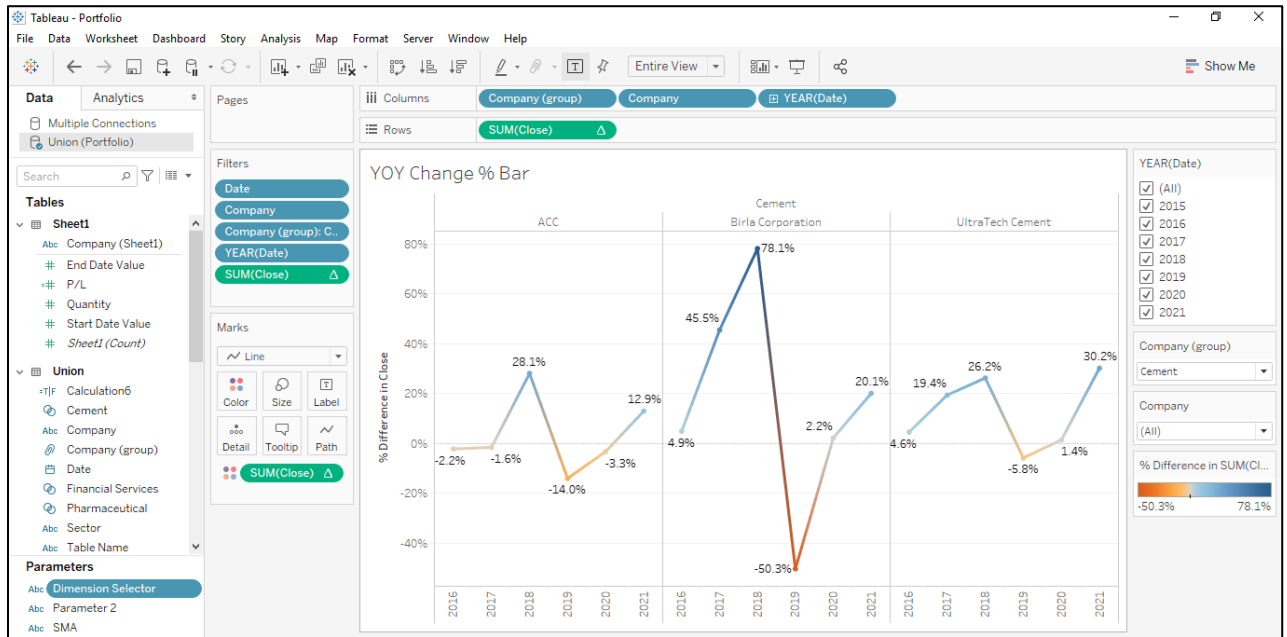


Conclusion: The moving averages taken help to smooth out the noise from the random outliers and emphasize long-term trends. They also serve as a technical indicator that investors and traders use to determine the trend direction of securities.



Notice how the price of the asset finds support at the moving average when the trend is up, and how it acts as resistance when the trend is down. The support level represents a price point that an asset struggles to fall below over a given time period while a resistance level represents a price point that an asset has had trouble exceeding in the time period being considered. This is used by long term traders with different time periods in their moving averages so that they can find the one that works best for this specific task.

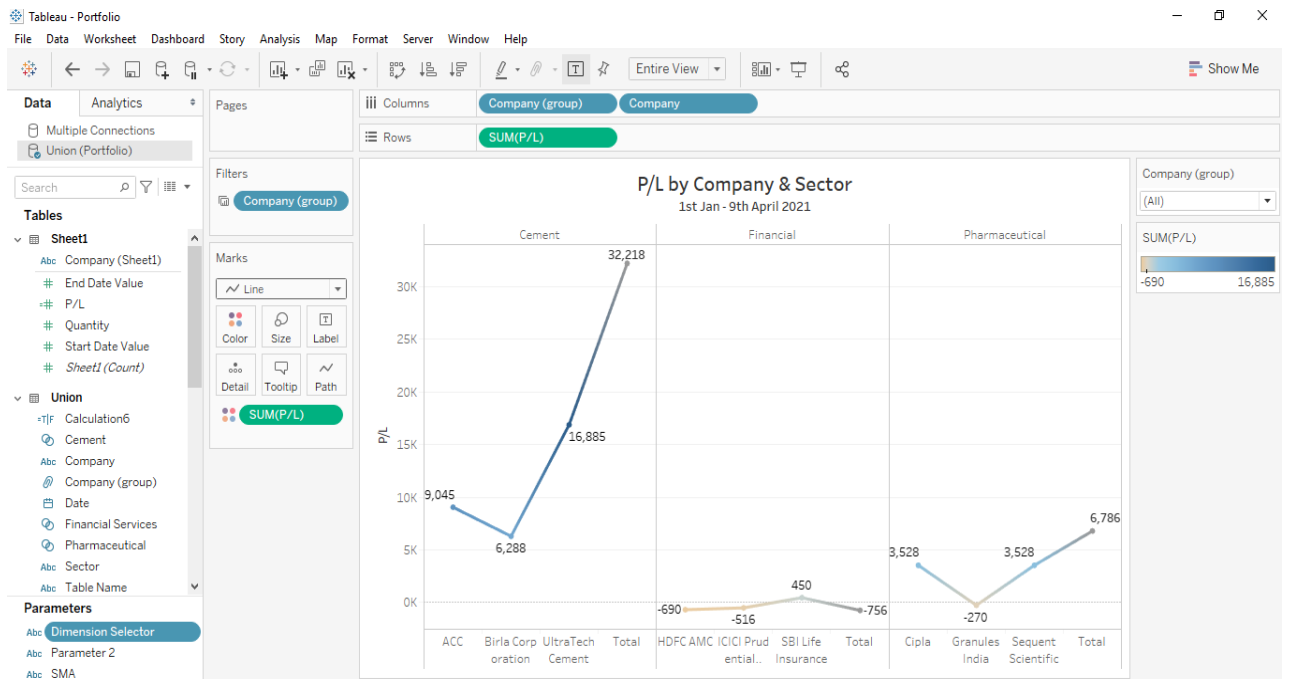
- Calculate a Profit Percentage for Year on Year if the stock was sold at every year end.
Data to be considered as Jan to Dec of that year.



This gives us a year-on-year change percentage of the stock prices as calculated on the first of every year with respect to the first of the previous year.

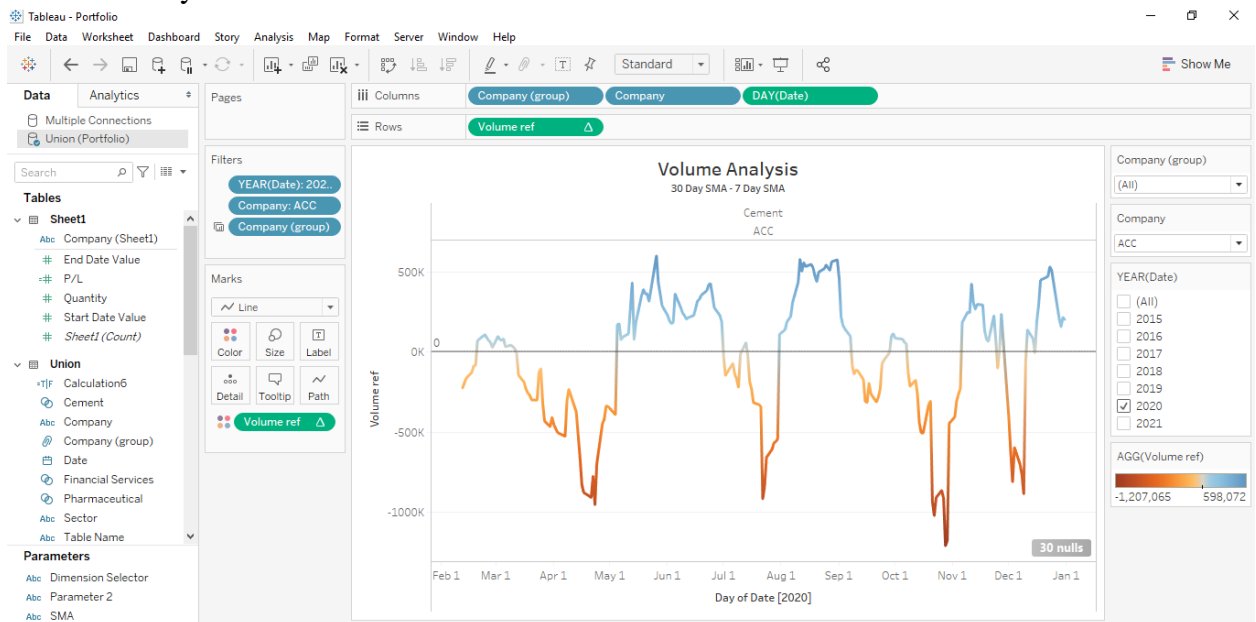
	A	B	C	D	E
1	Company	Price	Quantity	Total	
2	Ultra tech cement	6825	9	61425	
3	ACC Ltd	1960	27	52920	
4	Birla Corporation	987	24	23688	
5	hdfc amc	2951	15	44265	
6	sbi life	910	30	27300	
7	icici prudential	455	42	19110	
8	cipla	883	63	55629	
9	sequent scientific	267	36	9612	
10	granule india	341	15	5115	
11					
12					
13	Cement				
14	Financial Services				
15	Pharamceutical				
16					

Our stocks (Total is Rs. 2,99,064)



Conclusion: The highest profit was made by the Cement sector with a total of Rs. 32,218 with the stock of Ultra Tech Cement bringing us the highest profit margin. We can also see that the financial services were in a state of disarray during this period producing losses or marginal profit.

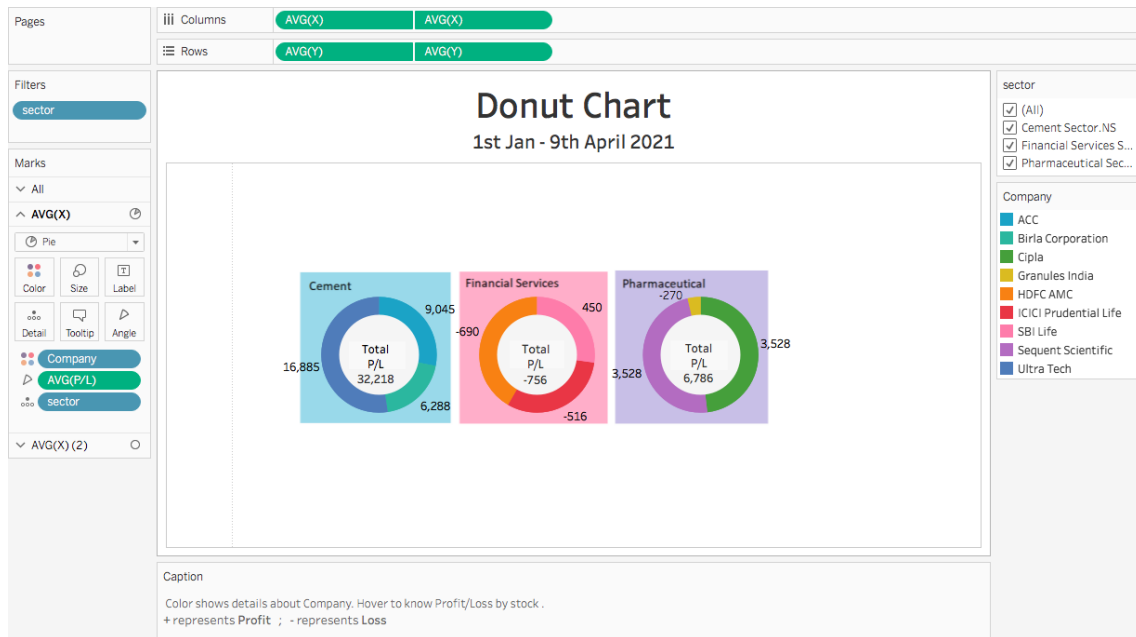
➤ Volume Analysis



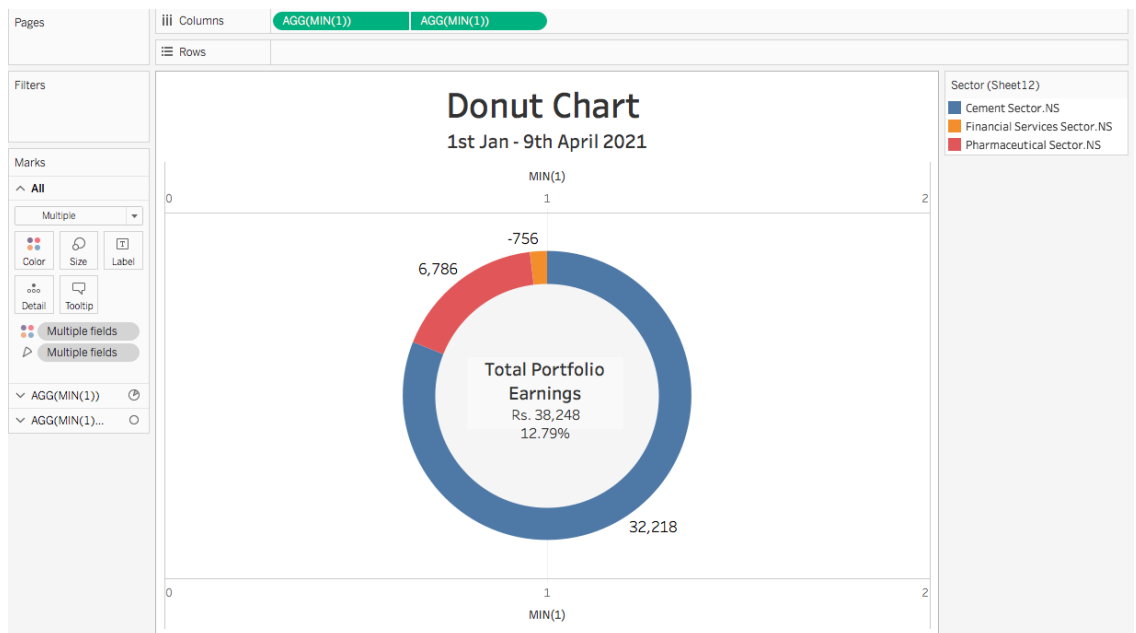
Conclusion: From the volume analysis we can understand when to place buy and sell call.

We have used the 7 day and 30 day moving average to analyze the same. When the short term moving average crosses longer-term moving average, it is a buy signal as it indicates that the trend is shifting up. Also, when the shorter-term moving averages crosses below the longer-term moving averages is a sell signal since the trend is shifting down. However, one common mistake is selling the stock, when the trend is shifting down. One could easily buy more shares at the fallen price and thus make up for the loss when the prices shoot up again. This can be a good measure to neutralize the portfolio. This is advisable when someone is a long term investor and wants to hold the shares for a longer time than someone who is looking for daily profits.

- Build your equity stock profile using the image technique to create an image first of the type of stock holdings. Create a donut chart to show your holdings making profit and losses for each sector.



Conclusion: The color shows details about Company. We can see the highest profits are earned from Cement, Financial Services and Pharmaceutical in that order.



Conclusion: On our overall portfolio investment of 3 lakh rupees, the returns from all the sectors gave an overall of 12.79% profit from 1st January to 9th April which was Rs. 38,248.