SUMMARY :-

Importing libraries: We have imported pandas to access dataframes, NumPy to access important functions, datetime so that we can work with the yahoo finance URL to extract and download data, matplotlib to be able to work with graphs and csv to store our indicators to csv file.

Trading Strategy: We have implemented a trading strategy involving three exponential moving averages. The choice of exponential moving averages was made over Simple moving average, as it gives much more weightage to the recent values of Adjusted Closing Price. The strategy relies on the three exponential averages and how they cross or intersect each other. The time frames of the three moving averages vary. Short EMA has a time frame of 5 days, so it is closer to the actual Price of the stock. The Middle Moving Average has a time frame of 21 days, so it is used to see which moving average crosses it and what to do in the case it happens. The Long Moving Average has a time frame of 63 days and it helps give an overall trend of the market. Overall, we observe Short and Middle for short trading (as less timeframe) and we observe Middle and Long to trade long (as more timeframe).

A buy signal is generated whenever Long MA is greater than Middle MA and at the same time Middle MA is greater than Short MA. Similarly, a sell signal is generated when Short MA is greater than Middle MA and flag\_short is true, indicating we are trading short. We also trade long and buy if Middle MA is greater than Long MA and Short MA is greater than Middle MA. A sell signal is generated if flag\_long is True, indicating we are trading long and if Short MA is less than Middle MA.

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| **YEAR** | *2016-2017* | *2017-2018* | *2018-2019* | *2019-2020* | *2020-2021* |
| *# of Entries* | 7 | 7 | 10 | 10 | 8 |
| *# of Exits* | 7 | 7 | 10 | 10 | 8 |
| *# of trades* | 7 | 7 | 10 | 10 | 8 |
| *Profit/Loss* | -85.077 | 362.68 | 31.96 | 476.57 | -140.056 |
| *Win\Loss Ratio* | 0.4 | 1.33 | 1.5 | 4.0 | 0.6 |
| *Maximum Drawdown* | -19.34% | -34.65% | -33.46% | -39.20% | -19.41% |