

### **1-Momentum Indicator- MACD**

To calculate MACD, I first need to find the Exponential Moving Average(EMA) so that I can calculate the MACD line and signal line. This is preferred over the Simple Moving Average so that recent activities will get more importance. I chose 12 and 26 day periods to calculate the MACD line and 9 day period to calculate the signal line, as they are the standard and widely accepted periods to calculate the lines.

### **2-Volume Indicator-Volume RSI**

To calculate Volume RSI, I used a 14 day lookback period. I set the span to  $2^*n-1$  to adjust the weightage.(span =  $2^*n-1$  aligns the weighted mean definition of pandas library and the definition of RSI)

### **3-Volatility Indicator-Average True Range**

Here also we use a 14 day lookback period along with span of  $2^*n-1$  or  $2^*14-1=27$  days