EXPONENTIAL MOVING AVERAGE (EMA)

The exponential moving average is very similar to Simple Moving Average. But it assigns more importance to latest data and reduce the lag. Exponential moving average can be calculated by assigning weights to the data points under considerations, such that a more recent data point gets an exponentially higher weight than older data points

Calculations:

Exponential moving average of N days is calculated as

$$EMA(Today) = Closing\ price(Today) \times \propto + \ EMA(Previous) \ \times (1 - \propto)$$

Where the exponential smoothing factor, α is given by

$$\propto = 2 \ \div (N + 1)$$

When to use…

Exponential Moving Average is used in the same way as the Simple Moving Average, but being that EMA reacts faster to recent price values than the simple moving average. Which moving average you use will depend on your trading and investing style. EMA is also used for calculation of many other indicators, like Moving Average Convergence Divergence (MACD) etc.