Autoregressive (AR) part

- The Autoregressive (AR) component builds a trend from past values in the AR framework for predictive models. For clarification, the 'autoregression framework' works like a regression model where you use the lags of the time series' own past values as the regressors.

Integrated (I) part

- The Integrated (I) part involves the differencing of the time series component keeping in mind that our time series should be stationary, which really means that the mean and variance should remain constant over a period of time. Basically, we subtract one observation from another so that trends and seasonality are eliminated. By performing differencing we get stationarity. This step is necessary because it helps the model fit the data and not the noise.

Moving average (MA) part

- The moving average (MA) component focuses on the relationship between an observation and a residual error. Looking at how the present observation is related to those of the past errors, we can then infer some helpful information about any possible trend in our data.

We can consider the residuals among one of these errors, and the moving average model concept estimates or considers their impact on our latest observation. This is particularly useful for tracking and trapping short-term changes in the data or random shocks. In the (MA) part of a time series, we can gain valuable information about its behavior which in turn allows us to forecast and predict with greater accuracy.