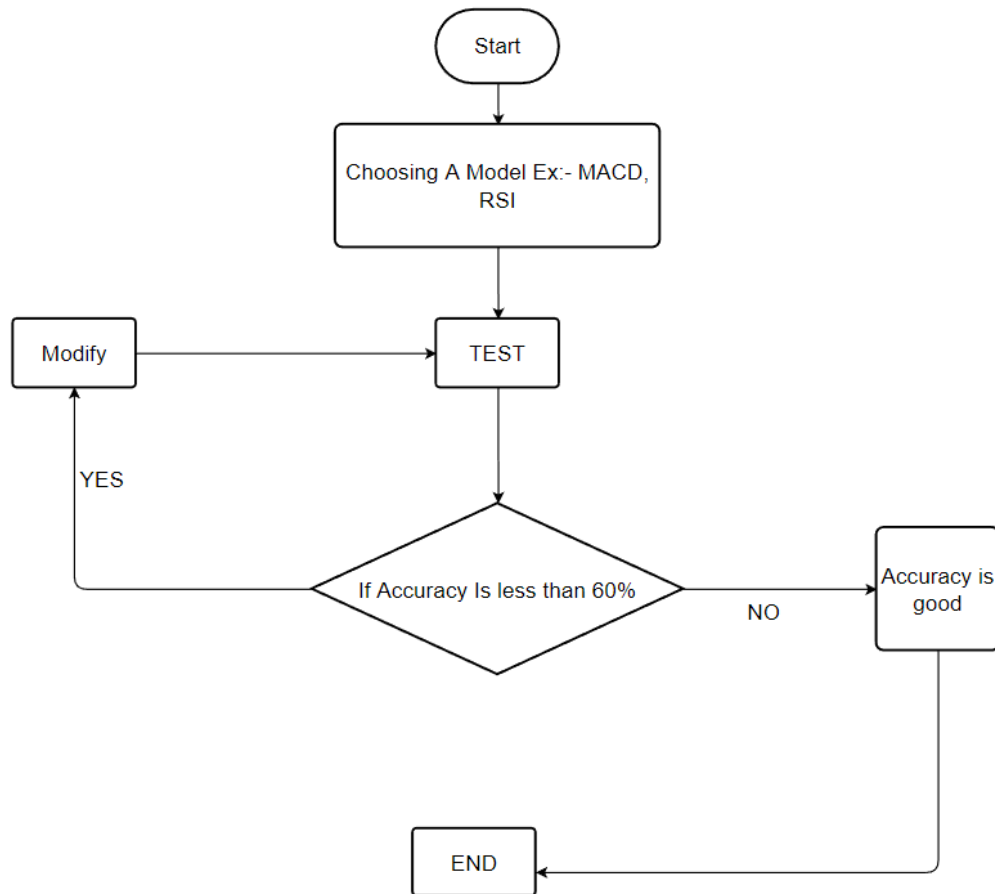
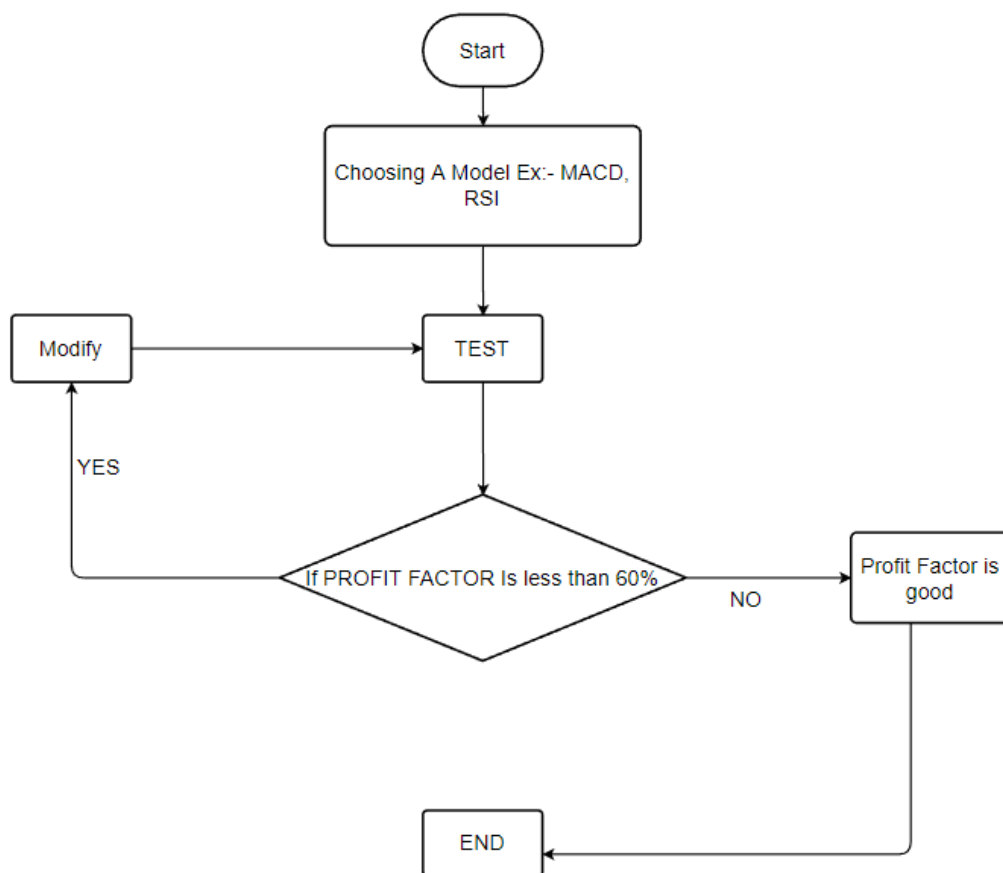


Accuracy-



Profit Factor-



Relative Strength Index (RSI)

The relative strength index (RSI) is a momentum indicator used in technical analysis. RSI measures the speed and magnitude of a security's recent price changes to evaluate overvalued or undervalued conditions in the price of that security.

Calculating RSI

The RSI uses a two-part calculation that starts with the following formula:

$$RSI_{\text{step one}} = 100 - \left[\frac{100}{1 + \frac{\text{Average gain}}{\text{Average loss}}} \right]$$

The average gain or loss used in this calculation is the average percentage gain or loss during a look-back period. The formula uses a positive value for the average loss. Periods with price losses are counted as zero in the calculations of average gain. Periods with price increases are counted as zero in the calculations of average loss.

The standard number of periods used to calculate the initial RSI value is 14. For example, imagine the market closed higher seven out of the past 14 days with an average gain of 1%. The remaining seven days all closed lower with an average loss of -0.8%.

The first calculation for the RSI would look like the following expanded calculation:

$$55.55 = 100 - \left[\frac{100}{1 + \frac{\left(\frac{1\%}{14}\right)}{\left(\frac{0.8\%}{14}\right)}} \right]$$

Once there are 14 periods of data available, the second calculation can be done. Its purpose is to smooth the results so that the RSI only nears 100 or zero in a strongly [trending market](#).

$$RSI_{\text{step two}} = 100 - \left[\frac{100}{1 + \frac{(\text{Previous Average Gain} \times 13) + \text{Current Gain}}{((\text{Previous Average Loss} \times 13) + \text{Current Loss})}} \right]$$

Plotting RSI

After the RSI is calculated, the RSI indicator can be plotted beneath an asset's price chart, as shown below. The RSI will rise as the number and size of up days increase. It will fall as the number and size of down days increase.



Overbought or Oversold

Generally, when the RSI indicator crosses 30 on the RSI chart, it is a bullish sign and when it crosses 70, it is a bearish sign. Put another way, one can interpret that RSI values of 70 or above indicate that a security is becoming [overbought](#) or overvalued. It may be primed for a trend [reversal](#) or corrective price [pullback](#). An RSI reading of 30 or below indicates an oversold or undervalued condition.

Why Is RSI Important?

- Traders can use RSI to predict the price behavior of a security.
- It can help traders validate trends and trend reversals.
- It can point to overbought and oversold securities.
- It can provide short-term traders with buy and sell signals.
- It's a technical indicator that can be used with others to support trading strategies.

Limitations of the RSI

The RSI compares bullish and bearish price momentum and displays the results in an oscillator placed beneath a price chart. Like most technical indicators, its signals are most reliable when they conform to the long-term trend.

True reversal signals are rare and can be difficult to separate from false alarms. A false positive, for example, would be a bullish crossover followed by a sudden decline in a stock. A false negative would be a situation where there is a bearish crossover, yet the stock suddenly accelerated upward.

Since the indicator displays momentum, it can stay overbought or oversold for a long time when an asset has significant momentum in either direction. Therefore, the RSI is most useful in an oscillating market (a trading range) where the asset price is alternating between bullish and bearish movements.