



Technical Analysis

By CA Rachana Ranade

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Compilation of the concepts covered in the

“Technical Analysis” series

By **CA Rachana Phadke Ranade**

- Technical Analysis tells you when to buy shares.
- History Repeat itself.
- Analysing the prices.
- Trading volume.

O → Open }
H → High } Prices of Shares
L → Low }
C → Close }

- If the share opens above yesterday close then it is called GAP up opening.



- For reverse case it is called GAP down opening.



Line Chart

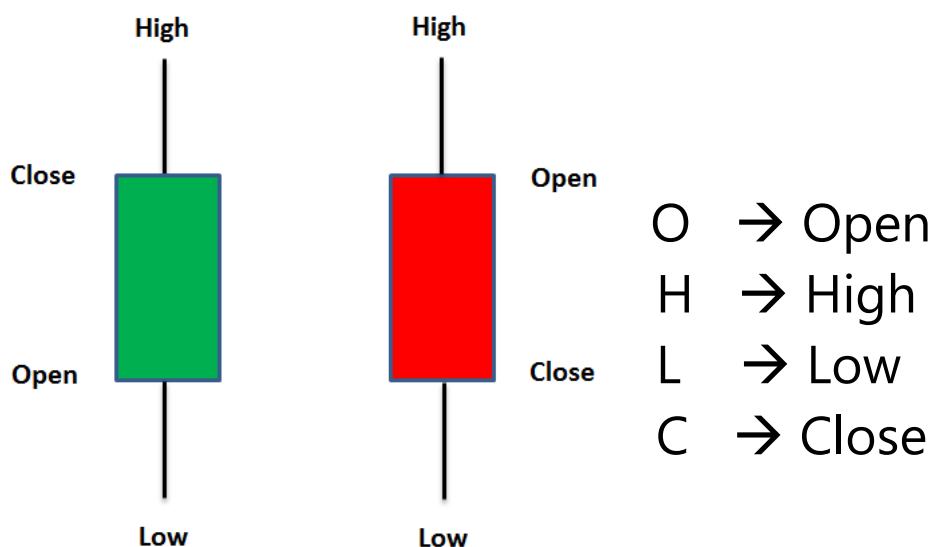
ZZD to QQY Exchange Rates



- In Technical Analysis two major factors to be analysed.
1) Price 2) Volume

- What are prices?

There are four major parameters to be analysed for price of share.



- What are Volume ?

No of shares which change the hands during the day is known as volume of share.

If current day volume is higher than immediate 5 previous volume bars, it is good conformation on volume.

- What is trend ?

When all the prices are plotted on graph, we can see a general direction of the price movement, then it is known as trend.

Trend are two types: - 1) Up moves 2) Down moves.

- Know yourself → Who are you

- 1) Intraday Trader → Close a trade within day.
- 2) Short term Investor → Close a trade in 2 days to 3 months.
- 3) Medium Term Investor → 3 months to 1 year.
- 4) Long Term Investor → Grater than 1 year.

- Charts: -

Plotting price movements in a systematic way is known as Charts.

There are four major types of charts: -

1) Line Chart: - Line chart is form by joining closing prices.

ZZD to QQY Exchange Rates



Disadvantage of line chart:- This chart does not talk @ open, high and low parameters.

2) Bar Chart:-

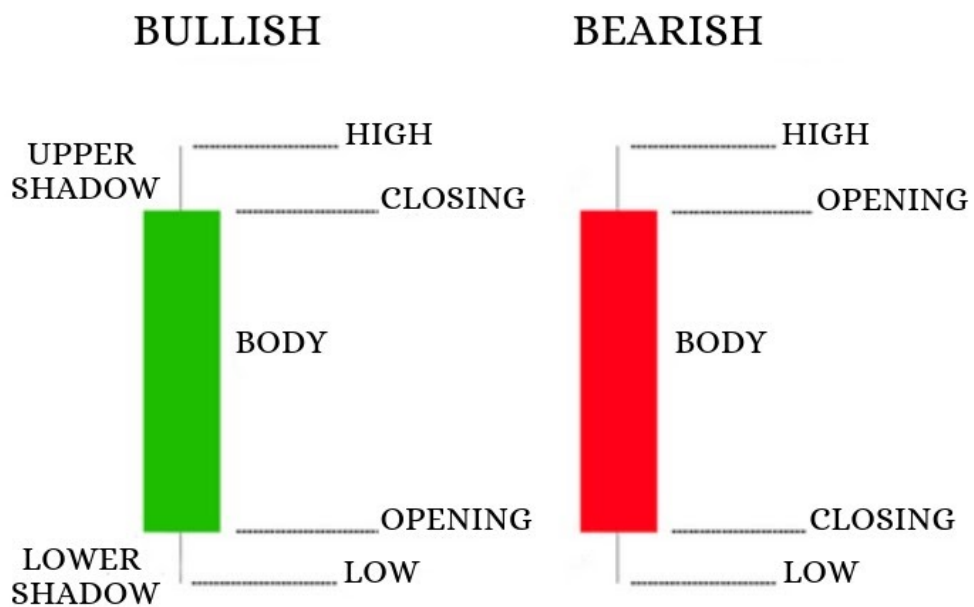


3) Volume Bar Chart:- Prices and volume both are plotted on chart.



Price movement is more significant when volume is above average.

4) Candlestick Chart: -



(Green Candle)
Green/white
Candle stick = Bullish

(Red Candle)
Red or Black candle stick
Candle stick = Bearish

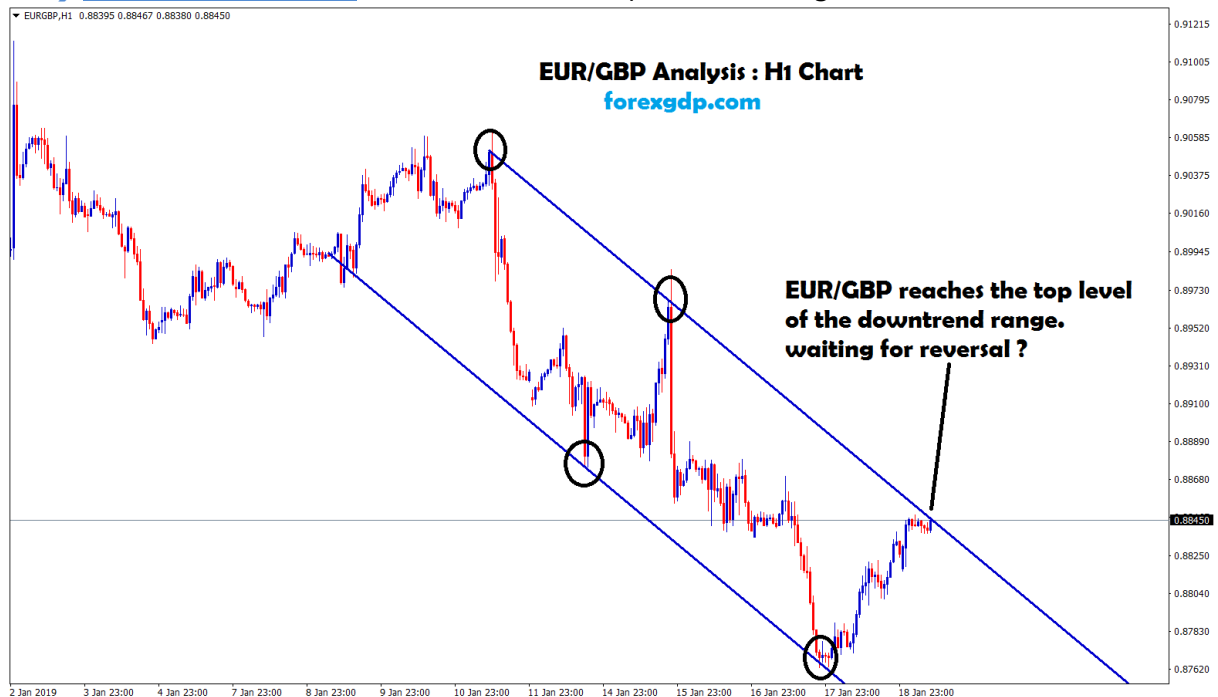
- **Trend: -**

Trend Indicates the direction in which prices are going.
Trends are of following types.

1) Up trend: - Uptrend comprises higher highs & higher lows.



2) Down Trend: - Down trend comprises lower highs and lower lows.



3) Sideways Trend (Ranging): - Highs and Lows are range bound or they are in same range.



Thumb rule for Trend:-

Never sell in an uptrend.

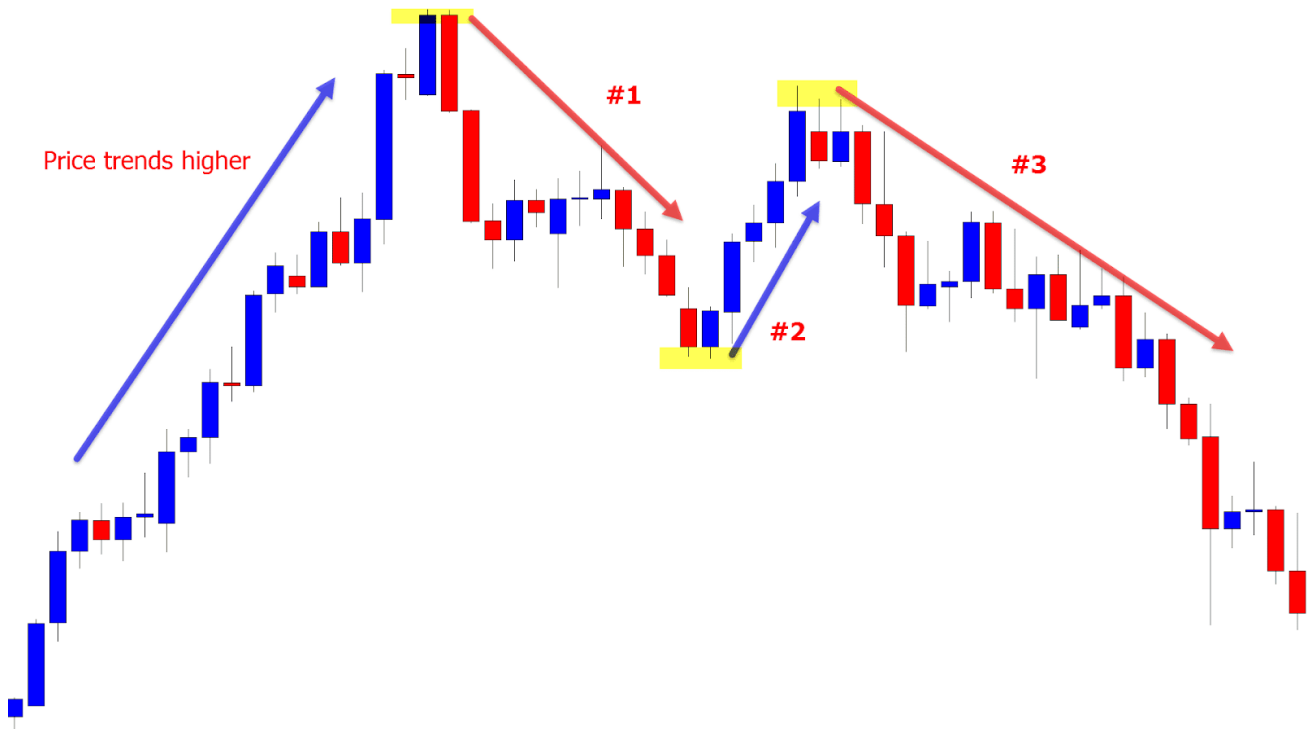
Never buy in down trend.

Up trend: - It is a collection of higher highs & higher lows.

Down trend:- it is collection of lower highs and lower lows.

Sideways Trend(Ranging):- Never trade in sideways trend as an investor.
Wait and watch for break out directions.

Trends & Trend Reversals

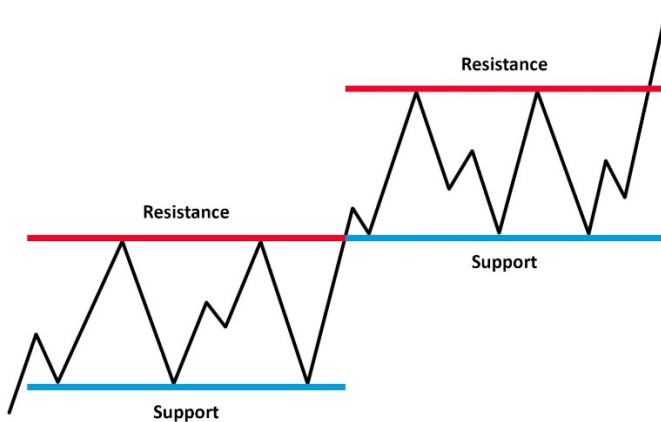


- Support & Resistance :-

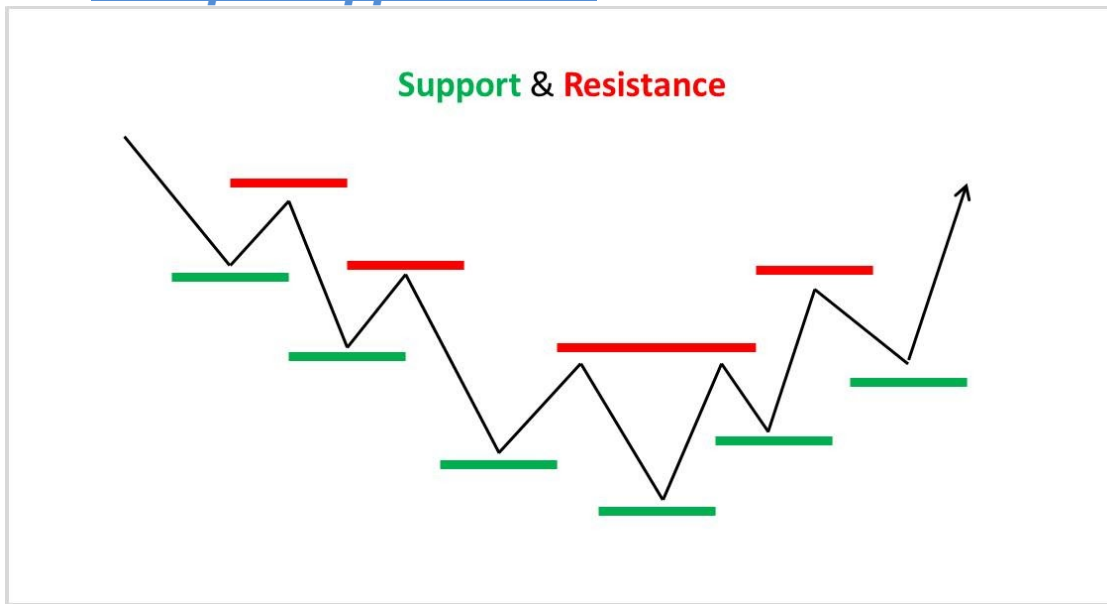
Support: - Support level is a price level where the price trend to find support as it is going down.

Prices of which shares bounce back is known as support level.

Resistance: - Prices at which shares high not meet support level than it is known as resistance.



- **Multiple Support Level:** -



- **Resistance level:** - It is a price level where the price tends to find resistance as it going up.

A resistance once broken can be made share support level and vice versa.

- **Support and Resistance analysis:** -

It is an important part of trend because it can be used to make trading decisions and identify when a trend is reversing.

- **Breakout:** -

Breakout with increased volume is a better conformation for trend change.



- **Multi Time Frame:-**

Day (son)

Week (father)

Month(Grandson)

Daily candlestick – candles from every day.

Weekly candles – once in a week.

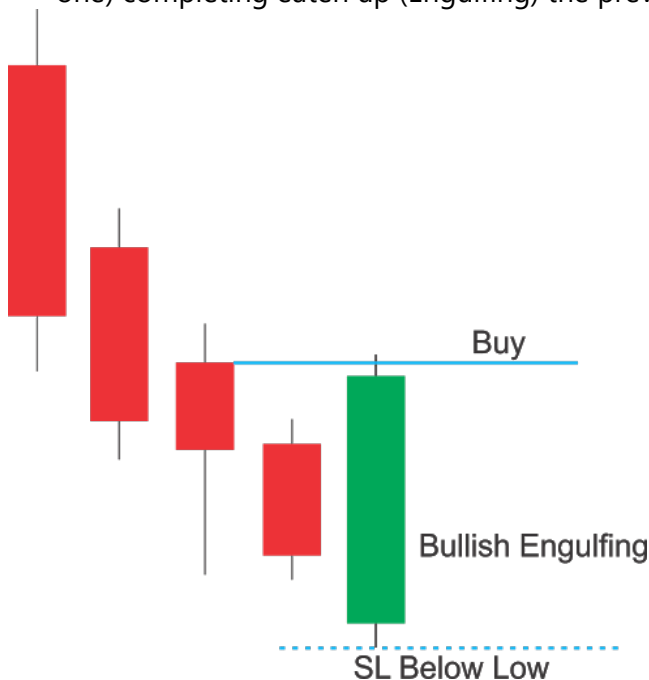
Monthly candles – one in a month.

- Support and resistance can be inclined also.

Types of Candles

Candle sticks bullish pattern:-

1) Bullish Engulfing Candlestick: - The second candle body (a bullish one) completely eaten up (Engulfing) the previous day's candle



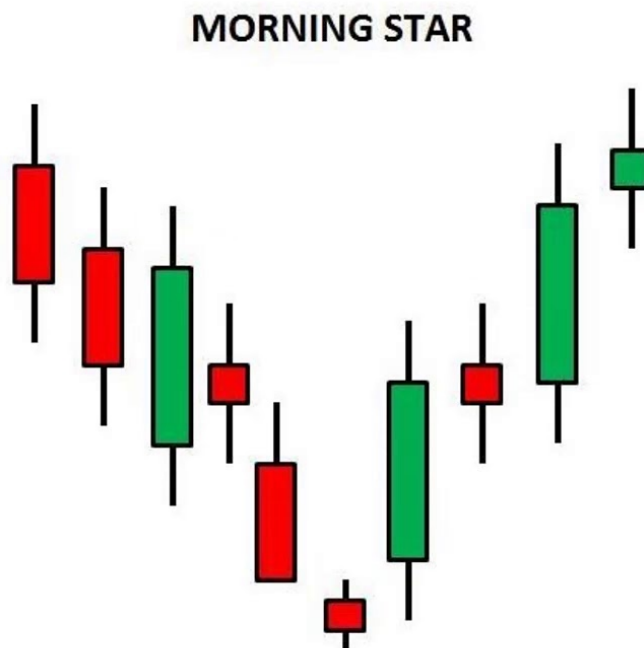
2) Morning Star Candlesticks: - It is a bullish 3 candlestick pattern framed at the bottom of down move or downtrend.

I) Candle: - Big bearish candle (Red)

II) Candle: - Dogi candle (Indecisive Candle) chart

III) Big Bullish candle which closes near top of the day Draw chart (Green)

E.g. of Morning Star Candlesticks: -



3) Hammer Candlesticks: -

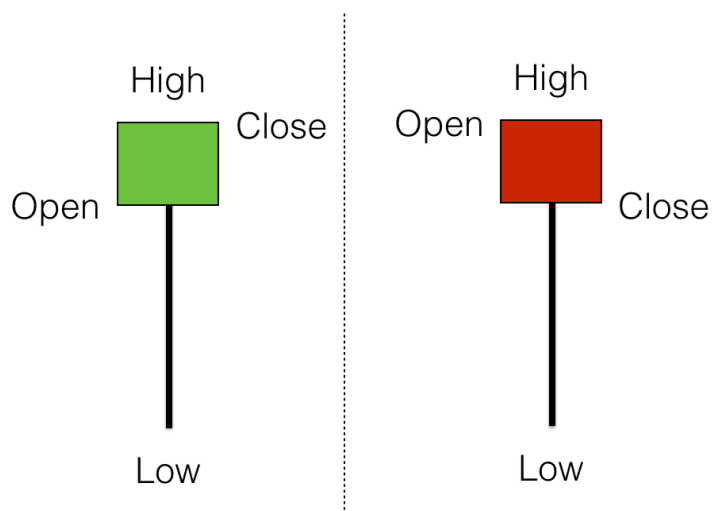
It is formed when open, high and close are roughly at the same price. The shadow should be twice the length of the body.

Hammer is MOST EFFECTIVE if it occurs at the bottom of down trend.

Having hammer at the bottom of down trend it is considered as a Bullish reversal pattern.

Conformation should be taken (big bullish candle should be the immediate next candle).

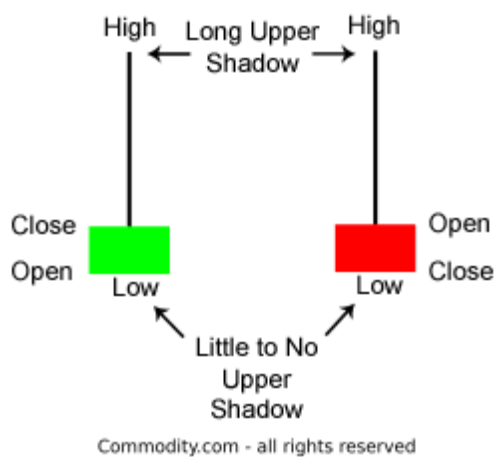
Hammer Candlesticks



Home work: Do paper Trade of HDFC Bank.

- **Inverted hammer :-** The long shadow two to three times of the body of the candle.
 1. Little or no lower shadow.
 2. The colour of the real body is not important.
 3. The colour of hammer is not at all important.

Inverted Hammer



(inverted hammer)
Colour doesn't matter.

Hammer or inverted hammer followed by Green Candle, it is a conformation of buy, if this condition occurs at the bottom.



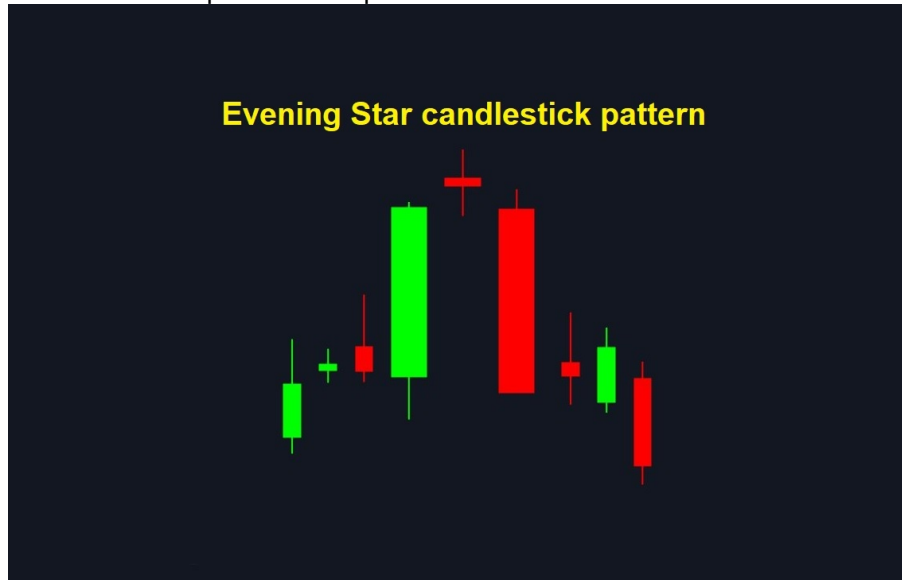
Hammers are basically trend reversal pattern.
Hammers are always should be at bottom.

Bearish Candlesticks Patterns

1. Bearish Engulfing Candle:- It is a type of which is formed when a bullish candle is completely Engulf by the following bearish candle. It is most powerful when it is formed at the top of uptrend.

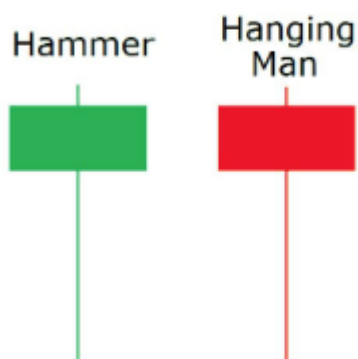


2. Evening Star: - It is formed when a green candle is followed by a dogi candle which is when followed by big bearish candle. This will be most powerful when it is formed at the end of an uptrend or top of the trend.



Similar but Different

1. Hammer and Hanging man: -



2. Inverted Hammer and Shooting Star: -



INDICATORS

- Indicators: - It is mathematical tool which can be used to anticipate trends, volatility & price of shares.
There are various types of Indicators are as follows: -

1. Morning Average / Simple Moving Average (SMA):

A simple moving average is calculated by taking average of most recent of most recent closing price of 'n' time period.

E.g.: -

Day	Friday	Thursday	Wednesday
Closing price	100	95	90
Weightage given	1	1	1

$$\text{Average} = \frac{100 \times 1 + 95 \times 1 + 90 \times 1}{(1+1+1)}$$

$$\text{Average} = \frac{100+95+90}{3}$$

Same weightage given to each day share price in S.M.A

2. Exponential Moving Average(EMA):- Exponential moving average is calculated by taking average of most recent closing price of 'n' time period. Same as S.M.A but in this case higher weight age is to be to recent **range** (not understand spelling) get it clear with the following E.g.: -

Day	Friday	Thursday	Wednesday
Closing price	100	95	90
Weightage given	3	2	1

$$\text{Average} = \frac{100 \times 3 + 95 \times 2 + 90 \times 1}{(3+2+1)}$$

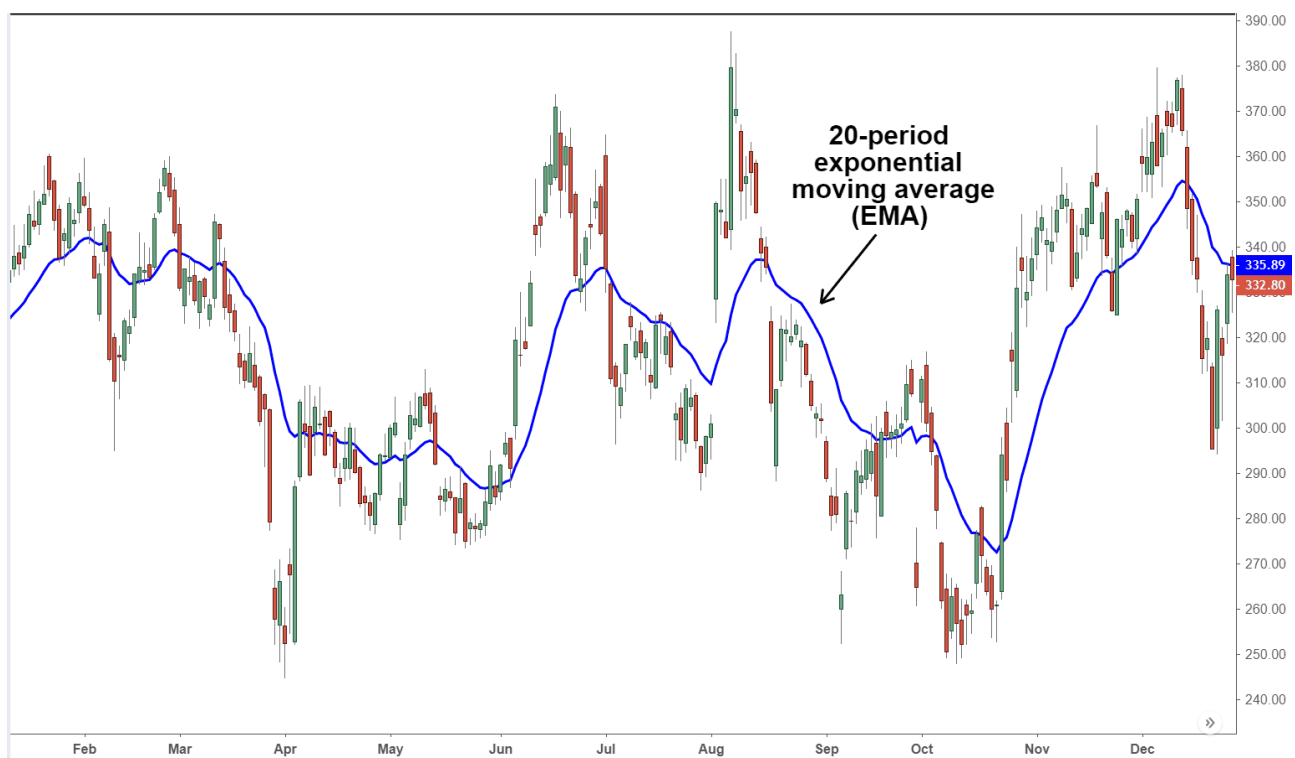
$$\text{Average} = \frac{300+190+90}{6}$$

- So as shown in E.g. higher should be given to most recent & reduces weightage as values goes older.

Types of chart	I Moving Avg.	II Moving Avg	III Moving Avg
Daily (D)	5D	13D	26D
Weekly(W)	5W	13W	26W
Monthly(M)	5M	13M	26M

CMP: - Current market price

DEMA: - Days Exponential moving Average.



Bearishness

So, In first chart 5 DEMA cuts 13 DEMA from below, it is an anticipatory call to buy.

In first chart 5 DEMA cuts 26DEMA from below, it is a conformation call to buy.

Instead of word BELOW, if we used ABOVE it will be sell strategy.

If 5DEMA cuts 13 DEMA & 26 DEMA with increasing volume, then it is a conformation to buy.

Indicators tells when to buy and when to sell stocks.

~+: - Indicator & strategy in in.trendingview.com

~+: - Moving avg. Exponential (EMA) – setting wheel.

Moving Average is an effective Indicator; however, it is treated as lagging indicator i.e. it generates Buy- Sell calls a bit late or delayed.

MACD: - Moving average conversion direction

Shares to Study: -

1. Idea: - Trend – sideways trend from Oct to till date.
2. D'Mart: - Candlestick.
3. IRCTC: - Analysis of volume.
4. Britannia: - Support & Resistance level.
5. DVR: - Anticipator / conformation Buy-Sell call generated on the basis of moving averages.
6. Motherson Sumi: -
7. Tata Motors: -
8. Cummins India: -
9. Bajaj Finser: -
10. HDFC Bank: -
11. Yes Bank: -

MACD: - Moving Average Conversion Direction. MACD is calculated by subtracting 26 days moving average from moving average of 12 days.

i.e. 12 DEMA
 - 26 DEMA

Ans = (+ve) or (-ve)

We get various amounts by subtracting the EMAs. MACD line is formed by joining all those dots.

If MACD is (+ve) → Bullish

If MACD is (-ve) → Bearish

• Eg. of MACD:-



In the above Eg. from 1 to 6, sales is increasing as well as strength is also increasing.

In 6 to 9 sales is increasing but strength is reducing.

In 9 to 10 sales is decreases as well as strength. In this strength starts decreasing from point 6.

So, in chart also, MACD shows strength and weakness of shares (price of share).

Major components of MACD: -

MACD Line – Blue line (fast line)

Single line – Orange line (slow line)

Histogram – Bars (indicates the difference between MACD line and single line).

Histogram: - Histograms at the bottom of MACD line shows strength & weakness of stock price.

Single line: - Average of 9 observations of MACD.

MACD > - Strength

MACD < - Weakness

In MACD: -

- Ideally, we see weakness first and then price falls.
- Similarly, we see strength first and then price rises.

If MACD line cut the signal line from ABOVE – SELL

If MACD line (blue line) cut the signal line (orange line) from BELOW – BUY

Signal line nothing but a Dema of MACD.
Histogram = MACD line- Signal line
MACD are very prompt and give easy call.

MACD }
Candle Stick } Sequence to follow white analysis.
RSI }
Draw chart here

RSI – Relative Strength Index

A leading indicator.

1. The relative strength index (RSI) is a momentum indicator that measures the magnitude of recent price changes.
2. RSI is an oscillator i.e. it moves to and from within a range. The range is from 0 to 100.
3. The indicator was originally developed by J. Welles Wilder. In and introduces in his seminal 1978 book. New concepts in Technical trading systems.
4. It evaluate over bought or oversold conditions in the price of a stock or other asset.

It is 14 days observations.

14 days observations.
(Untraditional RSI)

Volume (How to study volume): - Volume should be grater that its 5 previous days volumes.

RSI is calculated as
$$RSI = 100 - \frac{100}{1 + RS} = 0 \text{ to } 100$$

Where

$$Rs = \frac{\text{Avg gain over specific period}}{\text{Avg. loss over the same period}}$$

Generally, RSI is calculated for 14 days.

RSI in the new way: -

If RSI > 60 = Uptrend

RSI taking support at 60 = Bullish

If RSI < 40 = Down trend

RSI facing resistance at 40 = Bearish

RSI between 40 & 60 is sideways trend. Buy share when RSI above 60.

• Traditional Strategy: -

Traditional – RSI < 30 Indicates oversold
Position (buy signal)

RSI > 70 Indicates an overbought
Position (sell signal)

Eg. Of RSI: -

The RSI will rise as the number and size of positive closes (as compared to previous day's close). Increases and it will fall as the number and size of losses increases.

In 14 days:-

14 $\left\{ \begin{array}{l} 10 \text{ day positive closes (stronger value as compared to 4 day (-)ve value)} \\ 4 \text{ day (-ve) closes} \end{array} \right.$

STRATEGY FOR MACD + RSI

1. MACD: - Bullish crossover } Buy call

2. RSI > 60 } }

Target Price: - Target price should be around 3-5 % return in 10 days and quit after that.

Stop Loss: - Median of breakout candle.

$$\text{Median} = \frac{(\text{opening} + \text{closing})}{2}$$

Draw chart here

$$\text{Stop loss} = \frac{\text{High Price} + \text{Close Price}}{2}$$

NOTE:- Stop loss should place 5-6 Rs lower as compared to the calculated price.

Bollinger Band

Standard Deviation: - (6)

Days(n)	Stock prices(x)	(x-x)	(x-x)2
1	59	4	16
2	55	0	0
3	51	-4	16
4	55	0	0
5	56	1	1
6	52	-3	9
7	53	-2	4
8	54	-1	1
9	57	2	4
10	58	3	9
	Sx=550	S=0	Σ= 60

$$X = \text{average} = \frac{\sum x}{n} = \frac{550}{10} = 55$$

$$\therefore 6 = \frac{\sqrt{(x-x)^2}}{n}$$

$$= \frac{\sqrt{60}}{10}$$

$$= \sqrt{6}$$

$$= 2.45 \text{ insert symbol } 2.5$$

$$\therefore 6 = 2.5$$

- **Strategy for Bollinger Band :-**

20 Dema line act as a support if current price above 20 Dema.

Upper Bollinger Band which stand at +26 (2 deviation) will act like resistance in 95% cases.

Lower BB which stands at -26 will act as support in 95% cases.

If BB is thin then sideways trend is going on:-

BB square:- if BB is thin, for longer duration and current candle breaks the upper BB then it is a buy call.

Square should be for minimum one month.

- **Trading Stop Loss: -** Previous candle low or close. This strategy is useful for intraday trading.

Fibonacci Retracement

This Theory based upon the Fibonacci no sequence. This no is evident in Architecture, Art and even in nature. People believe that if the Fibonacci No sequence is followed in so many aspects, it can be followed even in stock market.

These Nos are derived as follows:-

Step 1- Take binary no 0 & 1

Step 2- Keep on adding current No + Previous No

Step 3- Thus the No sequence will be

0,1,2,3,5,8,13,21,34,55,89,144,233

= 0+1=1

1+1=2

1+2=3

2+3=5

And so, on

Golden ratio: - A creation of Fibonacci No sequence is computed as

0,1 1,2,3,5,8,13,21,34,55,89

$\frac{21}{34} = 0.618 = 61.8\%$

$\frac{21}{55} = 0.381 = 38.1\%$

$\frac{21}{89} = 0.236 = 23.6\%$

If we will take any other No than also the ratio remains near about same, have a look

$\frac{13}{21} = 0.619 = 61.8\%$

$\frac{13}{34} = 0.382 = 38.1\%$

$$\frac{13}{55} = 0.237 = 23.6\%$$

So,

In stock market Golden ratio can be used for determining the level from which the stock can retrace (move up word).

How to Draw Fibonacci in in. Trading view.

In an uptrend, join the lowest point on the screen to the highest point on the screen.

Note: - For Fibonacci around 9 months data should be there on screen.

For getting Fibonacci on the screen.

Use tool on the vertical slide bar on left hand side

During Fibonacci joining, join candle body high (not week) similarly join low point of candle (not week on down side)

• Chart Pattern: -

UPFLAG: - it is seen by

Step 1- Up more

Step 2- Sideways trend or consolidation (cloth of flag) close, above resistance.

If this accompanied by increasing volume it is better.

Calculation of price target: - It is calculated distance from start of the pole (start of up more) till the resistance (upper part of flag)

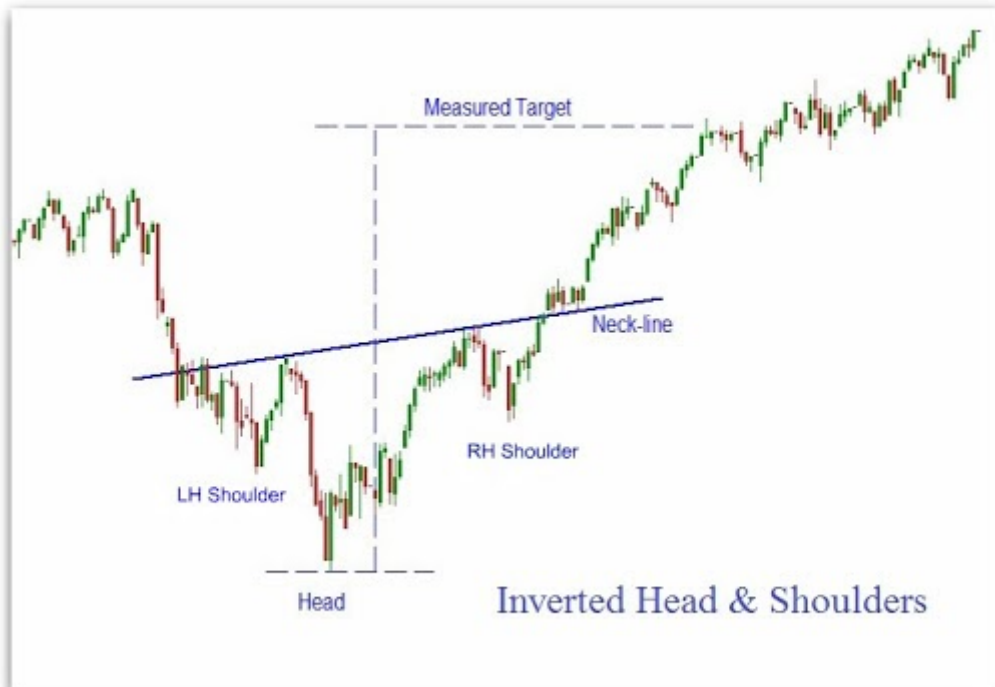
Assume distance X, then price target will be (X+ support of lower part of flag).

• Time Target:- Time target = No of candles from start of the pole till breakout candle divide by

So, Time Target = $\frac{48}{3} = 16$ days is time target.

Bullish Chart Patterns

- **Inverted Head and shoulder**



Time target = $\frac{\text{No of Candles}}{3}$

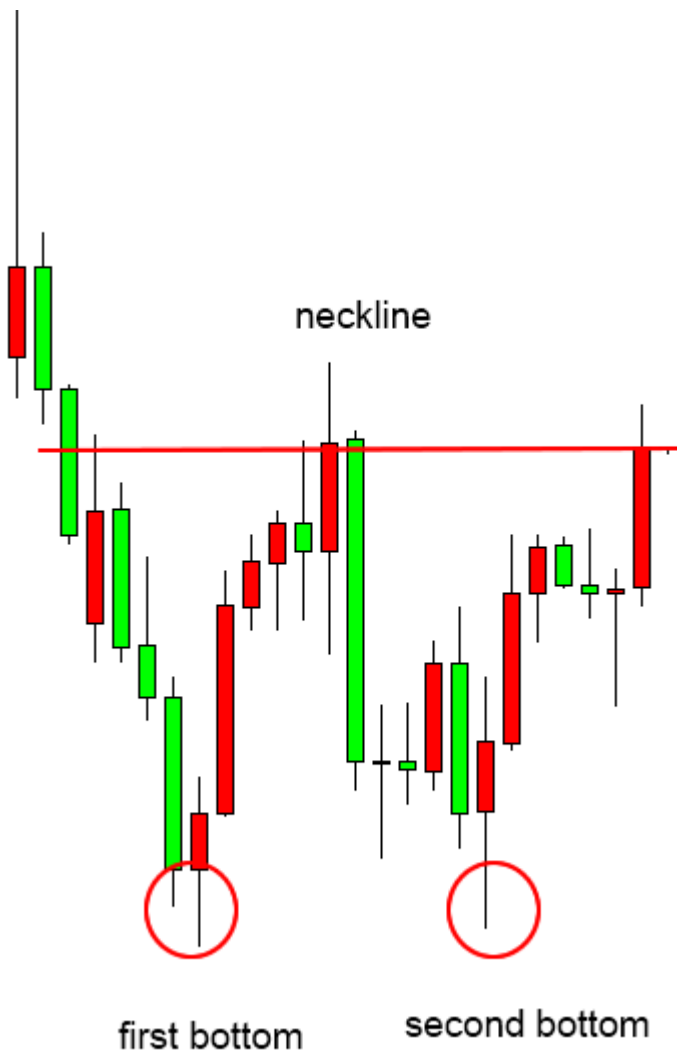
Strategy

- Close is above neckline
- Increased volume on Breakout candle
- X= Vertical distance from Low of Head to Neckline.

Price Target = Intersection point of the neckline and Breakout candle + X

Time Target = No of candles from end of 1st Neck point to Breakout candle divided by 3.

Double Bottom

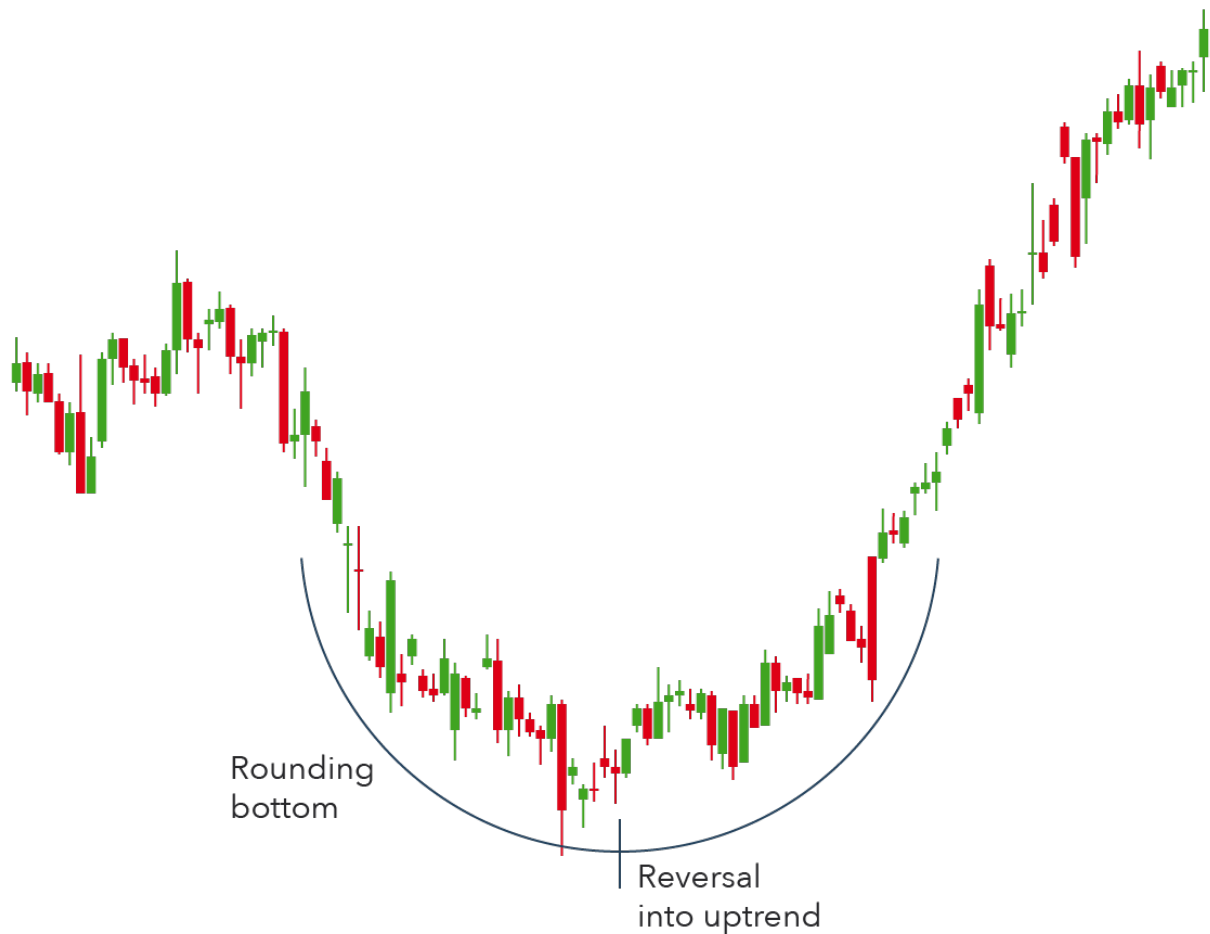


- The second support should be a big green candle.
- Time Target =
[No of candles from 1st bottom to the green breakout candle(at the second support)]
- Price Target = $\frac{x}{2}$

• Criteria for double bottom: -

- Equal bottoms from the same downtrend.
- Green/ white candle with increased volumes after 2nd bottom.
- X = Vertical distance from double bottom level to highest point '2' bottoms.
- Price Target = Bottom level + (x/2)
- Time Target = No of candles from 1st bottom to green candle divided by 3.

- **Rounding Bottom:-**



Criteria

- Historically highly priced.
- Sharp fall.
- Consolidation for minimum 2 years.
- Breakout above the resistance from consolidation.
- This is a Multibagger pattern.
- The study is to be done only on a monthly chart.

Price Target: - 1st price target = Historical high expected to achieve within 1 year.
2nd price target= 5 times of breakout level.

Eg: - $250 \times 5 = 1250$

Expected to achieve in 2 years, from breakout.

Listing Breakout Pattern

- Market euphoria at the time of listing.
- Price begins to consolidate after which it makes a new high.
- Price is overvalued and thus drifts downwards for the next 2 years.
- Price will justify the business valuations and will trade at this level for the next 8 to 10 months.
- As the business improves the price will start moving upwards.
- Price will reach on all time high level.
- Breakout above the old resistance.

Price Target = Double of the breakout level.

Time Target = 1 year.

Bearish Patterns

● **Head and shoulders Reversal pattern of Pre-rating Trend:-**

This formation is characterized by two small peaks on either side of a larger peak.

Price Target: - $500 - 100 = 400/-$

Time Target: - $\frac{\text{No of candles}}{3}$

Double Top

These formations are similar to the Head and shoulder formations, but there is no head.

Draw chart here

Price Target = $500 - \frac{x}{2}$
= 450/-

Down Flag Pattern



Price Target = Flag level – X

Time Target = $\frac{\text{No of Candles}}{3}$

Cup and Handle Pattern



Price Target 1. $\frac{x}{2} = 50/-$

2. $x = 100/-$

