Option Basics Trading Guide
Version 1.1

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Welcome

Thank you for enrolling in the workshop/purchasing our Options Strategy Premium Tool.

Following are components of Options Strategy Premium Tools:

1. OpStrater
2. OptionsOracle India Plugin (supporting currency options)
3. Options Basics Guide (installer copies this file on desktop)
4. One-year technical support

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This guide explains the basic concept of Option trading, Option terminologies and Option Greeks in a very simple language with examples. This is an introduction to the Options Trading Workshop.

We recommend to read this book multiple times, so that when you attend our workshop, you will get most out of the workshop.

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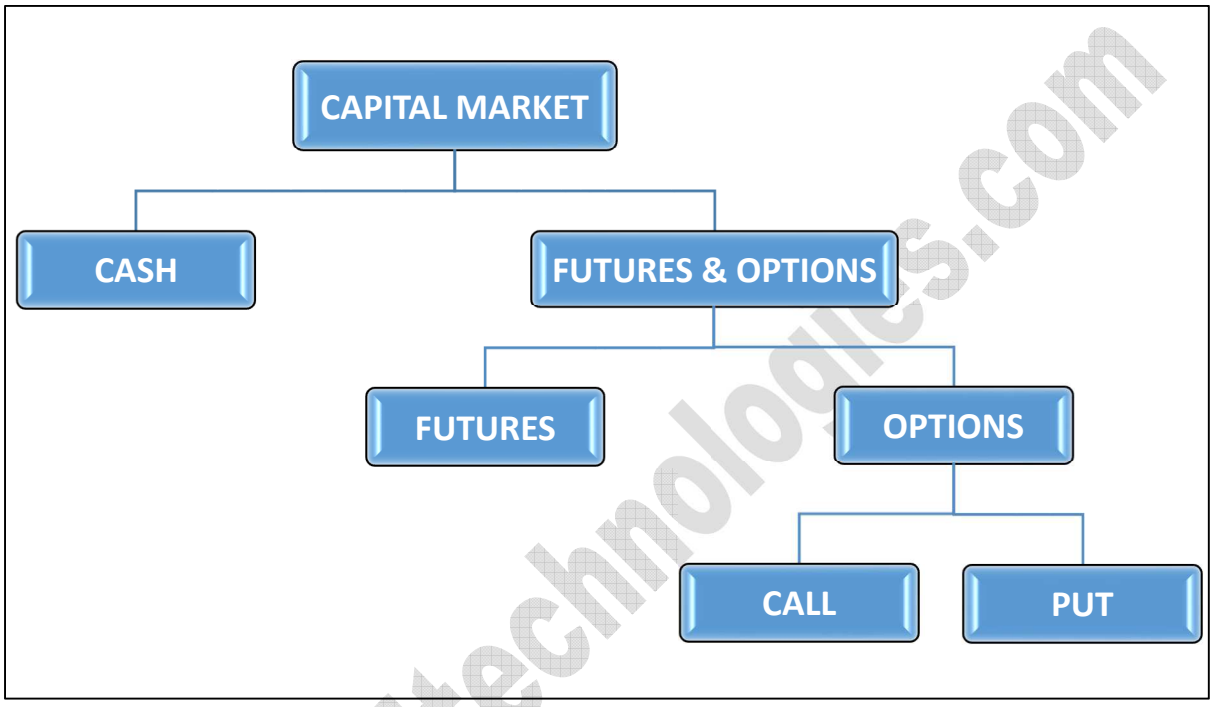
1. Market Segment

There are different instruments available in the market namely:

- Equities (Cash)
- Derivative Products:
  - Futures
  - Options



Derivative securities are financial contracts that derive their value from other securities.

Examples of derivative securities are:

- Futures contracts
- Options (Call, Put) contracts
- Forward contracts

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2. Option

An option is a contract between two parties giving the taker (buyer) the right, but not the obligation, to buy or sell a security at a predetermined price on or before a predetermined date. To acquire this right, the taker pays a premium to the writer (seller) of the contract.

The party taking a long position i.e. buying the option is called buyer/holder/owner of the option and the party taking a short position i.e. selling the option is called the seller/writer of the option.

The option buyer has the right but no obligation with regards to buying or selling the underlying asset, while the option writer has the obligation in the contract. Therefore, the option buyer/holder/owner will exercise his option only when the situation is favorable to him/her, but, when he/she decides to exercise, option seller/writer would be legally bound to honor the contract.

Option can be used as:

Leverage
Options help you profit from changes in share prices without putting down the full price of the share. You get control over the shares without buying them outright.

Hedging
They can also be used to protect yourself from fluctuations in the price of a share and letting you buy or sell the shares at a pre-determined price for a specified period of time.

Though they have their advantages, trading in options is more complex than trading in regular shares. It calls for a good understanding of trading and investment practices as well as constant monitoring of market fluctuations to protect against losses.

3. Why should we trade Option?

Equities
We generally trade if our bias is **bullish**. It requires huge money to make a decent profit.

Futures
We trade if our bias is either **bullish** or **bearing**. Compare of equities, it requires lesser capital to make an equivalent profit.

Options
We can trade if our bias is either **bullish or bearish or neutral (sideways)**. Compared to futures, it requires lesser capital to make an equivalent profit. Options are a leveraged product.

CASH	FUTURE	OPTION
Can buy even 1 share.	Very high exposure, because you cannot trade in small amounts. You can trade by lot size.	
You are a shareholder.	You are not a shareholder.	
You receive dividends, bonus, rights and other benefits.	You do not receive dividends, bonus, rights and other benefits.	
Suitable for long term investors.	Generally suitable for traders.	
Not very risky for long term investors.	Highly risky.	
Can keep the shares for a lifetime.	Have to sell or square-off your position.	
Non-leveraged.	Leveraged.	Highly leveraged.
Traded generally for bullish view.	Can be traded for Bullish and Bearish view.	Can be traded for Bullish, Bearish and Sideway.

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4. Options Terminologies

Derivatives
Derivatives, such as futures or options, are financial contracts which derive their value from a spot price, which is called the "underlying".

Option
An Option is a contract that gives the right, but not an obligation, to buy or sell the underlying asset on or before a stated date/day, at a stated price, for a price.

Premium
When you buy an option, the purchase price is called the premium. If you sell, the premium is the amount you receive. An option's premium has two parts: an intrinsic value and a time value.

Option Types
There are two types of Options available:

- Call Option
- Put Option

Call Option
This type of contract gives the holder (buyer) the right to buy ("call away") the underlying stock from the seller (writer) at a specific price (strike), but only for a specified amount of time (expiry).

Example: *NIFTY 28Jan16 CE 7200*

Can you think of real life examples for Long CALL and Short CALL.

Put Option
This type of contract gives the holder (buyer) the right to sell ("put") the underlying stock to the seller (writer) at a specific price (strike), but only for a specified amount of time (expiry).

Example: *NIFTY 28Jan16 PE 7000*

Can you think of real life examples for Long PUT and Short PUT.

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Difference between CALL and PUT:

CALL	PUT
The buyer of the option has the right, but not the obligation to buy an agreed quantity of a particular underlying instrument from the seller of the option at a certain time (the expiration date) for a certain price (the strike price).	A put option is a financial contract between two parties, the seller (writer) and the buyer of the option.
The seller (or "writer") is obligated to sell the commodity or financial instrument should the buyer so decide.	The put allows its buyer the right but not the obligation to sell a commodity or financial instrument (the underlying instrument) to the writer (seller) of the option at a certain time for a certain price (the strike price).
The buyer pays a fee (called a premium) for this right.	The writer (seller) has the obligation to purchase the underlying asset at that strike price, if the buyer exercises the option.

Underlying Asset/Security/Stock
Options are derivate products of underlying asset/security.

Examples:
If we are considering NIFTY Option, its underlying asset is NIFTY 50 Index.
If we are considering BANKNIFTY Option, its underlying asset is BAKNIFTY Index.
If we are considering TCS Option, its underlying asset is TCS Equity.

Strike Price
The strike price is defined as the price at which the holder of an options can buy (in the case of a call option) or sell (in the case of a put option) the underlying security when the option is exercised. Hence, strike price is also known as exercise price.

Examples of Strike Price:
For NIFTY are: ..., 7000, 7050, 7100, 7150, 7200, 7250, 7200, …

Avoid illiquid strike (any strike with 50s ... like 7150, 7250, 7350), as this may have higher bid-ask spread.

Expiration date
It is the last day on which the contracts expire.

Futures and Options contracts expire on the last Thursday of the expiry month for most of Indexes and stock options. If the last Thursday is a trading holiday, the contracts expire on the previous trading day.

For NIFTY, BANKNIFTY and Currency pairs, we have weekly expiry on every Thursday.

Examples:
Jan 28, 2016; Feb 25, 2016; Mar 31, 2016, April 28, 2016

Duration of an Option
In India, options can be traded for 3 months:

1. NEAR Month: (Current month, Let's consider Jan is current month)
2. NEXT Month: (Next month, that will be Feb)
3. FAR Month: (Next to next month, that will be Mar)

Contract Size (Lot)
Lot size is the number of units of underlying asset in a contract. Currently lot size of Nifty option contracts is 75.

Examples:
One contract of NIFTY Options has 75 Nifty Index.
One contact of TCS Option has 200 TCS shares.

Contract size may change, please verify before placing order.

American option
The owner of such option can exercise his right at any time on or before the expiry date/day of the contract.

European option:
The owner of such option can exercise his right only on the expiry date/day of the contract. In India, the Options are European, hence we see C**E**, P**E**.

Note: In India, we follow European type option with cash settlement. So instead of exercise, it is settled in cash by the exchange for most of scrips. Now for few scrips, we are actually moving towards pure European type option, where delivery will be compulsory.

Spot price:
It is the price at which the underlying asset trades in the spot market.

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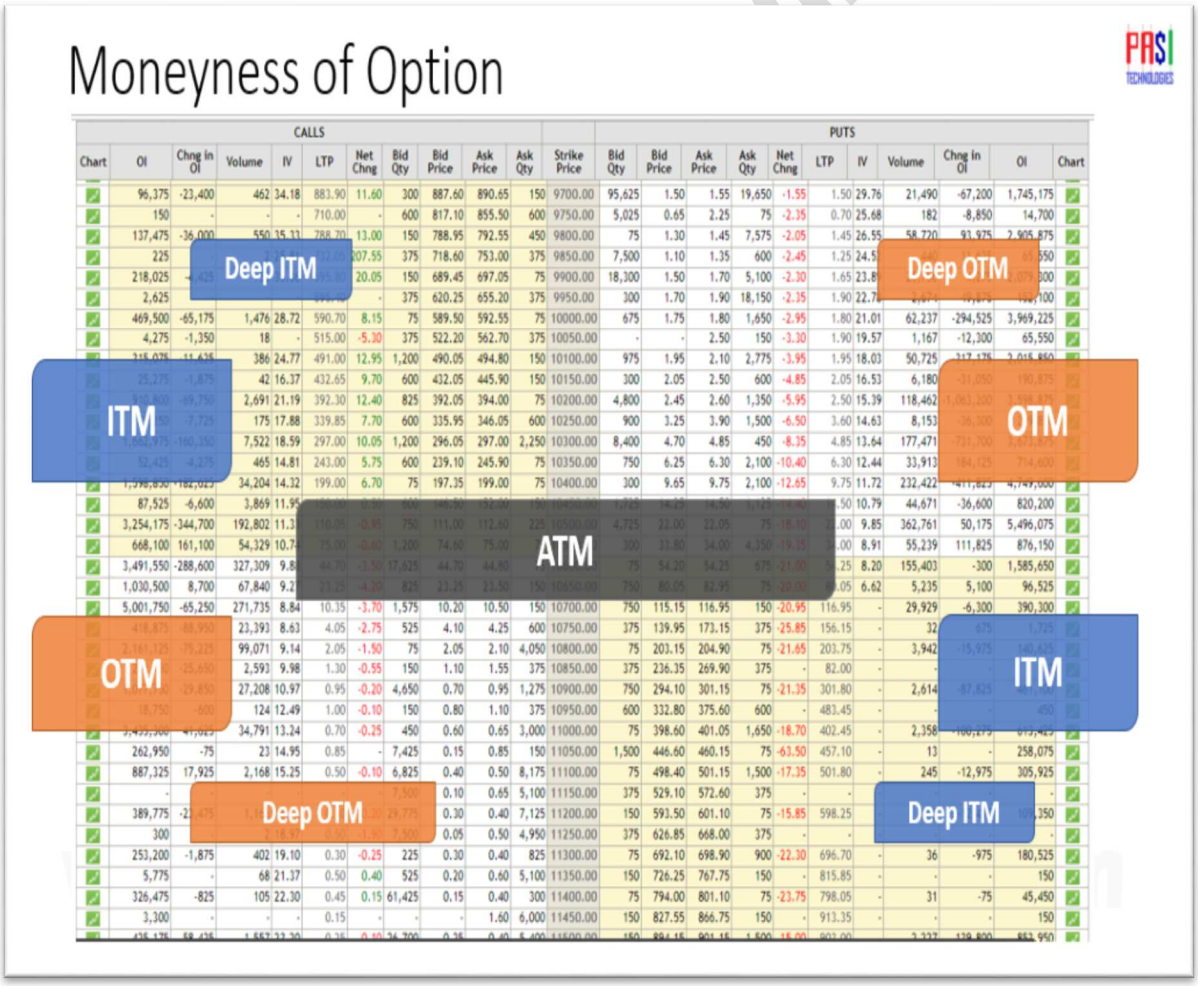
Moneyness of an Option:
Comparing the spot price with the strike price, Options will be classified under three categories:

Moneyness of an Option		
CALL Option	**Moneyness**	**PUT Option**
Strike Price < Spot Price	In-The-Money	Strike Price > Spot Price
Strike Price = Spot Price	At-The-Money	Strike Price = Spot Price
Strike Price > Spot Price	Out-of-The-Money	Strike Price < Spot Price

On NSE Option Chain page, the ones in yellowish background color are ITM and the ones with white background are OTM options.



We recommend to avoid trading Deep ITM option, as mostly those are illiquid. In that case, bid-ask spread will be wide.

ITM (In-the-money)
An in-the-money option is an option that would lead to positive cash flow to the holder if it were exercised immediately.

A Call option is said to be in-the-money when the current price stands at a level higher than the strike price. If the Spot price is much higher than the strike price, a Call is said to be deep in-the-money option.

In the case of a Put, the put is in-the-money if the Spot price is below the strike price.

ITM CALL: When the current underlying SPOT price is **above** the strike price.
ITM PUT: When the current underlying SPOT price is **below** the strike price.

Examples:
IF NIFTY is at 7510

CALL:
Any CALL strike lower than current price (7510) is considered as ITM i.e. 7400 CE, 7300 CE, 7200 CE, and lower.

PUT:
Any Put strike higher than current price (7510) is considered as ITM i.e. 7600 PE, 7700 PE, 7800 PE or higher.

ATM (At-the-money)
An at-the-money option is an option that would lead to zero cash flow if it were exercised immediately. An option on the index is said to be "at-the-money" when the current price equals the strike price.

Examples:
IF NIFTY is at 7510

CALL:
Any CALL strike equal to or very close to current price (7510) is considered as ATM i.e. 7500 CE.

PUT:
Any Put strike equal to or very close to current price (7510) is considered as ATM i.e. 7500 PE.

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OTM (Out-of-the-money)
An out-of- the-money Option is an option that would lead to negative cash flow if it were exercised immediately. A Call option is out-of-the-money when the current price stands at a level which is less than the strike price.

If the current price is much lower than the strike price the call is said to be deep out-of-the money. In case of a Put, the Put is said to be out-of-money if current price is above the strike price.

OTM CALL: When the strike price is **above** the current underlying SPOT price.
OTM PUT: When the strike price is **below** the current underlying SPOT price.

Examples:
IF NIFTY is at 7510

CALL:
Any CALL strike higher than current price (7510) is considered as OTM i.e. 7600 CE, 7700 CE, 7800 CE, and higher.

PUT:
Any Put strike lower than current price (7510) is considered as OTM i.e. 7400 PE, 7300 PE, 7200 PE or lower.

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Options Writing/Shorting Margin
As Option writing carries unlimited risk, broker and exchange will ask for security deposits (require certain capital requirement) before they will allow you to short options.

For option buyer, they need to pay only premium and not the margin, as buying option carries limited loss (limited to premium paid).

The option seller on the other hand has a potential for unlimited loss. Thus the seller has to deposit margin with the exchange and broker as a security in case of huge loss due to adverse price movement in the option price.

Total Margin = SPAN margin (Exchange) + Exposure margin (Broker)

SPAN margin
SPAN i.e. Standard Portfolio Analysis of Risk which is a method for measuring portfolio risk. In Indian stock markets, SPAN margin is also commonly referred to as **VaR margin** or **initial margin** which is the minimum margin requirement for initiating a trade in the markets. This is to safety of Exchange.

Exposure Margin
In addition to SPAN margin which is collected at the time of initiating trades, an additional margin over and above the SPAN margin is collected which is known as the **Exposure margin** and is also known as additional margin. This margin is collected in order to protect a **broker's** liability which may arise due to wild swings/moves in the markets. This is to safety of Broker.

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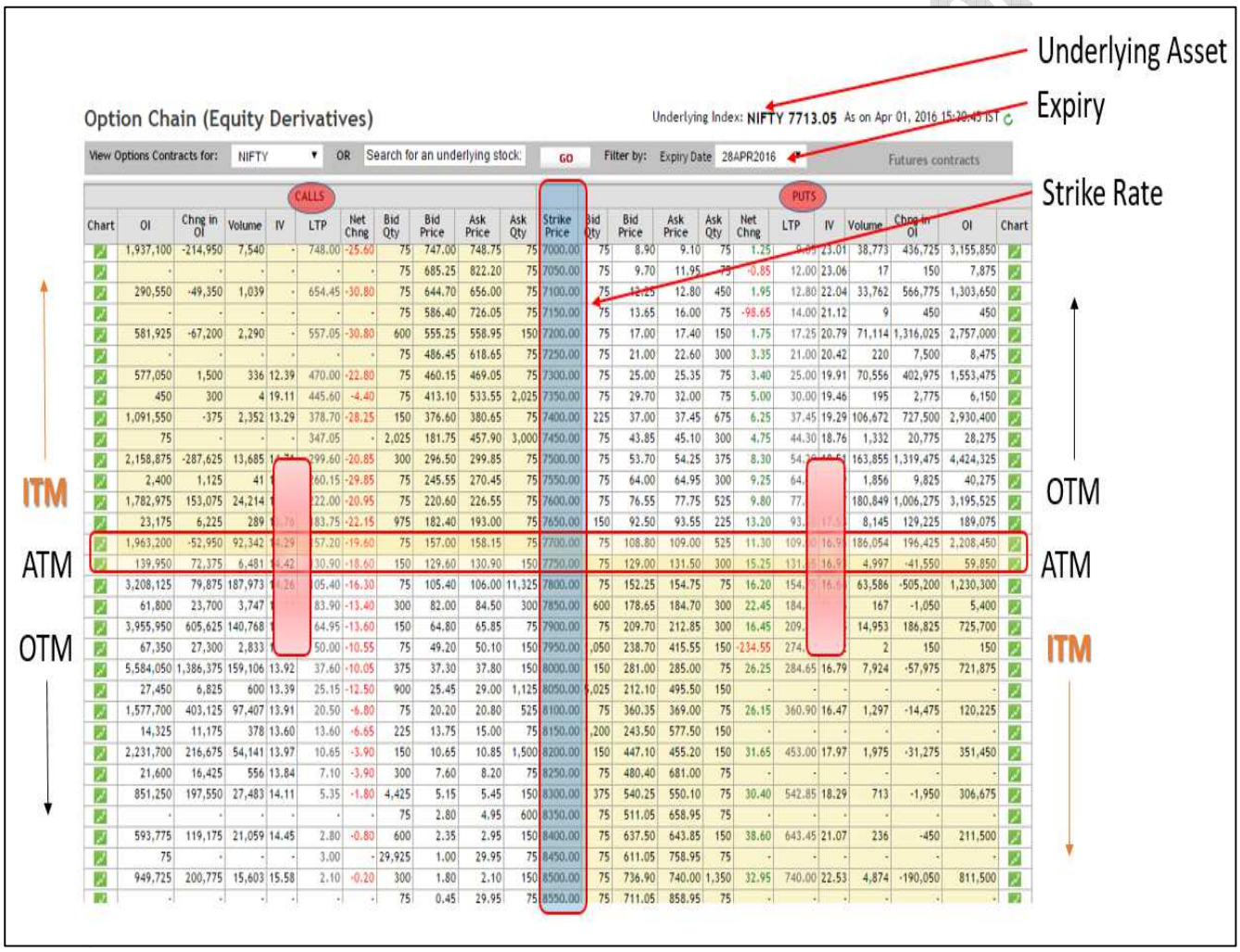
Option Chain

http://www.nseindia.com/live_market/dynaContent/live_watch/option_chain/optionKeys.jsp?symbolCode=-10006&symbol=NIFTY&symbol=NIFTY

or

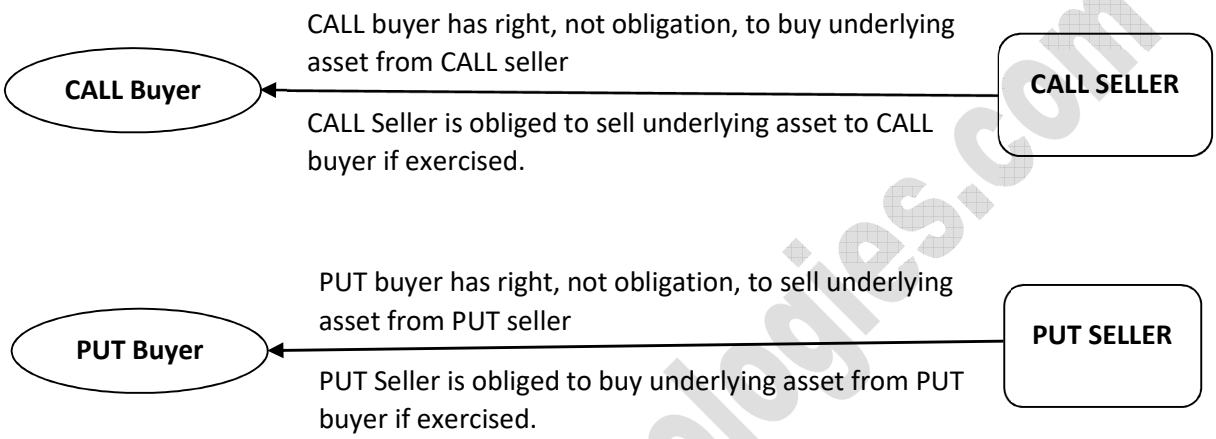
www.nseindia.com **-> Live Market -> Option Chain -> Equity Derivatives**



5. Basic Options Positions

We can go LONG or SHORT Options (CALL or PUT), here are four basic Option positions.

	CALL	PUT
Long (Buyer)	**Right to Buy**	**Right to Sell**
Short (Seller)	**Obligation to Sell**	**Obligation to Buy**



Four Basic Option Positions

6. Option Writer Advantages and Disadvantages

Options writing should be done if Option premium are higher.

Option Writing (Advantages)
Max gain = premium received (Receives premium for the obligation)
Time decay favors Option writer.
Should be done only in case if IV or VIX is high.

As we are shorting Options, we need additional margin instead of just premium value.

Option Writing (Disadvantages)
Max risk = unlimited (if without strategies/insurance)
Margin required
Should not be done if IV or VIX is low.

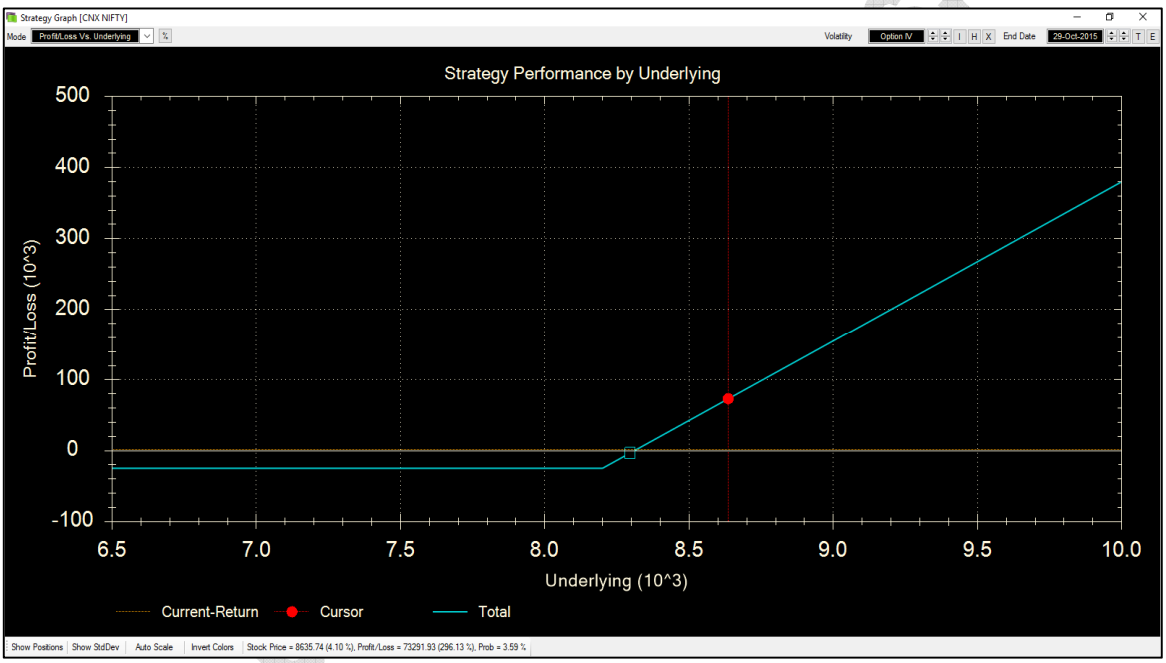
CALL OPTION BUYER	CALL OPTION WRITER
Pays premium	Receives premium
Right to exercise and **buy** the shares	Obligation to **sell** shares if exercised
Benefits from rising volatility	Benefits from time decay
Profits from price **rising**	Profits from price falling or remaining neutral
Limited losses	Potentially unlimited losses
Potentially unlimited gain	limited gain
Can SELL before expiry to close out	Can buy back before expiry or before assignment to close out

PUT OPTION BUYER	PUT OPTION WRITER
Pays premium	Receives premium
Right to exercise and **sell** the shares	Obligation to **buy** shares if exercised
Benefits from rising volatility	Benefits from time decay
Profits from price **falling**	Profits from price rising or remaining neutral
Limited losses	Potentially unlimited losses, but technical losses only limited to the share price falling to zero limited gain
Potentially unlimited gain, but technically gain is only limited to the share price falling to zero	Limited gain
Can SELL before expiry to close out	Can buy back before expiry or before assignment to close out

7. LONG position characteristics

Long Option Positions
Pays Premium
RIGHT to exercise
Risk : Limited (limited to premium paid)
Reward : Unlimited
Margin : Not required, just premium

Here is Long CALL option P/L graph:



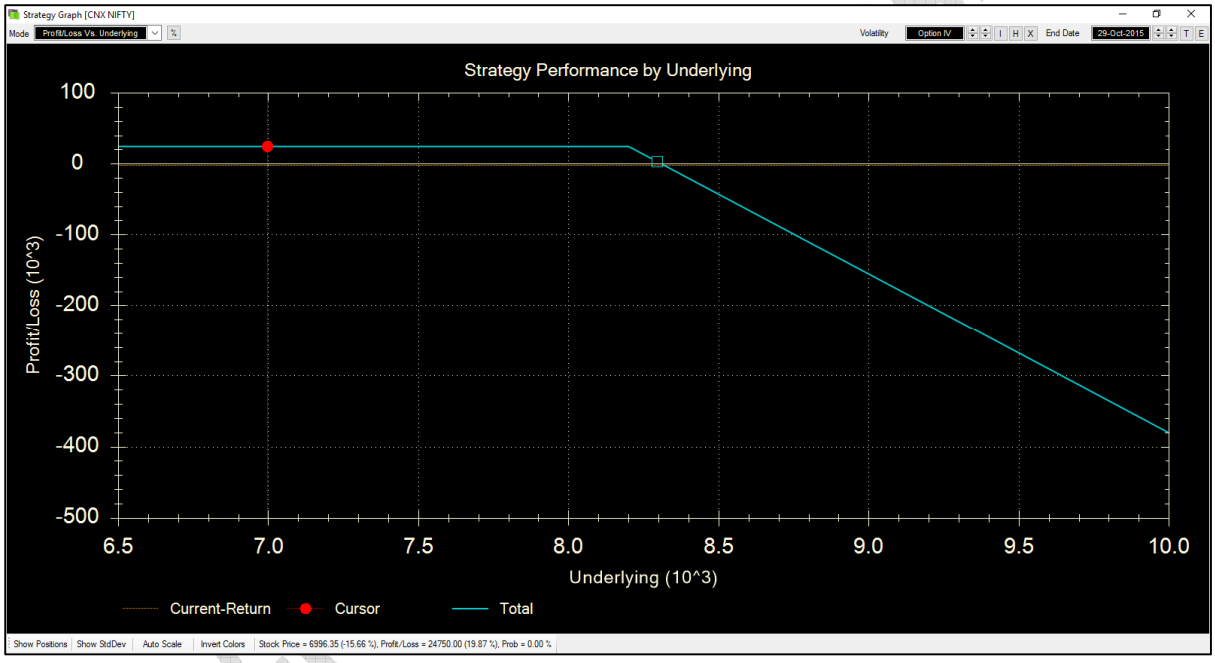
As we can see in the above chart, loss is limited and the profit is unlimited. As a buyer of option, you will be losing value of theta every day. Remember options are decaying assets.

8. SHORT position characteristics

Whenever someone buys an option, there has to be a counterparty, who has sold the same.

Short Option Position	
Receives Premium	
OBLIGATIONS to settle	
Risk	**: Unlimited**
Reward	**: Limited (limited to premium received)**
Margin	**: Yes required**

Here is Short CALL option P/L graph:



As we can see in the above chart, profit is limited and the loss is unlimited. As a seller of option, you will be gaining value of theta every day, but remember you have unlimited risk.

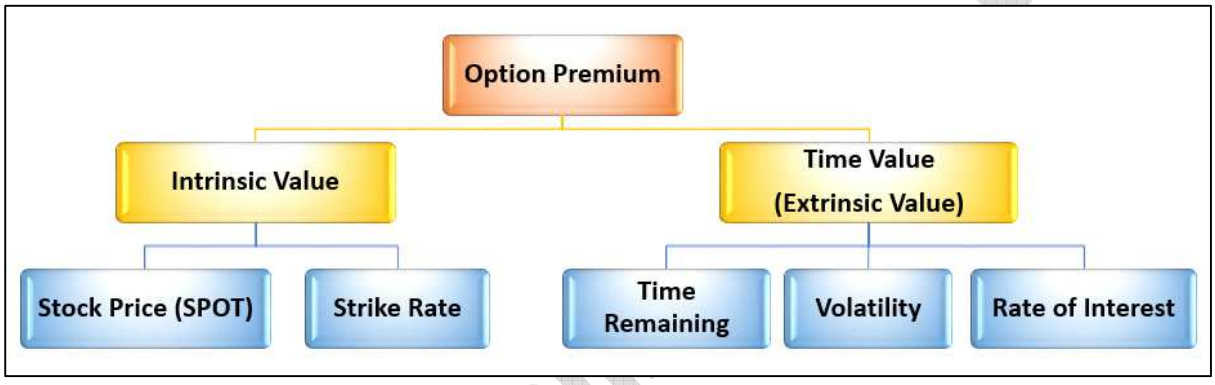
9. Option Premium Pricing

Factors contributing value of an option premium are:

- Price of the underlying stock
- Time until expiration
- Volatility of underlying stock price
- Cash dividend
- Prevailing interest rate, etc.

An Option Premium can be viewed as compromised of two components:

- **Intrinsic value**
- **Extrinsic value (time value)**



When we are long on an option, time value is against us.
When we are short on an option, time value is favorable to us.

Intrinsic Value

The intrinsic value of an option is the value of exercising it now. If the option has a positive monetary value, it is referred to as being **in-the-money (ITM)**, otherwise it is referred to as being out-of-the-money. If an option is out-of-the-money at expiration, its holder will simply abandon the option and it will expire worthless.

The difference between the underlying's price and the strike price. Only in-the-money (ITM) options have intrinsic value whereas at-the-money (ATM) and out-of-the-money (OTM) options have zero intrinsic value.

Intrinsic value can't be negative (In case of OTM, Intrinsic value is considered as zero)

Intrinsic Value (Call) = Underlying Price – Strike Price
Intrinsic Value (Put) = Strike Price – Underlying Price

Time value

It is the difference between premium and intrinsic value, if any, of an option. ATM and OTM options will have only time value because the intrinsic value of such options is zero.

Time Value = Option Premium – Intrinsic Value

Example:
Let's assume NIFTY is at 7710 and the Option chain table

CALLS												PUTS									
Chart	OI	Chng in OI	Volume	IV	LTP	Net Chng	Bid Qty	Bid Price	Ask Price	Ask Qty	Strike Price	Bid Qty	Bid Price	Ask Price	Ask Qty	Net Chng	LTP	IV	Volume	Chng in OI	OI	Chart
	4,562,550	-206,550	20,014	-	231.05	-2.45	225	231.05	233.00	450	7500.00	75	6.70	6.90	750	-2.55	6.90	15.25	255,830	-367,200	4,985,150	
	307,875	-119,850	3,072	10.41	186.05	3.45	225	186.05	188.40	150	7550.00	225	9.80	9.85	300	-3.55	9.80	14.06	57,102	80,025	1,028,925	
	3,404,625	-648,900	109,217	11.39	143.25	-0.55	1,275	143.25	143.75	75	7600.00	150	15.45	15.95	150	-4.55	15.95	13.42	411,801	-139,425	5,371,725	
	548,250	-95,325	23,813	10.40	100.00	-5.10	150	97.35	99.70	300	7650.00	150	23.50	24.00	1,050	-5.25	24.00	12.37	77,991	260,925	1,407,900	
	5,738,250	5,625	438,965	10.21	65.00	-6.30	150	64.20	64.95	75	7700.00	75	37.30	37.95	75	-7.85	37.95	11.65	415,658	706,275	4,362,075	
	1,687,875	377,625	86,880	10.11	38.35	-6.50	750	38.10	38.90	225	7750.00	300	56.40	59.00	450	-6.75	58.15	10.84	23,505	298,950	695,175	
	6,657,225	204,150	468,695	9.73	19.00	-6.85	2,700	18.90	19.00	225	7800.00	300	88.00	90.30	1,125	-9.35	88.20	10.45	95,462	60,375	894,675	
	1,369,125	461,700	66,204	9.59	8.30	-5.70	150	8.25	8.30	4,800	7850.00	150	118.40	133.95	1,800	-10.10	123.10	9.00	56	900	2,100	
	2,530,350	144,600	189,389	10.48	4.70	-2.85	2,100	4.70	4.80	5,850	7900.00	75	173.05	175.00	900	-5.00	174.00	12.01	6,513	-12,375	169,725	
	502,125	34,650	10,340	10.66	2.00	-1.45	525	1.90	2.00	525	7950.00	4,800	145.15	244.35	4,800	-3.85	238.90	20.30	14	-75	225	
	4,059,500	50,550	146,572	11.98	1.50	-1.00	17,550	1.50	1.60	3,000	8000.00	75	264.25	269.85	75	-1.30	270.40	14.72	3,370	-5,125	534,900	
	28,350	-5,850	1,143	13.14	1.10	-0.30	1,500	0.40	-	-	8050.00	5,175	268.10	389.50	4,050	-	372.25	-	-	-	300	
	1,782,750	-2,625	29,912	14.53	0.95	-0.40	225	0.85	0.95	59,100	8100.00	75	362.80	368.90	75	-1.60	369.45	18.17	135	-750	38,850	

Intrinsic Value, Premium Calculation	**Intrinsic Value**	**Time Value**
Intrinsic Value (Call) = Underlying Price – Strike Price	CE 7500: 7710-7500=210	231.05 (LTP)-210 =21.05
Intrinsic Value (Put) = Strike Price – Underlying Price	PE 7500: 7500-7710=-210 (taken as 0)	6.90 (LTP)-0.00 = 6.90
Now calculate:		
Nifty at 7710	CE 7750: _____	_____
Nifty at 7710	PE 7750: _____	_____

Open interest

The number of outstanding contracts in a particular class or series existing in the option market. Also called the "open position".

Volume

Trading volume is the number of option contracts being exchanged between buyers and sellers, and it measures the activity of options contracts on a **daily** basis. At the start of a trading day, the volume will be zero and as the day progresses, the volume will increase based on transactions.

Here is volume at the start of the day. As day progresses, volume will increase. Compare volume with OI values.

CALLS												PUTS									
Chart	OI	Chng in OI	Volume	IV	LTP	Net Chng	Bid Qty	Bid Price	Ask Price	Ask Qty	Strike Price	Bid Qty	Bid Price	Ask Price	Ask Qty	Net Chng	LTP	IV	Volume	Chng in OI	OI	Chart
	526,800	-	86	-	341.10	-8.50	75	341.90	343.05	75	10100.00	1,425	34.25	34.50	75	0.75	34.40	17.93	764	-	3,099,450	
	45,375	-	-	-	-	-	75	296.10	300.80	75	10150.00	75	41.70	42.00	1,125	0.80	41.70	17.46	23	-	265,050	
	1,315,200	-	124	-	258.25	-6.20	75	257.50	258.75	1,125	10200.00	450	49.85	50.00	1,125	1.35	50.00	17.07	1,566	-	3,924,225	
	126,375	-	4	-	217.00	-6.55	75	216.70	220.10	600	10250.00	75	60.75	61.10	150	2.00	61.10	16.64	39	-	318,975	
	2,910,975	-	368	9.48	182.60	-5.75	675	182.70	183.25	75	10300.00	3,150	73.70	73.95	900	2.75	73.80	16.40	1,549	-	3,876,450	
	119,400	-	209	-	149.15	-4.05	75	148.70	149.90	150	10350.00	150	88.90	89.30	75	2.85	89.15	15.87	93	-	196,875	
	2,997,225	-	2,003	10.28	118.00	-5.00	75	118.00	118.35	150	10400.00	225	107.10	107.45	225	3.50	107.45	15.96	2,112	-	2,462,400	
	274,725	-	256	10.40	91.55	-3.80	300	91.50	91.95	1,275	10450.00	300	127.95	129.50	150	4.85	129.50	17.30	98	-	42,825	
	4,166,475	-	1,605	10.31	67.85	-2.80	150	67.65	67.80	300	10500.00	75	153.65	154.30	1,125	5.35	154.15	15.62	469	-	1,138,875	
	207,825	-	161	10.32	49.35	-1.70	75	49.05	49.30	150	10550.00	75	177.15	188.65	75	-	-	-	-	-	1,650	
	3,027,375	-	1,490	10.31	34.25	-1.50	450	34.25	34.30	1,125	10600.00	300	218.05	218.75	75	5.20	218.00	16.15	303	-	347,775	
	260,400	-	82	10.24	22.40	-1.40	525	22.40	22.85	75	10650.00	2,475	239.60	270.10	300	-	-	-	-	-	300	
	3,625,425	-	1,144	10.24	15.15	-0.75	75	15.05	15.20	2,550	10700.00	375	297.60	300.20	75	6.15	298.05	-	32	-	335,850	
	91,050	-	34	-	9.85	-0.90	1,575	9.90	10.20	1,350	10750.00	75	322.05	351.25	75	-	-	-	-	-	525	
	1,785,750	-	1,012	10.62	6.80	-0.55	1,800	6.75	6.85	2,325	10800.00	825	389.00	391.15	75	3.85	389.00	-	9	-	246,600	

Series of options

NEAR: Current month series
NEXT: Next or second month series
FAR: Third month series

Days or Time to Expiration

The days or time remaining to the expiration period. It is an important factor to determine option price. The value of option (time value) decreases as the time to expiration gets closer. The more time remaining until expiration, the more time value of the option contract has.

Reward to Risk Ratio

A reward/risk ratio is to compare the expected returns of an investment to the amount of risk undertaken to capture these returns.

For example:
In strategy, if maximum profit potential is 90 points and maximum possible risk is 30.
In that case, reward to risk ratio for strategy is 90/30 = 3:1.
So we are ready to take risk to loose Rs. 1 to earn potentially Rs. 3 as reward.

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10. Volatility

The volatility of an option is a measure of the spread of the price movements of the underlying instrument.

Volatility refers to the amount of uncertainty or risk about the size of changes in a security's value. The more volatile the underlying instrument, the greater the time value of the option will be. This will mean greater uncertainty for the option seller who, will charge a high premium to compensate. Option prices increase as volatility rises and decrease as volatility falls.

Volatility values needs to be analyzed before deciding if we will be a seller or a buyer of the option.

Volatility tries to capture the sentiments of the market—whether the market is in a complacent or anxious mood.

Example:
INDIA VIX is volatility index for NIFTY 50, based on NIFTY 50 Index Option price. INDIA VIX calculates volatility by computational methodology, that relies on the best bid and offer price of the Nifty 50 index CALL and PUT options.

There are two types of volatility:

- Historical volatility
- Implied volatility

A. Historical Volatility

Historical Volatility
A measure of the price fluctuation of an asset averaged out over a period of time.
Historical volatility is the measure of a stock's price movement based on **historical** prices.
It measures how active a stock price typically is over a certain period of time.
Historical volatility is measured by taking the daily (close-to-close) percentage price changes in a stock and calculating the average over a given time period.

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B. Implied Volatility

Implied Volatility
Implied volatility is the **current** volatility of a stock, as estimated by its option price.
An option's value consists of several components — • The strike price • Expiration date • The current stock price • Dividends paid by the stock (if any) • The implied volatility of the stock • Interest rates

C. Historical Volatility Vs Implied Volatility

Historical Volatility (HV)	Implied Volatility (IV)
Looks back in time to show where volatility has been in the past.	**Trader's view of expected future volatility based on current option prices. Implied volatility is forward-looking.**
←	→
Shows expected trading range of market.	**Indicator of the current sentiment of the market.**

Historical volatility is a measure of the probability of a market holding a given trading range over a period of time.

Historic volatility is based on the movement of the underlying market. Implied volatility is what option traders expect historical volatility will be in the future.

- Low implied volatility => Low option prices, so be buyer.
- High implied volatility => High option prices, so be seller.

Extreme bullish or bearish sentiment means higher implied option volatility, which also means higher option prices.

Flat (Neutral) sentiment is found in range-bound market and quiet markets will mean low implied option volatility and therefore lower option prices.

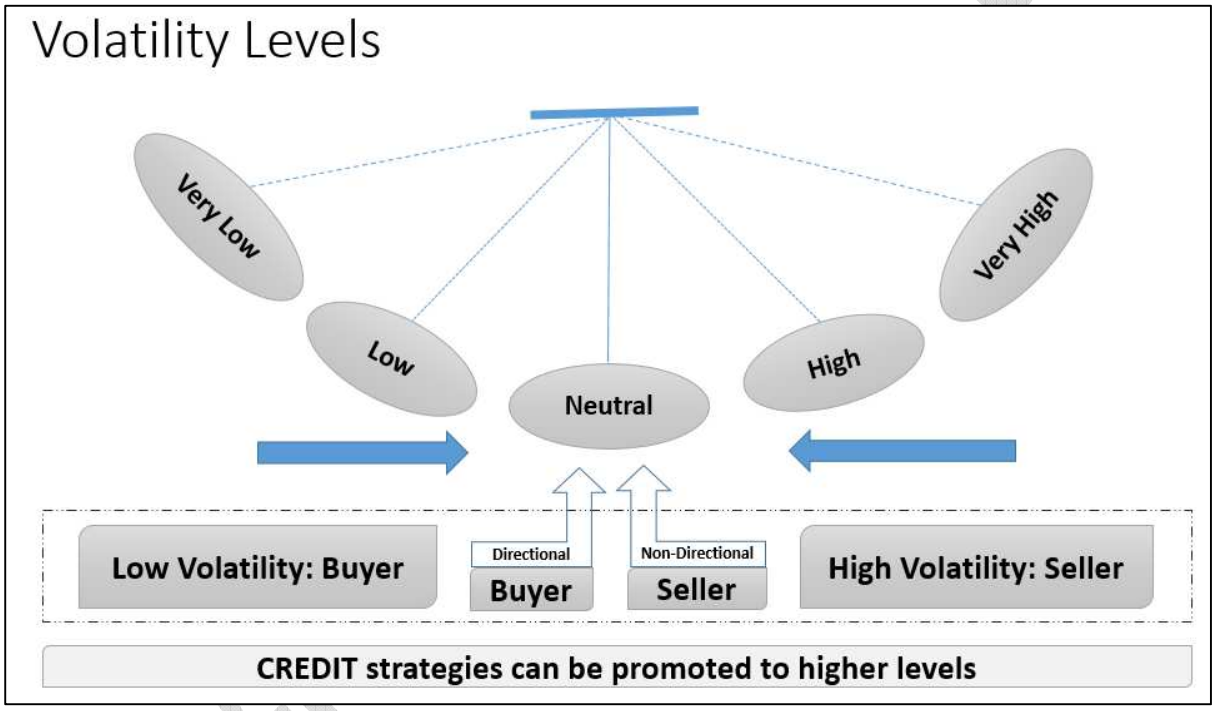
11. Implied Volatility's expected behavior

If Implied Volatility is Very high or high, it is expected to come to its normal/neutral level.

If Implied Volatility is Very low or low, it is expected to come to its normal/neutral level.

Most of time, implied volatility is expected to stay in neutral level.

Option writing strategies should be initiated when implied volatility is very high or high and near the top end of its historical range.



When Volatility level is Very High and High, we are option seller.
When Volatility level is Very Low or Low, we are option buyer.
When Volatility level is Neutral, we could be either option buyer or seller.

Volatility based Trading Approach

IVR (Implied Volatility Rank)

- Description of where the current IV lies in the comparison to its yearly high and low IV.
- (Current IV – 52 week low / 52 week high – 52 week low) x 100%

IVP (Implied Volatility Percentile)

- The percentage of days over the past year, that were below the current IV.
- (Number of trading days below current IV / 252 days) x 100%

HV/IV

- **Historical Volatility Vs Implied Volatility.**

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12. Option Greeks

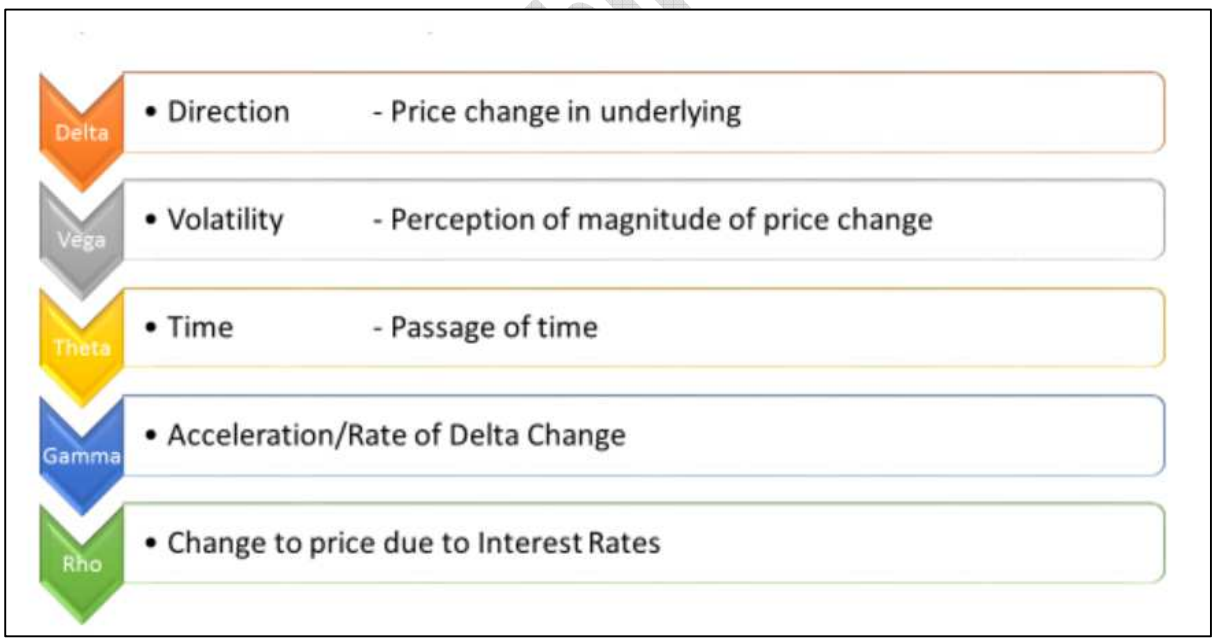
The price of an Option depends on certain factors like SPOT price, volatility of the underlying, time to expiry, interest rates, etc. The option Greeks are the tools that measure the sensitivity of the option price to the above mentioned factors.

They are often used by professional traders for trading and managing the risk of large positions in options and stocks.

Following are major Options Greeks to be considered before deciding Options trade/strategy.

Option Greek:

- Delta
- Theta
- Vega
- Gamma
- Rho



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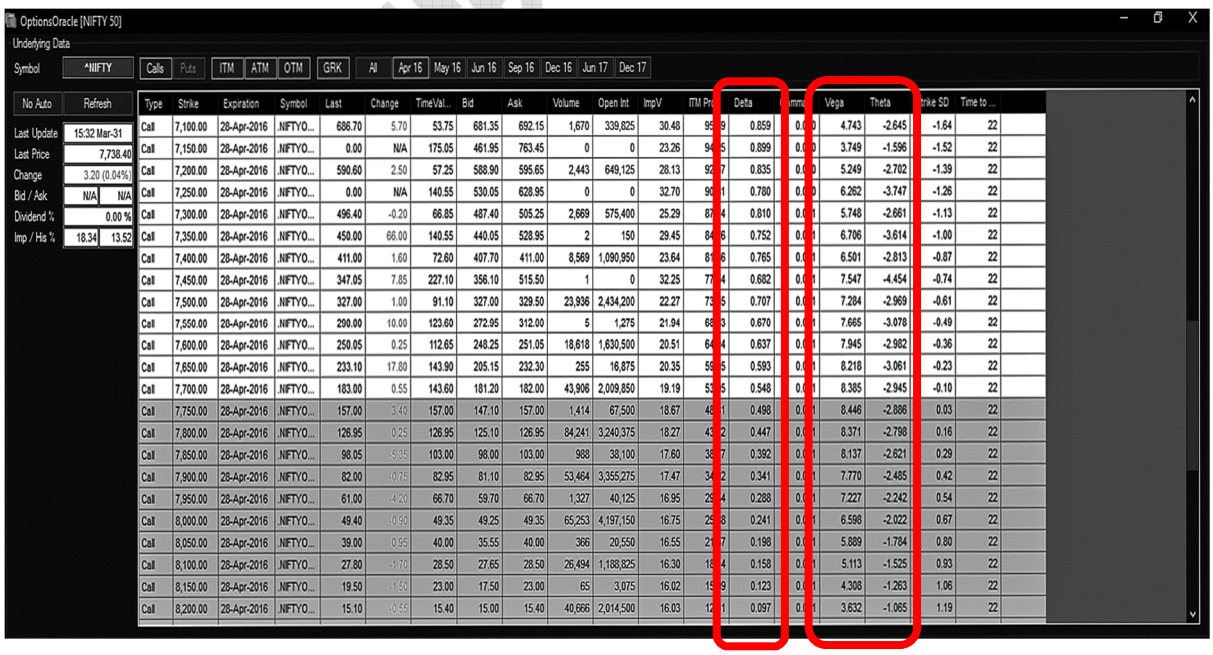
Option Greeks	
Delta	It is the amount that an option changes with respect to a small change in the underlying. So it is rate of change in Option premium when underlying prices changes by Rs. 1. Its value is between 0 and 1.
Theta	It is the amount that the option decays in one (1) day. A writer receives income from time decay and therefore has '**positive theta**.' A buyer incurs an expense from time decay and therefore has '**negative theta**.' Theta value increases we come close to expiry.
Vega	It is the amount that an option changes if the 'implied volatility' changes by one percentage (1%) point
Gamma	Quantifies the rate of change of the delta with respect to a change in the underlying

If Greek View (**GRK** button) is enabled in OptionsOracle, it does shows Delta, Vega and Theta.



Delta

It measures the change in the option price for a given change in the price of the underlying and thus enables exposure to the underlying to be determined. The delta is between 0 and +1 for calls and between 0 and -1 for puts (thus a call option with a delta of 0.5 will increase in price by Rs 0.50 for every Rs. 1 increase in the underlying).

Delta for ATM options are approximately 0.5. Delta for ITM options are between 1 to 0.5 and delta for OTM options are between 0.5 to 0.

If you are purchasing options to open a position, you would like to have a large delta. Then as the asset moves in the direction you predicted, you would reap high gains for a low investment. For this, you have to buy ATM option or slightly in-the-money option.

Delta can be used to measure

- Sensitivity/Impact (If underlying moves, possible impact)
- Probability (Based on delta value, probability of becoming ITM)

Example:

If a call has a delta of .50 and the stock goes up Rs. 1, in theory, the price of the call will go up about Rs. 0.50. If the stock goes down Rs. 1, in theory, the price of the call will go down about Rs 0.50.

If a put has a delta of -0.50 and the stock goes up Rs. 1, in theory, the price of the put will go down Rs. 0.50. If the stock goes down Rs. 1, in theory, the price of the put will go up Rs 0.50.

Vega

The amount of change in the price of an option in response to a 1% change in volatility of the underlying asset. Both calls and puts will tend to increase in value as volatility increases, as this raises the probability that the option will move in-the-money. Both calls and puts will thus possess a positive Vega.

Vega is useful because volatility is one of the most important parameters determining the price of an option. Looking at historical volatility of the underlying asset price, implied volatility of the option price, and Vega can help you determine if overall options are expensive, neutral or cheaper.

Vega for ATM option are highest as it has highest level of uncertainty. It can easily change from ATM to either ITM or OTM.

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Theta

It measures the effect of time decay on an option. As time passes, options will lose time value and the theta indicates the extent of this decay. Both call and put options are wasting assets and therefore have a negative theta.

Note that the decay of options is nonlinear in that the rate of decay will accelerate as the option approaches expiry. The theta will reach its highest value immediately before expiry. Remember Options are a decaying asset.

Option writer will have **positive theta** and Option buyer will have same amount of **negative theta**.

Option sellers use theta to their advantage, collecting time decay every day.

Theta is often called a "silent killer" of option buyers. Buyers, by definition, have only limited risk in their strategies together with the potential for unlimited gains. While this might look good on paper, in practice it often leads to loss.

Gamma

It measures the change in delta for a given change in the underlying. (e.g. if a call option has a delta of 0.5 and a gamma of 0.05, this indicates that the new delta will be 0.55 if the underlying price moves up by one full point and 0.45 if the underlying price moves down by one full point).

Mathematically, gamma is the second derivative of an options value with respect to underlying price. It is used to gauge the price movement of an option, relative to the amount it is in or out of the money. It is largest for at-the-money options.

At-the-money options have the highest gammas. Gamma decreases as you go in-the-money or out-of-the-money. Gamma is sometimes used as a risk management tool to manage a large portfolio, because it tends to reflect the speed of an option. Options with high gamma are the most responsive to price movements, so they provide the most help in covering directional exposure.

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Rho

Rho indicates the sensitivity of the fair value of the option to small changes in the interest rate. For ease of use, it is often expressed as the amount the option price would change with a one percentage point move in the interest rate. This parameter generally does not have as large an impact as the other parameters discussed above.

Greeks Summary

The Greeks helps us to examine our exposure to various option's centric risks.

Remember,

- Greeks helps us to assess our theoretical exposure.
- Greeks are dynamic and constantly changing.
- Greeks can help us to plan trades to take advantage of, or avoid/minimize, the effects of these risks.
- Greeks can help us to manage trades by showing how the trade's various exposures have changed with respect to
    - Time (Theta)
    - Price (Delta/Gamma)
    - Volatility (Vega)
    - Interest Rates (Rho)

Difference Between Theta and Time Value	
Theta	**Time Value**
Theta increases as we move close to expiry	Time value reduces as we move close to expiry
Rate of change	₹ or $ value

Finally, here is a summary of the determinants of Option Value:

Summary of the determinants of Option Value		
Factor	**CALL value**	**PUT value**
Increase in Stock Price	Increases	Decreases
Decrease in Stock Price	Decreases	Increases
Increase in variance of underlying asset	Increases	Increases
Decrease in variance of underlying asset	Decreases	Decreases
Increase in time to expiration	Increases	Increases
Increase in interest rates	Increases	Decreases
Increase in dividends paid	Decreases	Increases

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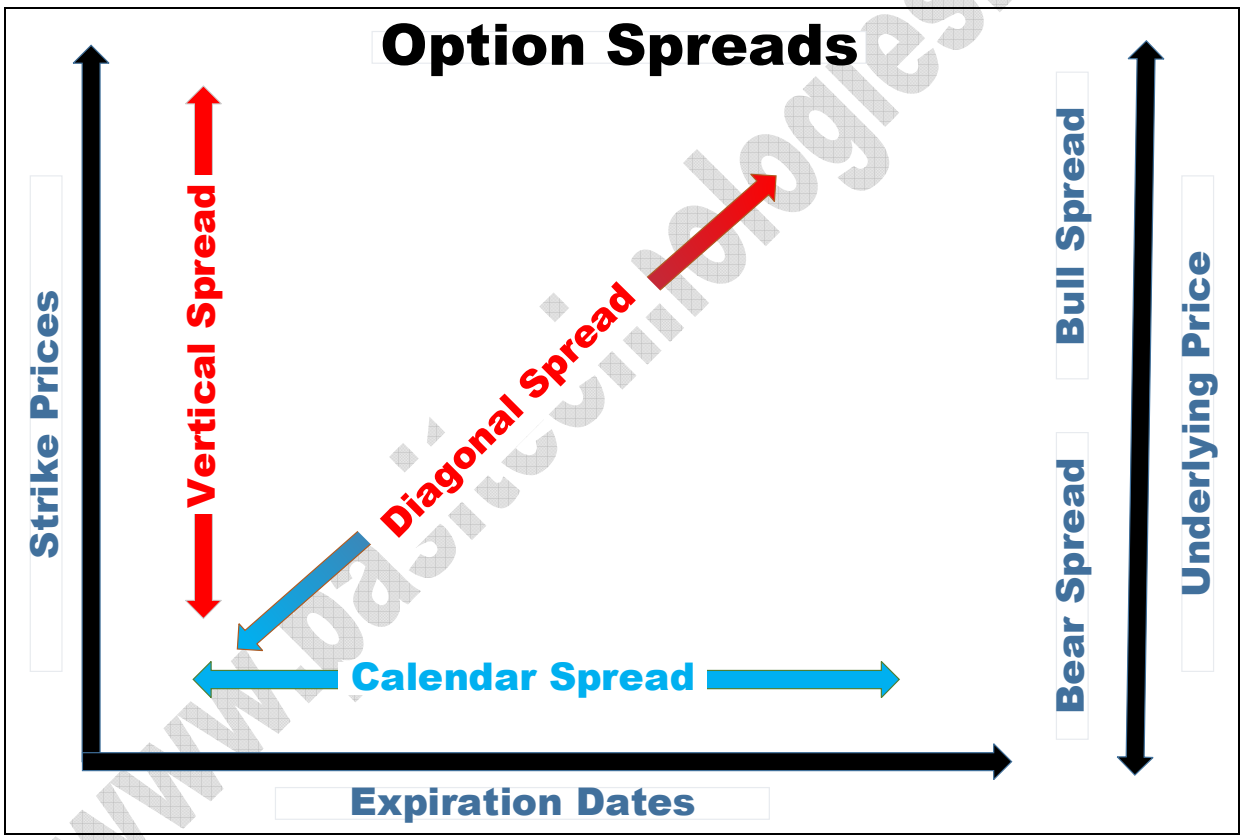
13. Jargons: Common Terminologies

Option Strategies
All **option strategies** are some combination of buying or selling of calls or puts, and can even be combined with stock or future.

An **option spread** is established by buying or selling various combinations of CALLs and PUTs, at different strike prices and/or different expiration dates on the same underlying security. There are many possibilities of spreads, but they can be classified based on a few parameters like price, expires, Greeks.



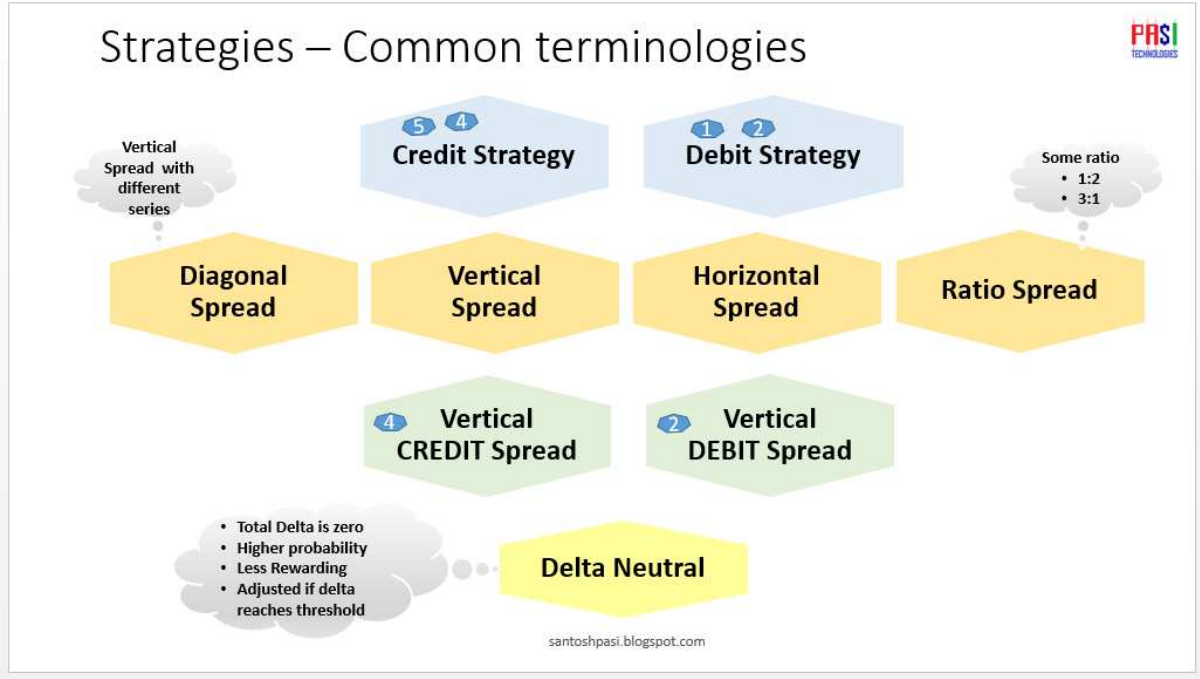
Option strategies are designed for different markets/trends (bullish, bearish, or neutral) by using different methods. Option spread strategies include vertical, horizontal, and diagonal spreads, and credit and debit spreads.

CALL and PUT spreads
Any spread that is constructed using CALLs can be referred to as a CALL spread, while a PUT spread is constructed using PUT options.

BULL and BEAR spreads

If a spread is designed to profit from a rise in the price of the underlying security, it is a BULL spread.

A bear spread is a spread where favorable outcome is obtained when the price of the underlying security goes down.



Credit Spread

A credit spread is also known as a credit risk option. In credit spread, one option is sold high and one option bought so that we receive a net credit for the spread.

There are multiple types of credit spreads. Popular strategic credit spread options involve short butterflies, short condors, iron condors and iron butterflies.

Example: *Short Straddle, Short Strangle, Short Icon Condor, etc.*

Debit Spread

A debit spread involves, buying expensive option and selling cheaper option, so that we pay a net debit for the spread.

Example: *Long CALL, Long PUT, BULL CALL Spread, BEAR PUT Spread*

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Vertical (or price) Spreads
The simultaneous purchase and sale of options identical in all respects except for strike price. They can be created with either all CALLs or all PUTs.

Examples:
Bullish Vertical Spread
Using Calls : BULL CALL Spread
Using Puts : BULL PUT Spread

Bearish Vertical Spread
Using Calls : BEAR CALL Spread
Using Puts : BEAR PUT Spread

Horizontal (or time or calendar) Spreads
The simultaneous purchase and sale of options identical in all respects except time to expiration. These spreads can also be referred to as horizontal or time spreads. These spreads have the same type and strikes, but different expirations, and are placed in low volatility environments.

Examples:
CALL Calendar Spread, PUT Calendar Spread

Diagonal Spreads
The simultaneous purchase and sale of options that differ in both strike price and time to expiration. The diagonal spread is a combination of vertical and calendar spread. This combination means different expirations and different strikes are used.

Bull spread: benefiting from stock price increase
Bear spread: benefiting from stock price decrease
Time spread is based on volatility

Ratio Spread
The ratio spread involves buying a number of options and selling more options of the same underlying stock and expiration date at a different strike price. A ratio spread is generally a vertical spread where one leg has more contracts than the other.

Example:
CALL ratio spread (1 Long ATM CALL, 2 Short OTM CALL)

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Delta Neutral Strategies

Delta neutral strategies are options strategies that are designed to create positions that aren't likely to be affected by small movements in the price of a security. This is achieved by ensuring that the overall delta value of a position is as close to zero as possible.

A delta-neutral portfolio balances the response to market movements for a certain range to bring the net change of the position to zero.

Remember "Delta" measures how much an option's price changes when the underlying security's price changes.

It is high probability strategy but less rewarding, as you may end up neutralizing delta multiple times.

Example:
As you can see here "Total Delta" is 0.

Strategy Summary

Criteria	Price	Change	Prob	Total	Total %	Total	Summary Remark
Maximum Profit Potential	10,200.00	-3.40 %	12.15 %	79,004.25	4.23 %	0.20 %	
Maximum Loss Risk	∞	∞		-∞			
Upper Protection	10,958.01	3.78 %	10.51 %	0.00			
Lower Protection	10,041.99	-4.90 %	4.50 %	0.00			
Return if Unchanged	10,558.85	0.00 %		79,004.25	4.23 %	0.20 %	
Current Return				48,550.00	2.60 %	0.12 %	
Total Delta				0.00	0.00 %		
Total Vega [% volatility]				-8,171.87	-0.44 %		
Total Theta [day]				3,115.05	0.17 %		

Once in the position, it is important to make adjustments in order to remain delta neutral. As the price of the position moves, so does the delta. An increase (decrease) in price of the underlying futures contract will increase (decrease) the premium of the option, as well as the delta. Making adjustments along the way will allow for the position to be as close as possible to delta neutral.

Straddles

Simultaneous Purchase/Sale of the same number of CALLs and PUTs with identical Strike Prices and Expiration Dates [Long or Short].

Example of Short Straddle:
SHORT NIFTY CALL 10000 and SHORT NIFTY PUT 10000

Strangle
Simultaneous Purchase/Sale of CALLs and PUTs at different Strike Prices.

Example of Short Strangle:
SHORT NIFTY CALL 10200 and SHORT NIFTY PUT 9800

Bull Spread
Simultaneous Purchase and/or Sale of CALLs or PUTs that will produce maximum profits when value of underlying asset rises.

Example:
LONG NIFTY CALL 10000, SHORT NIFTY CALL 10500

Bear Spreads
Purchase & sale of CALLs or PUTs for maximum profits when value of underlying asset falls.

Example:
LONG NIFTY PUT 10000, SHORT NIFTY PUT 9500

Calendar Spreads [Time Spreads]
Purchase & sale of CALLs or PUTs with different expiration dates.

Example:
SHORT NIFTY CALL 10000 (JAN), LONG NIFTY CALL 10000 (FEB)

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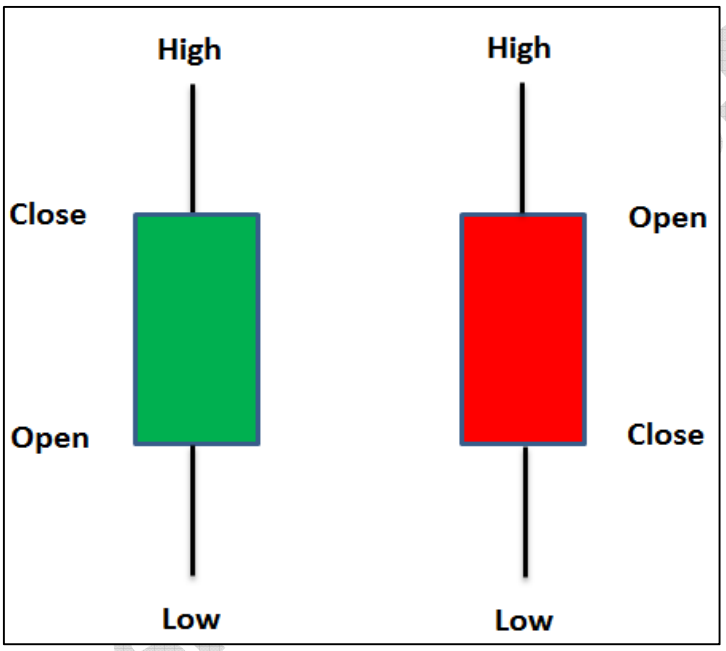
14. Understanding Chart (Candlestick)

Candlestick chart is most widely used to analysis trend. It is better than line or area chart. Other charts normally based on closing price, whereas candlestick shows all four components (Open, High, Low and Close – OHLC).

Here is candlestick.
Green candlestick means price closed in positive.
Red candlestick means price closed in negative.



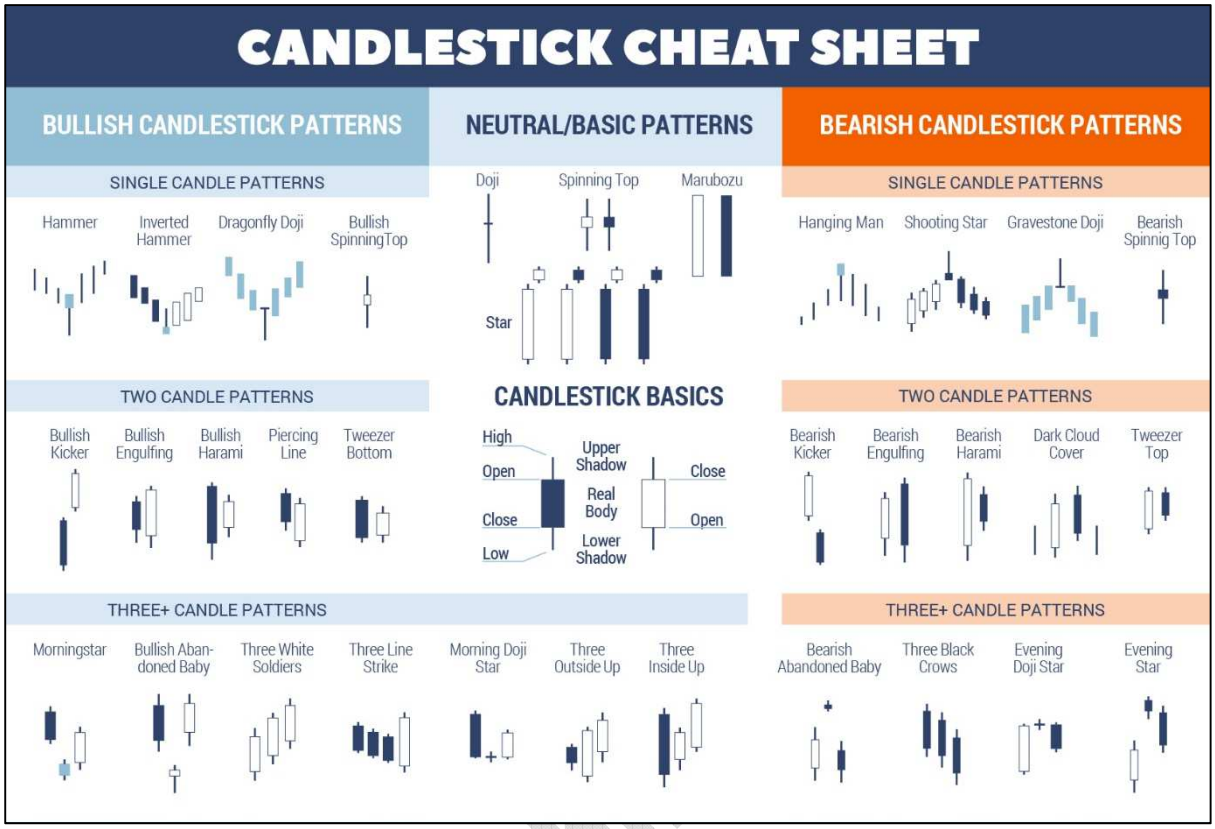
Try NIFTY candlestick chart on following URLs:

www.investing.com/indices/s-p-cnx-nifty-advanced-chart

https://www.tradingview.com/chart/?symbol=NSE:NIFTY

What is **High-Low** known as?
If we take **average of High-Low for last 14 days**, what is it referred as?

Candlestick Cheat Sheet:



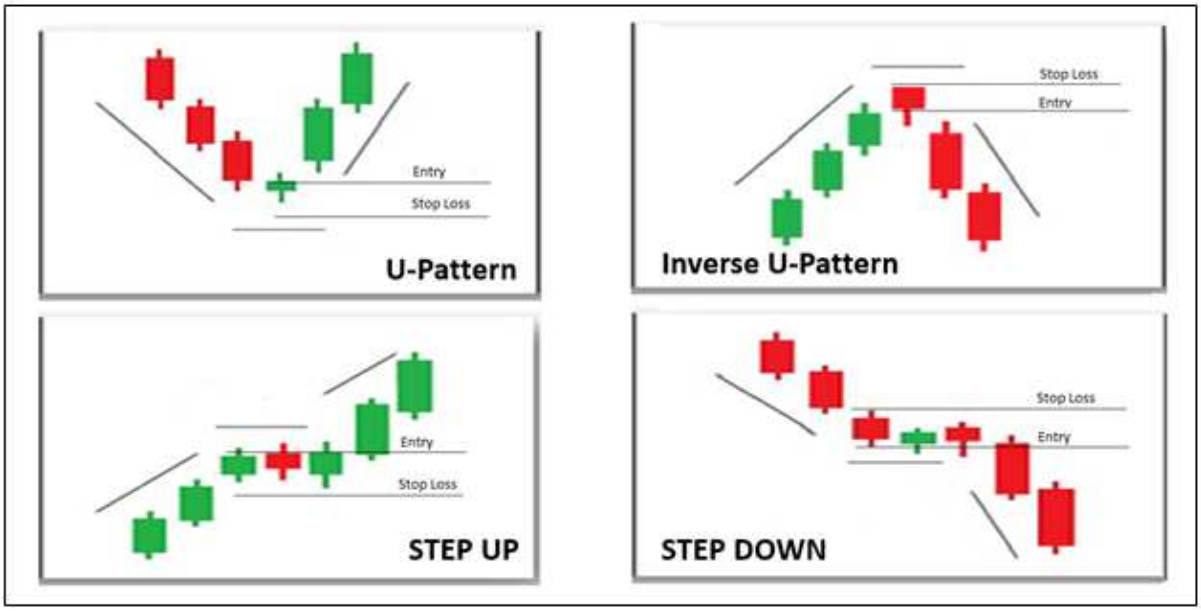
Identifying Support and Resistance levels
• Using candlestick patterns
• Using indicators/oscillators
• Using Swing Highs and Swing Lows
• Using pivots
• Using price action
• Using Standard Deviation
• Using ATR
• Using OI

Can you identify what is daily ATR for NIFTY currently?

15. Price patterns

Price patterns on chart are made of four basic patterns.

Price Patterns



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16. Trend

Trend shows us what direction to trade. Trend is assumed to continue until it breaks.

Trend can be one of following three:

- Uptrend : Bullish
- Downtrend : Bearish
- Sideways : Non-directional

Identifying Trend

There are different methodologies to identify/confirm trend. We can use one or combination of following:

- Moving Average (E20 (Exponential 20 days), E50, E100) and retracement or trend line.
- Moving Average crossover (E10 and E20, E50 and E100)
- Higher High, Higher low, Lower Low, Lower High
- Breaking Support or resistance levels
- Comparing price of Future with Underlying
- Using PCR (PUT CALL Ratio)
- Direction of shift of Option Max Pain

Try practice trend on NIFTY candlestick chart on following URL:

https://www.tradingview.com/chart/?symbol=NSE:NIFTY
www.investing.com/indices/s-p-cnx-nifty-advanced-chart

Trend changes because of technical/cyclic reasons and economic environmental changes. Trend may even change because of unexpected change in environment. In case of trend change, trader/investor needs to adapt change and move on. Those who could not adapt change is likely to fail.

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17. Tools: OpStrater

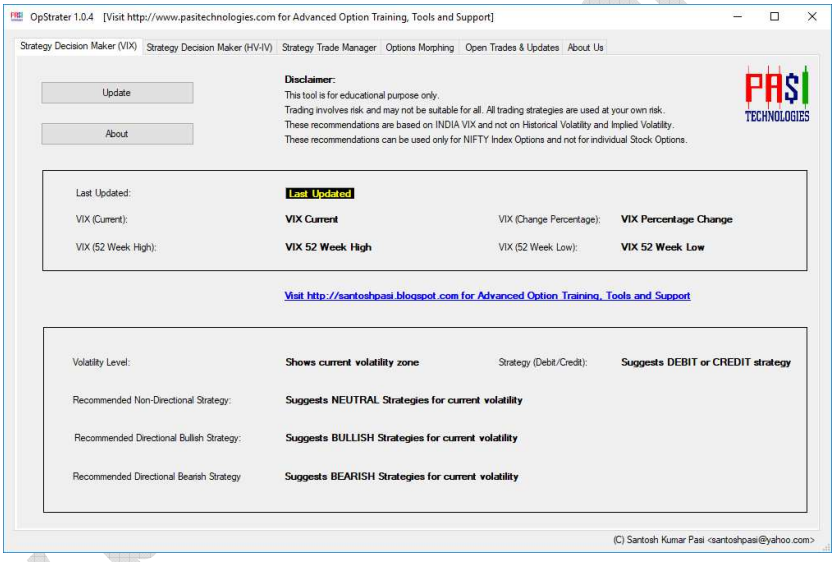
OpStrater consists of following major components:

- Strategy Decision Maker VIX
- Strategy Decision Maker HV-IV
- Strategy Trader Manager
- Options Morphing
- Open Trades

18. OpStrater: Strategy Decision Maker (VIX)

Strategy Decision Maker (VIX) analysis INDIAVIX and recommends strategies based on current volatility level.

Click on button "**Update**" to see recommendations.



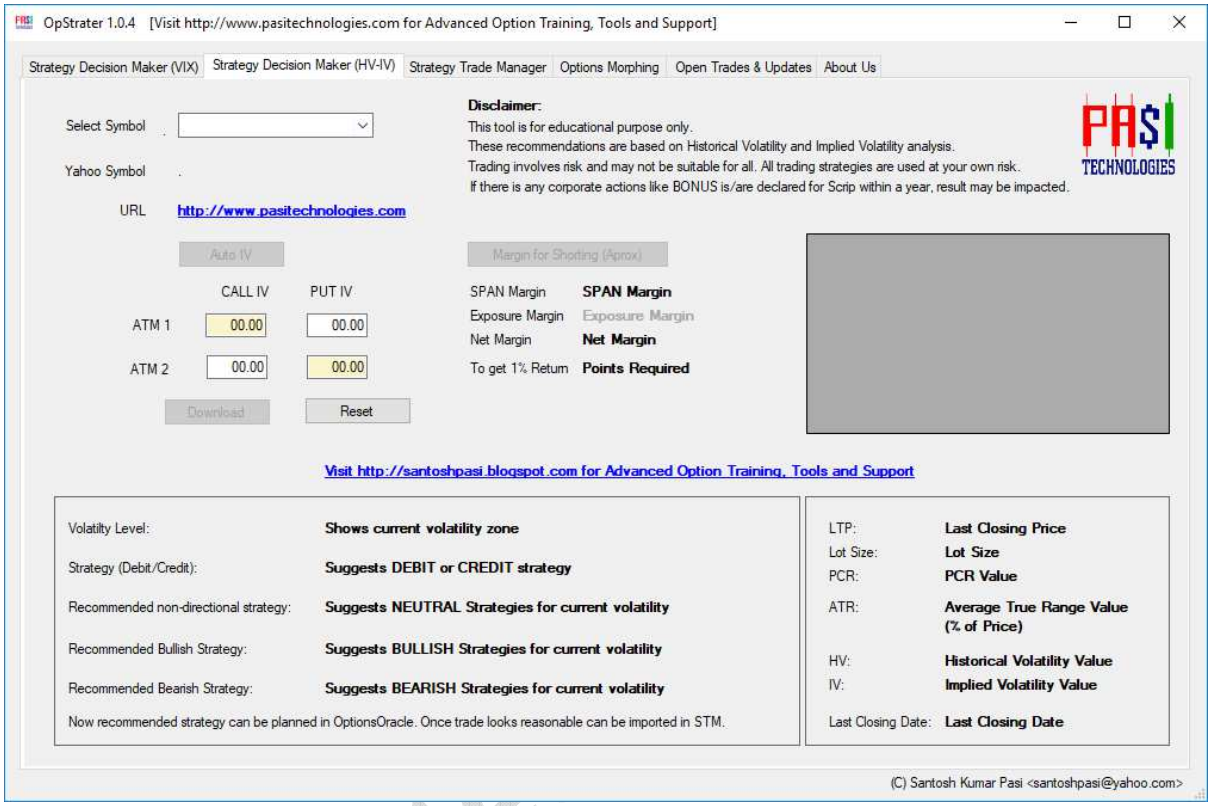
Once it is updated, shows recommended strategies in second half of the screen.

Steps:

1. Click on "Update" button.
2. Check "Last Updated" value
3. Check "VIX (Current)" value
4. Check "52 Week High" value
5. Check "52 Week Low" value
6. What is "Volatility Level"?
7. What is recommended Neutral Strategy?
8. What is recommended Bullish Strategy?
9. What is recommended Bearish Strategy?

19. OpStrater: Strategy Decision Maker (HV-IV)

Strategy Decision Maker (HV-IV) analysis Implied Volatility verses Historical Volatility and recommends strategies.



Steps:

1. Select Scrip NIFTY using HV-IV method.
2. Click on Auto IV or
3. URL link to open Option Chain table and Add ATM IV values
4. Click on "Download"
5. What is Last Update date?
6. What is current ATR?
7. What is "Volatility Level"?
8. What is recommended Neutral Strategy?
9. What is recommended Bullish Strategy?
10. What is recommended Bearish Strategy?

Remaining tool ("Strategy Trade Manager", "Options Morphing" and "Open Trades and Updates") will be covered during workshop. These are not supported for premium users.

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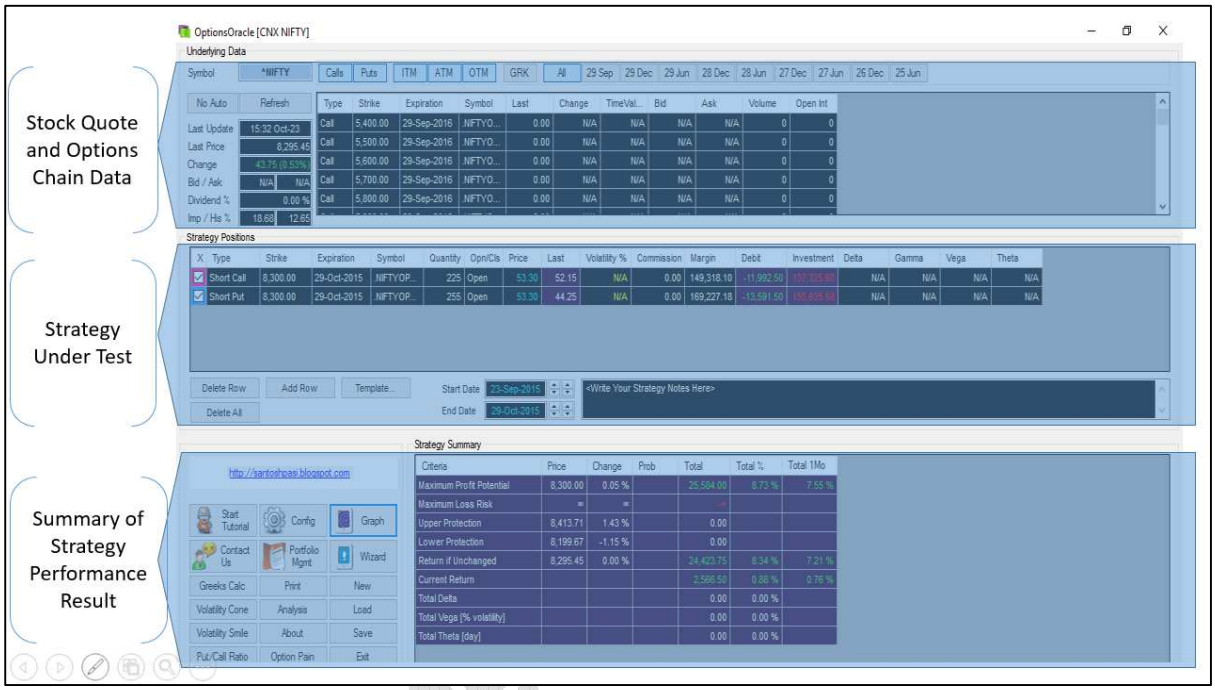
20. Tools: OptionsOracle India Plugin

OptionsOracle is strategy analysis tools that allows testing of different options strategies using real-time options and stock-market information. The tool provides an easy interface to build a stock/options position and then test it using graphs and analytical tools. Its payoff chart helps to analyze strategy status at different price, date and volatility.



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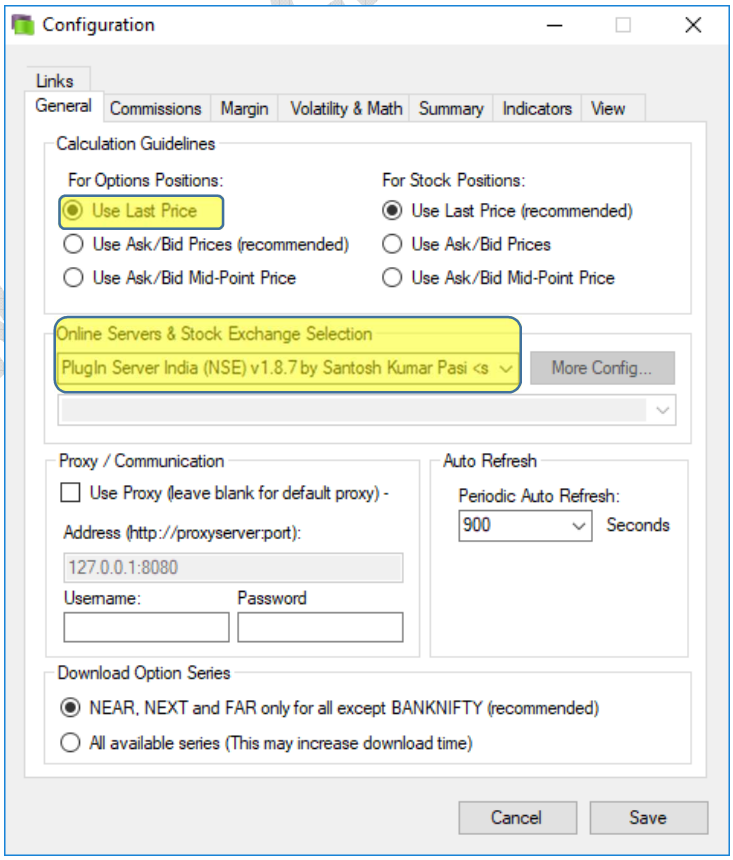
21. Configuring OptionsOracle

Once you install OptionsOracle, it is preconfigured automatically. We recommend not to change those unless you have specific requirements.

In case if you wish to change, click on button "**Config**" as shown below.

1. Under "**General**" tab, make following settings as shown below:

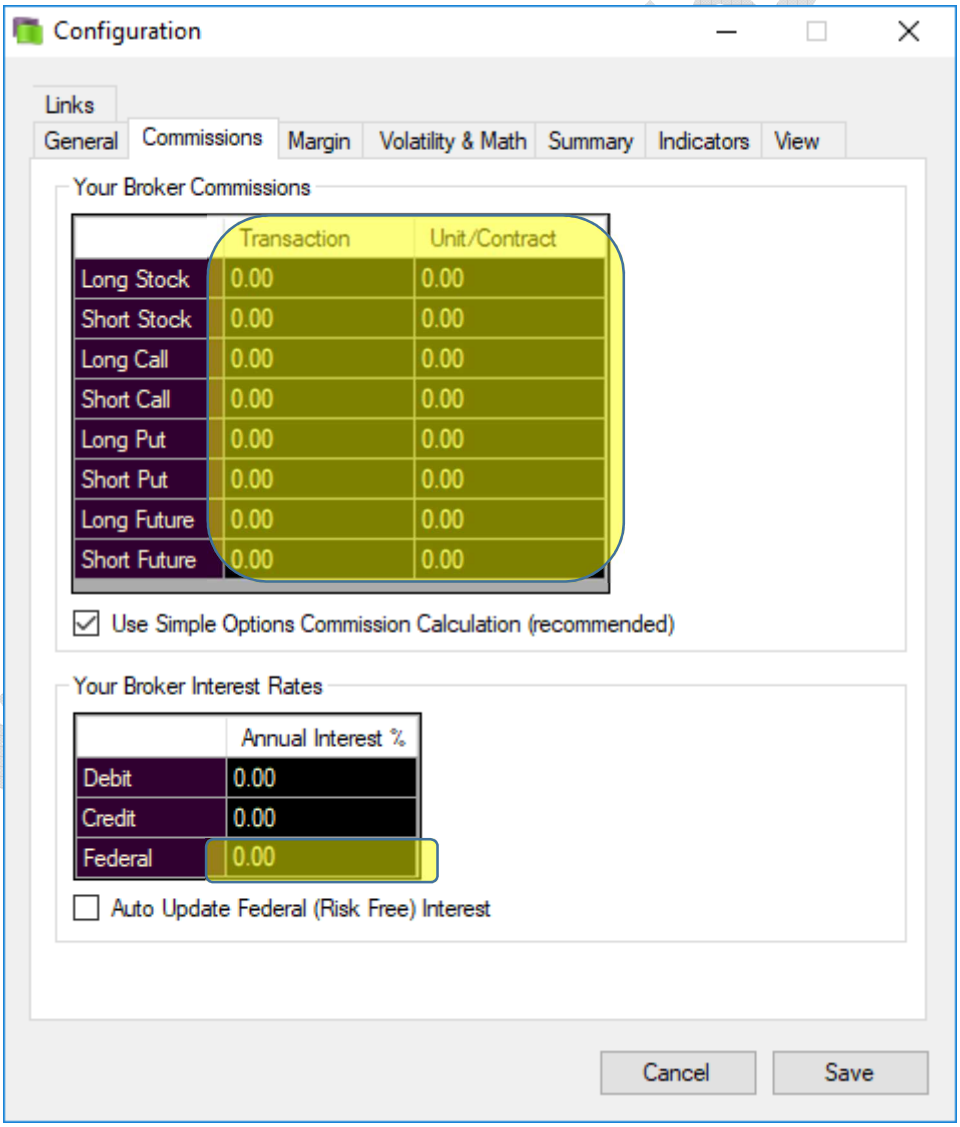


Click on Online Servers& Stock Exchange Selection drop down menu and select servers. If you are trading Indian market, select "Plugin Server India (NSE) …".

Also recommended to use "Use Last Price" for Options Positions.

If you are behind proxy, then proxy settings need to be mentioned in section "Proxy / Communication". Your system administration or network administration will be able to guide on this. This is only required if you are behind proxy server and don't have direction Internet connection.

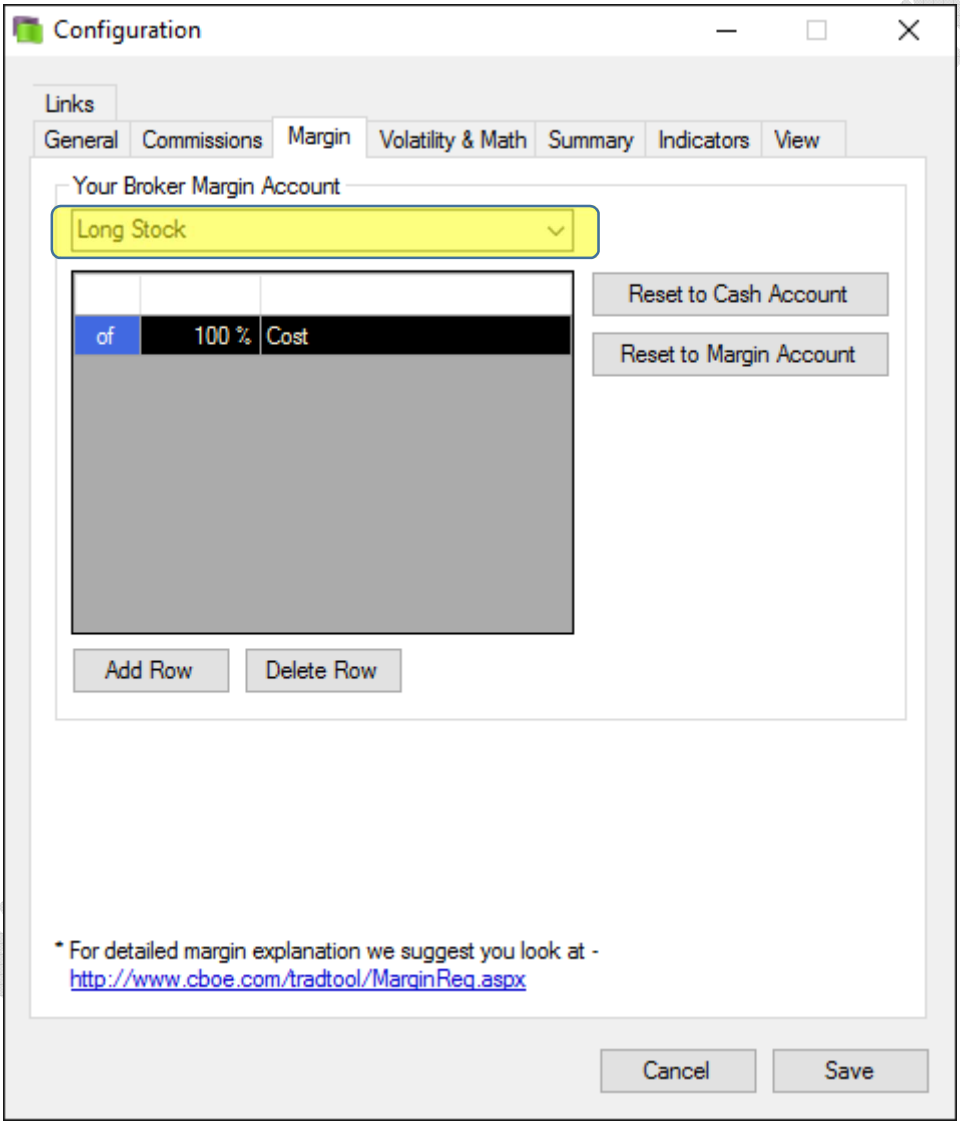
2. Under "**Commissions**" tab, make following settings as shown below:



Make sure all Commissions and even Federal rates are mentioned as zero, unless you know significance and impact of same.

If you are very sensitive to commissions, then make sure to write correct value including Unit/Contract.

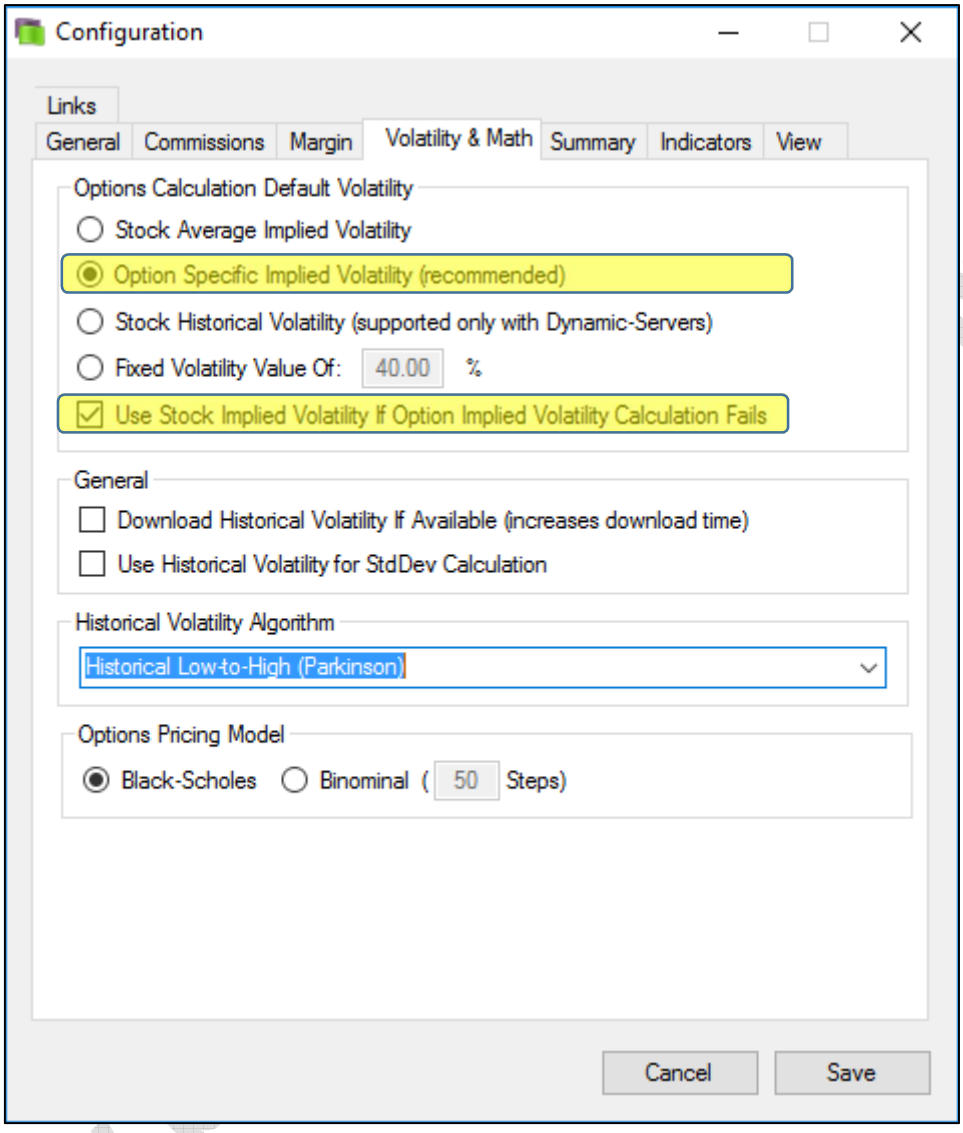
3. Under "**Margin**" tab, you can set margin requirements based on your broker. Generally, we recommend not to change default settings.



If you wish to have exact margin setup, please see blog post on

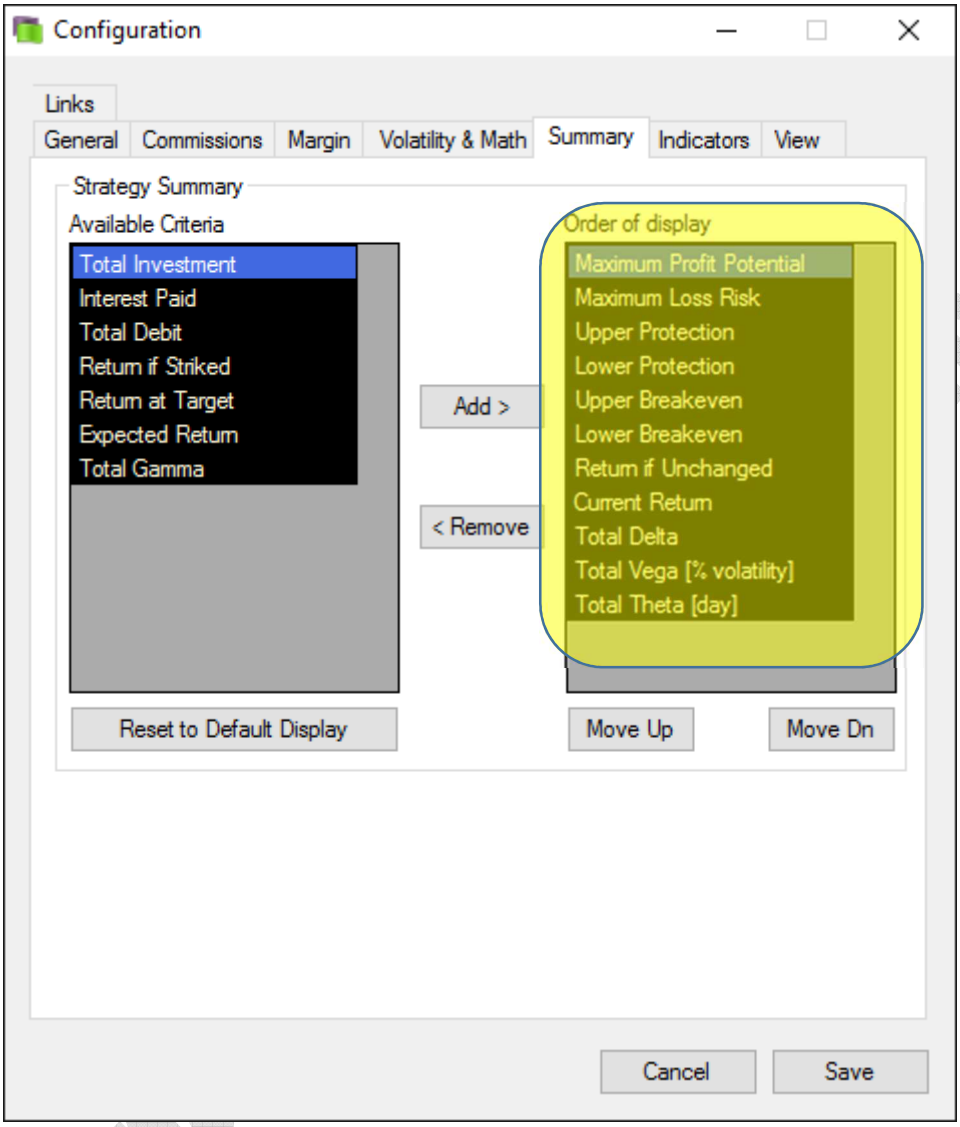
http://www.pasitechnologies.com/2016/06/optionsoracle-margin-settngs-for-nifty.html

4. Under "**Volatility & Math**" tab, make changes as shown below:



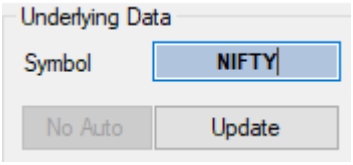
Some time, we use "Download Historical Volatility if Available (increase download time), but generally we recommend to disable it as it increases download time.

5. Under "**Summary**" tab, following is recommendation settings.



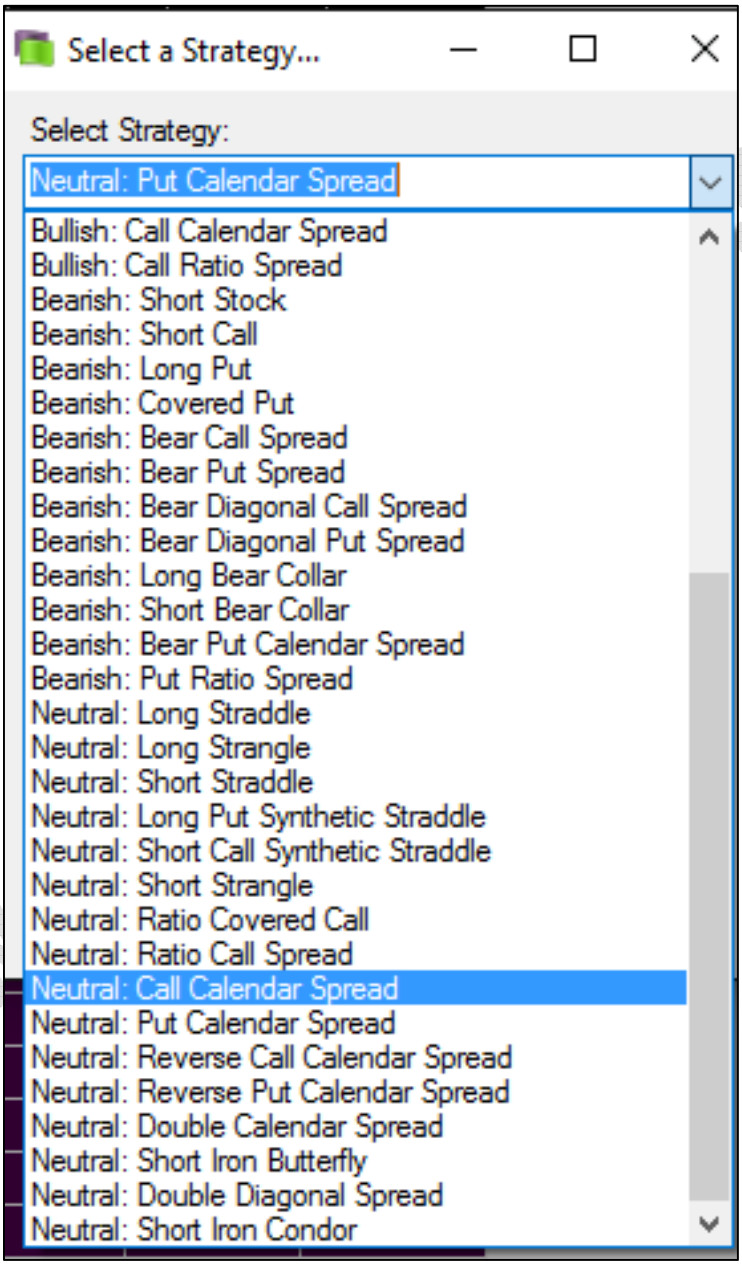
This is important settings and we highly recommend to use as shown above, in same order. If you are participating in workshop, will let you know importance of this in workshop under module 2 section.

22. Using OptionsOracle



Please follow following steps:

1. Start OptionsOracle India Plugin
2. Use "NIFTY" scrip in Symbol, and click Update
3. Click on Template and select Neutral Strategies (Neutral: Call Calendar Spread)



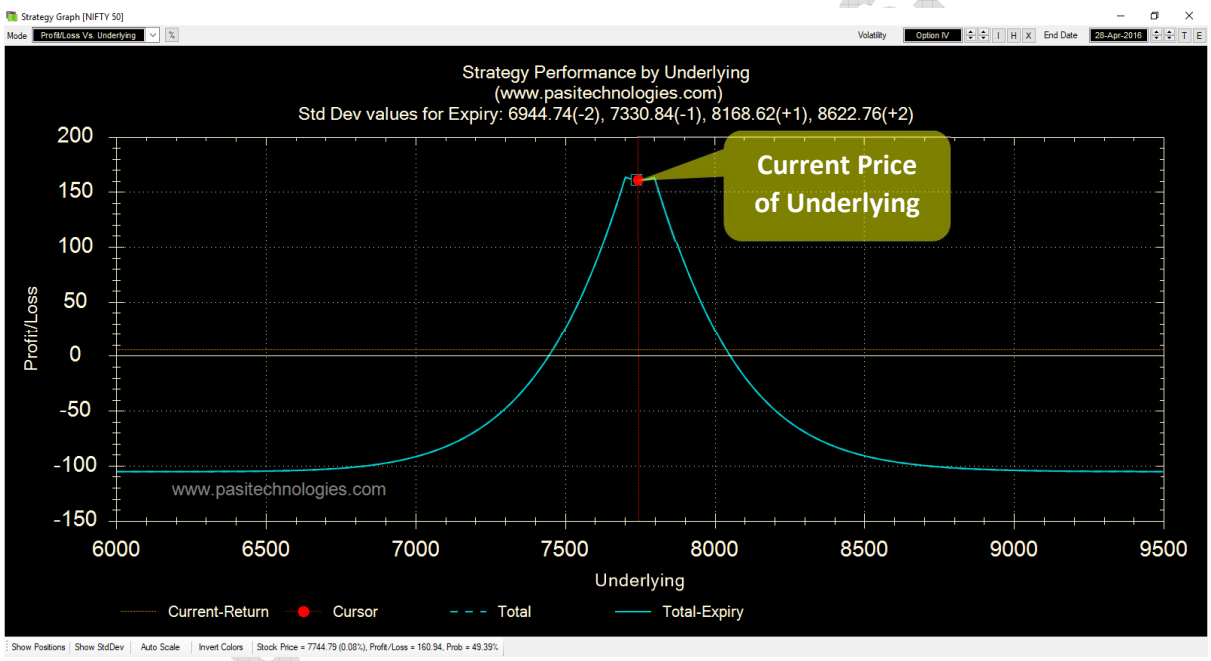
Try selecting different strategies and see what happens in "Strategy Position" tables.

Here is sample screenshot of "Strategy Positions".
We have updated our traded (executed) price manually for each position. See column "Price".

Strategy Positions

X	Type	Strike	Expiration	Symbol	Quantity	Opn/Cls	Price	Last	Volatility	Commission
☑	Short Call	7,700.00	28-Apr-2016	.NIFTY...	1	Open	185.00	183.00	28.00	0.00
☑	Long Call	7,700.00	26-May-2016	.NIFTY...	1	Open	255.00	256.00	22.88	0.00
☑	Short Put	7,800.00	28-Apr-2016	.NIFTY...	1	Open	140.00	137.80	17.76	0.00
☑	Long Put	7,800.00	26-May-2016	.NIFTY...	1	Open	175.00	175.55	13.72	0.00

4. Click on Graph and try to find out different parameters in Graph.



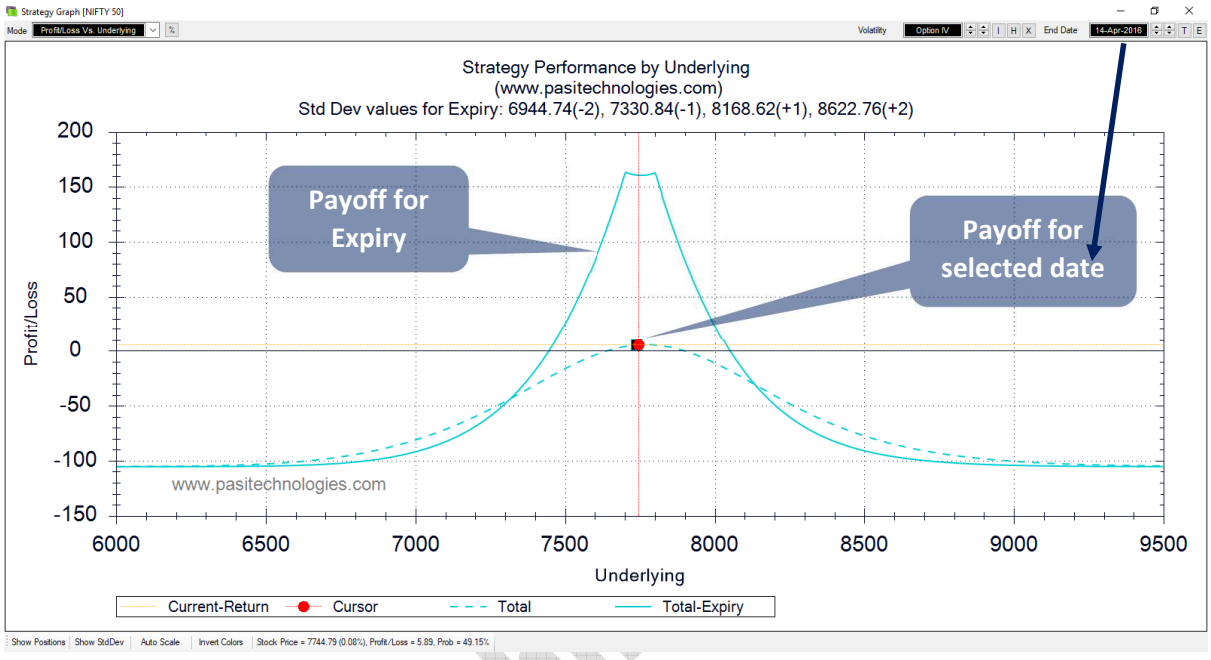
Try moving mouse cursor over different price and watch changes in profit/loss on status bar of graph.

Also you may wish to click on top right corner on T or E or selected date to see possible status of pay-off on particular date.

Here T means today. E means on Expiration.

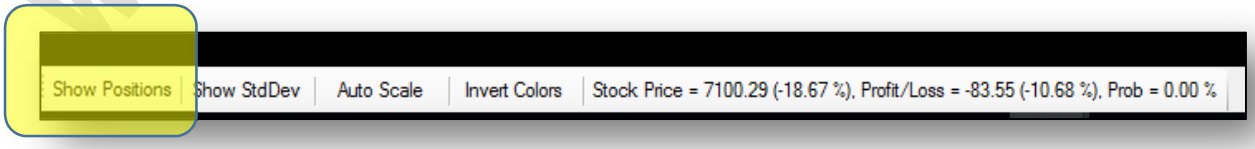
Let's see status as of today by clicking on T.

Payoff at Expiry and Payoff at select date (within expiry)
Here is another example for payoff on today (by clicking on "T"), try this in "**OptionsOracle Advance**". We clicked on "Invert Colors" to change to bright theme.



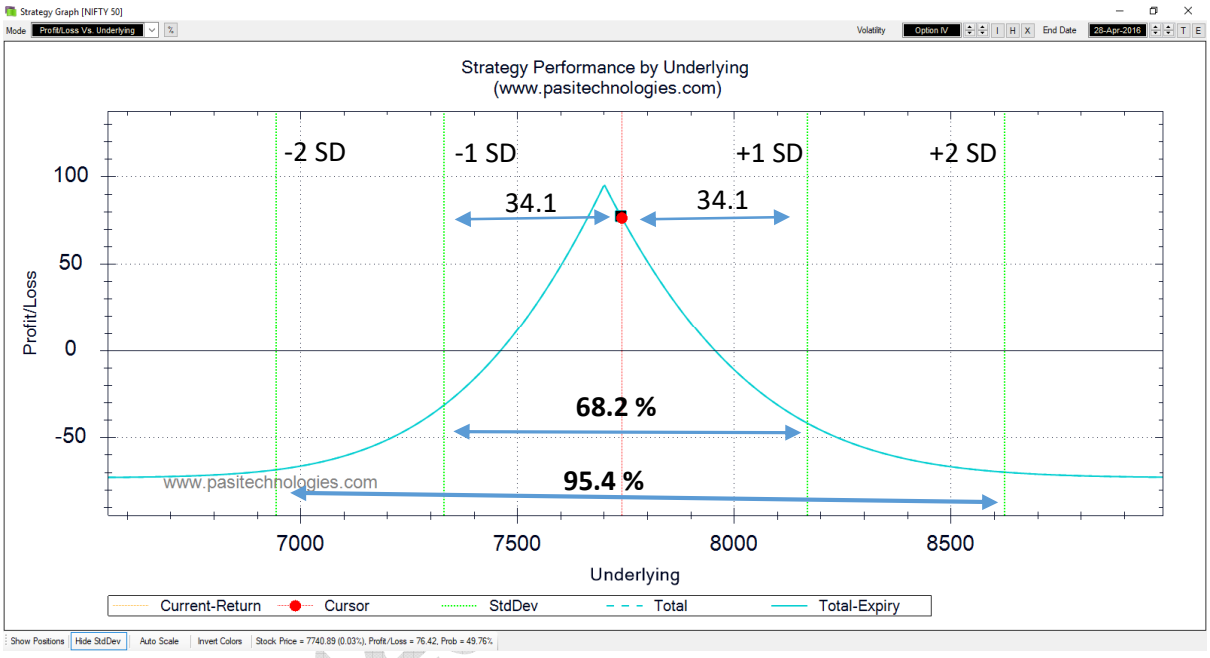
Try changing mouse pointer over chart and see what it shows at status bar of graph chart.

Show Positions:
If you would like to see the graphs of all the positions that construct the strategy click the "Show Positions" button.



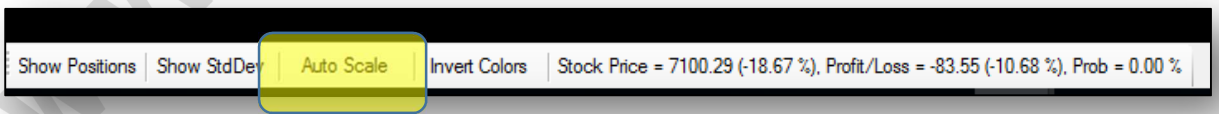
Show StdDev:
You can show the -2StdDev, -1StdDev, +1StdDev, and +2StdDev vertical markers by clicking the "Show StdDev" button.

Remember:
1 standard deviation = 68.2%
2 standard deviations = 95.4%

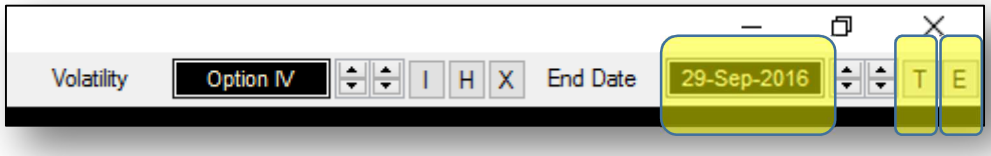


Auto Scale:
The "Auto Scale" button located at status bar provides the ability to reset the scale of the graph back to default at any point. Try changing graph size using mouse drag (making square) or by scrolling mouse central roller.

Now click on "Auto Scale" to reset.



Try changing parameters at top (T or E) and see how it impact.
This is to see payoff chart on Expiry or for select date.



23. Understanding Strategy Summary

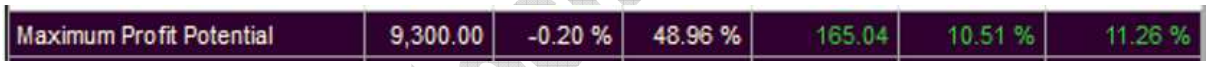
Let us understand "Strategy Summary" as shown in OptionsOracle main screen with example.

Strategy Summary

Criteria	Price	Change	Prob	Total	Total %	Total 1Mo
Maximum Profit Potential	9,300.00	-0.20 %	48.96 %	165.04	10.51 %	11.26 %
Maximum Loss Risk	0.00	-100.00 %		-80.00	-5.09 %	-5.46 %
Upper Protection	9,536.92	2.34 %	38.27 %	0.00		
Lower Protection	9,073.28	-2.63 %	36.53 %	0.00		
Return if Unchanged	9,318.75	0.00 %		146.99	9.36 %	10.03 %
Current Return				25.00	1.59 %	1.71 %
Total Delta				-0.01	0.00 %	
Total Vega [% volatility]				10.27	0.65 %	
Total Theta [day]				1.36	0.09 %	

Maximum Profit Potential

Maximum profit potential in this strategy at the end-date (On expiry).



Maximum Profit Potential	9,300.00	-0.20 %	48.96 %	165.04	10.51 %	11.26 %

Maximum profit in this strategy is 165.04 points. If our scrip (NIFTY) closes at 9300 on expiry, we will have maximum profit of 165.04 points.

Maximum Loss Risk

Maximum loss risk in this strategy at the end-date.

Maximum Loss Risk	0.00	-100.00 %		-80.00	-5.09 %	-5.46 %

Maximum loss in this strategy is limited to 80 points. That would be around 5% loss based on investment in this strategy (including margin consideration).

If "Maximum Loss Risk" is shown as ∞, it means in this strategy, risk is infinite.

Upper Protection

Upper protection appears only if the strategy has positive profit with the current underlying asset price. It shows the upper underlying asset price in which the strategy breaks-even at the end-date.

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We are protected (in profit) until NIFTY (our scrip) is below 9535 i.e. 2.34% away from current price. If NIFTY crosses upper protection (9535) and goes above, loss will start in strategy.

Lower Protection

We are protected until NIFTY (our scrip) is above 9073 i.e. 2.63% away from current price. If NIFTY crosses lower protection (9073) and goes below, loss will start in our strategy.

Return if Unchanged

Profit/Loss status if expiry happens at current price level.

Currently NIFTY is at 9318 and if NIFTY closes on this price on expiry, our profit will be 146.99 that is around 9.36% return on investment based on margin consideration.

Current Return

Profit/Loss status as now.

As of now, our strategy is in 25 points profit i.e. 1.59% return on investment.

Total Delta

Total Delta represents by how much the strategy return changes relative to a movement of the stock price by 1.

In above example, Total delta for strategy is -0.01.
So if Underlying price goes up by Rs 1, we will be negative impacted by 0.01 points in our strategy.
Similarly, if Underlying price goes down by Rs 1, we will be positively impacted by 0.01 points in our strategy.

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Total Vega

Total Vega represents by how much the strategy return changes relative to movement of volatility by 1 %.

Total Vega [% volatility]				10.27	0.65 %	

In above example, Total Vega for strategy is 10.27 points. So if Vega changes by 1% (increases), it is going to impact by 10.25 (positive). In case Vega decreases by 1%, we will be impacted positively by 10.25 points.

Total Theta

Total Theta represents by how the strategy return changes relative to time change of one day.

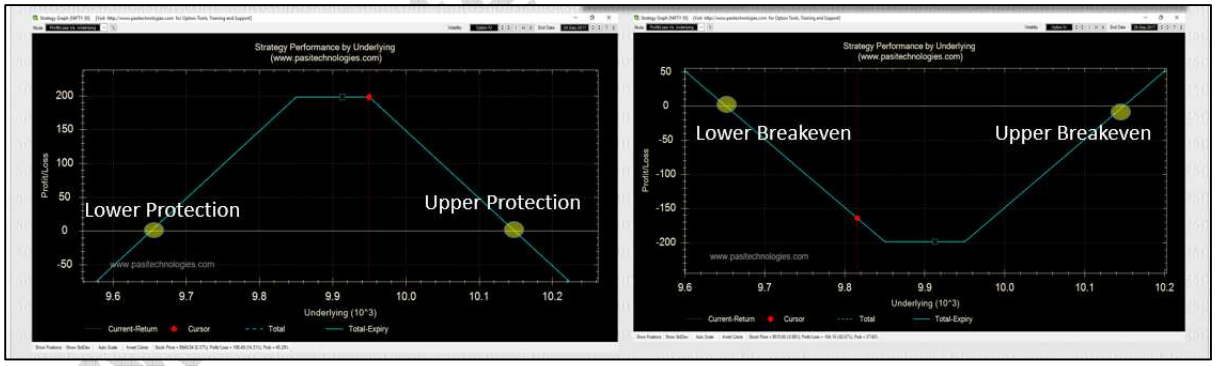
Total Theta [day]				1.36	0.09 %	

Total theta in above example is 1.36. For credit strategy theta is positive and for debit strategy, it is negative.

So if we stay one more day in strategy, theta earning will be 1.36 points.

Remember, theta increases day by day as we move close to the expiry.

Difference between Protection and Breakeven



Protection:

Scrip price needs to stay between Lower and Upper Protection to be in profit. Mostly applicable for credit strategies.

Breakeven:

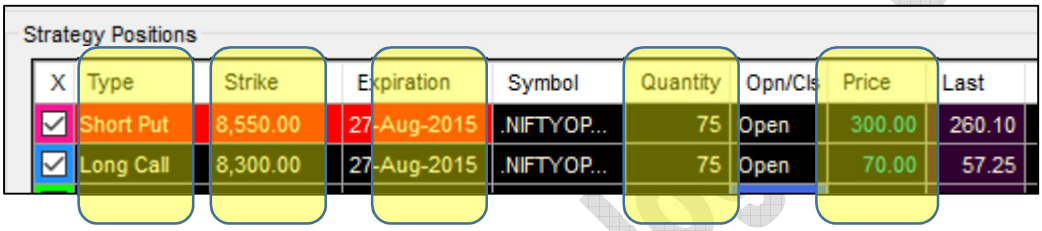
Scrip price needs to break either lower breakeven or upper breakeven to go into profit. Mostly applicable for debit strategies.

24. Adding Position in "Strategy Positions"

To add positions in "**Strategy Positions**", you can use any of following three methods:

1. **Drag** from "Option Chain" table to "Strategy Positions"
2. Use "**Add row**" button and manually change "Type", "Strike", "Expiration", etc.
3. Use "**Template**" and select predefined template. Later on you can change "Strike", "Expiration", etc. if required.

Once you add position, you can change Type, Strike, Expiration, **Quantity**, **Price** and other parameters. Notice color of price once you change it.



In Quantity column, if 1 is used, then the results in "Strategy Summary" are in points.

In Quantity column, if actually lot size is used, then results in "Strategy Summary" are in Rupee.

We prefer to use in **points**. While importing OptionsOracle details to "**Strategy Trade Manager**" points format to be used i.e. Quantity should in '1' (or least possible value) instead of actual lot size/quantity.

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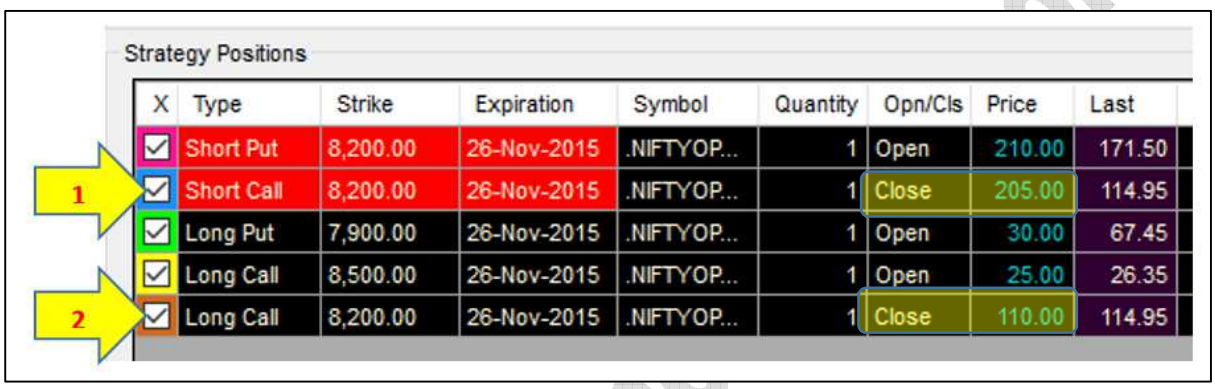
25. To square-off position in OptionsOracle

To square-off (close) position in OptionsOracle, you can add corresponding closing (square-off) position.

Let's say you have "Long CALL", then add "Short CALL" with same strike and expiry along with your square-off price. Your "executed" or "square-off" price should be updated manually in "Price" column.

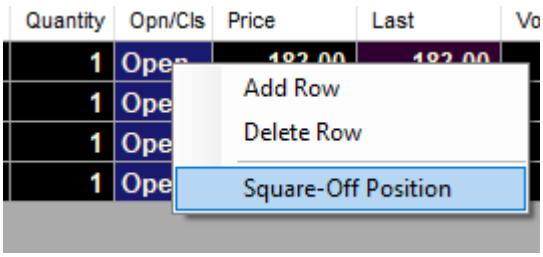
Here is example:



Position marked with 1 is "Short CALL 8200 9700" at Rs. 205.
Position marked with 2 is corresponding square-off position (Long CALL 9700" at Rs. 110. You can also change "**Opn/Cls**" status to "**Close**" to both positions.

If you have "Short Position" you have to add corresponding "Long Position" with square-off price.

Alternatively, you may right click on "Open", it will show "Square-Off Position", it will automatically add square-off position. You should now change corresponding position's Price with your traded price and if required change Quantity (in case portion of total position closed).



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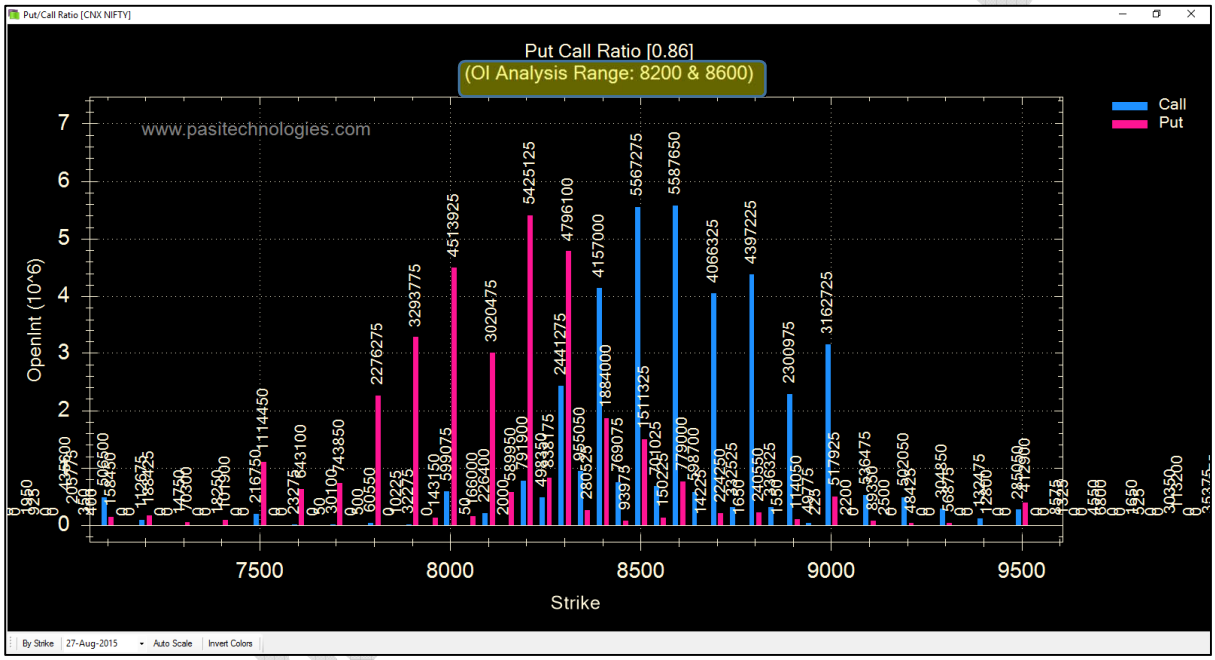
26. PUT CALL Ratio

PUT CALL ratio is ratio of OI of PUT verses CALL. It is a popular tool to help traders gauge the overall sentiment of the market.

Put Call Ratio Calculation = Open Interest of PUTs / Open Interest of CALLs

Click on PUT CALL Ratio and see title. Here is showing PCR is 0.86.

In "**OptionsOracle Advance**", see second line in graph title. It shows possible range expected for the series selected.
It shows "OI Analysis Range".



PCR Value and our interpretation (consider writer's perspective):

Value	General Interpretation
0.0 to 0.4	Strongly Bearish
0.4 to 0.8	Bearish
0.8 to 1.2	Sideways
1.2 to 1.6	Bullish
1.6 and above	Strongly Bullish

In screenshot above, PCR value is 0.86, so based on above table, it is currently in sideways trend.

Generally Max OI Strike in CALL side is considered as nearest resistance level and Max OI strike in PUT side is considered as nearest support level.

Kindly note, OI Analysis range in PCR chart.

We will discuss in our workshop, how to effectively use PCR.

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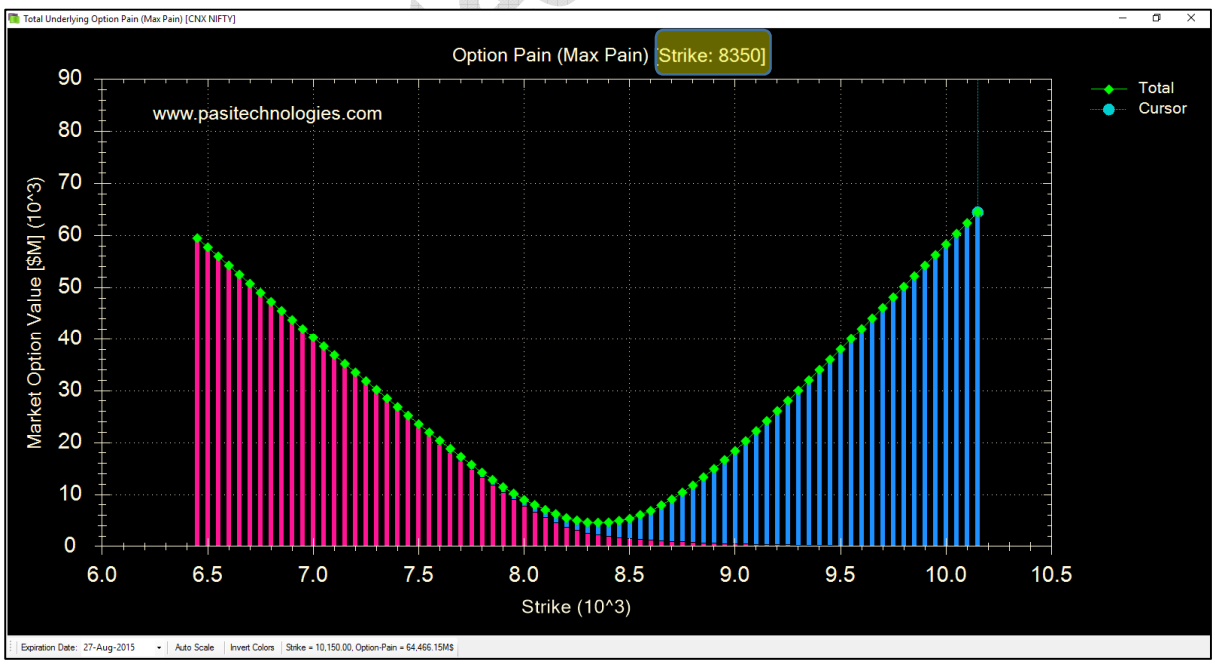
27. Option Pain

This is a theory based on the fact that option buyers are retail traders who typically buys option whereas option writers/sellers are professionals/institutions who typically sells options and have a higher chances of winning and making profits. It is believed that money-makers (professionals/institutions) are making extra money by selling options (both calls and puts), and they will manipulate the stock price approaching expiration date to minimize their liability to exercise options, causing "maximum option pain" to the option buyers.

According to this theory the underlying on the expiry day will gravitate towards that point at which option buyers will feel the maximum pain, basically a point where the maximum number of options, both calls and puts value could become zero (worthless) on the expiry day. To calculate this, we need the open interest of both calls and puts for various strike prices.

Click on Option Pain and observer graph and **graph title**. Here it is showing max pain is at 8350. So most likely based on current situation, expiry may happen near 8350.



28. Best Practices

Following are best practices we recommend while trading options:

1. Invest your money in assets like Liquid BeES or mutual fund or FD or Bond and use that asset as collateral to trade options. This collateral asset can be used for shorting options.
2. Make sure broker doesn't charge over-night interest against collateral asset usage, else switch broker.
3. Use discounted brokers to avoid higher brokerages. A penny save is penny earned.
4. Use two or more brokers. In case if one broker is facing technical or any other issue, you can alternatively use other broker for trading. Some time, we may have conflicting trades, so you can take conflicting trade in second account.
5. ITM Long Options should be squared-off before expiry; else exchange will settle for you with penalty i.e. higher STT (STT on underlying asset value instead of Option premium). ATM or OTM Long options will be worthless, so no penalty. In case of Short positions (either ITM, ATM or OTM), STT is already paid, so no penalty will be charged.
6. Stock Options having compulsory delivery should be squared-off ideally on last Friday of expiry or before to avoid forced delivery.
7. Understand that there is no holy grail in the market. The early you understand, it is better.
8. Avoid overtrading, overtrading is the single biggest malaise of most trade.
9. Always have a trading plan. It means, you should have entry plan, exit plan (including both profit booking and loss booking). You should also have adjustment plan.
10. Avoid trading DEEP ITM options. Most of time, it will have higher bid-ask spread and it is not easy to square-off Deep ITM option position.
11. If volatility is high or very high for some expected event (earning), you may delay entry for credit strategies and enter just before an event (possibly day of event or a day before that) when volatility is at peak.

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29. Assessment

Before attempting online assessment and to get most out of our workshop, we recommend following:

1. Make sure tools are activated.
2. You have read this PDF thoroughly; we recommend to read it multiple times.
3. Make sure you have watched our recommended YouTube videos
4. You are practicing tools and are comfortable to use it.

URL for assessment:
http://www.pasitechnologies.com/p/assessment.html

Once online assessment is submitted, we will try to verify your response as early as possible. It generally takes 7-10 days and you will receive result in your email.

Once we verify your response to online assessment, we will share second study material. Also if you get more than 90% score and all other conditions are met, we will add you in our Option Trading Telegram group immediately.

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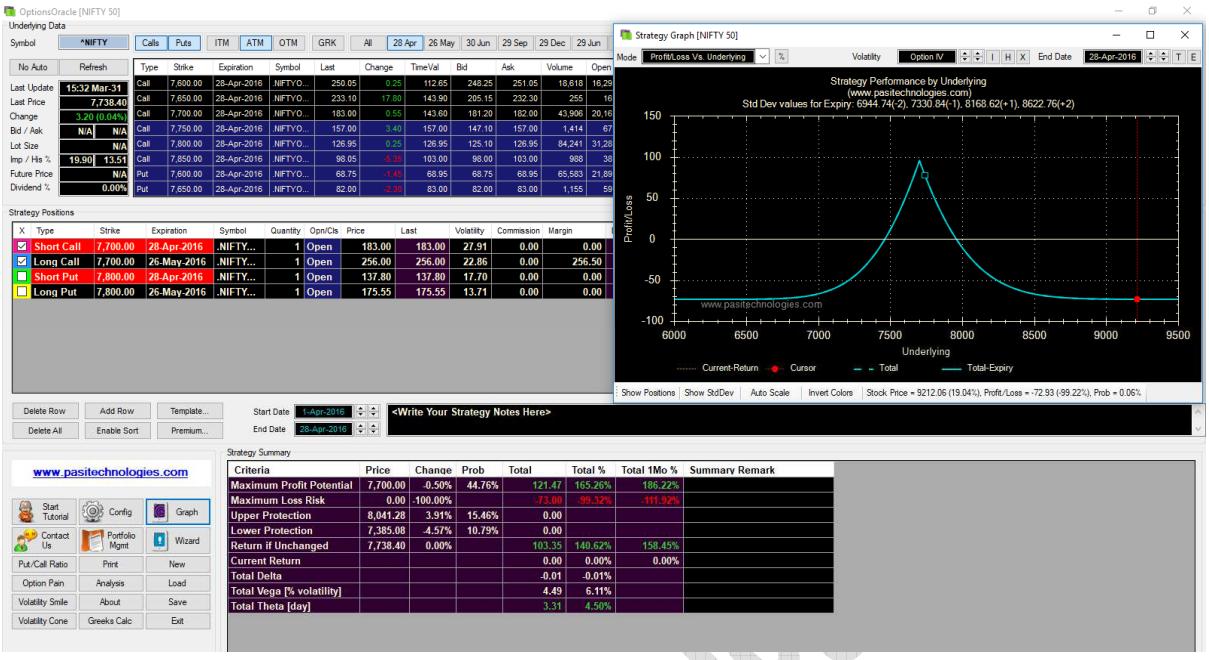
For OptionsOracle screenshot, please using following format while posting in our Telegram or social media for any query.



This allows us to see all relevant details like strategy positions, strategy summary and pay-off graph.

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30. Additional resources

Please watch following videos on YouTube:

Getting started with OptionsOracle:

- **https://www.youtube.com/watch?v=P9QZm-xAH6Q**

OpStrater (The Options Strategy Trade Organizer):

- **https://www.youtube.com/watch?v=qz4IMeAeQLk&t=5s**

Also, we recommend you to visit the following URL:

- **http://www.pasitechnologies.com/2015/08/how-to-use-optionsoracle-nse-india.html**
- **https://www.moneycontrol.com/news/business/moneycontrol-research/a-part-time-trader-who-uses-time-and-risk-management-successfully-at-his-job-and-in-the-market-2774651.html**

You can join the our FaceBook group or Tweet to get latest updates about tools, workshop schedules and of course market outlook:

- **https://www.facebook.com/groups/OptionTradingCourse**
- **https://twitter.com/SantoshPasi**

Other reading materials:

- **https://www.optionseducation.org/referencelibrary/brochures-literature/page-assets/options-strategies-quick-guide.aspx**
- **https://www.nseindia.com/content/ncfm/sm_otsm.pdf**
- **http://www.cboe.com/learncenter/pdf/masteringoptionstrategies.pdf**

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31. Modules

Below is the list of modules/topics we will cover during our Option Trading Workshop.

1. Option Basics

2. Option Analysis and Trading Tools
   Effectively using OptionsOracle
   Effectively using OpStrater
   - Strategy Decision Maker (VIX)
   - Strategy Decision Maker (HV-IV)
   - Strategy Trader Manager

3. Non-directional Strategies
   Strategy guidelines
   Mastering non-directional Option Strategies

4. Directional Strategies
   Mastering bullish Option Strategies
   Mastering bearish Option Strategies
   Option Morphing

5. Adjusting Option Strategy Trades
   Importance of adjustment
   When to initiate adjustment
   How to adjust Option strategies to minimize loss in case trade is going against us?

6. Risk Management
   Position sizing for strategies
   Money management
   Avoiding common mistakes

7. Practice
   Identifying Option trades
   Case studies

All seven modules will be covered in our "Options Trading Workshop".

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Thank you for reading Option Basics Trading Guide

You can read more updates on

http://www.pasitechnologies.com

https://www.facebook.com/OptionTrainingProgram

Be Safe and Happy Trading ☺

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