Backtesting of the Short Strangle Strategy on Nifty Data:

Strategy:

Strategy name: (nifty short strangle)

Instrument: (option .)

Instrument selection: (ATM+100 & ATM-100)

Entry criteria & rules = Entry at @1pm

Short (ATM+100) CE Short (ATM-100) PE

Stoploss= Place 30% stoploss and if stoploss hit move SL to Cost

Exit criteria = Exit @ 3pm

Short Strangle Method: We basically sell the OTM (Out of Money) options of both Call and Put, hoping that the market remains between the two strike prices. We collect premium by selling those options.

Risk Management Steps:

1. Percentage Based Stop Loss for both the options
2. If one of the two options hits stop loss, we tighten the stop loss of the other option by making stop loss equal to the buying price

Steps:

1. Read the CSV files of spot, call and put data, converted timestamps to date time and extracted date column.
2. Iterate through all the days and check if the entry time exists for that date, if not then skip that date
3. Find out the strike price; by rounding the strike price of spot data at the entry time and using it to find the strikes of call and put options
4. Extract call and put prices at that time and set slippage value (30% of the cost)
5. Iterate through every one minute candle between entry and exit, checks if stop loss is hit; if one hits the stop loss makes the other option more conservative by setting the stop loss to the entry position, if both hits the stop loss; we break the loop.
6. Check if any option is still active at the time of exit (15:00:00)
7. Make pnl by (entry price- exit price)* Quantity
8. Covert the trade log to csv file