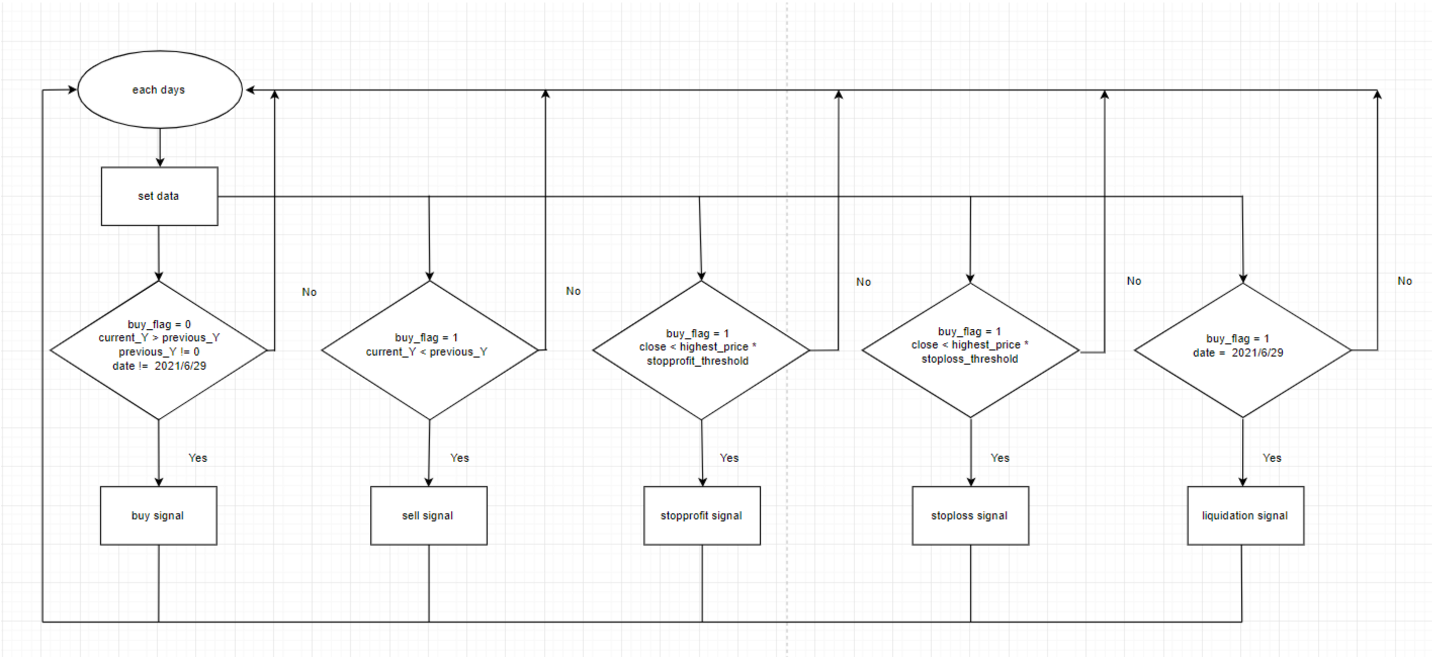
Flowchart:



Algorithm: EBO trading strategy

Required:
λ_{SL} : stoploss_threshold;
λ_{SP} : stopprofit_threshold;
ContractAmt : Number of shares that can be purchased;
ExitAmount : Number of shares held in the hand;
Asset : Total assets ;
highest_price : Highest price after entering the market;
buy_money : Money to buy stocks;
sell_money : Money from selling stocks;
net_profit : Profit/loss of this transaction;
buy_flag : Used to record the purchase of stocks;
current_Y : current value of EBO_Y;
previous_Y : previous value of EBO_Y;

CallBack Function:
bar : k bar
close : close price of this bar;
high : high price of this bar;
entryprice : entry price of the trade;
date : current date;
close of data2 : value of EBO_Y;
sell : sell stocks;
buy : buy stocks;

1. initialize Asset to close*1000
2. initialize ExitAmount and buy_flag to 0
3. initialize current_Y to the value of y on 2015/1/2
4. **for** each days **do**
5. set previous_Y to current_Y; **// get the y value of that day and yesterday**
6. set current_Y to close of data2;
7. set ContractAmt to IntPortion(Asset /close); **// update number of shares that can be purchased**
8. **if** buy_flag = 0 **and** current_Y **>** previous_Y **and** previous_Y != 0 **and** date != 2021/6/29 **//buy signal**
   then update highest price
   buy ContractAmt of stocks
   calculate buy_money
   set ExitAmount to ContractAmt
   set buy_flag to 1
9. **if** buy_flag = 1 **and** current_Y **<** previous_Y **// sell signal**
   then sell ExitAmount of stocks
   calculate sell_money
   calculate net_profit **// sell_money - buy_money**
   update asset with net_profit
   reset ExitAmount and buy_flag
10. **if** buy_flag = 1 **and** close < highest_price * λ_{SP} **// stopprofit signal**
   then sell ExitAmount of stocks
   calculate sell_money
   calculate net_profit **// sell_money - buy_money**
   update asset with net_profit
   reset ExitAmount and buy_flag

11. **if** buy_flag = 1 **and** close < entryprice* λ_{SL} **//stoploss signal**
   then sell ExitAmount of stocks
   calculate sell_money
   calculate net_profit **// sell_money - buy_money**
   update asset with net_profit
   reset ExitAmount and buy_flag

12. **if** buy_flag = 1 **and** date = 2021/6/29 // **liquidation signal**
   then sell ExitAmount of stocks
   calculate sell_money
   calculate net_profit **// sell_money - buy_money**
   update asset with net_profit

Multicharts EBO code

```
Inputs: stoploss_threshold(0.8), stopprofit_threshold(0.7);
Var: ContractAmt(0), ExitAmount(0), Asset(close*1000), highest_price(0), buy_money(0), sell_money(0),
net_profit(0), buy_flag(0), current_Y(0), previous_Y(0);

//set ContractAmt(ALL IN)
ContractAmt = IntPortion(Asset/close);
previous_Y = current_Y;
current_Y = close of data2;

//buy
if buy_flag = 0 and current_Y > previous_Y and previous_Y <> 0 and date <> 1210629 then begin
		//get highest
		highest_price = high;
		if highest_price < high then highest_price = high;
		buy("buy") ContractAmt Contract this bar on close ;
		buy_money = ContractAmt * close;
		ExitAmount += ContractAmt;
		buy_flag = 1;
 end;

//sell
if  buy_flag = 1 and current_Y < previous_Y then begin
		sell("sell") ExitAmount Contract this bar on close;
		sell_money = ExitAmount * close;
		net_profit = sell_money - buy_money;
		Asset = Asset + net_profit;
		ExitAmount = 0;
		buy_flag = 0;
end;

//stopprofit
if buy_flag = 1 and close < highest_price * stopprofit_threshold then begin
		sell("stopprofit") ExitAmount Contract this bar on close;
		sell_money = ExitAmount * close;
		net_profit = sell_money - buy_money;
		Asset = Asset + net_profit;
		ExitAmount = 0;
		buy_flag = 0;
 end;

//stoploss
if buy_flag = 1 and close < entryprice * stoploss_threshold then begin
		sell("stoploss") ExitAmount Contract this bar on close;
		sell_money = ExitAmount * close;
		net_profit = sell_money - buy_money;
		Asset = Asset + net_profit;
		ExitAmount = 0;
		buy_flag = 0;
end;
```

//Liquidation

```
if buy_flag = 1 and date = 1210629 then begin
	sell("Liquidation") ExitAmount Contract this bar on close;
	sell_money = ExitAmount * close;
	net_profit = sell_money - buy_money;
	Asset = Asset + net_profit;
	buy_flag = 0;
end;
```