```
import numpy as np
import pandas as pd
```

```
from google.colab import files


uploaded = files.upload()
```

Choose Files BANKNIFTY.csv

- **BANKNIFTY.csv**(text/csv) - 6013246 bytes, last modified: 11/14/2023 - 100% done

```
Saving BANKNIFTY.csv to BANKNIFTY.csv
```

```
df = pd.read_csv('BANKNIFTY.csv',header=None,names=["Nanes","Date","Time","Open","High","Low","Close","EMAQ","SMA26"])
```

```
df
```

	Nanes	Date	Time	Open	High	Low	Close	EMAQ	SMA26
0	BANKNIFTY	2020/01/01	09:16	32242.6	32295.8	32220.9	32292.0	0	0
1	BANKNIFTY	2020/01/01	09:17	32296.3	32303.3	32283.9	32286.4	0	0
2	BANKNIFTY	2020/01/01	09:18	32288.3	32290.8	32279.3	32279.6	0	0
3	BANKNIFTY	2020/01/01	09:19	32282.9	32296.3	32270.7	32292.6	0	0
4	BANKNIFTY	2020/01/01	09:20	32292.4	32312.1	32292.4	32300.9	0	0
...	...	...	...	...	...	...	...	...	...
94543	BANKNIFTY	2020/12/31	15:28	31236.2	31262.4	31232.3	31255.8	0	0
94544	BANKNIFTY	2020/12/31	15:29	31264.8	31267.4	31240.8	31251.6	0	0
94545	BANKNIFTY	2020/12/31	15:30	31255.6	31264.0	31230.6	31237.8	0	0
94546	BANKNIFTY	2020/12/31	15:31	31241.2	31241.2	31241.2	31241.2	0	0
94547	BANKNIFTY	2020/12/31	15:32	31264.1	31264.1	31264.1	31264.1	0	0

94548 rows × 9 columns

```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 94548 entries, 0 to 94547
Data columns (total 9 columns):
 #   Column  Non-Null Count  Dtype
---  ------  --------------  -----
 0   Nanes   94548 non-null  object
 1   Date    94548 non-null  object
 2   Time    94548 non-null  object
 3   Open    94548 non-null  float64
 4   High    94548 non-null  float64
 5   Low     94548 non-null  float64
 6   Close   94548 non-null  float64
 7   EMAQ    94548 non-null  int64
 8   SMA26   94548 non-null  int64
dtypes: float64(4), int64(2), object(3)
memory usage: 6.5+ MB
```

```
df.isnull().sum()
```

```
Nanes    0
Date     0
Time     0
Open     0
High     0
Low      0
Close    0
EMAQ     0
SMA26    0
dtype: int64
```

```
List_Of_Date = df["Date"];
List_Of_Time = df["Time"];
```

```
BUY = False
SELL = False
buyorder = 0
exit_time = "15:15"
```

```
no_trade_time = "15:16"
stoplossbuy = 0
stoplosssell = 0
```

```
entry_time = "09:16"
entry_time1 = "09:17"
entry_time2 = "09:18"
entry_time3 = "09:19"
entry_time4 = "09:20"
entry_time5 = "09:21"
entry_time6 = "09:22"
entry_time7 = "09:23"
entry_time8 = "09:24"
entry_time9 = "09:25"
entry_time10 = "09:26"
entry_time11 = "09:27"
entry_time12 = "09:28"
entry_time13 = "09:29"
entry_time14 = "09:30"
stoplosshit = 0
cumprofit = 0
cumloss = 0
count = 0
```

```
for i in range(len(df["Time"])):
    if (entry_time in df["Time"][i]):
        print("Date {} {}".format(df["Date"][i],df["Time"][i]));
        lowtemp = []
        lowtemp.append(df["Low"][i]);
        lowtemp.append(df["Low"][i + 1]);
        lowtemp.append(df["Low"][i + 2]);
        lowtemp.append(df["Low"][i + 3]);
        lowtemp.append(df["Low"][i + 4]);
        lowtemp.append(df["Low"][i + 5]);
        lowtemp.append(df["Low"][i + 6]);
        lowtemp.append(df["Low"][i + 7]);
        lowtemp.append(df["Low"][i + 8]);
        lowtemp.append(df["Low"][i + 9]);
        lowtemp.append(df["Low"][i + 10]);
        lowtemp.append(df["Low"][i + 11]);
        lowtemp.append(df["Low"][i + 12]);
        lowtemp.append(df["Low"][i + 13]);
        lowtemp.append(df["Low"][i + 14]);
        stoplossbuy = min(lowtemp);
        hightemp = []
        hightemp.append(df["High"][i]);
        hightemp.append(df["High"][i + 1]);
        hightemp.append(df["High"][i + 2]);
        hightemp.append(df["High"][i + 3]);
        hightemp.append(df["High"][i + 4]);
        hightemp.append(df["High"][i + 5]);
        hightemp.append(df["High"][i + 6]);
        hightemp.append(df["High"][i + 7]);
        hightemp.append(df["High"][i + 8]);
        hightemp.append(df["High"][i + 9]);
        hightemp.append(df["High"][i + 10]);
        hightemp.append(df["High"][i + 11]);
        hightemp.append(df["High"][i + 12]);
        hightemp.append(df["High"][i + 13]);
        hightemp.append(df["High"][i + 14]);
        stoplosssell = max(hightemp);
        print("{}.........{}".format(stoplossbuy,stoplosssell));
    if(df["High"].values [i] > stoplosssell and BUY == False and buyorder == 0 and  entry_time1 not in df["Time"][i] and entry_time2 not
        print("order for buy is placed  at = {} {}".format(df["Date"][i],df["Time"][i]));
        BUY = True
        buyorder = 1;
        count += 1;
    if(df["Low"].values[i] < stoplossbuy and SELL == False and buyorder == 0 and  entry_time1 not in df["Time"][i] and entry_time2 not in
        print("order for sell is placed  at = {} {}".format(df["Date"][i], df["Time"][i]));
        SELL = True
        buyorder = 1;
        count += 1;
    if (exit_time in df["Time"][i]):
        if (BUY == True and stoplosshit == 0):
            print("sell of exit time = {} {} ".format(df["Date"][i],df["Time"][i]));
            BUY = False
            buyorder = 0
            cumprofit = cumprofit + df["Close"][i] - stoplosssell
            cumloss = cumprofit - (stoplosssell - stoplossbuy)
            print("cumprofit is {} ".format(cumprofit));
            print("cumloss is {} ".format(cumloss));
```

```
            stoplosshit = 0
        if (SELL == True and stoplosshit == 0):
            print("sell of exit time = {} {} ".format(df["Date"][i], df["Time"][i]));
            SELL = False
            buyorder = 0
            cumprofit = cumprofit + stoplossbuy - df["Close"][i]
            cumloss = cumprofit - (stoplosssell - stoplossbuy)
            print("cumprofit is {} ".format(cumprofit));
            print("cumloss is {} ".format(cumloss));
            stoplosshit = 0
    if (SELL ==True and df["High"][i] > stoplosssell and stoplosshit == 0):
        print("stoploss hit at = {} {}".format(df["Date"][i],df["Time"][i]));
        stoplosshit = 1;
    if (BUY ==True and df["Low"][i] < stoplossbuy and stoplosshit == 0):
        print("stoploss hit at = {} {}".format(df["Date"][i],df["Time"][i]));
        stoplosshit = 1;
    if (stoplosshit == 1 and BUY == True):
        BUY = False
        buyorder = 0
        stoplosshit = 0
        cumprofit = cumprofit - (stoplosssell - stoplossbuy)
        cumloss = cumprofit - (stoplosssell - stoplossbuy)
        print("cumprofit is {} {} {}".format(cumprofit,df["Date"][i],df["Time"][i]));
        print("cumloss is {} {} {} ".format(cumloss, df["Date"][i], df["Time"][i]));
    if (stoplosshit == 1 and SELL == True):
        SELL = False
        buyorder = 0
        stoplosshit = 0
        cumprofit = cumprofit - (stoplosssell - stoplossbuy)
        cumloss = cumprofit - (stoplosssell - stoplossbuy)
        print("cumprofit is {} {} {}".format(cumprofit, df["Date"][i], df["Time"][i]));
        print("cumloss is {} {} {} ".format(cumloss,df["Date"][i],df["Time"][i]));
```

```
Date 2020/01/01 09:16
32220.9.........32339.3
order for buy is placed  at = 2020/01/01 09:31
stoploss hit at = 2020/01/01 09:46
cumprofit is 32978.19999999984 2020/01/01 09:46
cumloss is 32859.79999999984 2020/01/01 09:46
order for sell is placed  at = 2020/01/01 09:47
sell of exit time = 2020/01/01 15:15
cumprofit is 33096.79999999984
cumloss is 32978.39999999985
Date 2020/01/02 09:16
32121.4.........32239.1
order for buy is placed  at = 2020/01/02 09:31
sell of exit time = 2020/01/02 15:15
cumprofit is 33311.29999999985
cumloss is 33193.59999999985
Date 2020/01/03 09:16
32236.4.........32329.8
order for sell is placed  at = 2020/01/03 09:31
sell of exit time = 2020/01/03 15:15
cumprofit is 33489.09999999985
cumloss is 33395.69999999985
Date 2020/01/06 09:16
31580.1.........31914.4
order for sell is placed  at = 2020/01/06 09:31
sell of exit time = 2020/01/06 15:15
cumprofit is 33828.39999999985
cumloss is 33494.099999999846
Date 2020/01/07 09:16
31566.1.........31825.3
order for buy is placed  at = 2020/01/07 09:33
stoploss hit at = 2020/01/07 10:58
cumprofit is 33569.19999999985 2020/01/07 10:58
cumloss is 33309.999999999854 2020/01/07 10:58
order for sell is placed  at = 2020/01/07 10:59
sell of exit time = 2020/01/07 15:15
cumprofit is 33731.39999999985
cumloss is 33472.19999999985
Date 2020/01/08 09:16
30899.6.........31089.9
order for buy is placed  at = 2020/01/08 09:31
sell of exit time = 2020/01/08 15:15
cumprofit is 34013.79999999985
cumloss is 33823.49999999985
Date 2020/01/09 09:16
31667.2.........31885.6
order for buy is placed  at = 2020/01/09 10:24
sell of exit time = 2020/01/09 15:15
cumprofit is 34231.399999999856
cumloss is 34012.999999999854
Date 2020/01/10 09:16
32126.6.........32255.0
order for sell is placed  at = 2020/01/10 09:33
```

```
stoploss hit at = 2020/01/10 10:21
cumprofit is 34102.999999999854 2020/01/10 10:21
cumloss is 33974.59999999985 2020/01/10 10:21
order for buy is placed  at = 2020/01/10 10:29
stoploss hit at = 2020/01/10 13:37
```

```
print("cum profit in the end "+ str(round(cumprofit,2)));
print("cum loss in the end = {} ".format(round(cumloss,2)));
print("Number of trade taken in the period {}".format(count));
```

```
cum profit in the end 33096.6
cum loss in the end = 32832.6
Number of trade taken in the period 844
```