OPEN PROJECT

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MEAN - REVERSION STRATEGY

A mean reversion strategy is a trading strategy in which prices tend to return to the average levels of the stocks. In this trading pattern, the prices seem to move hard and sustain for an extended period of time. In this Strategy , we look for the SMA (simple moving average) of stocks and then look for the deviation from it .

MEAN - REVERSION STRATEGY

- Made the chart for closing price v/s Date.
- Analysed the SMA (simple moving average) for 30 days .
- Calculated the deviation ratios from SMA .
- Setted the buy and sell accordingly accordingly on the specific deviations from the SMA .
- Calculated returns .

MY INVESTMENTS (5yr)

STOCK : META

Amount Invested :

$ 10,000

Returns (from strategy):

-$2140.41

STOCK : WMT

Amount Invested :

$ 10,000

Returns (from strategy):

$ 6821.76

STOCK : PEP

Amount Invested :

$ 10,000

Returns (from strategy):

$ 3188.65

STOCK : AMZN

Amount Invested :

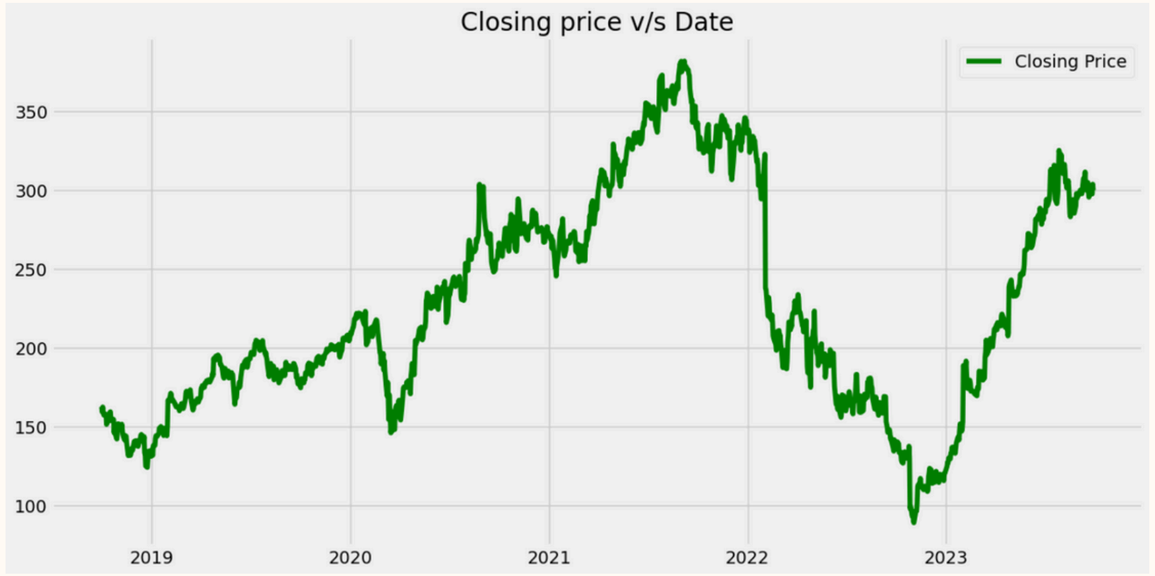
$ 10,000

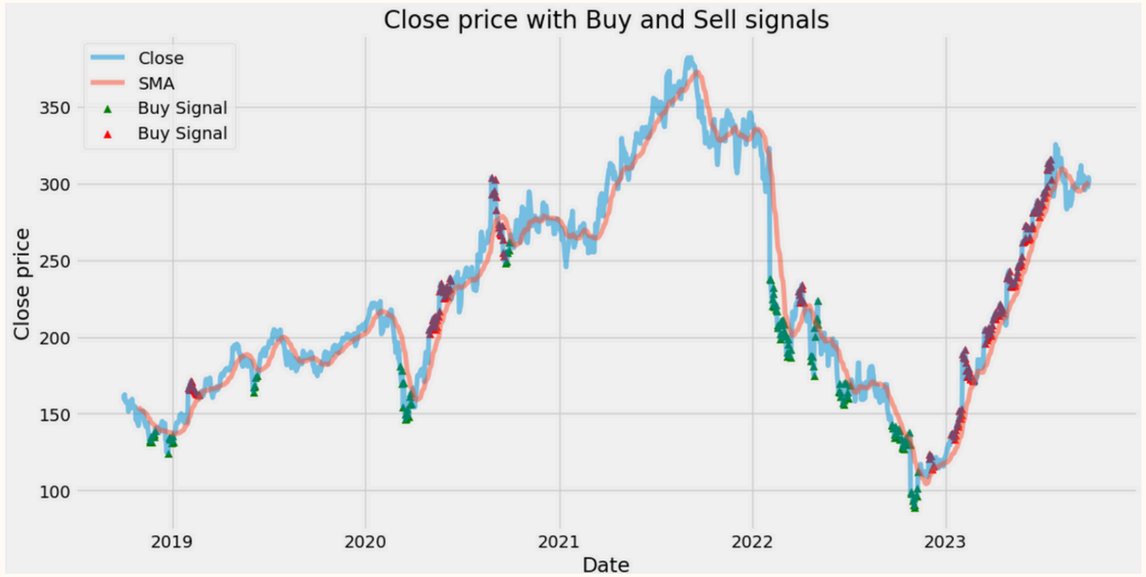
Returns (from strategy):

$12,863.91

META

Applied **mean reversion strategy** from **“1 Oct , 2018”** to **“1 Oct , 2023”**





Strategy return : - $2140.41 **(-21.40 %)**

Annualized Return : 3.96%

Benchmark return : 4.71%

no of Profit making trades : 8

The no. of executed trades : 17

no of loss making trades : 9

Win Ratio : 0.88

Python code : https://colab.research.google.com/drive/1GozXKmMK7PSbEEWQAt8Tr9GMohBZjjyG?usp=sharing

AMZN

Applied **mean reversion strategy** from **“1 Oct , 2018”** to **“1 Oct , 2023”**

Strategy return : $ 12863.91**(128.63%)**

Annualized Return : 17.99%

Benchmark return : 4.71%

no of Profit making trades : 11

The no. of executed trades : 17

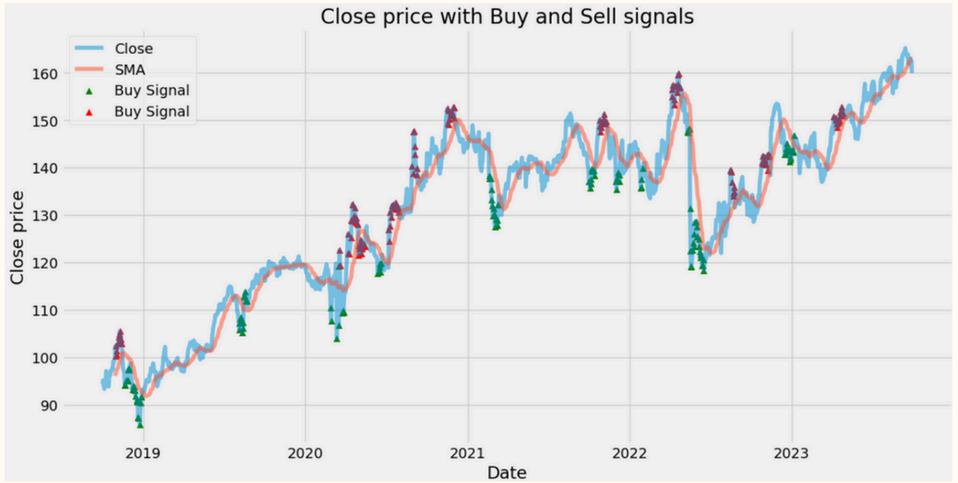
no of loss making trades : 6

Win Ratio : 1.83

Python code : https://colab.research.google.com/drive/1VswqxIbIL8IwFhFjQaeLaAREBGOJOvNf?usp=sharing

WMT

Applied **mean reversion strategy** from **“1 Oct , 2018”** to **“1 Oct , 2023”**



Strategy return : $ 6821.76 (68.21 %)

Annualized Return : 10.96%

Benchmark return : 4.71%

no of Profit making trades : 11

The no. of executed trades : 24

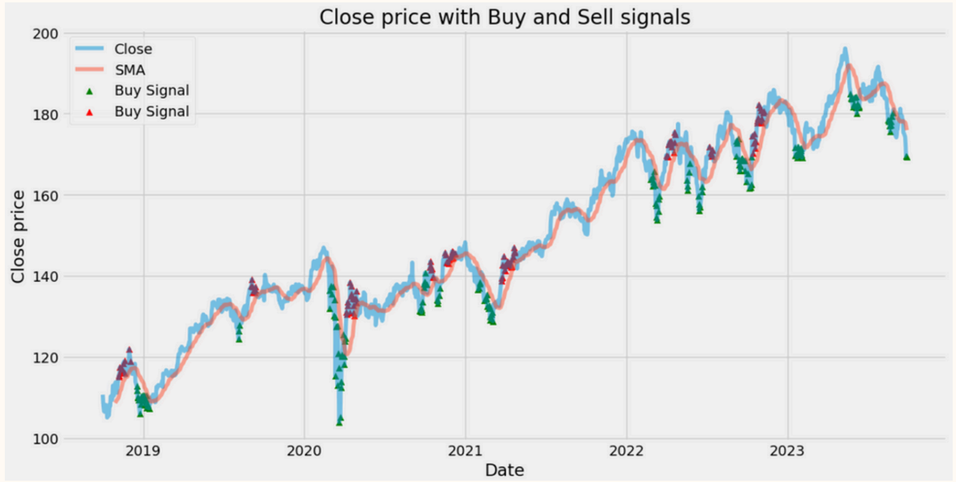
no of loss making trades : 13

Win Ratio : 0.84

Python code : https://colab.research.google.com/drive/1zMNprQdkbx3YgA8dzVn51sJguEqB1YtX?usp=sharing

PEP

Applied **mean reversion strategy** from **“1 Oct , 2018”** to **“1 Oct , 2023”**



Strategy return : $ 3188.65(31.88%)

Annualized Return : 5.69%

Benchmark return : 4.71%

no of Profit making trades : 13

The no. of executed trades : 26

no of loss making trades : 13

Win Ratio : 1

Python code : https://colab.research.google.com/drive/189ivQMt7zHBeM_3uaWujS-Hk0ERylrqF?usp=sharing

PORTFOLIO RETURNS

Total Amount Invested	:	**$ 40,000**
Total Returns	:	**$20733.91**
% Portfolio Return	:	**51.83%**
% Annual Return	:	**8.71%**
Sharpe ratio	:	**1.1873**

SUMMARY

Mean Reversion Strategy can be developed further by adding Risk Management Strategies

Mean reversion strategies can be risky, as there is no guarantee that prices will always revert to the mean. Therefore, it is important to develop risk management strategies, such as using stop-loss orders and position sizing.

INSIGHTS GAINED :

- Prices rarely stay at extremes for long.
- Technical indicators can be useful for identifying mean reversion opportunities.
- Fundamental analysis can also be used to identify mean reversion opportunities.