Reading data from Bank of Baroda CSV file and plotting Candlestick pattern in Python

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STORY HOOKS

- Imagine Mohan-Data Analyst
- Financial service firm
- Manager asked him to create a visual representation
- Of Bank of Baroda’s stock data

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Reading Data from Bank of Baroda and Plotting Candlesticks

Understanding and visualizing stock trends is crucial for making informed investment decisions. By visualizing stock data, we can easily spot patterns and trends that indicate when to buy or sell. This task focuses on creating a Candlestick chart, a powerful tool that shows the highs, lows, opening, and closing prices of a stock over time. Such visualizations simplify complex data, making it easier to grasp market movements and make strategic financial decisions.

Importing Necessary Libraries

1 **pandas**

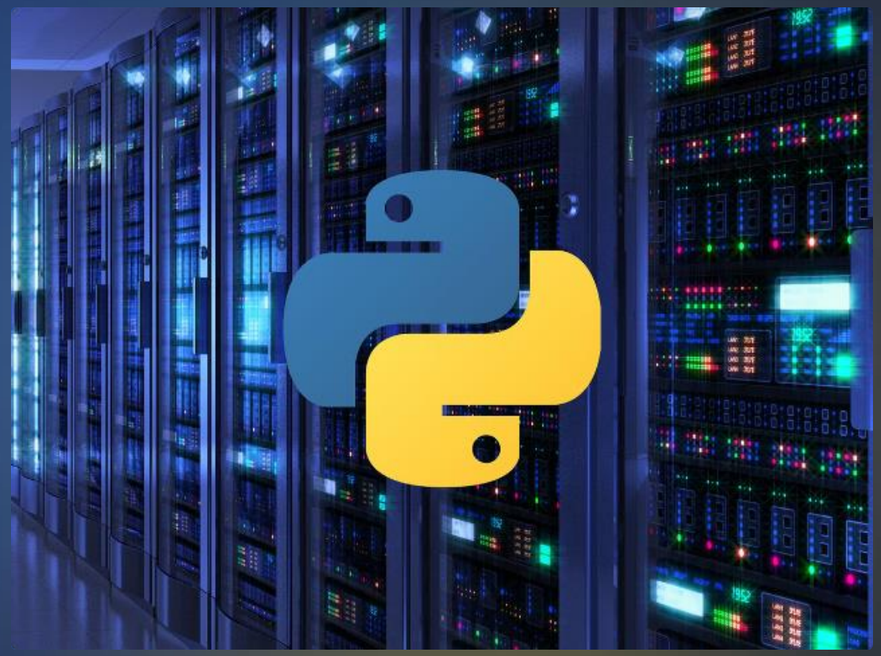
For reading and manipulating the CSV data

2 **Plotly**

For creating the interactive plots candlestick chart and visualization

3 **numpy**

For performing mathematical operations on the data



Reading the CSV File

Load the Data

Use pandas to read the CSV file and create a DataFrame.

Inspect the Data

Examine the column names, data types, and first few rows to understand the structure of the data.

Handle Missing Values

Identify and address any missing values in the data.

Cleaning and Preprocessing the Data

Data Formatting

Ensure all date and numeric columns are in the correct format.

Outlier Removal

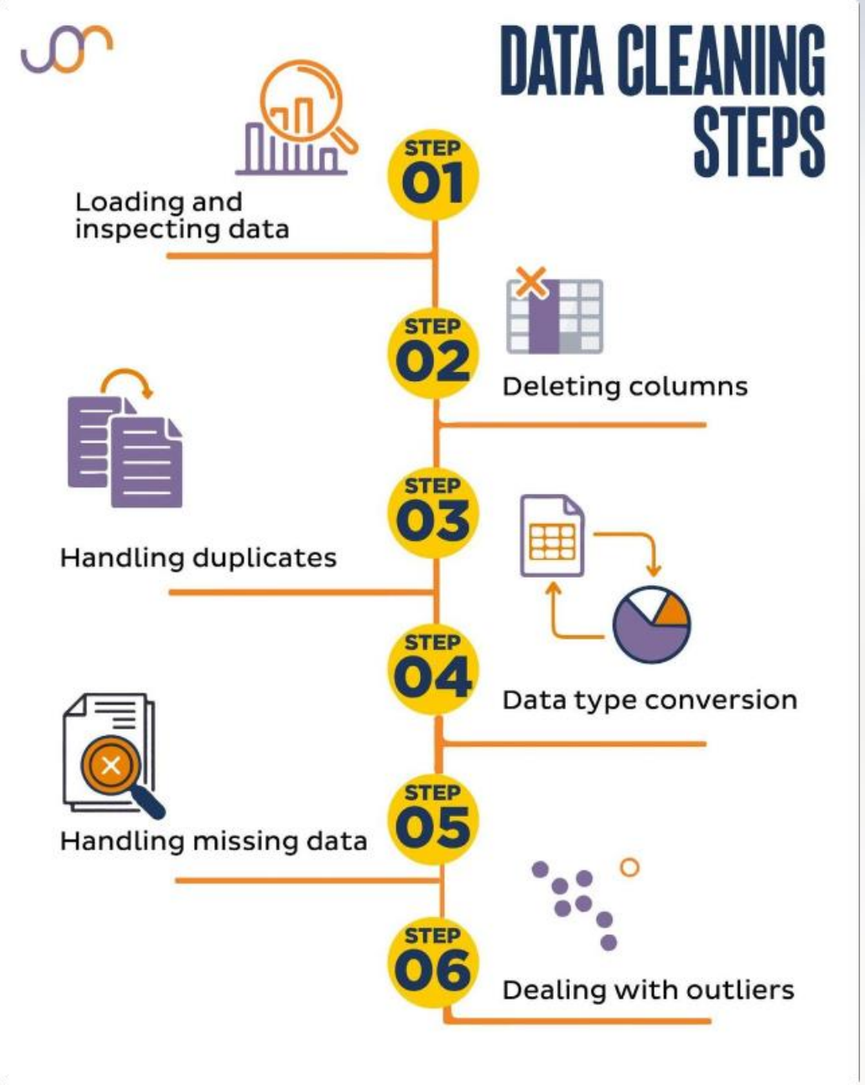
Identify and remove any outliers or erroneous data points.

Derived Columns

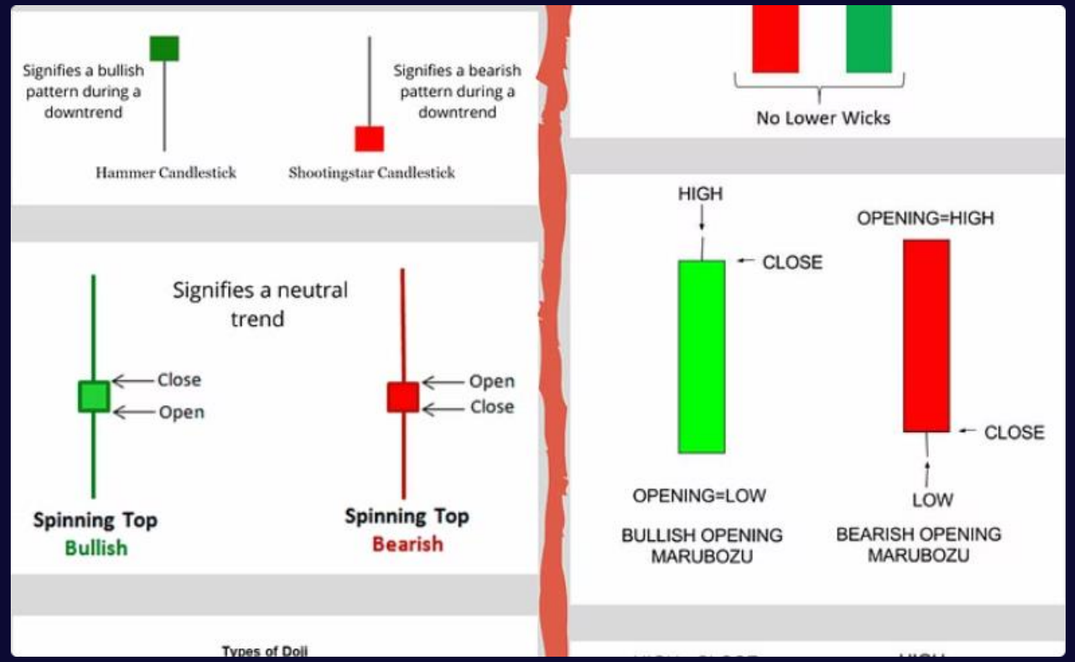
Calculate new columns like daily price range, volume, and volatility.

Feature Selection

Identify the most relevant features for the candlestick analysis.



Plotting the Candlestick Chart



Candlestick Visualization

Use plotly to create a candlestick chart that displays the open, high, low, and close prices for each trading day.

Demonstration

Conclusion

In this Task, we processed Bank of Baroda stock data using pandas and created an interactive Candlestick plot with Plotly. This visualization highlights market trends and investor sentiment by displaying price movements clearly. Candlestick patterns are essential in stock analysis, providing valuable insights for making informed trading decisions.

References

pandas Documentation	https://pandas.pydata.org/docs/
Candlestick Chart Guide	https://www.investopedia.com/trading/candlestick-charting-what-is-it/
You tube video- Hackveda References Video-	


Q&A

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