Coca-Cola Stock Price Analysis

1. Project Overview

This project presents a comprehensive analysis of Coca-Cola's historical stock prices using Python. The dataset spans from 1962 to 2022, including vital stock features like Open, High, Low, Close, Volume, Dividends, and Stock Splits. We have used pandas for data manipulation, matplotlib and seaborn for visualization, and numpy for numerical operations.

2. Dataset Description

The dataset is titled 'Coca-Cola_stock_history.csv'. It consists of 15,311 entries and 8 columns:

- Date: Timestamp of the stock entry
- Open, High, Low, Close: Stock price metrics
- Volume: Number of shares traded
- Dividends: Dividends issued
- Stock Splits: Stock split events

All columns are complete with no missing data. The Date column was converted to datetime format and sorted for proper time-series analysis.

3. Technologies Used

- Python
- pandas
- matplotlib
- seaborn
- Jupyter Notebook (optional)

These tools enable efficient data analysis and visualization for exploratory data insights.

4. Data Visualization

Multiple plots were created to understand the trends and distribution of Coca-Cola's stock data:

- Line plot of Closing Price over time
- Volume traded over the years
- Analysis of Stock Splits and Dividends

Visual patterns indicate stock growth over decades, with increased trading volume and price after 2000.

5. Conclusion

From the data analysis, Coca-Cola's stock has shown significant growth over the last six decades. The stock has gone through various splits and has issued dividends to shareholders. High trading volumes in recent decades show increased investor interest and confidence.

This analysis provides a foundational understanding of Coca-Cola's stock behavior over time.

6. Future Scope

- Implement time-series forecasting models like ARIMA or LSTM to predict future stock prices
- Analyze the impact of dividends and stock splits on stock value
- Compare Coca-Cola with competitor stocks like PepsiCo
- Include sentiment analysis using news or social media data to enhance predictions

These enhancements would offer deeper insights and help in investment decision-making.