

# Historical Stock Data Analysis

## Summary

In this Python script, I used the 'yfinance' library to fetch historical stock data for given ticker symbol and date range from Yahoo Finance API. The 'get\_stock\_data' function takes the ticker symbol, start date, and end date as inputs and retrieves the data using 'yf.download'. If an error occurs during data retrieval, it is caught and an error message is printed.

After extracting the stock data in a DataFrame, I calculated the average daily trading volume by taking the mean of the 'Volume' column. I used the mean() function provided by Pandas. The calculated average volume is then printed as the output.

Finally, I used Plotly to generate an interactive candlestick chart using the retrieved data.

## Approach and Challenges

The approach involves using the yfinance library to fetch historical stock data and pandas to process the data and calculate the average daily trading volume. The code is structured into a function for data retrieval and a separate section for processing and printing the results.

One challenge that may be encountered is handling errors during data retrieval. To address this, I used a try-except block to catch any exceptions that may occur and print an error message.

The code assumes that the ticker symbol, start date, and end date are provided correctly. It's important to ensure that the ticker symbol is valid and the date range is appropriate for the available data. Additionally, if the specified ticker symbol is not found or there are other issues with data retrieval, the code will handle the exception and print an error message.

Overall, the code provides a simple and efficient way to calculate the average daily trading volume for a selected period using pandas and the yfinance library.