Experiment - 6

AIM: To execute pandas program to create a scatter plot of the trading stock prices of Alphabet Inc.

Pseudo code:

1) Import necessary libraries: pandas & matplotlib.Pyplot as pd, plt.

2) load stock data:

Read the csv file into a Dataframe with date parsing.

3) create scatter plot:

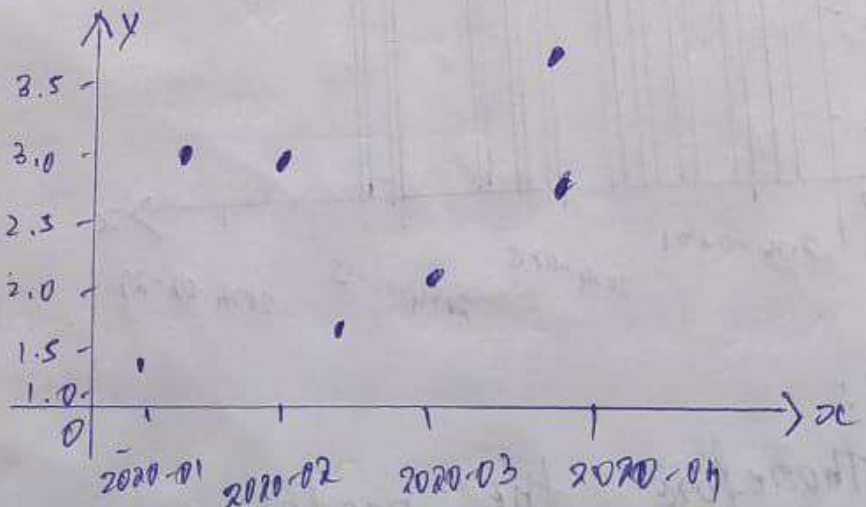
set figsize (10,6) set plot title, label axis.

4) Display the plot.

Sample input:

Alphabet Inc. database

Sample output:




Result:

Therefore pandas programs execution for scatter plot successfully.

```python
import pandas as pd
import matplotlib.pyplot as plt

# Load the CSV file containing stock data
alphabet_stock_data = pd.read_csv("C:/Users/abhip/OneDrive/Documents/DSA05 LAB/alphabet.csv")

# Convert 'Date' to datetime format
alphabet_stock_data['Date'] = pd.to_datetime(alphabet_stock_data['Date'], dayfirst=True)

# Filter data between specific dates
start_date = '2020-04-01'
end_date = '2020-05-01'
filtered_data = alphabet_stock_data[(alphabet_stock_data['Date'] >= start_date) & (alphabet_stock_data['Date'] <= end_date)]

# Create a scatter plot of trading volume vs stock price (Close)
plt.figure(figsize=(10, 6))
plt.scatter(filtered_data['Volume'], filtered_data['Close'], alpha=0.5)
plt.title('Alphabet Inc. Stock: Trading Volume vs Stock Price (April 2020)')
plt.xlabel('Trading Volume')
plt.ylabel('Stock Price (Close)')
plt.grid(True)
plt.show()
```