

EXPERIMENT - 5

AIM: To execute pandas program to create box plot of trading volume of stock between two specific dates.

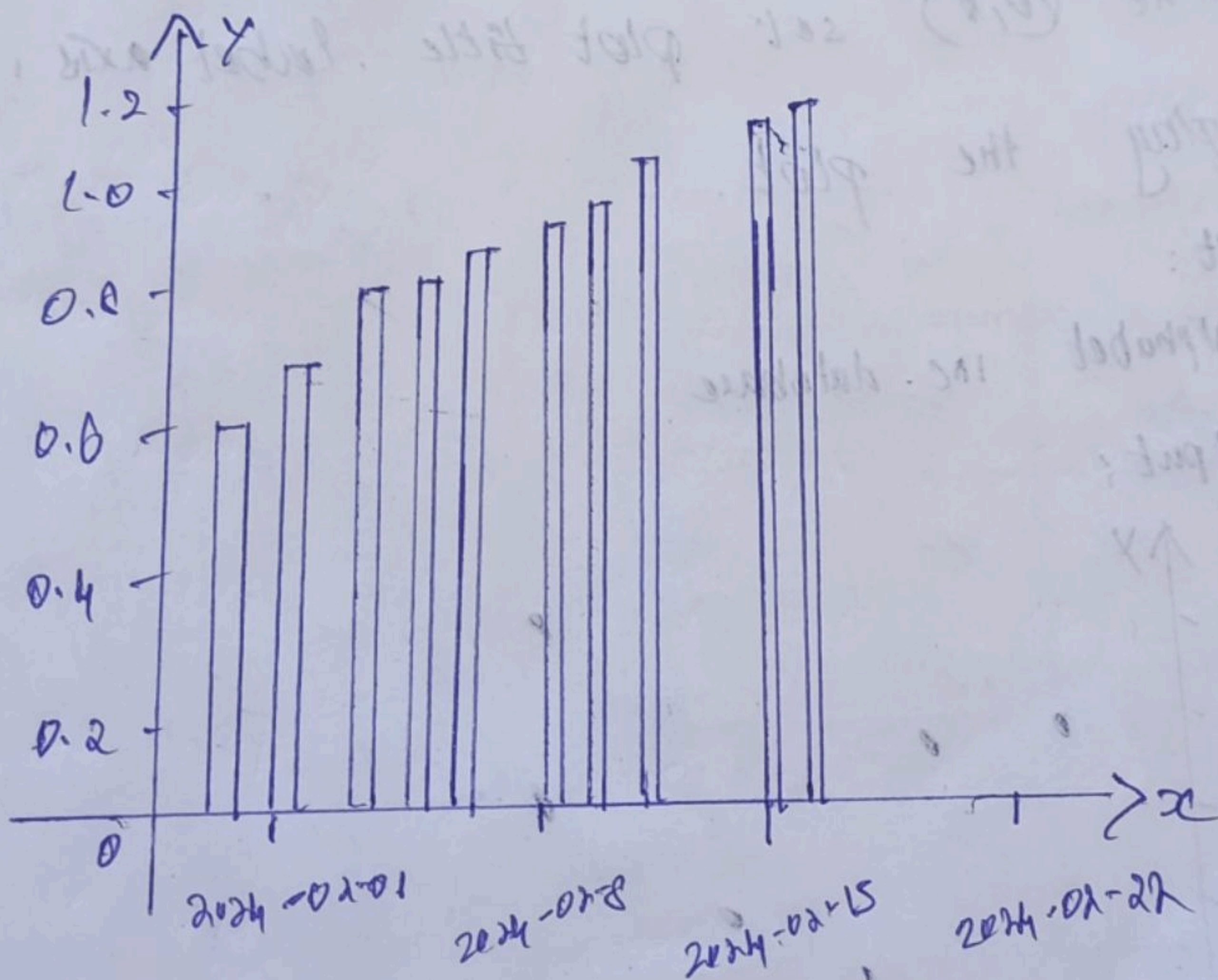
PseudoCode:

- 1) Import the required libraries: pandas & matplotlib
- 2) Convert the data column to datetime format
- 3) Filter dataframe to only include data between specified start.
- 4) Plot a bar chart trading volumes over display plot.

Sample Input:

Alphabet inc. (stock) database.

Sample Output:



Result:

Therefore the pandas program for trading volume executed successfully.


```

import pandas as pd
import matplotlib.pyplot as plt

# Load stock data
data = pd.read_csv("C:/Users/abhip/OneDrive/Documents/DSA05 LAB/read.csv", parse_dates=['Date'], index_col='Date')

# Define the date range
start_date = '2020-01-01'
end_date = '2020-01-31'

# Filter data for the specific date range
filtered_data = data[start_date:end_date]

# Plotting the trading volume as a bar chart
plt.figure(figsize=(10, 6))
filtered_data['Volume'].plot(kind='bar', title='Trading Volume of Alphabet Inc. (Jan 2020)', ylabel='Volume', xlabel='Date')
plt.xticks(rotation=45)
plt.tight_layout()
plt.show()

```

Date	Open	High	Low	Close	Volume
2020-01-02	1345.56	1354.89	1334.53	1346.87	1043500
2020-01-03	1343.49	1346.23	1321.23	1334.52	1342500
2020-01-06	1331.19	1354.29	1329.04	1344.37	1534700
2020-01-07	1352.02	1365.43	1348.12	1352.89	1445200
2020-01-08	1355.12	1371.01	1348.56	1362.20	1623000
2020-01-09	1368.20	1375.23	1358.42	1374.50	1203400
2020-01-10	1372.78	1383.24	1362.40	1373.32	1802500
2020-01-13	1385.33	1390.99	1372.50	1389.85	1423700
2020-01-14	1388.67	1395.44	1376.00	1384.34	1532800
2020-01-15	1375.50	1384.50	1365.78	1372.43	1283400
2020-01-16	1375.25	1386.75	1372.34	1384.73	1405200
2020-01-17	1382.34	1394.56	1378.10	1390.20	1635200
2020-01-21	1393.12	1400.23	1385.76	1395.34	1763400
2020-01-22	1397.20	1412.00	1391.45	1403.87	1674300
2020-01-23	1405.23	1418.20	1400.56	1414.63	1522700
2020-01-24	1415.12	1425.67	1412.00	1419.83	1932800
2020-01-27	1400.00	1412.50	1380.54	1405.02	2105300
2020-01-28	1408.35	1422.40	1400.23	1419.20	1604900
2020-01-29	1425.00	1435.20	1418.50	1434.34	1536700
2020-01-30	1425.00	1435.20	1418.50	1434.34	1536700
2020-01-31	1425.00	1435.20	1418.50	1434.34	1536700

