4) Aim:
To execute pandas program to create line plot of historical stock prices of alphabet two specific data.
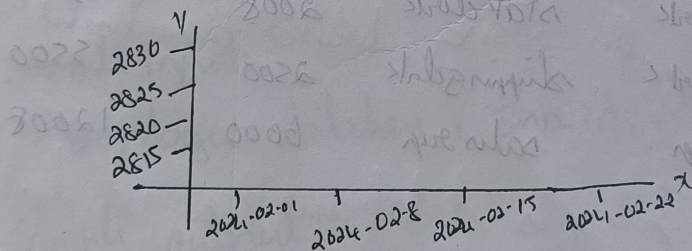
Pseudo code:
* Import required libraries.
  - pandas as pd
  - matplot lib
* load the dataset containing stock price data
* Convert the date column to a datetime format to ensure proper filtering.

Sample input:
   Alphabet inc database (stock)

Sample output:



Result:
Therefore the pandas program to create line plot of historical stock price of alphabet inc. executed successfully.
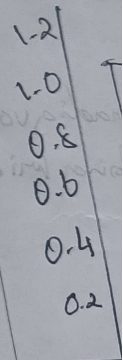
```python
import pandas as pd
import matplotlib.pyplot as plt

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

# Filter data for specific date range
filtered_data = data['2020-01-01':'2020-12-31']

# Plotting
filtered_data['Close'].plot(title='Alphabet Inc. Stock Prices (2020)', ylabel='Price (USD)')
plt.show()
```

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```
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
2020-01-30,1438.75,1450.00,1428.55,1445.09,1832400
2020-01-31,1443.23,1445.50,1425.67,1432.42,1994200
```



Figure 1 — Alphabet Inc. Stock Prices (2020)