S.No: 32	Exp. Name: *Pandas / Matplotlib*	Date:2024-11-27

Aim:

Write a Pandas program to create a line plot using matplotlib. The line plot must be of the opening, closing stock prices of Alphabet Inc. between the dates 2020-04-01 and 2020-10-31, both inclusive. Please use the data available in the file alphabet_stock_data.csv for this purpose.

Note: Take figure size as (12,6).

Source Code:

PandasMatplotlib.py

```python
import pandas as pd
import matplotlib.pyplot as plt
from pyodide.http import open_url

url = 'https://ct-public-bucket.s3.ap-south-1.amazonaws.com/lms/niet/alphabet_
stock_data.csv'

csv_data = open_url(url)
df = pd.read_csv(csv_data)




# Open the URL and read the CSV data
csv_data = open_url(url)
# Load the CSV data into a DataFrame
df = pd.read_csv(csv_data)
# Convert 'Date' column to datetime format
df['Date'] = pd.to_datetime(df['Date'])
# Filter data for the specified date range
filtered_data = df[(df['Date'] >= '2020-04-01') & (df['Date'] <= '2020-10-3
1')]
# Plotting
plt.figure(figsize=(12, 6))
plt.plot(filtered_data['Date'], filtered_data['Open'], label='Opening Price',
marker="")
plt.plot(filtered_data['Date'], filtered_data['Close'], label='Closing Price',
marker="")
plt.xlabel("Date")
plt.ylabel('Price')
plt.title('Alphabet Inc. Stock Prices')
plt.legend()
plt.xticks(rotation=30, ha='right')
plt.subplots_adjust(bottom=0.2)
plt.show()
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
data:img/png;base64,iVBORw0KGgoAAAANSUhEUgAABLAAAAJYCAYAAABy5h8aAAAAOXRFWHRb2Z0d2F

MD8DkrZAqwtPnEc1sEREREREROoVFXEXEYff96aRX2QnJtiFTqkLzI29bj39wcFtYfLPcOHDYLEyongZKwM