

EXPERINMENT-12

12. **Scenario:** You are working on a data analysis project that involves analyzing the monthly temperature and rainfall data for a city. You have a dataset containing the monthly temperature and rainfall values for each month of a year. Your task is to develop a Python program that generates line plots and scatter plots to visualize the temperature and rainfall data.

Question:

1. Develop a Python program to create a line plot of the monthly temperature data.
- 2: Develop a Python program to create a scatter plot of the monthly rainfall data.

Code:

```
import matplotlib.pyplot as plt
months = ["Jan", "Feb", "Mar", "Apr", "May", "Jun"]
temperature = [25, 28, 30, 33, 35, 32]
rainfall = [70, 55, 40, 30, 20, 10]
plt.figure(figsize=(10, 8))
plt.subplot(2, 1, 1)
plt.plot(months, temperature, marker='o')
plt.title("Monthly Temperature - Line Plot")
plt.xlabel("Month")
plt.ylabel("Temperature (°C)")
plt.grid(True)
plt.subplot(2, 1, 2)
plt.scatter(months, rainfall)
plt.title("Monthly Rainfall - Scatter Plot")
plt.xlabel("Month")
plt.ylabel("Rainfall (mm)")
plt.grid(True)
plt.tight_layout()
plt.show()
```

Output:

