

```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
```

✓ 0.5s

```
# Load the dataset
file_path = "C:/Users/Lenovo/Desktop/exp1/time_series_data.csv"
data = pd.read_csv(file_path)
```

✓ 0.0s

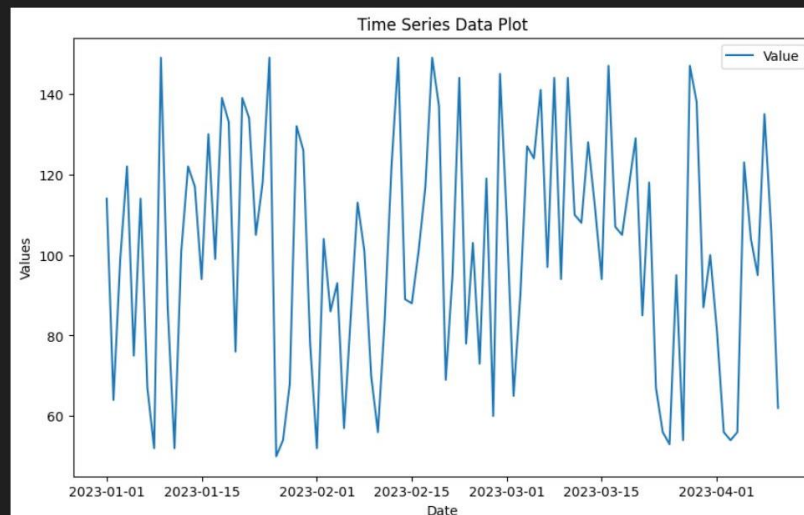
```
# View initial values
print("Initial values:")
print(data.head())
```

✓ 0.1s

```
Initial values:
   Date  Value
0 2023-01-01  114
1 2023-01-02   64
2 2023-01-03   99
3 2023-01-04  122
4 2023-01-05   75
```

```
# Plot the values over a graph
plt.figure(figsize=(10, 6))
if 'Date' in data.columns:
    data['Date'] = pd.to_datetime(data['Date'])
    plt.plot(data['Date'], data.iloc[:, 1], label=data.columns[1])
    plt.xlabel('Date')
else:
    plt.plot(data.iloc[:, 0], label=data.columns[0])
    plt.xlabel('Index')
plt.ylabel('Values')
plt.title('Time Series Data Plot')
plt.legend()
plt.show()
```

✓ 0.2s



```
# Plot the correlation matrix
plt.figure(figsize=(8, 6))
correlation_matrix = data.corr()
sns.heatmap(correlation_matrix, annot=True, cmap="coolwarm", fmt=".2f")
plt.title("Correlation Matrix")
plt.show()
```

✓ 0.1s

