Classroom Test Score Analysis Report

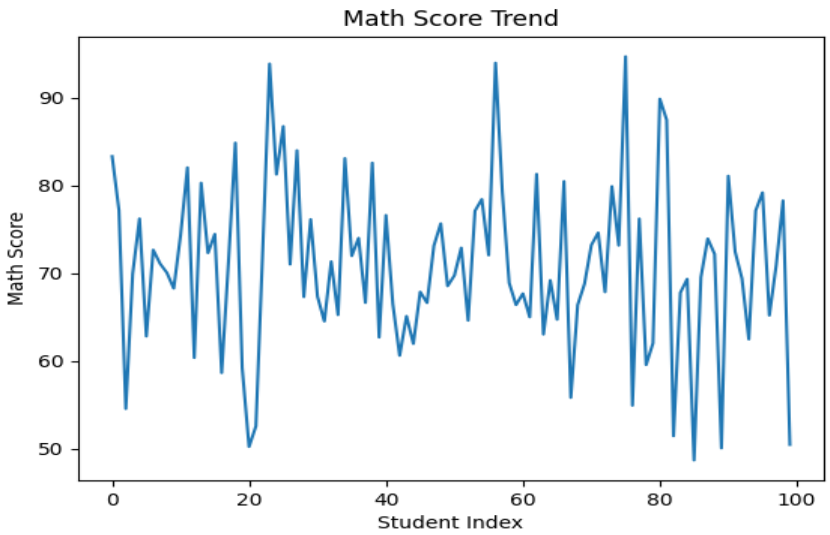
Project Objective:

To analyze student performance across subjects and understand the relationship between study hours and academic achievement using statistical and graphical techniques.

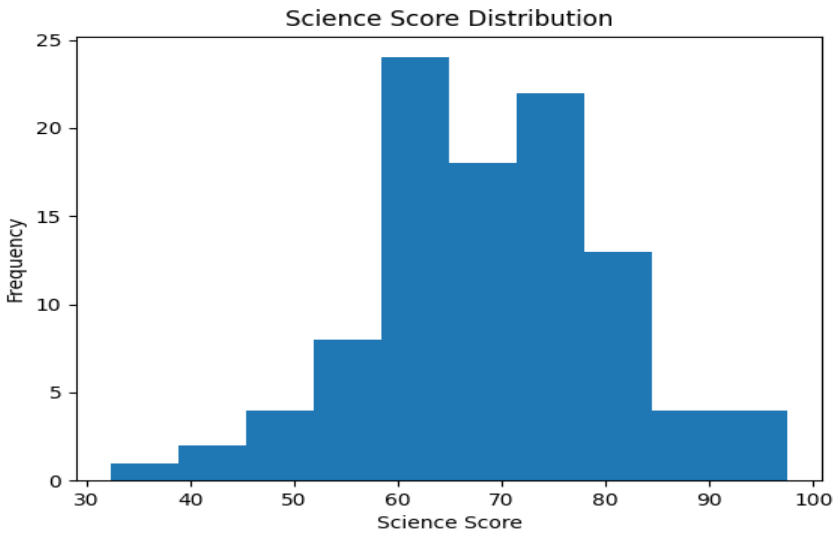
Python Code Used:

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

np.random.seed(10)
data = pd.DataFrame({
    "Math_Score": np.random.normal(70, 10, 100),
    "Science_Score": np.random.normal(68, 12, 100),
    "English_Score": np.random.normal(72, 8, 100),
    "Study_Hours": np.random.uniform(1, 5, 100)
})

plt.plot(data["Math_Score"])
plt.hist(data["Science_Score"], bins=10)
plt.scatter(data["Study_Hours"], data["English_Score"])
plt.bar(data[["Math_Score","Science_Score","English_Score"]].mean().index,
        data[["Math_Score","Science_Score","English_Score"]].mean().values)
```

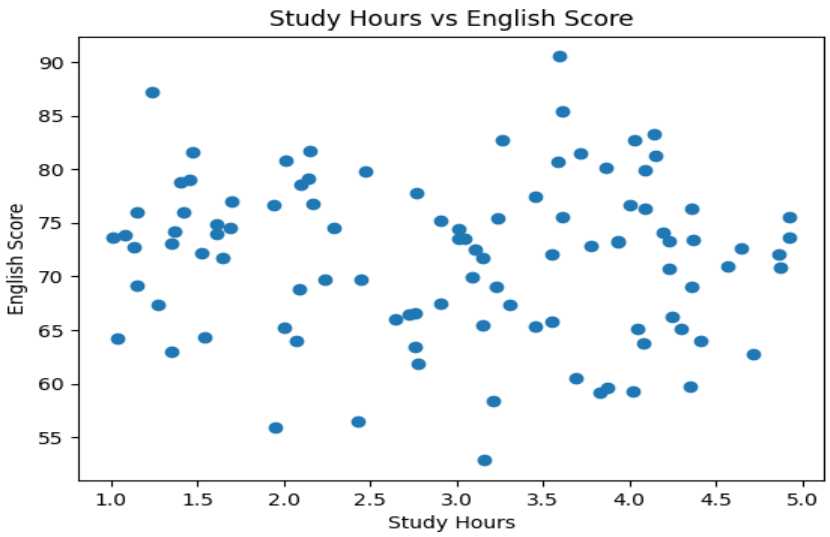
Math Score Trend:



Science Score Histogram:



Study Hours vs English Score:



Average Subject Scores: