Data Analytics Internship Project:

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Task 3: Data Visualization

Introduction:

This project analyzes student performance data using Python.

Tools Used:

- Python
- Pandas
- Matplotlib
- Seaborn

Results:

(Insert screenshots here)

Conclusion:

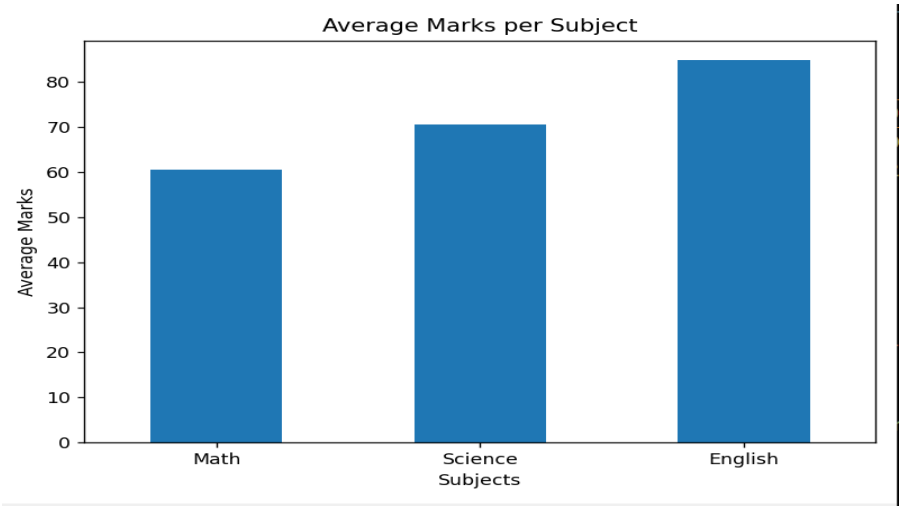
EDA and visualization successfully performed.

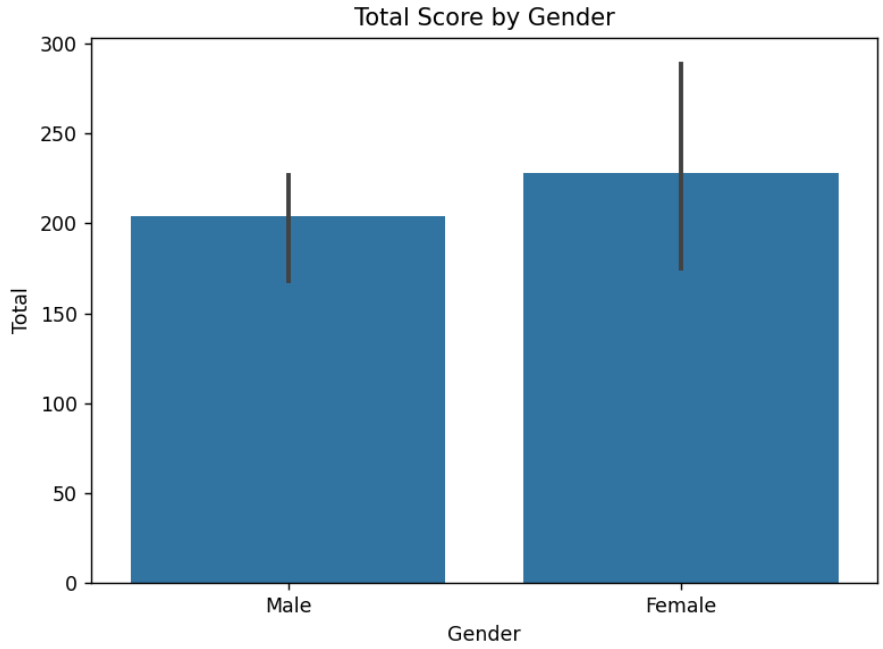
Task 3(Data Visualization):

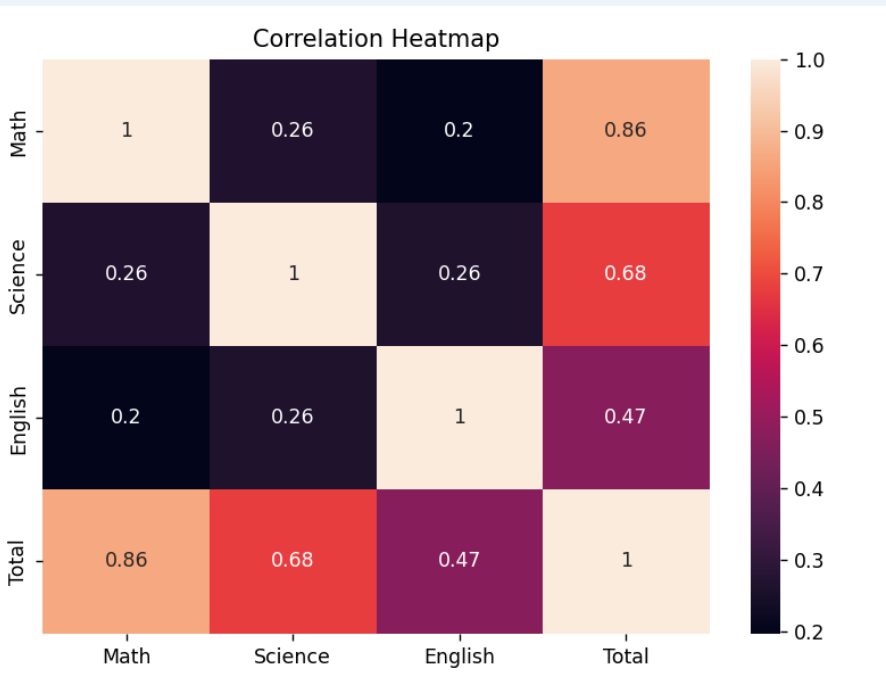
```
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns

# ----------------------------
# Sample Dataset
# ----------------------------
data = {
    'Gender': ['Male', 'Female', 'Male', 'Female',
'Male', 'Female'],
    'Math': [23, 34, 90, 45, 76, 95],
    'Science': [70, 49, 52, 85, 70, 98],
    'English': [75, 92, 85, 90, 72, 96]
}

df = pd.DataFrame(data)

# Add Total Column
df['Total'] = df['Math'] + df['Science'] +
df['English']

# ----------------------------
# 1️⃣ Bar Chart - Average Marks per Subject
# ----------------------------
plt.figure()
df[['Math', 'Science',
'English']].mean().plot(kind='bar')
plt.title("Average Marks per Subject")
plt.xlabel("Subjects")
plt.ylabel("Average Marks")
plt.xticks(rotation=0)
plt.tight_layout()
plt.show()
```

```
# ----------------------------
# 2️⃣ Gender-wise Total Score
# ----------------------------
plt.figure()
sns.barplot(x='Gender', y='Total', data=df)
plt.title("Total Score by Gender")
plt.tight_layout()
plt.show()

# ----------------------------
# 3️⃣ Correlation Heatmap
# ----------------------------
plt.figure()
sns.heatmap(df.corr(numeric_only=True), annot=True)
plt.title("Correlation Heatmap")
plt.tight_layout()
plt.show()

print("\n☑️ Task 3 Visualization Completed
Successfully!")
```

Graph as Output:







Conclusion:

The project successfully analyzed and visualized student performance data using Python. The use of Pandas, Matplotlib, and Seaborn helped in identifying patterns, trends, and correlations effectively.

Project Completed Successfully

Tools Used: Python, Pandas, Matplotlib, Seaborn