Start coding or generate with AI.

Math Scores by Gender Visualization:

Analysis: Comparing the distribution of math scores between male and female students.

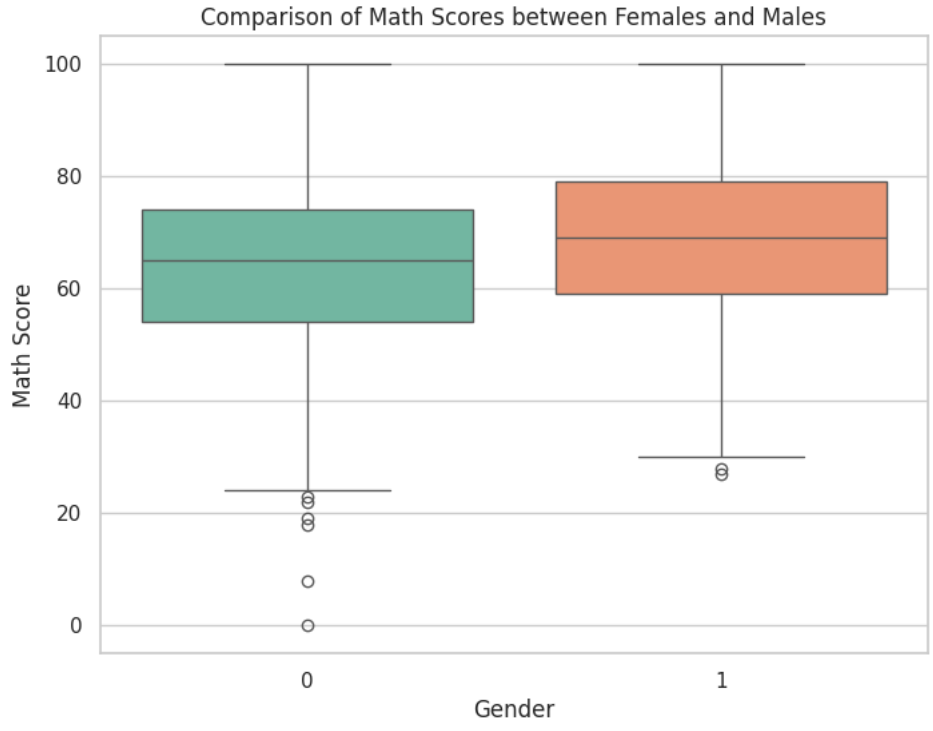
Insights: Identify any disparities or patterns in math performance between genders.

```
#Performing Visualization between Male Maths Score and Female Maths Score
import seaborn as sns
import matplotlib.pyplot as plt
import pandas as pd
df=pd.read_csv("/content/clean_data (1).csv")
# Assuming your data is stored in a DataFrame called 'df'
# Make sure the column names are correct based on your data
sns.set(style="whitegrid")
plt.figure(figsize=(8, 6))
# Create a box plot
sns.boxplot(x='gender', y='math score', data=df, palette="Set2")
# Set labels and title
plt.xlabel("Gender")
plt.ylabel("Math Score")
plt.title("Comparison of Math Scores between Females and Males")
# Show the plot
plt.show()
```

```
<ipython-input-2-4017e4cb938c>:16: FutureWarning:

Passing `palette` without assigning `hue` is deprecated and will be removed in v0.14.0. Assign the `x` variable to `hue` and set `legend

  sns.boxplot(x='gender', y='math score', data=df, palette="Set2")
```



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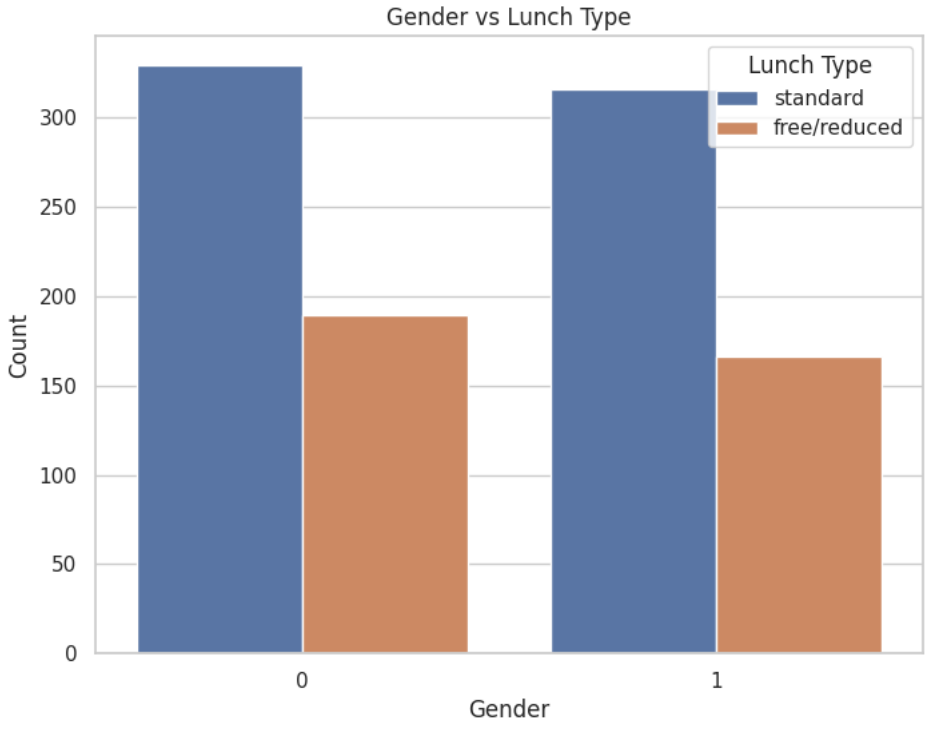
Lunch Type Distribution Visualization:

Analysis: Showing how male and female students differ in the types of lunches they choose.

Insights: Identify any disparities or patterns in math performance between genders.

```
#Performing Visualization between lunch type between Male and Female
import matplotlib.pyplot as plt
import seaborn as sns
import pandas as pd

# Assuming you have your data in a pandas DataFrame named 'df'
# If not, you can create one using the data you provided
# df = pd.DataFrame(data)
df=pd.read_csv("/content/clean_data (1).csv")

# Set the style for seaborn plots
sns.set(style="whitegrid")

# Plotting
plt.figure(figsize=(8, 6))

# Bar chart for Gender and Lunch
sns.countplot(x='gender', hue='lunch', data=df)
plt.title('Gender vs Lunch Type')
plt.xlabel('Gender')
plt.ylabel('Count')

# Show the legend
plt.legend(title='Lunch Type', loc='upper right')

# Show the plot
plt.show()
```



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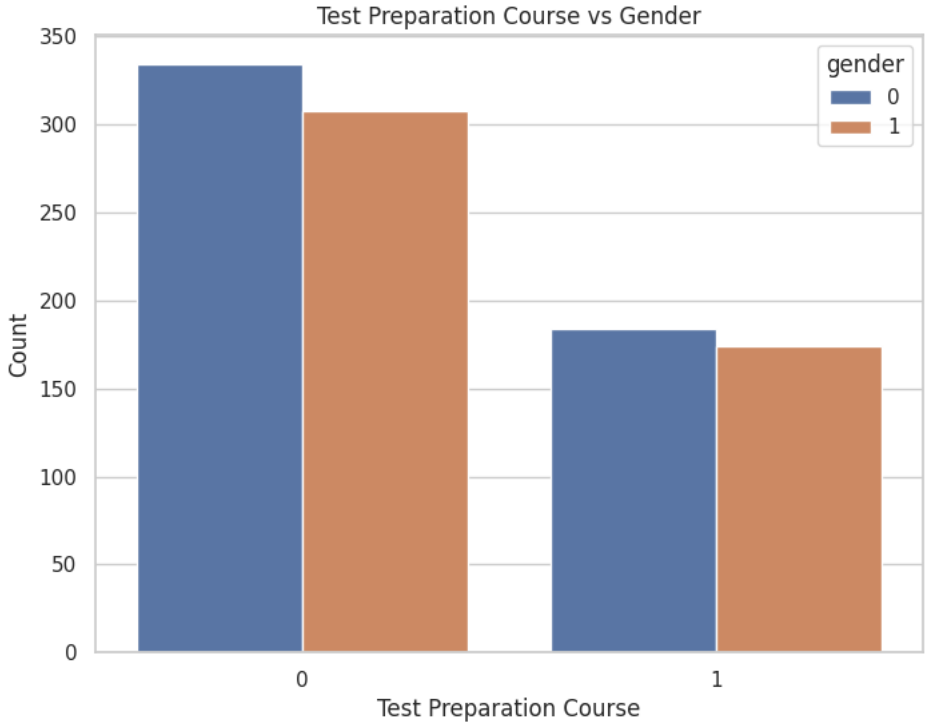
Test Preparation Scores by Gender Visualization:

Analysis: Observing the distribution of test preparation course completion between male and female students.

Insights: Understand the proportion of students, by gender, who completed a test preparation course.

```
#Performing Visualization between Test Preparation Score between Male and female
import seaborn as sns
import matplotlib.pyplot as plt
import pandas as pd


# Assuming your data is stored in a DataFrame called 'df'
# Make sure the column names are correct based on your data
# df = pd.DataFrame(data)

df=pd.read_csv("/content/clean_data (1).csv")

sns.set(style="whitegrid")
plt.figure(figsize=(8, 6))

# Create a count plot
sns.countplot(x="test preparation course", hue="gender", data=df)

# Set labels and title
plt.xlabel("Test Preparation Course")
plt.ylabel("Count")
plt.title("Test Preparation Course vs Gender")

# Show the plot
plt.show()
```



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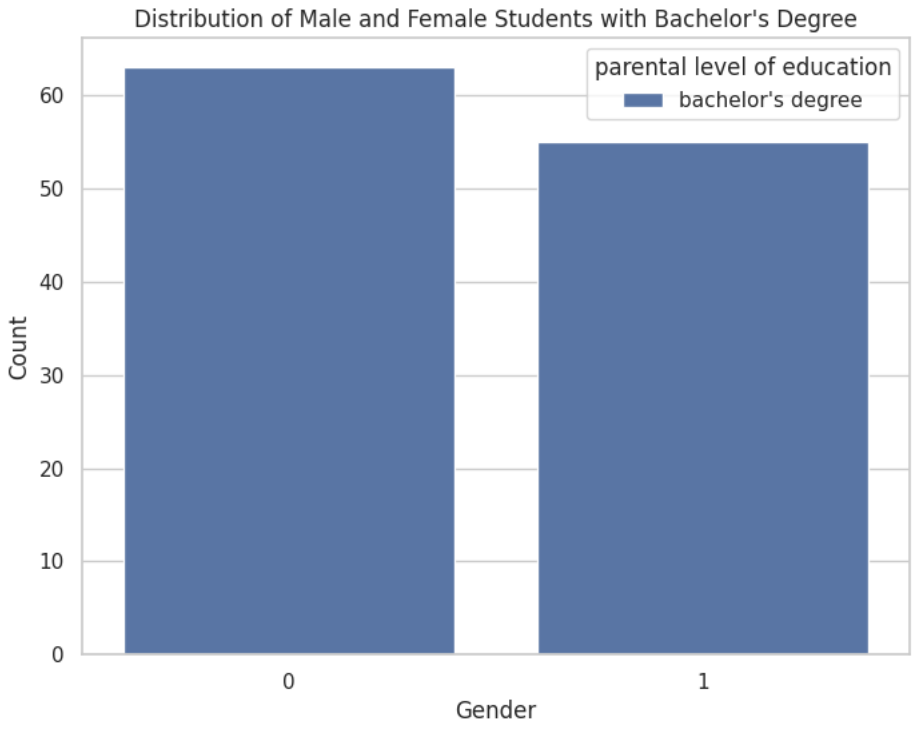
Bachelor's Degree Distribution Visualization:

Analysis: Examining the distribution of bachelor's degrees by parental level of education and gender.

Insights: Understand how many male and female students with parents holding bachelor's degrees are present in the dataset.

```
#Performing Visualization between Bachelors Degree Between Male and Female
import seaborn as sns
import matplotlib.pyplot as plt
import pandas as pd

# Assuming your data is stored in a DataFrame called 'df'
# Make sure the column names are correct based on your data
df=pd.read_csv("/content/clean_data (1).csv")


sns.set(style="whitegrid")
plt.figure(figsize=(8, 6))

# Create a count plot
sns.countplot(x="gender", hue="parental level of education", data=df[df['parental level of education'] == "bachelor's degree"])

# Set labels and title
plt.xlabel("Gender")
plt.ylabel("Count")
plt.title("Distribution of Male and Female Students with Bachelor's Degree")

# Show the plot
plt.show()
```

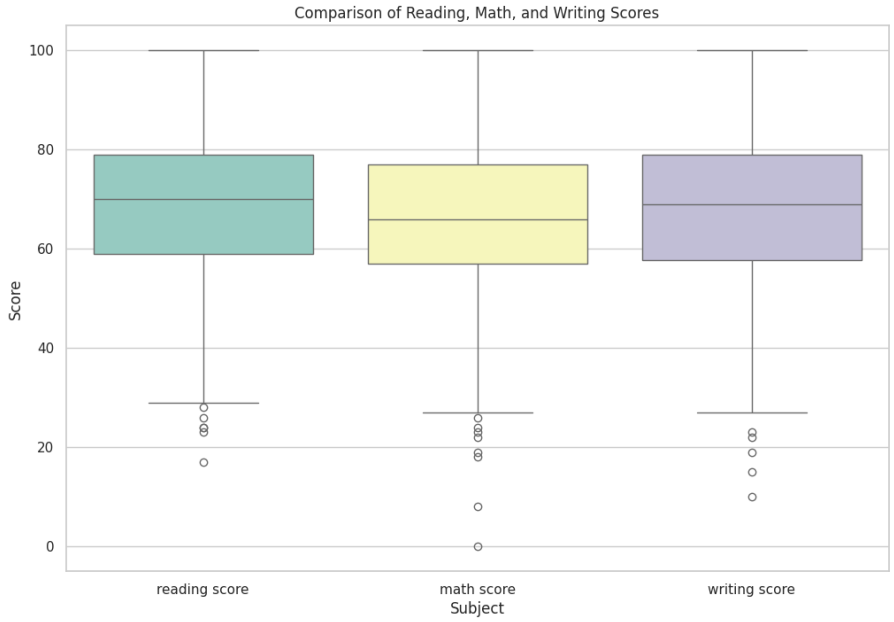


Scores Pair Plot Visualization:

Analysis: Exploring relationships between reading, writing, and math scores.

Insights: Identify correlations or trends between different subject scores, providing a holistic view of academic performance.

```
#Performing Visualization between Reading Score,Writing Score, Maths Score
import seaborn as sns
import matplotlib.pyplot as plt
import pandas as pd


# Assuming your data is stored in a DataFrame called 'df'
# Make sure the column names are correct based on your data
df=pd.read_csv("/content/clean_data (1).csv")


sns.set(style="whitegrid")
plt.figure(figsize=(12, 8))

# Create a box plot
sns.boxplot(data=df[['reading score', 'math score', 'writing score']], palette="Set3")

# Set labels and title
plt.xlabel("Subject")
plt.ylabel("Score")
plt.title("Comparison of Reading, Math, and Writing Scores")

# Show the plot
plt.show()
```



Gender Count Visualization:

Analysis: Assessing the overall gender distribution in the dataset.

Insights: Understand the representation of male and female students, providing a foundational understanding of gender balance.

```
#Data Visulazation between Male and Female Students Count
import seaborn as sns
import matplotlib.pyplot as plt
import pandas as pd


# Assuming your data is stored in a DataFrame called 'df'
# Make sure the column names are correct based on your data
df=pd.read_csv("/content/clean_data (1).csv")


sns.set(style="whitegrid")
plt.figure(figsize=(8, 6))

# Create a count plot
sns.countplot(x='gender', data=df, palette="pastel")

# Set labels and title
plt.xlabel("Gender")
plt.ylabel("Count")
plt.title("Distribution of Male and Female Students")

# Show the plot
plt.show()
```

```
<ipython-input-7-191ebe8d12a2>:16: FutureWarning:

Passing `palette` without assigning `hue` is deprecated and will be removed in v0.14.0. Assign the `x` variable to `hue` and set `legend

  sns.countplot(x='gender', data=df, palette="pastel")
```

Reading Scores by Gender Visualization:

Analysis: Comparing the reading scores of male and female students.

Insights: Identify any disparities or patterns in reading performance between genders.

```
#Data Visulazation between Male and female Reading Scores
import seaborn as sns
import matplotlib.pyplot as plt
import pandas as pd


# Assuming your data is stored in a DataFrame called 'df'
# Make sure the column names are correct based on your data
df=pd.read_csv("/content/clean_data (1).csv")



sns.set(style="whitegrid")
plt.figure(figsize=(8, 5))

# Create a box plot
sns.boxplot(x='gender', y='reading score', data=df, palette="Set2")

# Set labels and title
plt.xlabel("Gender")
plt.ylabel("Reading Score")
plt.title("Reading Scores by Gender")

# Show the plot
plt.show()
```

```
<ipython-input-8-b782ed8c8dac>:17: FutureWarning:

Passing `palette` without assigning `hue` is deprecated and will be removed in v0.14.0. Assign the `x` variable to `hue` and set `legend
```