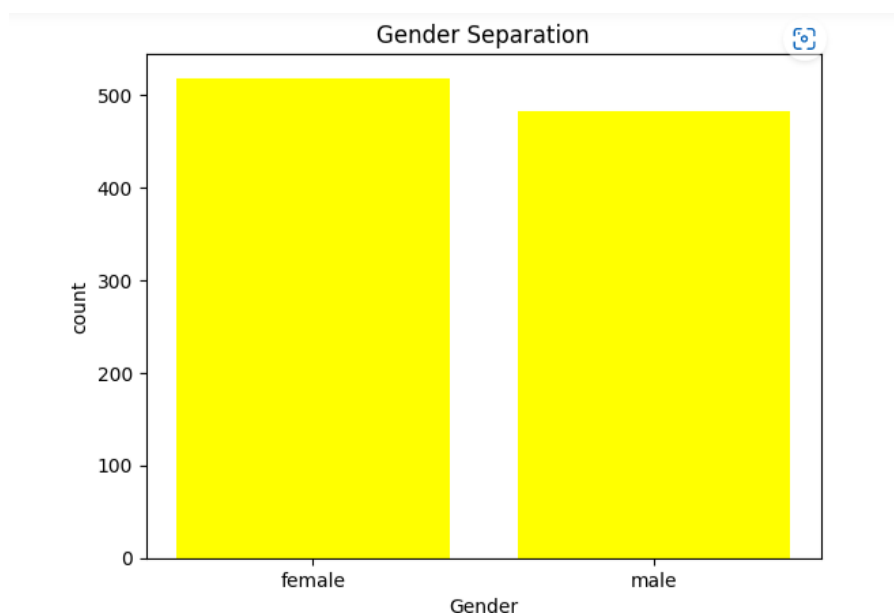


1. Visualisation using Bar plot

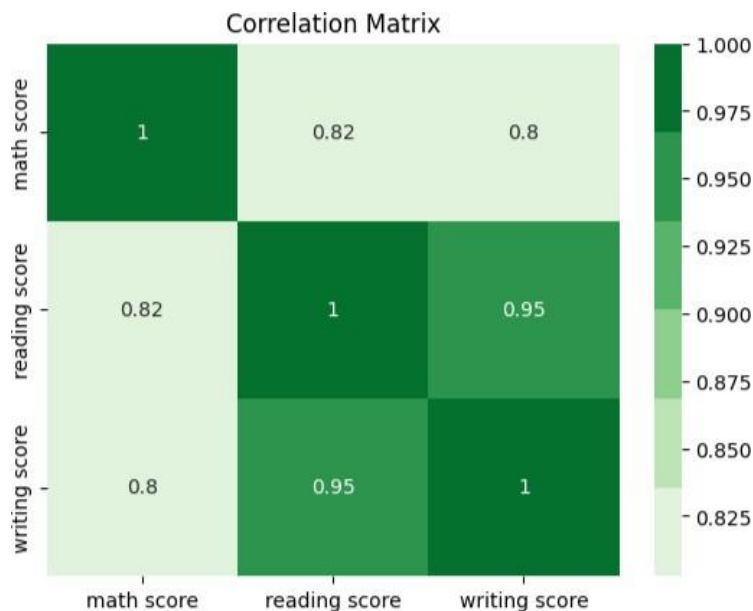
```
import matplotlib.pyplot as plt
import pandas as pandas
Students_Performance_data =
pandas.read_csv("StudentsPerformance.csv")
gender_frequency =
Students_Performance_data['gender'].value_counts()
plt.title("Gender Separation")
plt.xlabel("Gender")
plt.ylabel("count")
plt.bar(gender_counts.index,gender_frequency.values,color="yellow")
```

The below bar chart best describes the male and female gender discrimination and displays the count of male and females.



2. Visualisation Using HeatMap

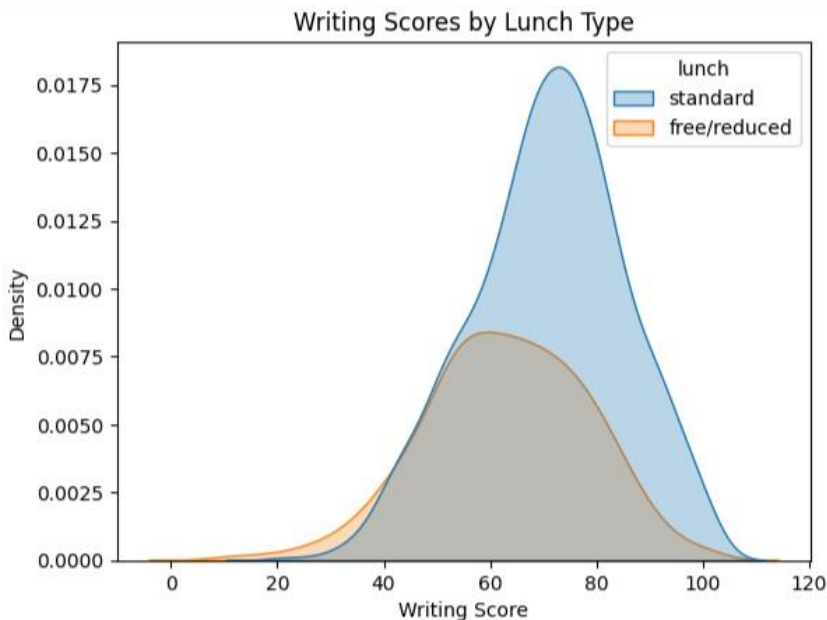
```
import matplotlib.pyplot as plt
import pandas as pandas
import seaborn as seaborn
Students_Performance_data =
pandas.read_csv("StudentsPerformance.csv")
corr=Students_Performance_data.corr(numeric_only=True)
colormap = seaborn.color_palette("Greens")
seaborn.heatmap(corr,cmap=colormap,annot=True)
plt.title("Correlation Matrix")
plt.show()
```



The Above Visualisation depicts the relation between Maths score ,Reading Score and Writing Score.

3. Visualisation using KDEPlot

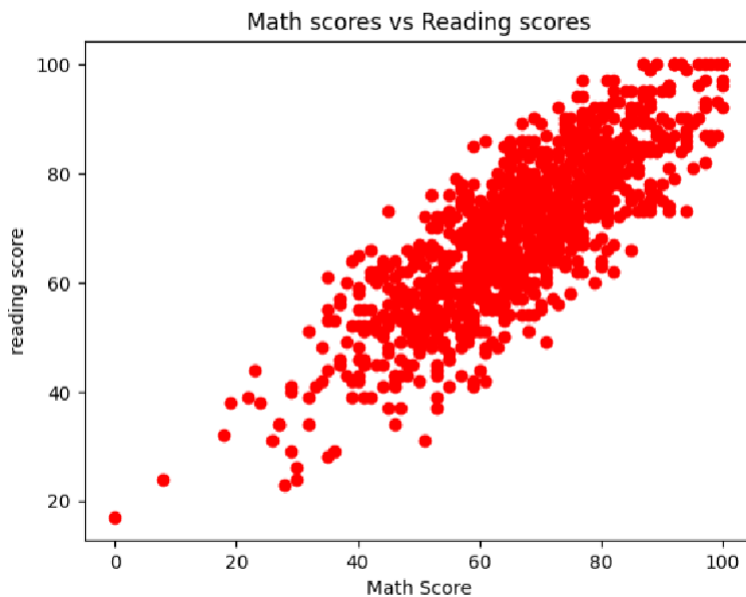
```
import matplotlib.pyplot as plt
import pandas as pandas
import seaborn as seaborn
Students_Performance_data =
    pandas.read_csv("StudentsPerformance.csv")
seaborn.kdeplot(x='writing
    score',data=Students_Performance_data,hue='lunch',fill=True,
    alpha=.3)
plt.title('Writing Scores by Lunch Type')
plt.xlabel('Writing Score')
plt.show()
```



The Above graph best describes the density and writing scores and also depicts whether lunch is standard or free/reduced. This graph best describes the above fields.

4. Visualisation Using Scatter Plot

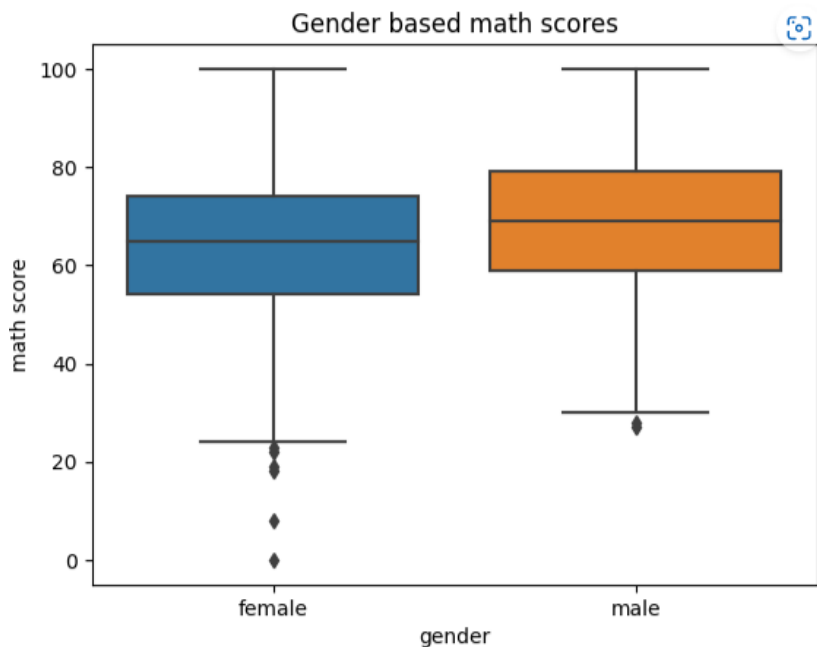
```
import matplotlib.pyplot as plt
import pandas as pandas
import seaborn as seaborn
Students_Performance_data =
pandas.read_csv("StudentsPerformance.csv")
plt.scatter(Students_Performance_data['math
score'],Students_Performance_data['reading score'],color='red')
plt.title("Mathematics scores vs Reading scores")
plt.xlabel("Math Score from dataset")
plt.ylabel("reading score from dataset")
plt.show()
```



The above scatter plot best describes the Maths scores versus the Reading Scores and the plot best depicts the comparison between them.

5. Visualisation Using Box Plot

```
import matplotlib.pyplot as plt
import pandas as pandas
import seaborn as seaborn
Students_Performance_data =
pandas.read_csv("StudentsPerformance.csv")
seaborn.boxplot(x="gender",y="math
score",data=Students_Performance_data)
plt.title("Gender based math scores")
plt.show()
```



The above graph best describes the gender based math scores for both male and female. It best describes through plots on which has best math score based on gender.