**Principles of Data Science**

**Assignment 1**

Name: Partha Nossam

ID: 16326619

Question2:

Below are the 5 different visualization techniques for the student performance dataset.

1. We use Bar chart for gender distribution. As there are only two genders in the dataset, with the help of bar chart we can easily visualize and understand the composition of student population.

2. This scatter plot will display math scores on one axis and reading scores on the other.

It facilitates the examination of the relationship between math and reading scores. This can help identify any correlation or patterns between the two subjects.

3. A box plot will compare writing scores for students who completed the test preparation course versus those who did not.

This visualization allows for a clear comparison of writing scores between students who completed the test preparation course and those who did not. It can help determine if the course had a significant impact on performance.

4. This histogram will show the distribution of parental education levels.

Understanding the parental education levels can provide insights into the background of the students. This information can be useful for analyses related to the impact of parental education on student performance.

5. we are using a pie chart to visualize the distribution of lunch types.

This pie chart provides a visual representation of the proportion of different lunch types among students. It is similar to the bar chart which is used for comparison and distribution.