Data visualization-1:

The bar plot reveals a noticeable difference in average scores between genders, with females generally outperforming males. This insight suggests a potential gender-based performance gap, highlighting the importance of further investigation into educational factors that may contribute to these disparities. The visualization provides a quick overview of the average scores, prompting consideration for targeted interventions or support strategies based on gender.

A graph of a bar graph

Description automatically generated with medium confidence

Data visualization-2:

The gender-specific distribution of students' involvement in test preparation courses is shown by the count plot. It's interesting to note that more women than men appear to have enrolled in the exam preparation course, raising the possibility of a gender gap in academic preparation programmes.A graph of a test preparation course

Description automatically generated

Data visualization-3:

The scatter plot, with dots coloured by gender, shows the correlation between pupils' reading and math performance. Overall, the data points to a favourable association between reading and math results, suggesting that students who do well in one area also typically do well in the other. Additionally, potential gender-based performance patterns are indicated by the unique colour clusters for each gender, with varying degrees of correlation strength between the two subjects.

A graph with blue and orange dots

Description automatically generated

Data visualization-4:

The distribution of arithmetic scores among various racial/ethnic groups is graphically depicted in a box plot, which also breaks down results by gender. Notably, it shows that math results vary within each ethnicity group, and the graphic makes it easy to compare median scores quickly, pointing up possible differences in gender among particular ethnicities. For example, it implies that one gender may perform better than the other in particular groups when it comes to maths results.

A graph of a number of squares

Description automatically generated with medium confidence

Data visualization-5:

The pair plot, which distinguishes data points by gender using unique markers (squares for men and circles for women) and colour shades, shows the correlations between the numerical variables in the dataset. It offers a visual examination of the interactions between variables throughout the dataset and identifies any gender-related patterns or clusters in the data distribution.

A graph of a function

Description automatically generated with medium confidence