**Explain what kind of analysis have become easier with each of the visualizations?**

Below are different kind of analysis that were performed:

**Histogram of Writing score:**

It is now simpler to see how students' writing results are distributed thanks to this representation. It facilitates comprehension of the writing scores' central tendency and frequency distribution.

**Scatter plot of writing score vs. Reading score**

The investigation of the correlation between writing and reading scores is made possible by this scatter plot. It facilitates the discovery of any trends or connections between the two variables.

**Violin plot of writing score by lunch**

Comparing the distribution of writing scores for kids who had different sorts of lunches is made easier by this figure. It offers information about how writing performance may be impacted by the sort of lunch.

**Barplot of average math score by Race/ Ethnicity:**

In order to facilitate group comparisons and the detection of any discrepancies in arithmetic ability, this bar plot shows the average math score for each race/ethnicity group.

**Countplot of Gender**

As previously said, this visualization makes it simpler to comprehend the gender distribution within the dataset by showing the number of students for each gender group.