**Assignment-based Subjective Questions**

1. From your analysis of the categorical variables from the dataset, what could you infer about their effect on the dependent variable?

**ANSWER:**

1. Why is it important to use drop\_first=True during dummy variable creation?

**ANSWER:**

1. Looking at the pair-plot among the numerical variables, which one has the highest correlation with the target variable?

**ANSWER:**

1. How did you validate the assumptions of Linear Regression after building the model on the training set?

**ANSWER:**

1. Based on the final model, which are the top 3 features contributing significantly towards explaining the demand of the shared bikes?

**ANSWER:**

**General Subjective Questions**

1. Explain the linear regression algorithm in detail.

**ANSWER:**

1. Explain the Anscombe’s quartet in detail.

**ANSWER:**

1. What is Pearson’s R?

**ANSWER:**

1. What is scaling? Why is scaling performed? What is the difference between normalized scaling and standardized scaling?

**ANSWER:**

1. You might have observed that sometimes the value of VIF is infinite. Why does this happen?

**ANSWER:**

1. What is a Q-Q plot? Explain the use and importance of a Q-Q plot in linear regression.

**ANSWER:**