**Model result interpretatition**

From the metrics result, we can see our model is performing well but with a good fit as the r\_squared is low at 0.9949 which is very close to one. This means that the model explains nearly 99.5% of the variability in the data , which is an excellent fit. The other 1% variation is explained by other factors not included in our data. This means that instance alone can predict the result but might need additional variables to improve the performance.

The mean absolute error of 5.18 measures the average magnititude of the errors in set of prediction made by your linear regression model differ from the actual values by approximately 5.18 units from the actual values.

The mean squared error of 37.77 measures the average squared difference between the actual and predicted values . A lower MSE indicates that the model’s predictions are closer to actual values. In this case , an MSE of 37.77 suggests that there is some error, but the model is not excessively off in its predictions ,because the mean squared error squares the errors, it is more sensitive to the outliers, therefore higher values indicate the presence of outliers in our data. In this case our value is low meaning we did not have outliers in our model.