ML Practical – 4

1. **List down all the important attributes in the dataset**

Solution:

holiday, temp, rain_1h, snow_1h, clouds_all, weather_main, weather_description, date_time, and traffic_volume

2. **Write down the models you have compared.**

Solution:

Multiple Regression Model:
Multiple regression works by considering the values of the available multiple independent variables and predicting the value of one dependent variable.
Eg.: A researcher decides to study students performance from a school over a period of time

Multiple Polynomial Regression Model:
Polynomial Regression is a form of Linear regression known as a special case of Multiple linear regression which estimates the relationship as an nth degree polynomial. Polynomial Regression is sensitive to outliers so the presence of one or two outliers can also badly affect the performance.

3. **Write down the model which has highest r2 score and minimum MSE**

Solution:

For Multiple Linear Regression:

MSE for test data is 3747243.216672318

R-squared for test data is 0.05217393068890741

For Polynomial Regression:

MSE for test data is 2.531437925812273e+26

R-squared for test data is -6.403008078718704e+19