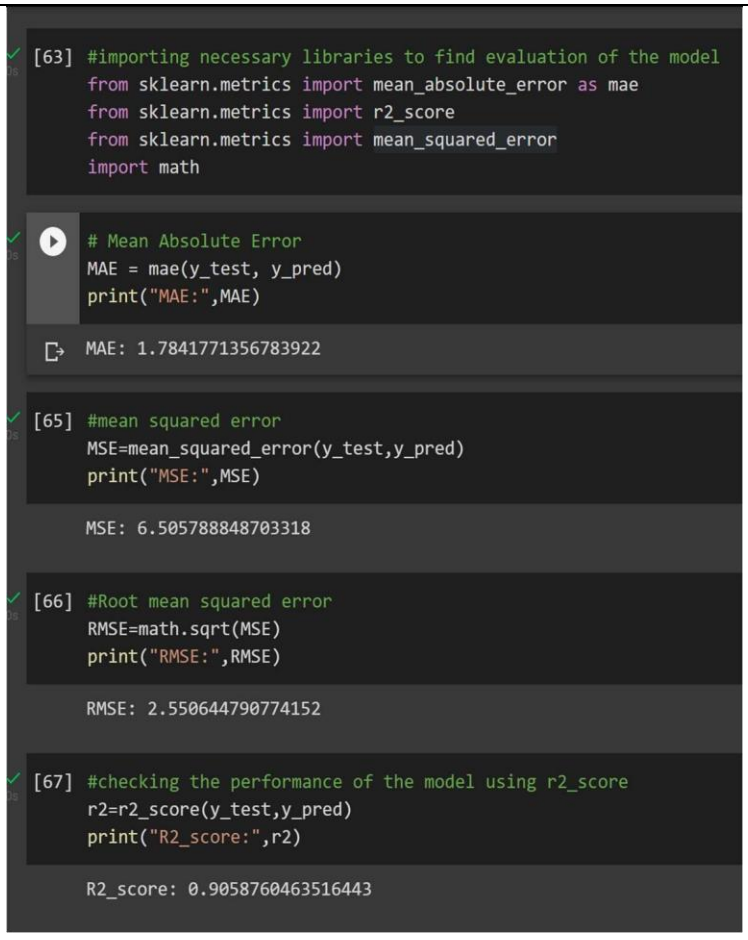
Project Development Phase
Model Performance Test

Date	10 November 2022
Team ID	PNT2022TMID22357
Project Name	Machine Learning based Vehicle Performance Analyzer
Maximum Marks	10 Marks

Model Performance Testing:

Project team shall fill the following information in model performance testing template.

S.No.	Parameter	Values	Screenshot
1.	Metrics	**Regression Model:** MAE - 1.7841, MSE - 6.5057, RMSE -2.5506 , R2 score – 0.9058	

```
[63] #importing necessary libraries to find evaluation of the model
     from sklearn.metrics import mean_absolute_error as mae
     from sklearn.metrics import r2_score
     from sklearn.metrics import mean_squared_error
     import math

     # Mean Absolute Error
     MAE = mae(y_test, y_pred)
     print("MAE:",MAE)

     MAE: 1.7841771356783922

[65] #mean squared error
     MSE=mean_squared_error(y_test,y_pred)
     print("MSE:",MSE)

     MSE: 6.505788848703318

[66] #Root mean squared error
     RMSE=math.sqrt(MSE)
     print("RMSE:",RMSE)

     RMSE: 2.550644790774152

[67] #checking the performance of the model using r2_score
     r2=r2_score(y_test,y_pred)
     print("R2_score:",r2)

     R2_score: 0.9058760463516443
```

2.	Tune the Model	Hyperparameter Tuning –