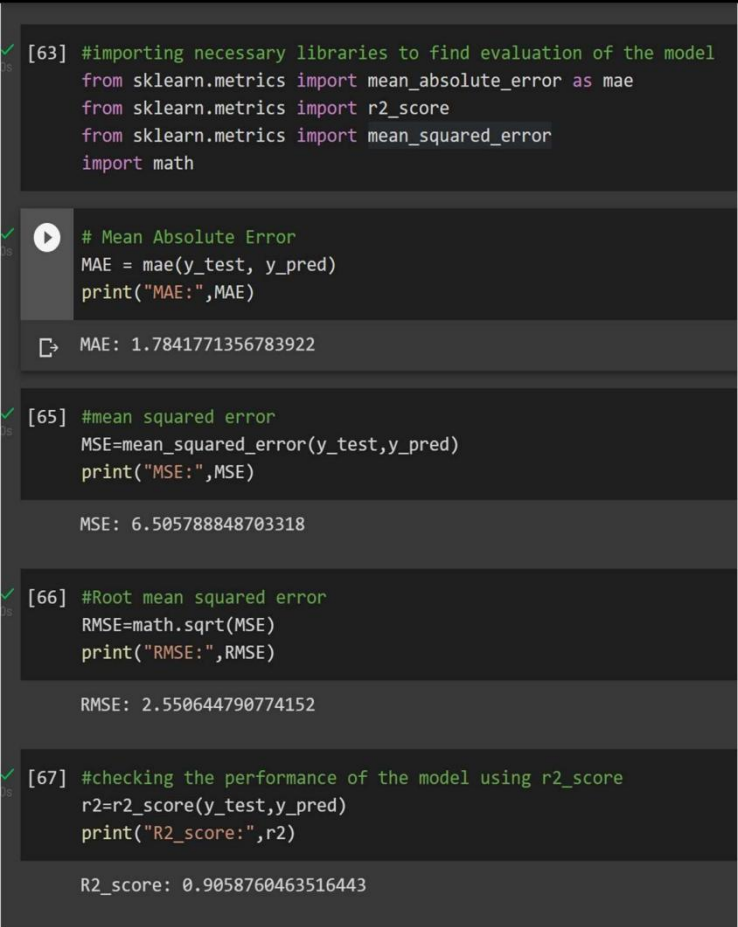


## Project Development Phase Model Performance Test

Date	10 November 2022
Team ID	PNT2022TMID22329
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	<p><b>Regression Model:</b></p> <p>MAE - 1.7841,</p> <p>MSE - 6.5057,</p> <p>RMSE -2.5506 ,</p> <p>R2 score – 0.9058</p>	 <pre> [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 </pre>

2.	Tune the Model	Hyperparameter Tuning –	<pre>[41] from sklearn.ensemble import RandomForestRegressor</pre> <pre>rf= RandomForestRegressor(n_estimators=10,random_state=0) model=rf.fit(x_train,y_train)</pre>
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