

Project Development Phase Model Performance Test

Date	10 November 2022
Team ID	PNT2022TMID22035
Project Name	Project - Car Resale value Prediction
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: MSE - , RMSE - , R2 score -	<pre> In [46]: y_pred = regressor.predict(X_test) In [47]: r2=r2_score(Y_test,y_pred) print("R2_score:",r2) R2_score: 0.834527626497731 In [48]: Adjusted_R2=1-(1-r2*((X_test.shape[0]-1)/(X_test.shape[0]-X_test.shape[1]-1))) print("Adjusted R2:",Adjusted_R2) Adjusted R2: 0.8346274945764857 In [49]: from sklearn.metrics import mean_squared_error import math In [50]: MSE=mean_squared_error(Y_test,y_pred) print("MSE:",MSE) MSE: 11837192.971239958 In [51]: RMSE=math.sqrt(MSE) print("RMSE:",RMSE) RMSE: 3440.5221945570934 </pre>
2.	Tune the Model	Hyperparameter Tuning -	<pre> In [43]: from sklearn.ensemble import RandomForestRegressor from sklearn.metrics import r2_score In [44]: regressor = RandomForestRegressor(n_estimators=1000,max_depth=10,random_state=34) In [45]: regressor.fit(X_train, np.ravel(Y_train,order='C')) Out[45]: RandomForestRegressor(max_depth=10, n_estimators=1000, random_state=34) In [46]: y_pred = regressor.predict(X_test) In [47]: r2=r2_score(Y_test,y_pred) print("R2_score:",r2) R2_score: 0.834527626497731 </pre>