Project Development Phase Model Performance Test

Date	19 November 2022
Team ID	PNT2022TMID31349
Project Name	University Admit Eligibility Predictor
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 - 0.04555 MSE - 0.00426 RMSE - 0.06527 , R2 score - 0.71683 Classification Model: Confusion Matrix - Accuracy Score -0.82 Classification Report -	Mean Squared Error (MSE) from sklearn.metrics import mean_squared_error, r2_score mse = mean_squared_error(pred_test,y_test) [25] mse 0.004260810050671112 Root Mean Squared Error (RMSE) [26] rmse = np.sqrt(mse) [27] rmse 0.06527488070208257 R2 Score [28] r2_score(pred_test, y_test) 0.716031867909245 Mean Absolute Error (MAE) [29] from sklearn.metrics import mean_absolute_error mean_absolute_error(pred_test, y_test) 0.04555243106630539 [700] [70

			In [44]:	Accuracy = metrics.accuracy_score(actual, predicted) Accuracy
			Out[44]:	0.816
				Classification Report
			In [56]:	<pre>from sklearn.metrics import classification_report print(classification_report(actual, predicted))</pre>
				precision recall f1-score support 0 0.15 0.15 0.15 107 1 0.90 0.90 0.90 893
				accuracy 0.82 1000 macro avg 0.52 0.52 1000 weighted avg 0.82 0.82 0.82 1000
2.	Tune the Model	Hyperparamete r Tuning -		
		Validation Method		2.Stratified K-Fold
		_	In [63]	from sklearn import datasets from sklearn.tree import DecisionTreeClassifier from sklearn.model_selection import StratifiedKFold, cross_val_score X, y = datasets.load_fris(return_X_y=True) clf = DecisionTreeClassifier(random_state=42)
				<pre>sk_folds = StratifiedKFold(n_splits = 5) scores = cross_val_score(clf, X, y, cv = sk_folds) print("Cross Validation Scores: ", scores) print("Average CV Score: ", scores.mean()) print("Number of CV Scores used in Average: ", len(scores))</pre>
				Cross Validation Scores: [0.96666667 0.96666667 0.9 0.93333333 1.] Average CV Score: 0.953333333333334 Number of CV Scores used in Average: 5