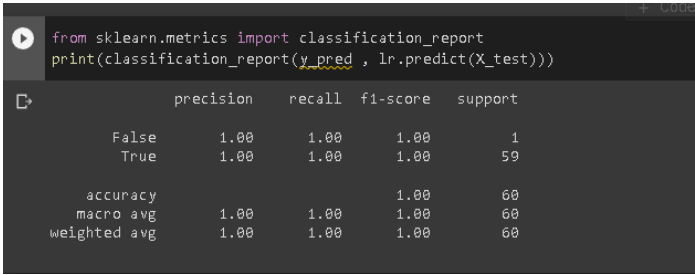


Project Development Phase Model Performance Test

Date	17 November 2022
Team ID	PNT2022TMID37875
Project Name	Project - 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	<p>Regression Model: MAE – 0.31649 MSE – 0.12189 RMSE – 0.3491 R2 score -1.0</p> <p>Classification Model: Confusion Matrix – $\begin{bmatrix} 0 & 9 \\ 0 & 66 \end{bmatrix}$</p> <p>Accuracy Score-0.88</p> <p>Classification report:</p>	<pre>from sklearn.metrics import mean_squared_error, r2_score, mean_squared_error, r2_score, mean_squared_error, r2_score import numpy as np print('Mean Absolute Error:', mean_absolute_error(y_test, y_pred)) print('Mean Squared Error:', mean_squared_error(y_test, y_pred)) print('Root Mean Squared Error:', np.sqrt(mean_squared_error(y_test, y_pred))) Mean Absolute Error: 0.3164910838782627 Mean Squared Error: 0.1218910658729976 Root Mean Squared Error: 0.3491290103571996 y_train = (y_train>0.5)</pre> <pre>from sklearn.metrics import accuracy_score, recall_score, roc_auc_score, confusion_matrix print('Accuracy Score:', accuracy_score(y_test, y_pred)) print('Recall Score:', recall_score(y_test, y_pred)) print('ROC AUC Score:', roc_auc_score(y_test, y_pred)) print('Confusion Matrix:\n', confusion_matrix(y_test, y_pred)) Accuracy Score: 0.88 Recall Score: 1.0 ROC AUC Score: 0.5 Confusion Matrix: [[0 9] [0 66]]</pre> 

2.	Tune the Model	Hyperparameter Tuning - Validation Method -	<pre>from numpy.core.numeric import cross from sklearn import datasets from sklearn.linear_model._logistic import LogisticRegression from sklearn.model_selection import StratifiedKFold,cross_val_score X,y = datasets.load_iris(return_X_y=True) lore = LogisticRegression(random_state=0, max_iter=1000) sk_folds = StratifiedKFold(n_splits= 5) scores = cross_val_score(lore,X,y,cv= sk_folds) print("Cross Validation Scores:",scores) print("Average CV Scores:",scores.mean()) print("Number of CV Scores used in Average:",len(scores))</pre> <p>Cross Validation Scores: [0.96666667 1. 0.93333333 0.96666667 1.] Average CV Scores: 0.9733333333333334 Number of CV Scores used in Average: 5</p>
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