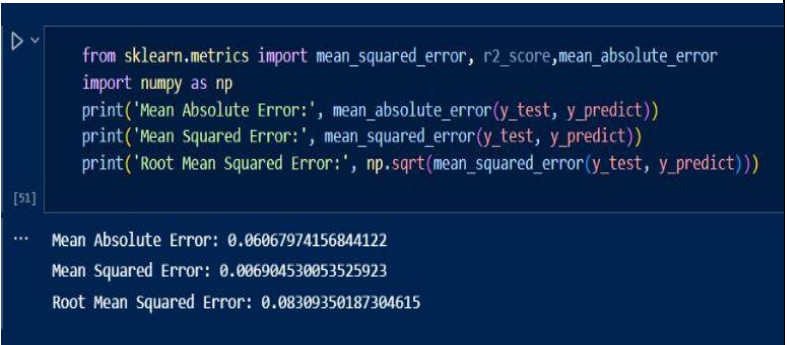
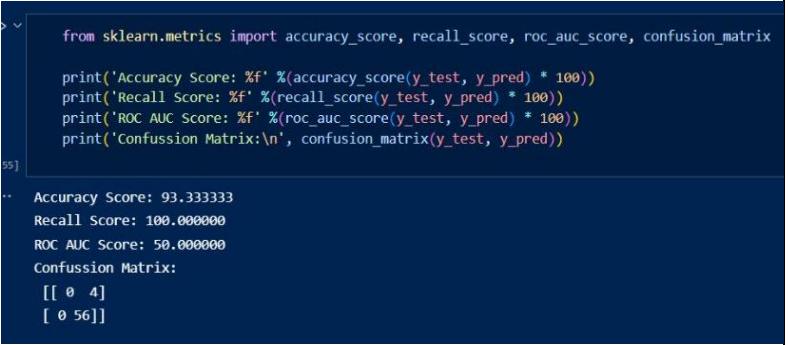


## Project Development Phase Model Performance Test

Date	18 November 2022
Team ID	PNT2022TMID03943
Project Name	University Admit Eligibility Predictor
Maximum Marks	10 Marks

### Model Performance Testing:

S.No.	Parameter	Values	Screenshot
1.	Metrics	<p><b>Regression Model:</b></p> <p>MAE -</p> <p>0.0686797415684412</p> <p>2 ,MSE –</p> <p>0.0069845300535592</p> <p>3</p> <p>RMSE</p> <p>- 0.08309350187384615</p> <p><b>Classification Model:</b></p> <p>Confusion Matrix –</p> <p>[[0 4]</p> <p>0 56]] ,</p> <p>Accuray Score-</p> <p>93.333333</p>	 <pre> from sklearn.metrics import mean_squared_error, r2_score, mean_absolute_error import numpy as np print('Mean Absolute Error:', mean_absolute_error(y_test, y_predict)) print('Mean Squared Error:', mean_squared_error(y_test, y_predict)) print('Root Mean Squared Error:', np.sqrt(mean_squared_error(y_test, y_predict)))  [51] ... Mean Absolute Error: 0.06067974156844122 Mean Squared Error: 0.006904530053525923 Root Mean Squared Error: 0.08309350187304615 </pre>  <pre> from sklearn.metrics import accuracy_score, recall_score, roc_auc_score, confusion_matrix  print('Accuracy Score: %f' %(accuracy_score(y_test, y_pred) * 100)) print('Recall Score: %f' %(recall_score(y_test, y_pred) * 100)) print('ROC AUC Score: %f' %(roc_auc_score(y_test, y_pred) * 100)) print('Confussion Matrix:\n', confusion_matrix(y_test, y_pred))  [52] ... Accuracy Score: 93.333333 Recall Score: 100.000000 ROC AUC Score: 50.000000 Confussion Matrix: [[ 0  4]  [ 0 56]] </pre>

2.	Tune the Model	Hyperparameter Tuning - Validation Method -	<pre>from sklearn import datasets from sklearn.tree import DecisionTreeClassifier from sklearn.model_selection import StratifiedKFold, cross_val_score  X, y = datasets.load_iris(return_X_y=True)  clf = DecisionTreeClassifier(random_state=42)  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> <p>Cross Validation Scores: [0.96666667 0.96666667 0.9 0.93333333 1.] Average CV Score: 0.9533333333333334 Number of CV Scores used in Average: 5</p>
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