Project Development Phase
Model Performance Test

Date	10 November 2022
Team ID	PNT2022TMID21686
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	**Regression Model:**
		MAE -0.051519999999999976,
		MSE -0.005147544125000005,
		RMSE -0.07174638753972219,
		R2 score -0.6803475400971135
			```from sklearn.metrics import mean_squared_error, r2_score,mean_absolute_error```
			```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)))```
			```print('r2 score:',r2_score(y_pred,y_test))```
			
			Mean Absolute Error: 0.051519999999999976
			Mean Squared Error: 0.004440446999999992
			Root Mean Squared Error: 0.06663667908892214
			r2 score: 0.7773793433497371

2.	Tune the Model	Hyperparameter Tuning – Cross Validation
		Validation Method – GridSearchCV method
			```from sklearn.model_selection import GridSearchCV```
			```import warnings```
			```warnings.filterwarnings('ignore')```
			```parameters = {```
			``` 'n_estimators': [100, 150, 200, 250, 300],```
			``` 'max_depth': [1,2,3,4],```
			```}```
			```clf = GridSearchCV(estimator = rgr, param_grid = parameters, cv = 3)```
			```clf.fit(X_train, y_train)```
			```print(clf.best_score_)```
			
			0.7584872527312757