Project Development Phase
Performance Test

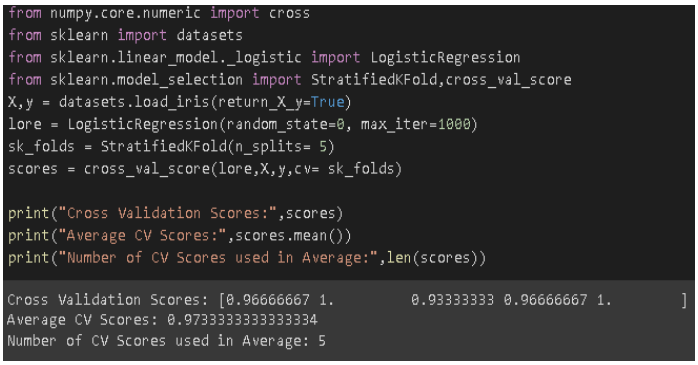
Date	**17 November 2022**
Team ID	**PNT2022TMID37882**
Project Name	**Project - University Admit Eligibility Predictor**
Maximum Marks	**10 Marks**

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 – 0.31649
		MSE – 0.12189
		RMSE –0.3491
		R2 score -1.0
		
		Classification Model:
		Confusion Matrix – [[0 9]
		[0 66]]
		
		Accuracy Score-0.88
		
		Classification report:
			`from sklearn.metrics import mean_squared_error, r2_score,mean_`
			`import numpy as np`
			
			`print('Mean Absolute Error:', mean_absolute_error(y_test, y_pr`
			`print('Mean Squared Error:', mean_squared_error(y_test, y_pred`
			`print('Root Mean Squared Error:', np.sqrt(mean_squared_error(y`
			
			`Mean Absolute Error: 0.3164910838782627`
			`Mean Squared Error: 0.1218910658729976`
			`Root Mean Squared Error: 0.3491290103571996`
			
			`y_train = (y_train>0.5)`
			
			`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('Confussion Matrix:\n', confusion_matrix(y_test, y_pred))`
			
			`Accuracy Score: 0.88`
			`Recall Score: 1.0`
			`ROC AUC Score: 0.5`
			`Confussion Matrix:`
			`[[ 0 9]`
			`[ 0 66]]`
			
			`from sklearn.metrics import classification_report`
			`print(classification_report(y_pred , lr.predict(X_test)))`
			
			`precision recall f1-score support`
			
			`False 1.00 1.00 1.00 1`
			`True 1.00 1.00 1.00 59`
			
			`accuracy 1.00 60`
			`macro avg 1.00 1.00 1.00 60`
			`weighted avg 1.00 1.00 1.00 60`

2.	Tune the Model	Hyper parameter Tuning - Validation Method -	

```
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))
```

```
Cross Validation Scores: [0.96666667 1.         0.93333333 0.96666667 1.        ]
Average CV Scores: 0.9733333333333334
Number of CV Scores used in Average: 5
```