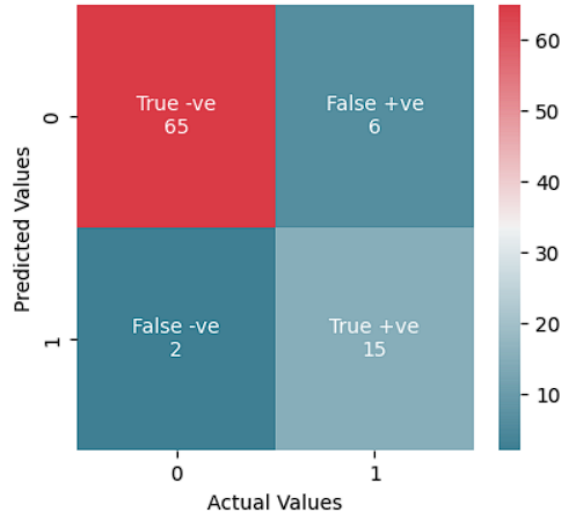


Project Development Phase Model Performance Test

Date	09 November 2023
Team ID	Team-592709
Project Name	Wholesale Customer Segmentation Analysis
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	Classification Model: Confusion Matrix Accuracy Score- 87.50% Classification Report	<p>Confusion Matrix:</p>  <p>Accuracy score:</p> <p>Accuracy of KNN for Test data is 90.9090909090909</p> <p>Classification Report:</p> <pre> Classification report for KNN is: precision recall f1-score support 1 0.97 0.92 0.94 71 2 0.71 0.88 0.79 17 accuracy 0.91 88 macro avg 0.84 88 weighted avg 0.92 88 AUC for KNN: 10.11 </pre>

2.

Tune the Model

Hyperparameter Tuning -
n=12 used for KNN for
minimum error

Validation Method - Train-Test
split



Model	Train Accuracy	Test Accuracy	F1-Score	
0	KNN	84.94	90.91	0.79
1	Naive Bayes	84.66	86.36	0.68

Recall	Precision	AUC	Best_Cross_Val_Score
0.88	0.71	10.11	0.84 (+/- 0.05)
0.76	0.62	17.40	0.84 (+/- 0.03)

False Negatives	False Positives	True Negatives	True Positives
2	6	65	15
4	8	63	13