Model Development Phase Template

Date	15 March 2024
Team ID	LTVIP2024TMID25001
Project Title	Customer Segmentation Using Machine Learning
Maximum Marks	6 Marks

Model Selection Report

In the forthcoming Model Selection Report, various models will be outlined, detailing their descriptions, hyperparameters, and performance metrics, including Accuracy or F1 Score. This comprehensive report will provide insights into the chosen models and their effectiveness.

Model Selection Report:

Model	Description	Hyperparameters	Performance Metric (e.g., Accuracy, F1 Score)
KNN	A neural network model designed for tabular data; captures complex patterns, suitable for high-dimensional data.	-----	**Accuracy=84%**
Decision Tree	A neural network model designed for tabular data; captures complex patterns, suitable for high-dimensional data.	-----	**Accuracy=89%**

Random Forset	**Ensemble of decision trees; reduces overfitting, handles complex relationships, and provides feature importance.**	**------**	**Accuracy=78%**
XGBoost	**An optimized gradient boosting model; handles large datasets, reduces overfitting, and delivers high accuracy.**	**------**	**Accuracy82%**