Model Development Phase Template

Date	18 June 2024
Team ID	739642
Project Title	Customer shopping 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	Description	Hyperparameters	Performance Metric (e.g., Accuracy, F1 Score)
kmeans	k-means clustering is a powerful tool for customer segmentation, helping businesses understand their customers better and tailor their strategies accordingly.	-	Accuracy score = 100%
KNN	Classifier based on nearest neighbors adapts well to data patterns, effective for local variation in clustering criteria.	-	Accuracy score = 100%
Decision tree	Simple tree structure; interpretable, captures non-linear relationships, suitable for intial sites into clustering pattern.	-	Accuracy score = 100%

Gradient Boosting	Gradient boosting with trees; optimizes predictive performance, handles complex relationships, and is suitable for accurate cluster predictions.	-	Accuracy score = 100%