Model Development Phase Template

Date	15 March 2024
Team ID	740662
Project Title	Golden Harvest: A predictive Model for apple quality assurance
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)
Decision Tree	Simple tree structure; interpretable, captures non-linear relationships, suitable for initial insights in predicting the bankrupted business	-	Accuracy Score=80%

Random Forest	Ensemble of decision trees; robust, handles complex relationships, reduces overfitting, and provides feature importance for predicting the bankrupted business	-	Accuracy Score=91%
XGB	It's a machine learning technique that builds an ensemble of decision trees sequentially, where each subsequent tree corrects the errors made by the previous ones.	**-**	Accuracy score=90%
Logistic regression	Logistic regression is a statistical model used for binary classification tasks. It predicts the probability of occurrence of an event by fitting data to a logistic curve.	**-**	**Accuracy score=75%**