Model Development Phase Template

Date	10 July 2024
Team ID	739835
Project Title	Credit card approval prediction using ML
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)**
Random Forest	Ensemble of decision trees; robust, handles complex relationships, reduces overfitting, and provides feature importance for credit card approval prediction.	-	Accuracy score = 81%
Decision Tree	Simple tree structure; interpretable, captures non-linear relationships, suitable for initial insights into credit card approval patterns.	-	Accuracy score = 73%
Gradient Boosting	ensemble learning technique that builds models sequentially to correct errors made by previous models. It's widely used for its high performance	-	Accuracy score= 81%

	in classification and regression tasks, including credit card approval prediction		
Gradient Boosting	Gradient boosting with trees; optimizes predictive performance, handles complex relationships, and is suitable for accurate credit card approval predictions.	-	Accuracy score = 81%