Model Development Phase Template

Date	15 March 2024
Team ID	740012
Project Title	**Predicting IMF-Based Exchange Rates: Leveraging Economic Indicators for Accurate Regression Modeling**
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	Performance Metric
Random Forest	Ensemble of decision trees; robust, handles complex relationships, reduces overfitting, and provides feature importance for exchange approval prediction.	Accuracy score = 81%
Decision Tree	Simple tree structure; interpretable, captures non-linear relationships, suitable for initial insights into prediction approval patterns.	Accuracy score = 73%
KNN	Classifies based on nearest neighbours; adapts well to data patterns, effective	Accuracy score = 77%

	for local variations in prediction approval criteria.	
Gradient Boosting	Gradient boosting with trees; optimizes predictive performance, handles complex relationships, and is suitable for accurate approval predictions.	Accuracy score = 81%