Model Development Phase Template

Date	15 June 2024
Team ID	739786
Project Title	To Predict Consumer Price Index
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 prediction of Consumer Price Index	-	Accuracy score =99.99 %
Adaboost	Improves error of the target predictive model by iteratively giving weights on the training data points	-	Accuracy score =99.73%

KNN	Non-parametric and instance-based machine learning algorithm used for predicting values based on similar data points in the contex of the consumer price index	-	Accuracy score =99.82%

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Gradient Boosting	Gradient boosting is a powerful enseamble learning technique that can effectively predict the Consumer Price Index by iteratively combing week learners typically decision trees.	-	Accuracy score = 99.99%