Model Development Phase Template

Date	10-JUNE-2024
Team ID	740028
Project Title	**Frappe Activity: Mobile Phone Activity Classification 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	Performance Metric (Accuracy, Score)
Random Forest	Random Forest is an ensemble learning method used for classification and regression tasks. It is built upon the concept of decision trees.	81%
Decision Tree	Hyperparameter tuning for a DecisionTreeClassifier is done using RandomizedSearchCV. it defines the hyperparameters and their possible values for tuning using the parodist dictionary. The hyperparameters include the criterion for splitting the strategy for selecting the split at each node the maximum depth of the tree the minimum number of samples required t	81%
Bagging	Performing hyperparameter tuning for a Bagging Classifier involves using Randomized Search CV in Python. It defines the base estimator, which in this case is a Decision Tree Classifier. Then, it initializes a Bagging Classifier with the defined base estimator.	33%