Model Development Phase Template

Date	13 June 2024
Team ID	739850
Project Title	Air Quality Index Analyzer 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 Selection Report:

Model	Description	Hyperparameters	Performance Metric (e.g., R2 score)
Random forest classifier	Random forest is an ensemble learning method that constructs multiple decision trees and merges them to get a more accurate and stable prediction	Maximum depth	R2 Score:0.79
Decision tree classifier	It splits the data into subsets based on the value of input features, leading to a tree like model of decisions	max depth, min samples split	R2 Score:0.88
Extra tree classifier	Is an ensemble learning method that builds multiple decorrelated decision trees and merges their predictions	**max features, min samples split**	**R2 Score:0.89**