Model Development Phase Template

Date	28th June 2024
Team ID	SWTID1720109498
Project Title	Blueberry Yield Predictor
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 MSE, MAE or R2 score. This comprehensive report will provide insights into the chosen models and their effectiveness.

Model Selection Report:

Model	Description	Hyperparameters	Performance Metric (e.g., MSE, MAE, R2 Score)
Linear Regression	A simple model that assumes a linear relationship between the input variables (features) and the output variable (target). It fits a straight line to the data.	-	R2 score = 0.985
Random Forest Regressor	An ensemble learning method that constructs multiple decision trees during training and outputs the average prediction of the individual trees. It reduces overfitting and improves accuracy	-	R2 score = 0.979
Decision Tree Regressor	A non-linear model that splits the data into subsets based on feature values, creating a tree-like structure. Each leaf represents a predicted outcome.	-	R2 score = 0.961

XGB Regressor	An advanced ensemble technique that uses gradient boosting on decision trees. It iteratively improves model performance by minimizing errors of previous models, known for its high accuracy and efficiency.	-	R2 score = 0.982