

Model Development Phase

Date	06 July 2024
Team ID	739915
Project Title	BlueBerry Yield Prediction
Maximum Marks	5 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 Metrics(eg:R-Square)
Linear Regression	A simple and interpretable model that assumes a linear relationship between the input variables and the target. Suitable for datasets with linear correlations.	None (basic model has no hyperparameters)	R-Square = 0.993
Random Forest	Ensemble of decision trees; robust, handles complex relationships, reduces overfitting, and provides feature importance for loan approval prediction.	max depth	R-Square = 0.700

Decision Tree	Simple tree structure; interpretable, captures non-linear relationships, suitable for initial insights into loan approval patterns.	Max depth, min samples split, min samples leaf	R-Square = 0.974
XGBoost	An efficient and scalable implementation of gradient boosting, optimized for performance and accuracy. Suitable for handling large datasets and complex relationships.	-	R-Square = 0.988