Model	Description	Hyperparameters	Performance Metric (e.g., Accuracy, F1 Score)
Decision tree	Significant improvement over linear models, captures non-linear relationships well.	-	69%
Random forest	Best performance, combines multiple decision trees to reduce overfitting and improve accuracy.	-	78%
Linear Regression	Basic model, low accuracy, serves as a baseline for comparison with more complex models.	-	**41%**

Adaboost Regression	Good performance, boosts the weak learners but still not as strong as Random Forest or XGBoost.	-	68%
XGBoost	Strong performance, handles outliers and overfitting better than individual decision trees.	-	73%

Model Development Phase Template

Date	8 July 2024
Team ID	740138
Project Title	Identification of methodology used in real estate property valuation
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:

Multi linear	Similar performance to Linear Regression, indicating limited improvement with multiple features in this context.	-	41%

Model selection:

Based on the evaluation, the **Random Forest Regression** model is selected for predicting real estate property values due to its highest accuracy of 0.7883. This model effectively balances bias and variance, providing robust and reliable predictions.