Model Development Phase Template

Date	15 July 2024
Team ID	739956
Project Title	Revolutionizing Automotive Resale: AI-Driven Prediction of Used Toyota Corolla Car Prices
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., Accuracy, F1 Score)
Linear Regression	linear regression is a powerful and interpretable method for understanding relationships between variables and making predictions	----	Training :86% Test:85%
Random Forest	Random Forest model could be trained using features such as the car's age, mileage, engine size, and number of previous owners. Each decision tree in the forest would make a prediction, and the final predicted price would be the	-----	Training:98% Test:88%

	average of all the trees' predictions.		
Decision Tree	decision tree could use features like the car's age, mileage, engine size, and number of previous owners. The root node might split based on the age of the car, with one branch for cars older than a certain age and another for newer cars.	------	Training:99% Test:80%
XG Boost	XG Boost, short for extreme Gradient Boosting, is a powerful and efficient implementation of gradient boosting for supervised learning tasks, particularly classification and regression. It has gained widespread popularity due to its performance, speed, and scalability.	------	Tranining:99% Test:88%