

Model Development Phase Template

Date	15th July 2024
Team ID	739740
Project Title	Predictive Modeling For Fleet Fuel Management 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	Hyper parameters	Performance metrics(e.g.,Accuracy,F1 Score)
Linear Regression	A simple linear approach that models the relationship between the dependent variable (fuel consumed) and independent variables (e.g., distance traveled, vehicle type, maintenance cost, temperature, weather condition).	—	<pre>y_pred=l.predict(x_test)</pre> <pre>print(l.coef_,l.intercept_)</pre> <pre>[0.00523674 -0.02371772 -0.14711979 -0.03724498 0.41456804 0.61676684 -0.06407861] 9.38930814225712</pre>

Gradient Boosting Regressor	Gradient Boosting is an ensemble learning technique that builds models sequentially, with each new model correcting errors of the previous ones, to improve accuracy in classification and regression tasks.	-	<pre> -----Gradient Boosting Regressor model----- Model performance for test set R2 Score = 0.9998527192407322 RMSE = 0.36463906787159356 ----- Model performance for Test set R2_Score = 0.9999999370963878 RMSE = 0.007523146092761905 </pre>
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