Model Development Phase Template

Date	17 July 2024
Team ID	xxxxxx
Project Title	Predicting The Energy Output Of Wind Turbine Based On Weather Condition
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)
Random Forest Regressor	The RandomForestRegressor is an ensemble learning method that operates by constructing multiple decision trees during training and outputting the average of the predictions of the individual trees. This approach helps to improve the predictive accuracy and control over-fitting compared to a single decision tree.	n_estimators, max_depth, max_leaf_nodes	Mean Absolute Error = 168.36, R2 Score = 0.90

Linear Regression	The LinearRegression algorithm attempts to model the relationship between the target variable and predictor variables by fitting a linear equation of the form: $\hat{y}=\beta 0+\beta 1x1+\beta 2x2+\ldots+\beta nxn$	NaN	Mean Absolute Error = 188.71, R2 Score = 0.89