Model Development Phase Template

Date	15 March 2024
Team ID	740009
Project Title	Student Adaptability Level of Online Education
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 Classification	A function named random forest regressor is created and train and test data are passed as the parameters, inside the function, random forest regressor is initialized and training data is passed to the model with the .fit() function. Test data is predicted with .predict() function and saved in a new variable. For evaluating the model with R2_score.	fit(),predict(),random_state()	0.91

Decision Tree Classification	A function named decision tree regressor is created and train and test data are passed as the parameters, inside the function, decision tree regressor is initialized and training data is passed to the model with the .fit() function. Test data is predicted with .predict() function and saved in a new variable. For evaluating the model with R2_score.	fit(),predict(),random_state()	0.89

Xg Boost	A function named xg boost is created and train and test data are passed as the parameters, inside the function, Gradient boosting regressor is initialized and training data is passed to the model with the .fit() function. Test data is predicted with .predict() function and saved in a new variable. For evaluating the model with R2_score.	fit(),predict(),random_state()	0.90