Model Development Phase Template

Date	June 2024
Team ID	team-739778
Project Title	Prosperity Prognosticator : Machine Learning for Startup success Prediction
Maximum Marks	5 Marks

Model Selection Report

In the forthcoming model selection report, various models will be outlined ,detailing their descriptions and performance metrics including accuracy of the models. This comprehensive report will provide insights into the chosen models and their effectiveness.

Model Selection Report:

Model	Description	Performance Metrics (e.g., Accuracy,F1 score)
Gradient Boosting Classifier	Gradient Boosting is the grouping of Gradient descent and Boosting . In gradient boosting, each new model minimizes the loss function from its predecessor using the Gradient Descent Method. This procedure continues until a more optimal estimate of the target variable has been achieved	Accuracy Score=81%
AdaBoost Classifier	AdaBoost stands for Adaptive Boosting. It is a statistical classification algorithm. It is an algorithm that forms a committee of weak classifiers. It boosts the performance of machine learning algorithms. It helps you form a committee of weak classifiers by combining them into a single strong classifier. It can be used to solve a wide range of problems.	Accuracy Score=83%
Random Forest Classifier	The Random Forest Classifier is ideal because it combines the strength of multiple decision trees, offering high accuracy, robust performance against overfitting , and the ability to handle large and complex datasets, ensuring reliable predictions in varied shipping scenarios.	Accuracy Score=90%
XGBoost Classifier	The XGBoost due to its superior performance in handling large datasets, capability to capture complex relationships in data, robustness against overfitting, and ability to optimize predictive accuracy through boosting techniques, ensuring reliable and efficient shipping logistics predictions.	Accuracy Score=81%