

Model Development Phase Template

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| Date | 13 June 2024 |
| Team ID | 739721 |
| Project Title | Optimising Food Delivery 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 | Hyperparameters | Performance Metric (e.g., R2 score) |
|-------------------------|--|---|--|
| Random Forest Regressor | An ensemble learning method that uses multiple decision trees to improve predictive performance. | n_estimators, max_depth, min_samples_split, min_samples_leaf | R2 Score: 0.9212348902293894 |
| Decision tree regressor | A non-parametric model that predicts target values by learning decision rules from features. | max_depth, min_samples_split, min_samples_leaf | R2 Score: 0.9994962879709425 |

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| XG Boost regressor | An efficient and scalable implementation of gradient boosting framework. | learning_rate, n_estimators, max_depth, subsample, colsample_bytree | R2 Score: 0.5008550984251501 |
| KNN | A simple, instance-based learning algorithm that predicts based on the closest training examples. | n_neighbors, weights, algorithm | R2 Score: 0.16416827677006174 |