**Model Development Phase Template**

| Date | 10 July 2024 |
|---|---|
| Team ID | 740020 |
| Project Title | Walmart Sales Analysis For Retail Industry With Machine Learning |
| 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 | Desription | Hyperparameters | Performance Metric(e.g.Accuracy,F1 Score) |
|---|---|---|---|
| Random Forest | Ensemble of decision trees; robust, handles complexrelationships, reduces overfitting, and provides feature importance for Walmart sale analysis | - | 95% |
| Decisoin Tree | Simple tree structure;interpretable, captures non-linear relationships, suitable for initial insights into Walmart sales patterns. | - | 93% |
| Xgboost | XGBoost is an advanced machine learning algorithm ideal for Walmart sales analysis due to its ability to handle large datasets and complex patterns. It combines multiple decision trees to predict sales accurately by capturing seasonality, trends. | - | 93% |