**Model Development Phase Template**

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| Date | July 5,2024 |
| Team ID | 739838 |
| Project Title | Customer segmentation using 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 Selection Report:**

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| **Model** | **Description** | **Hyperparameters** | **Performance Metric (e.g., Accuracy, F1 Score)** |
| Random Forest | Ensemble of decision trees; robust, handles complex relationships, reduces overfitting, and provides feature importance for customer segmentation prediction. | - | Accuracy score= 100% |
| Decision tree | Simple tree structure; interpretable, captures non-linear relationships, suitable for initial insights into customer segmentation. | - | Accuracy score= 100% |
| Extreme Gradient boosting | XGBoost builds a predictive model by combing the prediction of multiple individual models. | **-** | Accuracy score= 100% |