**Model Development Phase Template**

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| Date | 08 July 2024 |
| Team ID | 740709 |
| Project Title | House Rent Price Prediction 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)** |
| Linear Regression | Linear regression is a statistical method used to model and analyze the relationship between a dependent variable and one or more independent variables. The main goal of linear regression is to predict the value of the dependent variable based on the values of the independent variables. | - | Accuracy score=81.3% |
| Random Forest | A Random Forest Regressor is an ensemble learning method used for regression tasks that builds multiple decision trees and merges their predictions to improve accuracy and control over-fitting. | - | Accuracy score=98.6% |
| XGBoost  Regression | The XGBoost Regressor is an advanced ensemble learning technique based on gradient boosting that is widely used for regression tasks due to its high performance and efficiency. | **-** | Accuracy score=98.6% |
| Decision Tree | Decision tree has a hierarchical tree structure consisting of a root node, branches, internal nodes, and leaf nodes. Decision trees are used for classification and regression tasks, providing easy-to-understand models. | **-** | Accuracy score=99.6% |