**Model Development Phase Template**

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| Date | 26 JUNE 2024 |
| Team ID | 740043 |
| Project Title | Movie Box Office Gross Prediction |
| 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 | "This model predicts the box office gross based on a linear relationship between features like budget, star power, genre, and release date." | "Regularization strength (alpha), fit\_intercept (True/False)" | "Performance Metric: R-squared value, Mean Absolute Error (MAE)" |
| Random Forest Regressor | "This ensemble model uses multiple decision trees to predict the box office gross. It can capture non-linear relationships and interactions between features. | "Number of trees (n\_estimators), maximum depth (max\_depth), minimum samples split (min\_samples\_split)" | Performa+nce metric |