**Model Development Phase Template**

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| Date | 24 June 2025 |
| Team ID | xxxxxx |
| Project Title | Credit Card Approval 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)** |
| Logistic Regression | A supervised machine learning algorithm used for binary classification tasks. It estimates the probability that a given input belongs to a particular class using the logistic (sigmoid) function. | - | Accuracy score= 99% |
| Random Forest Classifier | An ensemble learning method that builds multiple decision trees on random subsets of data and combines their outputs to improve classification accuracy and reduce overfitting. | - | Accuracy score= 99% |
| Gradient Boosting Classifier | A powerful ensemble technique that builds models sequentially, where each new model corrects the errors made by the previous ones using gradient descent. | **-** | Accuracy score= 100% |
| Decision Tree Classifier | A flowchart-like structure that splits data based on feature values to classify inputs by learning decision rules from the data. | **-** | Accuracy score= 100% |