# Model Development Phase Template

| Model | Description | Hyperparameters | Performance Metric (e.g., Accuracy, F1 Score) |
|---|---|---|---|
| Random Forest | ensemble learning method used for both classification and regression tasks. It operates by constructing multiple decision trees during training and outputting the mode of the classes (for classification) or the mean prediction (for regression) of the individual trees. This technique enhances model accuracy and robustness by reducing overfitting and improving generalization. | _ | Accuracy Score = 69% |

| | | | |
|---|---|---|---|
| ANN | analyzing historical shipping data and factors like order volume, distance, carrier performance, and weather conditions. This leads to more accurate delivery time predictions, enhancing logistics efficiency and customer satisfaction. | _ | Accuracy Score = 68% |

| | |
|---|---|
| Date | 15 March 2024 |
| Team ID | SWUID20240034764 |
| Project Title | Predicting Full Load Electrical Power Output of a Base Load Operated Combined Cycle Power Plant 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:**



| | | | |
|---|---|---|---|
| Support Vector Machine | upervised learning algorithm used for classification and regression tasks. It works by finding the optimal hyperplane that separates data points of different classes with the maximum margin, or in the case of regression, it fits a hyperplane within a specified margin of tolerance. | _ | Accuracy Score=66% |