# Model Development Phase Template

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| Date | 21 June 2024 |
| Team ID | 739832 |
| Project Title | Startup Prophet |
| 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 | Description | Hyperparameters | Performance Metric (e.g., Accuracy, F1 Score) |
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| Logistic Regression Model | The Logistic Regression model serves to classify startups into success or failure categories based on input features. It helps in identifying key factors influencing a startup's performance and provides a probabilistic framework for predictions. By analyzing patterns within the data, the model contributes to the project's forecasting capabilities." | - | Accuracy score = 75% |



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| Support Vector Machine | The Support Vector Machine optimally separates startup data points to predict success or failure with high accuracy. It handles non-linear relationships effectively and aids in precise classification tasks for decision-making. Alongside Logistic Regression, SVM further enhances the project's predictive modeling capabilities by leveraging different algorithmic approaches." | - | Accuracy score = 82% |
| Random Forest Model | The Random Forest model forms an ensemble of decision trees to predict startup success probabilities. It excels in handling high-dimensional data and capturing complex relationships within the startup ecosystem. By aggregating predictions from multiple trees, Random Forest enhances the project's predictive accuracy and robustness." | - | Accuracy score = 97% |