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| Project Title | Harvesting Brilliance: A Taxanomic Tale of  Pumpkin Seeds Varieties |
| 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:**

**Model Development Phase Template**

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| **Model** | **Description**  A model that predicts the probability of a binary outcome.  An ensemble model that uses multiple decision trees.  A model that finds the optimal hyperplane for classification.  An ensemble model that builds trees sequentially. | **Hyperparameters** | **Performance Metric (e.g., Accuracy, F1**  **Score)** |
| Logistic  Regression | C=1.0,  solver='liblinear' | Accuracy: 86%, F1 Score: 0.87 |
| Random  Forest | n\_estimators=100, max\_depth=10 | Accuracy: 87%, F1 Score: 0.88 |
| Support vector Machine | C=1.0, kernel='linear' | Accuracy: 66%, F1 Score: 0.67 |
| Gradient  Boosting | n\_estimators=200, learning\_rate=0.1 | Accuracy: 88%, F1 Score: 0.88 |