

Model Development Phase Template

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| Date | 21 June 2024 |
| Team ID | 739768 |
| Project Title | Opti Crop: Smart Agricultural Production Optimization Engine |
| 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, F1Score) |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------------------------------------|
| Logistic Regression Model | Logistic model can build a binary Classification model that predicts Happiness levels based on the input Features,gain insights into feature importance,interpret model results Easily,and potentially achieve good predictive accuracy while maintaining a level of interpretability And simplicity in the model. | - | Accuracy score = 94% |

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| Kmeans | K-means clustering is a powerful and widely used algorithm for partitioning data into clusters based on similarity. Understanding its principles and nuances is crucial for applying it effectively across various domains and datasets. K-means clustering is a popular unsupervised machine learning algorithm used for partitioning a dataset into K distinct, non-overlapping clusters. It is widely used in various fields such as data mining, pattern recognition, and image analysis. | - | Accuracy score = 94% |
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