Model Development Phase Template

Date	10 July 2024
Team ID	739922
Project Title	Beyond The Veil Of Wellness: Machine Learning's Unique Journey In Animal Health Classification
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)

Random Forest	Random forests are widely used in various machine learning tasks due to their robustness, accuracy, and ability to handle complex datasets with highdimensional features. They are particularly effective when individual decision trees may overfit the data or when interpretability of individual trees is less critical compared to overall predictive performance.	-	Accuracy score = 99%
Decision Tree	Decision trees are popular in machine learning and data mining because they are easy to understand and interpret. They can handle both numerical and categorical data and can be applied to both classification and regression tasks.A decision tree for the Human Development Index (HDI) would aim to classify or predict the HDI value of a region or country based on various factors that contribute to human development.	-	Accuracy score = 98%

Logistic regression	Logistic regression is a statistical method used for binary classification that models the probability of a categorical outcome based on one or more predictor variables. It uses the logistic function to map predicted values to probabilities, making it suitable for predicting binary outcomes	-	Accuracy score = 77%

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