Model Development Phase Template

Date	15 July 2024
Team ID	740685
Project Title	**SDSS galaxy classification 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:

Model	Description	Hyperparameters	Performance Metric (e.g., Accuracy, F1 Score)
Decision ree	A decision tree is an effective machine learning model for SDSS galaxy classification due to its transparency and interpretability.This model can easily handle both numerical and categorical data, making it useful for distinguishing between different types of galaxies.	Hyperparameters used	Accuracy value:0.77
Random Forest	Random forest enhances SDSS galaxy classification by combining multiple decision trees for improved accuracy and	Hyperparameters used	Accuracy value:1.00

	robustness, leveraging ensemble learning to reliably distinguish between different galaxy types.		
Logistic Regression	Logistics regression provides a simple,interpretable model for SDSS galaxy classification,effectively distinguishing galaxy types by modeling the probability of class membership using a linear combination of input features	Hyperparameters used	Accuracy value:0.77