Model Development Phase Template

Date	03-10-2024
Team ID	LTVIP2024TMID24897
Project Title	Flight delay prediction using ML
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 tree	A decision tree is a valuable tool for visualizing the factors that contribute to flight delays and the potential outcomes based on various conditions	**Weather Conditions:** Clear Inclement Weather **Aircraft Status:** On Time Delayed Arrival	Accuracy = 98%

KNN neighbors	The K-Nearest Neighbor (KNN) algorithm is a popular machine learning approach for predicting flight delays	Departure and Arrival Times Route Information Weather Conditions Air Traffic Control (ATC) Delays Aircraft Status (e.g., on-time, delayed arrival) Crew Availability	82%
Logistic regression	Logistic regression is a popular machine learning approach for predicting flight delays. In the context of flight delay prediction	Departure and Arrival Times Route Information (e.g., origin, destination, distance) Weather Conditions	**110%**