Model Development Phase Template

Date	13 July 2024
Team ID	xxxxxx
Project Title	Detection of Autistic Spectrum Disorder: Classification
Maximum Marks	5 Marks

Model Selection Report:

Model	Description
Logistic Regression	A linear model used for binary classification. It calculates the probability of a sample belonging to a particular class using a logistic function.
Support Vector Machine (SVM)	A classification model that finds the hyperplane that best separates the classes. It can handle non-linearity using kernel functions.
Decision Tree	A tree-based model that splits the data based on feature values to make predictions. It's easy to visualize and interpret.
Random Forest	An ensemble method that combines multiple decision trees to improve performance and reduce overfitting. Each tree is trained on a subset of the data

K-Nearest Neighbors (KNN)	A non-parametric method that classifies samples based on the majority label of their nearest neighbors in the feature space.