

Model Development Phase Template

Date	11 July 2024
Team ID	SWTID1720190579
Project Title	Early Prediction Of Chronic Kidney Disease 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)
KNN	Classifies based on nearest neighbors; adapts well to data patterns, effective	-	Accuracy Score = 97%
Naïve Bayes	A Naive Bayes model is a simple probabilistic classifier based on Bayes' theorem. It assumes that features are independent	-	Accuracy Score = 93%

	<p>given the class, making it "naive." It's fast, easy to implement, and works well with large datasets and text classification tasks.</p>		
SVM	<p>A Support Vector Machine (SVM) is a machine learning model used for classification and regression tasks. It works by finding the best boundary (or hyperplane) that separates different classes of data with the maximum margin. SVM is effective in high-dimensional spaces and is known for its accuracy and robustness in various applications.</p>	-	Accuracy Score = 97%
Logistic Regression	<p>Logistic regression is a statistical model used for binary classification. It predicts the</p>	-	Accuracy Score = 97%

	probability that a given input belongs to one of two categories by using a logistic function to model the relationship between the input features and the probability of the outcome.		
Decision Tree	Simple tree structure; interpretable, captures non-linear relationships, suitable for initial approval patterns	-	Accuracy Score = 95%