

Model Development Phase Template

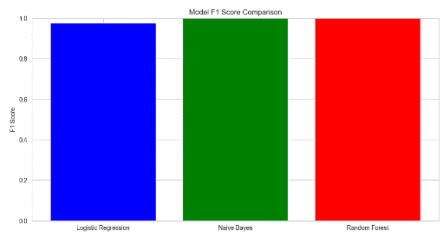
Date	15 March 2024
Team ID	XXXXXX
Project Title	Chronic Kidney Disease
Maximum Marks	6 Marks

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)
Logistic Regression	Logistic Regression is a linear model used for binary classification problems. It models the probability that a given input belongs to a particular class	LogisticRegression(C=1.0, solver='liblinear', max_iter=100)	

Naive Bayes	Naive Bayes is a probabilistic classifier based on Bayes' theorem, assuming strong (naive) independence between the features	<pre>nb = GaussianNB(var_smoothing=1e-9)</pre>	 <table><caption>Model F1 Score Comparison</caption><thead><tr><th>Model</th><th>F1 Score</th></tr></thead><tbody><tr><td>Logistic Regression</td><td>~0.95</td></tr><tr><td>Naive Bayes</td><td>~0.95</td></tr><tr><td>Random Forest</td><td>~0.95</td></tr></tbody></table>	Model	F1 Score	Logistic Regression	~0.95	Naive Bayes	~0.95	Random Forest	~0.95
Model	F1 Score										
Logistic Regression	~0.95										
Naive Bayes	~0.95										
Random Forest	~0.95										
Random Forest	Random Forest is an ensemble learning method that constructs multiple decision trees during training and outputs the class that is the mode of the classes of individual trees.	<pre>rf = RandomForestClassifier(n_estimators=100, max_depth=None, min_samples_split=2, min_samples_leaf=1, max_features='auto')</pre>									