Model Development Phase Template

Date	15 March 2024
Team ID	xxxxxx
Project Title	Chronic Kidney Disease
Maximum Marks	4 Marks

Initial Model Training Code, Model Validation and Evaluation Report

The initial model training code will be showcased in the future through a screenshot. The model validation and evaluation report will include classification reports, accuracy, and confusion matrices for multiple models, presented through respective screenshots.

```
# Initialize models
logistic_model = LogisticRegression(max_iter=10000)
naive_bayes_model = GaussianNB()
random_forest_model = RandomForestClassifier(random_state=42)
```

```
# Train models
logistic_model.fit(X_train1, y_train1)
```

```
LogisticRegression(max_iter=10000)
```

```
naive_bayes_model.fit(X_train1, y_train1)
```

```
GaussianNB()
```

```
random_forest_model.fit(X_train1, y_train1)
```

```
RandomForestClassifier(random_state=42)
```

Model Validation and Evaluation Report:

Model	Classification Report	Accuracy	Confusion Matrix
Logistic Regression	Logistic Regression Classification Report: precision recall f1-score support 0 1.00 0.96 0.98 53 1 0.93 1.00 0.96 27 accuracy 0.97 80 macro avg 0.97 0.98 0.97 80 weighted avg 0.98 0.97 0.98 80	96%	Logistic Regression Confusion Matrix [[51 2] [0 27]]
Naïve Bayes	Naive Bayes Classification Report: precision recall f1-score support 0 1.00 1.00 1.00 53 1 1.00 1.00 1.00 27 accuracy 1.00 80 macro avg 1.00 1.00 1.00 80 weighted avg 1.00 1.00 1.00 80	100%	Naive Bayes Confusion Matrix: [[53 0] [0 27]]
Random Forest	Random Forest Classification Report: precision recall f1-score support 0 1.00 1.00 1.00 53 1 1.00 1.00 1.00 27 accuracy 1.00 80 macro avg 1.00 1.00 1.00 80 weighted avg 1.00 1.00 1.00 80	100%	Random Forest Confusion Matrix: [[53 0] [0 27]]