Model Development Phase Template

Model	Description	Hyperparameters	Performance Metric (e.g., Accuracy, F1 Score)

KNN	K-Nearest Neighbour got highest accuracy in our model	Best parameters: {'bootstrap': False, 'max_depth': 20, 'max_features': 'sqrt', 'min_samples_leaf': 1, 'min_samples_split': 10, 'n_estimators': 200}	Accuracy: 0.887719298245614 Confusion Matrix: [[68 21] [11 185]] Classification Report:

```
Accuracy: 0.887719298245614
Confusion Matrix:
[[ 68  21]
 [ 11 185]]
Classification Report:
              precision    recall  f1-score   support

          NO       0.86      0.76      0.81        89
         YES       0.90      0.94      0.92       196

    accuracy                           0.89       285
   macro avg       0.88      0.85      0.86       285
weighted avg       0.89      0.89      0.89       285
```

Date	30 JUNE 2025
Team ID	LTVIP2025TMID36055
Project Title	Revolutionising Liver Care- Predicting Liver Cirrhosis using advanced 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:

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| XgBoost | We have used XgBoost with best parameters | Best parameters: {'colsample_bytree': 0.8, 'learning_rate': 0.01, 'max_depth': 5, 'n_estimators': 200, 'subsample': 0.8} | Confusion Matrix:
[[39 16]
 [10 125]]
Classification Report:
<pre>   precision   recall f1-score   support

           0   0.80   0.71   0.75   55
           1   0.89   0.93   0.91   135

    accuracy   0.86   190
   macro avg   0.84   0.82   0.83   190
weighted avg   0.86   0.86   0.86   190</pre>
... |
| ... | ... | ... | |