**Project Development Phase**

**Model Performance Test**

|  |  |
| --- | --- |
| Date | 6 JUNE 2025 |
| Team ID | LTVIP2025TMID33932 |
| Project Name | Revolutionizing Liver Care : Predicting Liver Cirrhosis using Advanced Machine Learning Techniques |
| Maximum Marks | 10 Marks |

**Model Performance Testing:**

Project team shall fill the following information in model performance testing template.

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No.** | **Parameter** | **Values** | **Screenshot** |
|  | Metrics | **XGBoost Classification Model:** Best parameters (XGBoost): {'learning\_rate': 0.01, 'max\_depth': 3, 'n\_estimators': 200}  Best cross-validated score: 0.9944250194250195  Test set accuracy: 1.0  --- XGBoost (Tuned) ---  Confusion Matrix:  [[ 4 0]  [ 0 176]]  Classification Report:  precision recall f1-score support  0 1.00 1.00 1.00 4  1 1.00 1.00 1.00 176  accuracy 1.00 180  macro avg 1.00 1.00 1.00 180  weighted avg 1.00 1.00 1.00 180  ROC-AUC Score: 1.000 |  |
|  | Tune the Model | Hyperparameter Tuning - Applied GridSearchCV on the XGBoost model  Best parameters (XGBoost): {'learning\_rate': 0.01, 'max\_depth': 3, 'n\_estimators': 200}  Best cross-validated score: 0.9944250194250195  Test set accuracy: 1.0 |  |