


Project Development Phase Model Performance Test

Date	27 JUNE 2025
Team ID	LTVIP2025TMID42853
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
1.	Metrics	Classification Model: Confusion Matrix <ul style="list-style-type: none"> Accuracy Score: 100% (on balanced test set) Classification Report:→ Precision, Recall, F1-score = 1.00 for both classes 	 <pre># Step 15: Train model model = RandomForestClassifier(random_state=42) model.fit(X_train, y_train) ✓ 0.2s RandomForestClassifier Parameters # Step 16: Evaluate y_pred = model.predict(X_test) print("\n Model Accuracy:", model.score(X_test, y_test) * 100, "%") print("Classification Report:\n", classification_report(y_test, y_pred)) ✓ 0.0s Model Accuracy: 100.0 % Classification Report: precision recall f1-score support 0.0 1.00 1.00 1.00 169 1.0 1.00 1.00 1.00 182 accuracy 1.00 1.00 1.00 351 macro avg 1.00 1.00 1.00 351 weighted avg 1.00 1.00 1.00 351</pre>
2.	Tune the Model	Hyperparameter Tuning - Used RandomForestClassifier with n_estimators=100, random_state=4 Validation Method - train_test_split (80% training, 20% testing)	