Functional & Performance Testing

Model Performance Test

Date	28 JUNE 2025
Team ID	LTVIP2025TMID60884
Project Name	Revolutionizing liver care; Predicting liver cirrhosis advanced machine learning techniques
Maximum Marks	

✅ Test Scenarios & Results for Liver Cirrhosis Prediction System

Test Case ID	Scenario (What to Test)	Test Steps (How to Test)	Expected Result	Actual Result	Pass/Fail
FT-01	Text Input Validation (e.g., patient name, notes)	Enter valid/invalid text in patient name or notes fields	Valid inputs accepted; errors for invalid (e.g., numbers in names)		
FT-02	Numeric Input Validation (e.g., lab values: bilirubin, ALT, AST)	Enter values within/without medically valid ranges	Accept valid lab values; show error/warning for biologically implausible ones		
FT-03	Model Prediction Accuracy	Enter complete and realistic patient data; click "Predict"	Model returns cirrhosis risk score and interpretation		
FT-04	API Connection with Model Backend	Test if API responds correctly when given valid data	API returns model output without errors		
FT-05	Edge Case Prediction	Enter borderline lab values (e.g., near cirrhosis threshold)	System handles gracefully and provides interpretable result		

🔄 Performance Testing

Test Case ID	Scenario (What to Test)	Test Steps (How to Test)	Expected Result	Actual Result	Pass/Fail
PT-01	Prediction Response Time	Time the model response for a prediction request	Should return within 2–3 seconds		
PT-02	API Throughput (Concurrent Predictions)	Send multiple prediction requests simultaneously	No slowdown or crashes; consistent response time		

Test Case ID	Scenario (What to Test)	Test Steps (How to Test)	Expected Result	Actual Result	Pass/Fail
PT-03	Bulk File Upload (e.g., patient CSV)	Upload large batch of patient data	System parses and processes all without crashing		