**User Acceptance Testing (UAT) Template**

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| Date | 28 June 2025 |
| Team ID | LTVIP2025TMID35624 |
| Project Name | Revolutionizing Liver Care: Predicting Liver Cirrhosis Using Advanced Machine Learning Techniques |
| Maximum Marks |  |

**Project Overview:**

Project Name: Revolutionizing Liver Care: Predicting Liver Cirrhosis Using Advanced Machine Learning Techniques

Project Description: Liver cirrhosis is a life-threatening condition that often goes undetected until it reaches an advanced stage. Early diagnosis is critical for effective treatment and improved survival rates, yet traditional diagnostic methods are invasive, time-consuming, and costly. This project aims to transform liver care by applying advanced machine learning techniques to predict liver cirrhosis from non-invasive clinical and laboratory data. By uncovering hidden patterns in patient data, the system provides accurate, early-stage predictions-enabling timely interventions and personalized healthcare solutions.

Project Version: LTVIP2025TMID35624

Testing Period: [27-06-2025] to [28-06-2025]

**Testing Scope:**

Tested Functionalities:

Prediction Endpoint (/api/predict)

Contact Form (/api/contact)

Form Validations

Navigation

Responsive UI

Requirements to be Tested:

Postman (Tool) for api testing

Browser for navigation,form validation, Navigation testing

**Testing Environment:**

URL:

Backend: [https://predicting-liver-cirrhosis-using.onrender.com/](https://predicting-liver-cirrhosis-using.onrender.com/%20)

Frontend: <https://predicting-liver-cirrhosis.netlify.app/>

Final Demo link: <https://predicting-liver-cirrhosis.netlify.app/>

Credentials (if required): No

**Test Cases:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Case ID** | **Test Scenario** | **Test Steps** | **Expected Result** | **Actual Result** | **Pass/Fail** |
| TC-001 | Prediction Endpoint (/api/predict) | Step 1:  Go to the postman tool  Step 2:  Select post  Step 3:  enter  <https://predicting-liver-cirrhosis-using.onrender.com/api/predict>  step 4:  go to  body->row->enter input as below  [55.0,1,1,12.0,2.0,2,1,32,1,1,9.2,40.0,3.39070351758794,88.0,30.527397260273972,31.901079136690647,11000.0,60.0,35.0,2.0,3.0,0.0,1.5,4.0,3.0,6.0,3.0,4.0,150.0,56.0,0]  Step 5:  Click on send  Repeat step 4 with below input again:  [52.0,1,1,8.0,3.0,3,0,6,0,1,13.0,36.0,3.39070351758794,94.0,30.527397260273972,31.901079136690647,7000.0,60.0,20.0,3.0,1.0,1.0,2.45,1.0,2.0,7.1,4.2,2.5,56.0,110.0,1] | Case 1:  {      "message": "Liver Disease Detected"  }  Case 2:  {      "message": "No Liver Disease Detected"  } | Case 1:  {      "message": "Liver Disease Detected"  }  Case 2:  {      "message": "No Liver Disease Detected"  } | Pass |
| TC-002 | Contact Form (/api/contact) | Step 1:  Go to the postman tool  Step 2:  Select post  Step 3:  Enter  <https://predicting-liver-cirrhosis-using.onrender.com/api/contact>  step 4:  go to  body->row->enter input as below  {      "name": "TEswarReddy",      "email": "thathieswarreddy@gmail.com",      "subject": "i want help to build an Ai",      "message": "give some suggestions"  }  Step 5:  Click on send | {      "message": "Message sent successfully!"  } | {      "message": "Message sent successfully!"  } | Pass |
| TC-003 | Form Validations | Step 1:  Go to the below link  <https://predicting-liver-cirrhosis.netlify.app/> | Ensures required fields are filled, with correct data types and limits | Ensures required fields are filled, with correct data types and limits | Pass |
| TC-004 | Navigation | Step 1:  Go to the below link  <https://predicting-liver-cirrhosis.netlify.app/> | All site links (Home, About, Prediction, Contact) redirect properly | All site links (Home, About, Prediction, Contact) redirect properly | Pass |
| TC-005 | Responsive UI | Step 1:  Go to the below link  <https://predicting-liver-cirrhosis.netlify.app/> | Application works across desktop and mobile devices | Application works across desktop and mobile devices | Pass |

**Bug Tracking:**

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| --- | --- | --- | --- | --- | --- |
| **Bug ID** | **Bug Description** | **Steps to reproduce** | **Severity** | **Status** | **Additional feedback** |
| BG-001 | Incorrect Predictions | Step 1:  Change present(KNN) model to Random Forest model | High | close | Random Forest – handles imbalance & noise well and also working in high dimensional data |
| BG-002 | communication errors between frontend & backend | Implemented proper CORS policy | Medium | close | It allows the frontend port or request to the server |
| BG-003 | New versions Library are used for extracting model, but that are not useful for extracting Random Forest Model | Used older Stable version for extracting Model | low | close | Older version are stable |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**Sign-off:**

Tester Name: Thathireddy Eswarreddy

Date: 28-06-2025

Signature: Eswarreddy

**Notes:**

* Ensure that all test cases cover both positive and negative scenarios.
* Encourage testers to provide detailed feedback, including any suggestions for improvement.
* Bug tracking should include details such as severity, status, and steps to reproduce.
* Obtain sign-off from both the project manager and product owner before proceeding with deployment.