User Acceptance Testing (UAT) x

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Project Name	Rising waters: a machine learning approach to flood prediction

1. Purpose of Document

The purpose of this document is to describe the User Acceptance Testing (UAT) results for the Flood Prediction Using Machine Learning web application.

The frontend module was tested to ensure:

Proper rendering of UI components

Correct background image display

Center alignment of input form

Proper navigation between Home, Predict, and Result pages

Accurate display of prediction results

Smooth user interaction and responsivenes.

This document summarizes frontend test coverage, defect analysis, and test case validation before final deployment.

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2. Defect Analysis

During frontend testing, issues related to CSS alignment, background image loading, and form rendering were identified and resolved.

Resolution Type	Severity 1	Severity 2	Severity 3	Severity 4	Subtotal
Fixed	1	2	3	2	8
Duplicate	0	0	1	0	1
Not Reproduced	0	0	1	0	1
Won't Fix	0	0	0	0	0

Resolution Type	Severity 1	Severity 2	Severity 3	Severity 4	Subtotal
Total	1	2	5	2	10

Key Issues Fixed:

- Background image not displaying due to incorrect static path
- Input fields not centered properly
- Navigation links misaligned
- Result page missing proper overlay styling
- Button styling inconsistent across pages

All identified defects were resolved before UAT completion.

3. Test Case Analysis

The following frontend components were tested:

Section	Total Cases	Not Tested	Fail	Pass
Navigation Bar	5	0	0	5
Background Image Rendering	4	0	0	4
Input Form Alignment	6	0	0	6
Form Validation	5	0	0	5
Prediction Result Display	4	0	0	4
Responsive Layout	5	0	0	5

Total Test Cases Executed: 29
Total Passed: 29
Total Failed: 0

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4. Conclusion

The frontend module of the Flood Prediction System successfully passed User Acceptance Testing.

UI components render correctly

Form inputs accept numeric rainfall and cloud data

Results display dynamically from backend predictions

Navigation functions properly

Application maintains visual consistency

The frontend is approved for deployment and integration with the machine learning backend system.