User Acceptance Testing (UAT) Template

Date	14 February 2026
Team ID	LTVIP2026TMIDS84120
Project Name	Weather-Based Prediction of Wind Turbine Energy Output: A Next-Generation Approach to Renewable Energy Management
Maximum Marks	2 Marks

Test Cases

Test Case ID	Test Scenario	Test Steps	Expected Result	Actual Result	Pass/Fail
TC-001	Application Launch	Step 1: Run Flask app Step 2: Open browser Step 3: Navigate to homepage	Application UI loads successfully	UI loaded correctly	Pass
TC-002	Valid Weather Input	Step 1: Enter valid weather values Step 2: Click Predict Step 3: Submit form	Prediction generated	Prediction displayed	Pass
TC-003	Invalid Input Handling	Step 1: Enter negative wind speed Step 2: Click Predict Step 3: Submit form	Error message shown	Error displayed	Pass
TC-004	Missing Input Validation	Step 1: Leave required field blank Step 2: Click Predict Step 3: Submit form	Validation warning shown	Warning shown	Pass
TC-005	Model Prediction Accuracy	Step 1: Enter known dataset values Step 2: Predict output	Predicted value close to actual	Acceptable difference	Pass

		Step 3: Compare with expected			
TC-006	Model Load on Startup	Step 1: Start application Step 2: Trigger prediction Step 3: Observe logs	Model loads successfully	Loaded without error	Pass
TC-007	Response Time	Step 1: Enter inputs Step 2: Click Predict Step 3: Measure time	Response < 3 sec	~1.2 sec	Pass
TC-008	Multiple Predictions	Step 1: Submit predictions repeatedly Step 2: Observe system Step 3: Check stability	No crash or slowdown	Stable	Pass

Bug Tracking:

Bug ID	Bug Description	Steps to Reproduce	Severity	Status	Additional Feedback
BG-001	Application crashes when input fields are empty	Step 1: Open app Step 2: Leave fields blank Step 3: Click Predict	High	Closed	Added input validation
BG-002	Negative wind speed accepted by system	Step 1: Enter negative value Step 2: Submit form Step 3: Observe output	Medium	Closed	Range validation implemented
BG-003	Model takes long time to load on first prediction	Step 1: Start app Step 2: Click Predict Step 3: Measure delay	Medium	Closed	Model preloaded at startup
BG-	Incorrect prediction for	Step 1: Remove	High	Closed	Missing value

004	missing weather parameter	one input Step 2: Submit Step 3: Check result			handling added
BG-005	UI not responsive on small screen	Step 1: Resize browser Step 2: Open app Step 3: View layout	Low	Closed	CSS responsiveness improved
BG-006	Special characters accepted in numeric fields	Step 1: Enter text/symbols Step 2: Submit Step 3: Observe	Medium	Closed	Input type restriction added