

Functional & Performance Testing Report

Date: 05 February 2026

Team ID: LTVIP2026TMIDS51094

Project Name: Flavour Fusion: AI-Driven Recipe Blogging

Maximum Marks:

Test Scenarios & Results

Test Case ID	Scenario (What to test)	Test Steps (How to test)	Expected Result	Actual Result	Pass/Fail
FT-01	Text Input Validation	Enter a recipe topic (e.g., "Malai Kofta") vs. leaving it empty.	Valid inputs proceed; empty fields trigger a "Please enter a topic" warning.	System correctly identifies empty input and blocks generation.	Pass
FT-02	Number Input Validation	Enter word count of 50 (too low) and 555 (valid).	System should enforce the min_value=100 constraint set in Streamlit.	Values below 100 are automatically adjusted or rejected.	Pass
FT-03	Content Generation	Input "Vanilla Ice Cream" and click "Generate Recipe."	Gemini 2.5 Flash returns a full markdown recipe with prep/cook times.	Content is generated with correct formatting and tone.	Pass
FT-04	API Connection Check	Verify .env or Streamlit Secrets configuration.	API handshake is successful and model initializes without 401 errors.	Connection established using secure environment variables.	Pass
FT-05	PDF Export Test	Click "Download as PDF" after generation.	A .pdf file is generated with the recipe text included.	PDF downloads successfully; special characters are handled.	Pass
PT-01	Response Time Test	Measure time from "Generate" click to text appearance.	Content should appear within 5–10 seconds for Gemini 2.5 Flash.	Average generation time recorded at 6.2 seconds.	Pass
PT-02	API Speed Test	Simulate 3 simultaneous generation	API handles concurrent calls without timing out	Handled successfully; no performance	Pass

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		requests.	or leaking keys.	degradation noted.	
PT-03	UI Load Test	Check "Programmer Jokes" display during wait time.	Jokes should rotate or display while the status is "Generating."	Joke displayed correctly, improving the user's perceived wait time.	Pass

Testing Summary & Notes

Functional Success: The core logic of converting a topic into a PDF-ready blog post is fully operational.

Performance Insight: While the API speed is excellent, the network latency occasionally pushed response times to 7 seconds. The implementation of the **Joke Generator** successfully mitigated user frustration during these intervals.

Security: FT-04 confirmed that the API key is not exposed in the frontend code, fulfilling our security requirements.