Functional & Performance Testing Template

Model Performance Test

Date	13 February 2026
Team ID	LTVIP2026TMIDS88090
Project Name	AUTOSAGE APP USING GEMINI FLASH
Maximum Marks	5 Marks

Test Scenarios & Results

Test Case ID	Scenario (What to test)	Test Steps (How to test)	Expected Result	Actual Result	Pass/Fail
FT-01	Vehicle Text Query Input Validation	Enter valid vehicle names (e.g., "Honda City 2023") and invalid inputs (empty / symbols only)	Valid queries accepted; warning shown for empty or invalid input		
FT-02	Sidebar Control Validation	Select Vehicle Type & Purpose, click "Apply Changes"	Selected values stored and reflected in generated report		
FT-03	Structured Report Generation (Text Only)	Enter vehicle query → Click "Smart Query"	Structured vehicle intelligence report generated correctly		
FT-04	Image Upload Validation	Upload valid image (.jpg/.png) and invalid file format	Accepts image files only; rejects unsupported formats		
FT-05	Image-Based Vehicle Analysis	Upload vehicle image → Click "Smart Vision"	Structured report generated using visual inference		
FT-06	Multimodal Analysis (Image + Text)	Upload image + enter vehicle query → Click "Execute Analysis"	Combined intelligence report using both text & image		

Test Case ID					
FT-07	Powertrain Detection Logic	Provide EV image / ICE vehicle query"	Correct identification of Fuel Type (Electric / Petrol / Diesel)		
FT-08	Gemini API Connection Check	Trigger any analysis request	API responds successfully; no connection errors		

Performance Test Cases

Test Case ID	Scenario (What to Test)	Test Steps (How to Test)	Expected Result	Actual Result
PT-01	Response Time Test	Measure time taken for report generation	Response within acceptable time (e.g., < 5 seconds average)	
PT-02	API Load Handling	Send multiple requests sequentially	No crash; stable response generation	
PT-03	Large Image Upload Test	Upload high-resolution image (5MB+)	System processes without crashing	
PT-04	Session State Stability	Change sidebar settings mid-session	Updated context applied correctly without errors	