

Functional & Performance Testing

Model Performance Test

Date	26 JUNE 2025
Team ID	LTVIP2025TMID29388
Project Name	Edu-Tutor AI: Personalized Learning with Generative AI and LMS Integration
Maximum Marks	

✔ Functional Test Cases

Test Case ID	Scenario (What to Test)	Test Steps (How to Test)	Expected Result	Actual Result	Pass/Fail
FT-01	Text Input Validation (e.g., topic selection like "Python Basics")	Enter valid/invalid text (e.g., gibberish vs real topics) in prompt fields	Valid inputs accepted; invalid inputs trigger error message or fail gracefully	e.g., <i>Invalid inputs result in neutral/error response</i>	Pass
FT-02	Numerical Input Handling (e.g., word limit sliders if added)	Input numbers within/above limits (if applicable)	Valid numbers processed; invalid range is flagged	N/A (no numeric field in current UI)	N/A
FT-03	Content Generation Accuracy	Enter topics like “Photosynthesis” or “Python Loops” and click Generate	AI should generate relevant educational content accurately	Outputs match expected knowledge structure	Pass
FT-04	API Key Connection Check	Test by altering or removing Hugging Face token in backend	Model fails to load or throws error when key is wrong	App loads successfully when token is valid	Pass

## Performance Test Cases

Test Case ID	Scenario (What to Test)	Test Steps (How to Test)	Expected Result	Actual Result	Pass/Fail
PT-01	Response Time Test	Measure time from input to output for standard topics	Response time < 3 seconds	Most results returned in ~2–3s	Pass
PT-02	Concurrent API Requests	Send 3–5 prompts in different browser tabs simultaneously	Should not significantly slow down or crash	Stable performance observed	Pass
PT-03	File Upload Load Test (if feature added in future)	Upload multiple files (e.g., for content enhancement)	System handles them without crashing	Feature not yet present	N/A