# **Functional & Performance Testing**

**Model Performance Test**

| Date | June 2025 |
| --- | --- |
| Team ID | LTVIP2025TMID33933 |
| Project Name | Edututor-ai |
| 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 (e.g., topic, job title) | Enter valid and invalid text in the Streamlit question input field | Valid inputs accepted, errors or handling for invalid/empty inputs | Valid input works, no crash on invalid input (shows nothing/baseline) | Pass |
| FT-02 | Number Input Validation (e.g., word count, size, rooms) | (Not applicable – no numerical input fields found in the UI) | Accepts valid values, shows error for out-of-range | No direct number field used in EduTutor\_AI | N/A |
| FT-03 | Content Generation (e.g., blog, resume, design idea) | Ask educational questions via input and click “Generate” | Correct, informative, and topic-relevant responses | AI-generated answers were coherent and educational | Pass |
| FT-04 | API Connection Check | Provide valid/invalid API keys and test model response | API responds successfully with valid key, fails with invalid one | API responds with valid credentials (IBM Watsonx Granite) | Pass |
| PT-01 | Response Time Test | Use a timer to measure how long the response takes after clicking “Generate” | Should be under 3 seconds | Average response time: 2.2–2.8 seconds | Pass |
| PT-02 | API Speed Test | Trigger 3+ simultaneous requests from separate sessions | API should not slow or error | Responses remained consistent across 3 rapid requests | Pass |
| PT-03 | File Upload Load Test (e.g., PDFs) | Upload multiple PDFs sequentially and check processing time | Should handle PDFs without freezing or crashing | PDF upload and summarization worked smoothly for files up to 30 pages | Pass |