# **Functional & Performance Testing Template**

**Model Performance Test**

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| Date | 26 June 2025 |
| Team ID | LTVIP2025TMID20451 |
| Project Name | EduTutor AI: Personalized Learning with Generative AI and LMS Integration |
| Maximum Marks |  |

## **Test Scenarios & Results**

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| **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 quiz-topic and student-name fields. | Valid inputs are accepted; invalid inputs trigger inline error messages. | Valid inputs accepted; invalid entries showed error. | Pass |
| **FT-02** | Number Input Validation | Enter numbers within and outside allowed ranges (e.g., question count, max attempts). | In-range numbers accepted; out-of-range values show validation error. | Accepted 5–20 questions; rejected 0 and 100 with error. | Pass |
| **FT-03** | Content Generation (e.g., blog, resume, design idea) | Populate all required fields and click “Generate Quiz.” | Quiz content is generated according to topic, difficulty, and length. | Quiz generated correctly with appropriate questions. | Pass |
| **FT-04** | API Connection Check | Configure a valid/invalid AI-service API key and invoke the quiz-generation endpoint | Valid key returns 200 OK + payload; invalid key returns 401 error. | Valid key succeeded; invalid key returned 401 Unauthorized | Pass |
| **PT-01** | Response Time Test | Valid key succeeded; invalid key returned 401 Unauthorized of generated quiz payload. | End-to-end response under 3 seconds (P95). | 95th percentile at 2.7 seconds. | Pass |
| **PT-02** | API Speed Test | Fire 50 concurrent quiz-generation requests and record average latency. | System maintains ≤ 500 ms average latency under load. | Average latency 450 ms across 50 parallel calls. | Pass |
| **PT-03** | File Upload Load Test (e.g., PDFs) | Upload 10 PDF resources concurrently, trigger content ingestion, and check stability. | All uploads process without errors and system remains responsive. | 10 uploads completed; system CPU/memory < 75%, no crashes. | Pass |