

## Functional & Performance Testing

### Model Performance Test

Date	25 Aug 2025
Team ID	NM2025TMID11403
Project Name	SmartSDLC – AI-Enhanced Software Development Lifecycle
Maximum Marks	4 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., user story, module name)	Enter valid/invalid inputs into text fields in Gradio (e.g., special chars, empty, valid text)	Valid inputs accepted, invalid inputs show proper error messages	Validations working as expected	Pass
FT-02	Number Input Validation (e.g., word count limits)	Enter numbers within and outside limits in size/duration fields	Accepts within range, rejects out-of-range numbers	Works within expected limits	Pass
FT-03	Code Generation	Enter detailed user story and click "Generate Code"	Model generates appropriate code based on the story	Output generated accurately	Pass
FT-04	API Connection Check	Validate model output and test if backend model responds to queries	IBM Granite API responds correctly	IBM Granite LLM response valid	Pass
PT-01	Response Time Test	Measure time from input to output using stopwatch/timer	Response time < 3 seconds	Average 2.8 seconds	Pass
PT-02	API Speed Test	Send 5+ requests in parallel and check performance	System handles multiple requests without slowdown	No lag observed	Pass
PT-03	File Upload Load Test (PDF Input)	Upload multiple PDFs one after another	Model handles them properly without crash or memory overload	Stable even with 5 PDFs tested	Pass