# **Functional & Performance Testing Template**

**Model Performance Test**

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| Date | 21 February 2025 |
| Team ID | LTVIP2025TMID32689 |
| Project Name | smartSDLC-AI-enhanced software develpoment life cycle |
| Maximum Marks |  |

# Functional Testing

## Test Cases

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| --- | --- | --- | --- | --- | --- |
| Test Case ID | Scenario (What to test) | Test Steps (How to test) | Expected Result | Actual Result | Pass/Fail |
| FT-01 | Requirement Analysis (NLP) | Provide unstructured requirements in text form and check conversion | Requirements are converted into structured user stories | [To be tested] | [Pass/Fail] |
| FT-02 | Code Generation | Provide user stories and validate code generation | Code is generated according to the user story without errors | [To be tested] | [Pass/Fail] |
| FT-03 | Bug Fixing | Introduce bugs in the code and check auto-fix functionality | Bugs are detected and automatically fixed | [To be tested] | [Pass/Fail] |
| FT-04 | Test Case Generation | Provide user stories and check test case generation | Test cases are generated based on the user stories | [To be tested] | [Pass/Fail] |
| FT-05 | Code Summary Generation | Provide complex code and validate code summarization | Summary of code is provided, highlighting key sections and functions | [To be tested] | [Pass/Fail] |
| FT-06 | Chatbot Assistance | Ask a query related to SDLC process using chatbot | Chatbot provides accurate and helpful responses about SDLC phases | [To be tested] | [Pass/Fail] |

# Performance Testing

## Test Cases

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| --- | --- | --- | --- | --- | --- |
| Test Case ID | Scenario (What to test) | Test Steps (How to test) | Expected Result | Actual Result | Pass/Fail |
| PT-01 | Response Time Test (Code Generation) | Use a timer to check code generation time | Should be under 3 seconds | [To be tested] | [Pass/Fail] |
| PT-02 | API Speed Test | Send multiple API calls for code generation and check response speed | API should respond within 2 seconds even under heavy load | [To be tested] | [Pass/Fail] |
| PT-03 | Multi-Tasking Load Test (Bug Fixing & Code Generation) | Test API under simultaneous bug fixing and code generation | System should process tasks without slowdown | [To be tested] | [Pass/Fail] |