**Performance Testing**

**User Acceptance Testing (UAT) Template**

| Date | 30 July 2025 |
| --- | --- |
| Team ID | PNT2025TMID09555 |
| Project Name | The Roadmap Generator |
| Maximum Marks | 4 Marks |

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### **1. UAT Overview**

| **Field** | **Description** |
| --- | --- |
| **Project Name** | Roadmap Generator – LLaMA2 Powered Tool |
| **Prepared By** | Bhagyashri Sandeep Badhekar |
| **Date** | 30/07/2025 |
| **Tested By** | Streamlit Community, Streamlit load tester , Locust |
| **Environment** | Streamlit Cloud / Local (specify) |
| **Model** | LLaMA2 7B Chat (via CTransformers, GGUF format) |
| **Purpose** | Ensure functionality, performance, and usability meet business expectations |

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### **2. Features to Test**

| **ID** | **Feature** | **Acceptance Criteria** |
| --- | --- | --- |
| F1 | Skill Input | User can input any skill name |
| F2 | Roadmap Generation | Model returns step-by-step roadmap with relevant resources |
| F3 | UI Responsiveness | Streamlit UI is intuitive and responsive |
| F4 | Loading Time | Roadmap generation completes in < 10 seconds |
| F5 | Error Handling | Handles invalid input or API errors gracefully |
| F6 | Model Integration | LLaMA2 inference via CTransformers works as expected |
| F7 | Resource Suggestions | Roadmap includes high-quality, free learning resources |

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### **3. Test Cases**

#### **Functional Tests**

| **Test Case ID** | **Test Description** | **Input** | **Expected Output** | **Pass/Fail** |  |
| --- | --- | --- | --- | --- | --- |
| TC01 | Skill input accepts valid data | Machine Learning | Roadmap generated | Pass |  |
| TC02 | Skill input handles empty input | blank | User warning or placeholder prompt | Pass |  |
| TC03 | Roadmap includes multiple steps | NLP | Steps with structured progression | Pass |  |
| TC04 | Resources in output are accessible | Any skill | Clickable/free resource links | Pass |  |
| TC05 | Model response time | Web Dev | Returns within 10 seconds | Pass |  |

#### **Performance Tests**

| **Test Case ID** | **Scenario** | **Expected Behavior** | **Pass/Fail** | **Notes** |
| --- | --- | --- | --- | --- |
| PT01 | High concurrent usage (simulated) | No crash, slow response gracefully handled | Pass | Use locust or streamlit load tester |
| PT02 | Model cold start on Streamlit | Startup < 30s | Pass |  |
| PT03 | Model inference size test | Works with long/complex skill names | Pass |  |
| PT04 | Resource loading (images, CSS if any) | UI loads within 2 seconds | Pass |  |

### **4. UAT Sign-Off**

### Tester Name: Bhagyashri Sandeep Badhekar

### Date: 30-07-2025

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### **5. Attachments**

* Screenshots of successful test cases
* Logs or error outputs from failed cases
* Performance logs (if any)