**Project Design Phase-II**

**Solution Requirements (Functional & Non-functional)**

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| Date | 31 January 2025 |
| Team ID | LTVIP2025TMID32100 |
| Project Name | Citizen AI |
| Maximum Marks | 4 Marks |

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

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| --- | --- | --- |
| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | Chat-based Citizen Interaction Interface | - Develop a Gradio interface to handle user input and output in chat format  - Support free-text natural language queries  - Display welcome message, prompts, and fallback responses |
| FR-2 | Issue Reporting & Categorization | - Enable reporting of civic issues like potholes, water problems, streetlight   |  | | --- | |  |  |  | | --- | | - Automatically categorize the type of complaint using NLP | |
| FR-3 | Information Delivery About Government Services | - Allow users to ask questions about schemes, eligibility, and required documents  - Provide AI-generated responses based on trained or integrated datasets |
| FR-4 | Response Generation & Confirmation | |  | | --- | | - Display instant, AI-generated responses in a human-like tone | |

**Non-functional Requirements:**

Following are the non-functional requirements of the proposed solution.

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| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | The platform must have a simple and intuitive user interface (Gradio), ensuring ease of use for all age groups including non-tech-savvy users. |
| NFR-2 | **Security** | User data (queries, reports) must be handled with privacy and care. Any future storage of data must comply with data protection standards. |
| NFR-3 | **Reliability** | The system should consistently provide correct, AI-generated responses and not crash during user interaction. |
| NFR-4 | **Performance** | |  | | --- | |  |  |  | | --- | | The chatbot should respond to queries within 2–3 seconds to maintain a smooth conversational experience. | |
| NFR-5 | **Availability** | The system should be accessible 24/7 via the hosted Gradio interface (as long as the backend is active). |
| NFR-6 | **Scalability** | The platform should support transition from prototype (Gradio on Colab) to production (FastAPI, cloud deployment) with higher user load. |