Project Design Phase-II Solution Requirements (Functional & Non-functional)

| Date | 18 JUNE 2025 |
|---------------|--------------------|
| Team ID | LTVIP2025TMID29997 |
| Project Name | CITIZEN AI |
| Maximum Marks | 4 Marks |

Functional Requirements:

Following are the functional requirements of the proposed solution.

| FR No | Functional Requirement (Epic) | Sub Requirement (Story / Sub-Task) |
|----------|----------------------------------|---|
| FR-1 | Al Chatbot | The system shall allow citizens to ask queries related to public services via a conversational web interface. |
| FR-2 | Sentiment Analysis | The system shall analyze citizen feedback and classify it as Positive, Neutral, or Negative in real-time. |
| FR-3 | Query Routing | The system shall route complex or unresolved queries to relevant department officials for manual response. |
| FR-4 | Knowledge Base | The system shall maintain and update a knowledge base of FAQs and responses to common citizen queries. |
| FR-5 | Visual Dashboard | The system shall provide a real-time visual analytics dashboard for officials to monitor query volume and sentiment trends. |
| FR-6 | Feedback Reports | The system shall generate downloadable reports summarizing citizen sentiment and feedback trends over time. |
| FR-7 | File Upload | The system shall allow citizens to upload supporting documents (e.g., complaints, forms) for context. |
| FR-8 | Multi-language Support | The system shall support multiple local languages for both input and output to ensure inclusivity. |

Non-functional Requirements:

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

| NFR No | Non-Functional Requirement | Description |
|-----------|-------------------------------|---|
| NFR-1 | Usability | The interface shall be simple and accessible to all citizens, with clear instructions and minimal learning curve. |

| NFR-2 | Privacy | All citizen data shall be securely stored with encryption and processed under strict data protection policies. |
|-------|-------------------------------|---|
| NFR-3 | Availability | The system shall maintain 99% uptime and be accessible 24/7. |
| NFR-4 | Performance | Citizen queries shall be responded to within 3–5 seconds for short queries under 512 tokens. |
| NFR-5 | Scalability | The backend shall handle 100+ concurrent users without significant delay. |
| NFR-6 | Maintainability | The system codebase shall follow modular design principles to simplify updates, bug fixing, and feature addition. |
| NFR-7 | Multi-device Compatibility | The system shall work seamlessly on desktops, tablets, and mobile devices. |