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

Date	18 June 2025
Team ID	LTVIP2025TMID32142
Project Name	Sustainable smart City assistant using IBM granite LLM
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	User Registration	Registration through Form Registration through Gmail Registration through LinkedIN
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Environmental Info Assistant	- Query air quality - Query waste collection schedule - Get sustainability tips
FR-4	Civic Reporting	- Report issues (waste, water, power outage) - Track complaint status - Upload images for issue reports
FR-5	Personalized Sustainability Insights	- Suggest eco-friendly actions based on user profile - Track user's environmental impact (e.g., energy savings, recycling) - Daily tips based on user behavior
FR-6	Multilingual and Accessible Interface	- Support for regional languages (Gujarati, Hindi, English) - Voice-based interaction for elderly users - Text-to-speech for visually impaired users

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The assistant must have a clean, intuitive UI accessible by all users including elderly and low-literacy users.
NFR-2	**Security**	User data (login, queries, complaint details) must be securely encrypted and authenticated using OAuth2 protocols.
NFR-3	**Reliability**	The system must work consistently without failures and ensure fallback if AI services are temporarily down.

NFR-4	**Performance**	The assistant should respond to user queries within 2 seconds for a smooth experience.
NFR-5	**Availability**	The application should be available 99.9% of the time with minimal downtime.
NFR-6	**Scalability**	The solution should support scale-up to multiple cities and thousands of users simultaneously.