Project Design Phase-II

Solution Requirements (Functional & Non-functional)

Date	31 January 2025
Team ID	LTVIP2025TMID60699
Project Name	Sustainable Smart City Assistant Using IBM Granite LLM
Maximum Marks	4 Marks

Functional Requirements (With Subtasks)

FR No.	Functional Requirement	Subtask / Description
FR-1	Dashboard	Display real-time AQI, traffic, water, energy per selected city
FR-2	Forecasting	Predict upcoming values based on trends (3–5 forecast)
FR-3	Anomaly Detection	Identify and highlight sudden spikes or drops in environmental data
FR-4	Chat Assistant	Respond to user queries related to eco behavior or current conditions
FR-5	Summarizer	Provide weekly overview of environmental trends
FR-6	Eco Tips	Give personalized tips based on user's city and conditions
FR-7	Smart Alerts	Notify user only when critical changes or safety issues arise
FR-8	City Selector	Allow user to switch between different supported cities
FR-9	Theme Manager	Let users switch themes (dark/light) for better readability
FR-10	Localization (Optional)	Translate app content to other languages (e.g., Telugu, Hindi)

Non-Functional Requirements

NFR No.	Non-Functional Requirement	Description
NFR-1	Usability	Interface should be intuitive and easy for all user types
NFR-2	Responsiveness	App must work well on different screen sizes and devices
NFR-3	Performance	Fast load times and smooth user experience (<3 sec latency)
NFR-4	Reliability	Live data must be consistently updated and accurate
NFR-5	Availability	System should work in both connected and offline modes
NFR-6	Scalability	Support adding more cities and data types in future
NFR-7	Security	No sensitive user data stored; API keys securely handled