Project Design Phase
Proposed Solution Template

Date	15 February 2025
Team ID	LTVIP2025TMID31710
Project Name	Sustainable Smart City Assistant Using IBM Granite LLM
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in the proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Urban cities are facing increasing pressures related to sustainability—ranging from energy consumption and traffic congestion to waste management and citizen engagement. Current city systems are often fragmented, reactive, and lack the intelligent tools needed to make data-driven, environmentally responsible decisions. Citizens also struggle to access city services in a seamless and user-friendly way.
2.	Idea / Solution description	The Sustainable Smart City Assistant is an AI-powered, conversational assistant built using IBM Granite LLM. It provides intelligent support to city administrators, planners, and citizens by offering real-time insights, sustainability tips, predictive analytics, and automated assistance through a natural language interface. The assistant integrates with existing smart city infrastructure and platforms, enhancing efficiency, transparency, and citizen engagement.
3.	Novelty / Uniqueness	Utilizes IBM Granite LLM's advanced natural language understanding tailored for public service environments. Offers multilingual, inclusive, and real-time support via web, mobile, and physical kiosks. Delivers predictive and prescriptive analytics for sustainability—energy optimization, traffic flow, and resource planning. Bridges the gap between citizens and urban systems through intuitive, AI-driven communication.
4.	Social Impact / Customer Satisfaction	The solution promotes greener cities, improves public service delivery, and empowers citizens with instant access to relevant information. By addressing both urgent and everyday urban issues, the assistant fosters a more inclusive, efficient, and responsive urban experience.

		Enhanced transparency and participation lead to higher citizen trust and satisfaction.
5.	Business Model (Revenue Model)	The assistant can be offered to city governments and urban development authorities under a SaaS (Software-as-a-Service) licensing model. Additional revenue streams can come from: • Tiered service plans (based on city size or data volume) • Custom AI model training and deployment • Integration and consulting services for smart infrastructure vendors • Potential white-labeling for specific use cases (e.g., smart campuses or green industrial zones)
6.	Scalability of the Solution	The assistant is designed with modular architecture and cloud-native infrastructure, making it scalable across different cities, countries, and use cases. Its adaptability allows it to be integrated into smart city platforms regardless of scale, from small towns to metropolitan hubs, with localized language support and configurable modules.