

## Project Design Phase

### Proposed Solution Template

Date: 26 June 2025

Team ID: LTVIP2025TMID20299

**Project Name:** Sustainable Smart City Assistant Using IBM Granite LLM

Maximum Marks: 2 Marks

#### *Proposed Solution Template:*

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

S.No.	Parameter	Description
1	Problem Statement (Problem to be solved)	City officials, sustainability officers, and citizens struggle with long policy documents, inaccessible civic data, manual feedback logging, and lack of eco-awareness tools. These inefficiencies lead to slow decision-making, low civic engagement, and missed opportunities for sustainable development.
2	Idea / Solution Description	The Sustainable Smart City Assistant is a multi-module AI web app built using Streamlit and IBM Watsonx Granite LLM. It enables users to summarize city policies, forecast KPIs, detect anomalies, log feedback, generate eco tips, and interact via a chatbot

		— all from a unified dashboard.
3	Novelty / Uniqueness	Unlike generic civic portals or data dashboards, this platform leverages LLM-based reasoning and real-time ML forecasting. It merges policy, performance, and citizen input into one intelligent assistant — enabling proactive and inclusive smart governance.
4	Social Impact / Customer Satisfaction	The solution enhances transparency, accelerates municipal planning, and empowers citizens to engage with their city meaningfully. It simplifies complex data and policies for the average user, bridging the gap between city hall and the public.
5	Business Model (Revenue Model)	Government-as-a-Customer model (GaaC): Cities adopt the platform with annual licensing. NGOs or educational institutes can deploy a freemium version for awareness campaigns. Optionally, it can be white-labeled for civic-tech startups or regional deployments.
6	Scalability of the Solution	Built on IBM Cloud services, the assistant is modular and extensible. It

		<p>can scale horizontally to support multi-city deployments, plug in additional LLMs or analytics engines, and localize for different regions or languages. Future enhancements may include IoT data feeds and citizen sentiment analysis.</p>
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