Proposed Solution

Date	30 June 2025
Team ID	LTVIP2025TMID29114
Project Name	Sustainable Smartcity Assistant Using IBM Granite LLM
Maximum Marks	

S.No.	Parameter	Description
1	**Problem Statement**	City stakeholders struggle with delayed decision-making, poor citizen engagement, and ineffective sustainability practices due to the lack of intelligent tools that provide real-time insights, policy understanding, and feedback analysis. Citizens often feel disconnected, and administrators are burdened with complex data spread across disconnected systems.
2	**Idea / Solution Description**	The **Sustainable Smart City Assistant** is an AI-powered digital platform that uses IBM Granite LLM (via HuggingFace) to simplify governance and improve civic engagement. It offers modules for policy summarization, KPI forecasting, anomaly detection, eco tip generation, and citizen feedback analysis through a user-friendly Streamlit interface and FastAPI backend.
3	**Novelty / Uniqueness**	Unlike traditional city dashboards or isolated civic apps, this solution combines generative AI, vector search (via Pinecone), and ML-based analysis into a unified assistant. It delivers personalized, real-time insights and sustainability guidance while enabling natural language interaction for both administrators and citizens.
4	**Social Impact / Customer Satisfaction**	The assistant promotes transparency, encourages citizen participation, and supports informed policy-making. By summarizing complex documents and offering smart feedback tools, it builds trust and satisfaction among

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		citizens, while empowering city officials with data-driven insights for proactive decision-making.
5	**Business Model (Revenue Model)**	The platform can adopt a **Public-Private Partnership (PPP)** model or be offered as a **SaaS for Smart City Administrations**. Tiered licensing for municipalities based on population size, with optional modules (e.g., analytics, citizen engagement, ESG reporting) under premium plans. NGO or government grants can support early deployment.
6	**Scalability of the Solution**	Built on scalable cloud infrastructure (IBM Cloud + Pinecone + Streamlit + FastAPI), the solution supports modular deployment across multiple cities. APIs and microservices architecture ensure easy integration with existing urban data platforms, allowing rapid scaling from pilot implementations to full city-wide rollouts.