Ideation Brainstorm & Idea Prioritization phase

Team ID: LTVIP2025TMID29114

Project Name: Sustainable Smart City Assistant Using IBM Granite LLM

The ideation phase focuses on identifying the core problems, exploring feasible solutions, and brainstorming innovative ideas to address user needs. This phase lays the groundwork for the entire development lifecycle by converting abstract concepts into concrete project goals. It includes understanding stakeholder expectations, analyzing existing systems, and exploring advanced technologies to bring meaningful value.

Idea Prioritization – Sustainable Smart City Assistant

In the Sustainable Smart City Assistant project, idea prioritization is crucial to ensure that the most impactful, feasible, and scalable modules are selected for development. The goal is to integrate AI and data-driven insights into city governance, sustainability practices, and citizen interaction through a unified digital assistant.

Step 1: Team Gathering, Collaboration and Select the Problem Statement

Problem Chosen:

Lack of intelligent, real-time decision support and citizen engagement in urban governance limits the effectiveness of sustainability efforts, resource management, and public service delivery in smart cities.

Goal:

Design a generative AI-powered Smart City Assistant that leverages large language models and machine learning to support policy summarization, citizen feedback analysis, KPI forecasting, and sustainability guidance — enabling data-driven decision-making, increased transparency, and improved citizen participation in city development.

Step 2: Features Overview

Feature	Description	Input Types
📊 KPI Forecasting	Predict trends for city metrics using ML models	CSV with Date and Metrics
📄 Document Summarization	Extract summaries from long government/urban reports	PDF, TXT, DOCX
🔍 Policy Search	Semantic search across policy documents	Keyword/Natural Language
🗣️ Citizen Feedback	Collect structured feedback from citizens	Forms, Text Input
📈 Anomaly Detection	Spot irregularities in metrics or feedback trends	Tabular data (CSV/JSON)
🌿 Eco Tips	Recommend sustainable practices based on user interests	Category selection
🤖 Chat Assistant	Interactive assistant for general smart city queries	Natural Language
🧠 Personalized Assistance	AI-generated eco-friendly plans tailored to user context	User profile + constraints

Step 3: Idea Prioritization

Idea	Feasibility	Impact	Priority
Policy Summarization using LLM	High	High	Must Do
Citizen Feedback Analysis	High	High	Must Do
Smart KPI Forecasting	Medium	High	Must Do
Anomaly Detection in City Data	Medium	Medium	Should Do
Eco Tips Generator	High	Medium	Must Do
Role-based Admin & Citizen UI	High	Medium	Must Do
Use IBM Granite LLM (via HuggingFace)	High	High	Must Do
Integration with City Open Data APIs	Medium	High	Should Do