**Project Design Phase**

**Problem – Solution Fit Template**

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| Date | 26 june 2025 |
| Team ID | LTVIP2025TMID32104 |
| Project Name | sustainable smart city assistant using ibm granite llm |
| Maximum Marks | 2 Marks |

**Problem – Solution Fit Template:**

The Problem–Solution Fit simply means that you have found a problem with your customer and that the solution you have realized for it actually solves the customer’s problem. It helps entrepreneurs, marketers and corporate innovators identify behavioral patterns and recognize what would work and why.

**Purpose:**

The Sustainable Smart City Assistant is designed to address inefficiencies in urban governance, citizen feedback loops, and sustainability planning in modern cities. Urban planners, administrators, and citizens struggle with accessing and processing large-scale policy documents, forecasting infrastructure KPIs, detecting anomalies, and gathering community feedback. This AI-powered assistant bridges that gap using IBM Watsonx Granite LLM, providing features such as:

* AI-driven policy summarization
* KPI forecasting using ML
* Eco advice generation for citizens
* Anomaly detection in utility usage
* Feedback categorization and logging
* A modular Streamlit frontend and FastAPI backend

By integrating advanced language models, vector search, and data analysis in one dashboard, it empowers cities to operate more transparently and sustainably.

**Outcomes / Value Propositions:**

✅ Solve complex urban problems with AI-powered insights  
✅ Enable faster decision-making using real-time KPI forecasting and anomaly alerts  
✅ Improve civic engagement through simplified feedback and eco-awareness  
✅ Sharpen communication with AI-summarized policy briefs  
✅ Build trust and transparency with data-driven governance  
✅ Increase urban service touchpoints with multi-feature modular apps