**Project Design Phase**

**Problem – Solution Fit Template**

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| Date | 14 jun 2025 |
| Team ID | LTVIP2025TMID32673 |
| Project Name | Sustainable Smart City Assistant AI by using IBM granite LLM |
| Maximum Marks | 2 Marks |

**Problem – Solution Fit Canvas**

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| **Section** | **Details** |
| Target Group / User | Urban city planners, municipal authorities, residents of smart cities, sustainability consultants, and civic tech startups. |
| Current Behavior / Habits | Urban systems often operate in silos (e.g., waste, traffic, water), leading to inefficiencies. Citizens lack unified access to information and personalized suggestions on sustainability actions. |
| Problem(s) Observed | - Lack of real-time data integration across city services. - Inefficient energy/water usage. - Citizens unaware of their environmental impact. - Poor feedback loops between cities and residents. |
| Why is this a Problem? | Leads to resource wastage, low citizen engagement in sustainability goals, increased carbon footprint, and difficulty in achieving SDG targets and smart city KPIs. |
| Existing Alternatives | - Standalone apps for energy, transport, or waste management. - Manual reporting dashboards. - Government helplines. - Legacy GIS and ERP systems in municipalities. |
| Problems with Alternatives | - Disconnected systems and data. - No AI-driven insights or automation. - Limited real-time interactivity. - Low user-friendliness and poor adoption by citizens. |
| Proposed Solution | A conversational AI platform that unifies city service data (IoT, GIS, ERP) and provides real-time recommendations, alerts, insights, and predictive analytics to both citizens and city administrators. |
| Unique Value Proposition | - One AI assistant for all smart city needs. - Personalized sustainability coaching. - Seamless citizen-government communication. - Interoperability with existing smart infrastructure. |
| Solution Benefits | - Encourages greener lifestyles through personalized nudges. - Enables predictive maintenance and smarter planning. - Increases civic engagement. - Reduces operational costs. |
| Solution Adoption Channels | - Integration into official city apps/websites. - Smart kiosks, digital billboards. - Voice assistants (Alexa, Google Home). - Collaborations with green startups and NGOs. |