**Project Design Phase**

**Proposed Solution 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 |

**Proposed Solution Template:**

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| **S.No.** | **Parameter** | **Description** |
| 1 | Problem Statement (Problem to be solved) | Smart cities lack integrated, intelligent systems that can provide real-time, personalized sustainability guidance to citizens while supporting city planners with predictive analytics and cross-domain insights, leading to inefficiencies, low engagement, and poor resource optimization. |
| 2 | Idea / Solution description | The solution is an AI-powered assistant that consolidates data from smart city infrastructure (IoT sensors, GIS, utilities) to provide real-time alerts, sustainability recommendations, urban insights, and two-way communication between city authorities and residents. It can be accessed via mobile apps, kiosks, or voice interfaces. |
| 3 | Novelty / Uniqueness | - Unified conversational AI for all smart city services. - Personalized sustainability insights using granite LLM - Integration across departments (traffic, waste, energy) via interoperable APIs. - Predictive analytics for city maintenance and planning. |
| 4 | Social Impact / Customer Satisfaction | - Increases citizen awareness and participation in sustainability goals. - Improves quality of urban life through efficient resource usage. - Provides faster access to services and information. - Empowers marginalized groups by offering multilingual, accessible AI interfaces. |
| 5 | Business Model (Revenue Model) | - municipalities with tiered pricing based on population size. - Licensing to private smart city consultants and developers. - Data analytics dashboards sold as premium features. - Grants and public-private partnerships for smart infrastructure development. |