

**Project Design Phase**  
**Problem – Solution Fit Template**

Date	14 June 2025
Team ID	LTVIP2025TMID60699
Project Name	Sustainable Smart City Assistant Using IBM Granite LLM
Maximum Marks	2 Marks

**Problem–Solution Fit – Sustainable Smart City Assistant**

The Problem–Solution Fit in our project is about solving actual problems that people in cities face when it comes to sustainability. Many people care about the environment but don’t have the right tools or information to take action. We focused on those common issues and built a solution that’s simple, useful, and personalized.

**Purpose in Our Project**

- We solved real problems that city residents face every day, like tracking air quality or understanding water usage.
- Our app fits into users’ daily habits instead of asking them to change how they live.
- We kept communication clear by focusing on what people actually need—local data, smart alerts, and visual insights.
- We made the app easy to use, so people come back to it regularly.
- Everything is based on context—city, language, and user preferences—so it feels relevant.

**Few Examples**

Problem	Solution
No simple way to see real-time environmental data	Dashboard with live AQI, water, traffic, and energy usage
Generic eco tips that don’t match user lifestyle	Personalized, city-aware sustainability suggestions
Cluttered apps that are hard to use	Clean UI with themes, filters, and easy navigation

<b>Too many or irrelevant notifications</b>	<b>Smart alerts only when something important changes</b>
<b>No support for offline use</b>	<b>Offline access to tips and saved data</b>

### Template:

<b>1. CUSTOMER SEGMENT(S)</b> <span>CS</span> <ul style="list-style-type: none"> <li>City residents</li> <li>Eco-conscious citizens</li> <li>Students or professionals</li> </ul>	<b>8. CUSTOMER LIMITATIONS</b> <small>EG. BUDGET, DEVICES</small> <span>CL</span> <ul style="list-style-type: none"> <li>Limited budget/reluctant to pay</li> <li>Basic phone or no balanced data plan</li> <li>No time to sort through scattered info</li> </ul>	<b>5. AVAILABLE SOLUTIONS</b> <small>PROS &amp; CONS</small> <span>AS</span> <ul style="list-style-type: none"> <li>General fitness trackers (No AQI, energy, water)</li> <li>Government websites s are</li> <li>No time to sort through scattered</li> </ul>
<b>2. PROBLEMS / PAINS</b> <small>- ITS FREQUENCY</small> <span>PR</span> <ul style="list-style-type: none"> <li>Lack of access to real-time data on city's environmental health</li> <li>Apps too complex or show static, generic data</li> <li>Missing alerts for significant changes (about quality)</li> <li>Generic or irrelevant sustainability</li> </ul>	<b>9. PROBLEM ROOT / CAUSE</b> <span>RC</span> <ul style="list-style-type: none"> <li>Fragmented, technical, and static data sources</li> <li>Feeling overwhelmed by scattered, unclear or late data</li> <li>Trying to act more sustainably but unsure how</li> </ul>	<b>7. BEHAVIOR</b> <small>- ITS INTENSITY</small> <span>BE</span> <ul style="list-style-type: none"> <li>Fragmented, technical, and static data sources</li> </ul>
<b>3. TRIGGERS TO ACT</b> <span>TR</span> <ul style="list-style-type: none"> <li>Rising pollution levels in the city</li> <li>Global news on climate change</li> <li>Peer and community pressure</li> </ul>	<b>10. YOUR SOLUTION</b> <span>SL</span> <p>Sustainable smart city assistant with personalized real-time data, eco tips, and alerts in a user-friendly, localized UX</p>	<b>6. CHANNELS of BEHAVIOR</b> <span>CH</span> <p>ONLINE</p> <ul style="list-style-type: none"> <li>AQI websites</li> <li>Governments</li> <li>Environmental's</li> <li>Social networks</li> </ul> <p>OFFLINE</p>
<b>4. EMOTIONS</b> <small>BEFORE / AFTER</small> <span>EM</span> <p>Frustrated    Overwhelmed    In control</p> <p>Aware &amp; informed    Motivated to act</p>		