

## Project Design Phase – Problem–Solution Fit

Date	27 June 2025
Team ID	LTVIP2025TMID21064
Project Name	Citizen AI – Intelligent Citizen Engagement Platform
Maximum Marks	2 Marks

### Problem – Solution Fit Template

#### The Problem

Citizens face difficulties in accessing accurate and timely information about government services such as applying for schemes, filing grievances, or understanding documentation processes. Current portals are often confusing, scattered, and slow to respond, causing frustration and inefficiency.

#### The Solution

Citizen AI is a generative AI platform powered by IBM Granite (via Hugging Face) that enables citizens to interact with a real-time chatbot for information about government services. The chatbot also analyzes feedback using sentiment analysis, helping agencies understand public perception.

#### Purpose of the Solution

- Solve complex navigation and support issues faced by citizens in interacting with government portals.
- Deliver real-time, contextual responses using AI, reducing wait times and confusion.
- Use familiar web interfaces and fast API communication.
- Increase adoption through a browser-based interface requiring no setup.

#### Value Proposition

- Citizens get instant, trustworthy answers.
- Governments get real-time sentiment insights.
- Developers benefit from a modular, scalable system.

#### Problem-Solution Behavior Fit

Behavior	Citizen AI Fit
People want quick help online	Real-time chatbot using FastAPI

Frustrated by unresponsive services	24/7 available interface
Prefer typing to calling	Web-based, AI-powered interface
Want emotional acknowledgement	Sentiment analysis feedback module
Hesitate to visit government offices	Accessible from anywhere via mobile/PC

## Template

**Problem-Solution fit canvas 2.0**
Purpose / Vision

Define CS, fit into CC	<b>1. CUSTOMER SEGMENT(S)</b> <small>Who is your customer? i.e. working parents of 0-5 y.o. kids</small>	<b>6. CUSTOMER CONSTRAINTS</b> <small>What constraints prevent your customers from taking action or limit their choices of solutions? i.e. spending power, budget, no cash, network connection, available devices.</small>	<b>5. AVAILABLE SOLUTIONS</b> <small>Which solutions are available to the customers when they face the problem or need to get the job done? What have they tried in the past? What pros &amp; cons do these solutions have? i.e. pen and paper is an alternative to digital notetaking</small>	Explore AS, differentiate
	<b>2. JOBS-TO-BE-DONE / PROBLEMS</b> <small>Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one, explore different sides.</small>	<b>9. PROBLEM ROOT CAUSE</b> <small>What is the real reason that this problem exists? What is the back story behind the need to do this job? i.e. customers have to do it because of the change in regulations.</small>	<b>7. BEHAVIOUR</b> <small>What does your customer do to address the problem and get the job done? i.e. directly related: find the right solar panel installer, calculate usage and benefits; indirectly associated: customers spend free time on volunteering work (i.e. Greenpeace)</small>	
Focus on J&P, tap into BE, understand RC	<b>3. TRIGGERS</b> <small>What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news.</small>	<b>10. YOUR SOLUTION</b> <small>If you are working on an existing business, write down your current solution first, fill in the canvas, and check how much it fits reality. If you are working on a new business proposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour.</small>	<b>8. CHANNELS of BEHAVIOUR</b> <b>8.1 ONLINE</b> <small>What kind of actions do customers take online? Extract online channels from #7 i.e. directly related: find the right solar panel installer, calculate usage and benefits;</small>	Extract online & offline CH of BE
	<b>4. EMOTIONS: BEFORE / AFTER</b> <small>How do customers feel when they face a problem or a job and afterwards? i.e. lost, insecure &gt; confident, in control - use it in your communication strategy &amp; design.</small>		<b>8.2 OFFLINE</b> <small>What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.</small>	

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