Project Design Phase
Problem – Solution Fit

Date	19/06/25
Team ID	LTVIP2025TMID59136
Project Name	Visualizing housing market trends: an analysis of sale prices and features
Maximum Marks	2 Marks

Problem – Solution :

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:

- ❑ Solve complex problems in a way that fits the state of your customers.
- ❑ Succeed faster and increase your solution adoption by tapping into existing mediums and channels of behavior.
- ❑ Sharpen your communication and marketing strategy with the right triggers and messaging.
- ❑ Increase touch-points with your company by finding the right problem-behavior fit and building trust by solving frequent annoyances, or urgent or costly problems.
- ❑ **Understand the existing situation in order to improve it for your target group.**

Template:

Problem-Solution fit canvas 2.0

Purpose / Vision: To visualize electricity consumption patterns and empower smarter, data-driven energy decisions for a sustainable future.

Define CS, fit into

1. CUSTOMER SEGMENT(S) — CS

- Utility company decision-makers
- Government policymakers (energy departments)
- Energy analysts and researchers
- Public sector monitoring authorities

6. CUSTOMER — CC

- Limited technical/data visualization skills
- Budget constraints for tool adoption
- Reliance on manual Excel-based workflows
- Limited access to cleaned, centralized data
- Low IT infrastructure in smaller utility companies

5. AVAILABLE SOLUTIONS — AS

- Static government reports in PDF/Excel
- Manual data analysis using spreadsheets
- Internal dashboards with limited scope
  Pros: Familiar tools, simple setup
  Cons: No interactivity, slow, difficult to analyze, lacks filtering

Explore AS,

Focus on J&P, tap into BE, understand

2. JOBS-TO-BE-DONE / PROBLEMS — J&P

- Understand state-wise and sector-wise electricity usage patterns
- Forecast demand for better grid management
- Identify peak hours and plan energy-saving programs
- Analyze seasonal usage trends and post-lockdown impacts
- Make data-driven decisions from raw usage data

9. PROBLEM ROOT CAUSE — RC

- No centralized platform for data-driven electricity consumption insights
- Datasets are raw, unfiltered, and not visualized
- Decision-makers lack tools and training to interpret the data easily
- Growing complexity in managing supply-demand post-COVID and climate events

7. BEHAVIOUR — BE

- Use Excel to sort and manually analyze usage
- Request reports from IT/data team
- Refer to government portals for downloads
- Discuss patterns informally within departments
- Use experience-based intuition over data evidence

Focus on J&P, tap into BE, understand

Identify strong TR & EM

3. TRIGGERS — TR

1. **External pressure from government mandates, public reports, or new datasets** requiring improved energy planning and transparency.
2. **Operational challenges like blackouts, peak season budgeting, or rising interest in sustainability** prompt action from utility stakeholders.

4. EMOTIONS: BEFORE / AFTER — EM

Before: Overwhelmed, frustrated, unsure, data-blind
After: Informed, empowered, confident, able to make smart decisions

10. YOUR SOLUTION — SL

A web-based dashboard using Tableau embedded into a Flask app.
Pre-processed data stored in MySQL, integrated with real-time filtering.
Visualizations include: Time-wise, region-wise, lockdown comparison, and top/bottom usage states.
Interactive filters for users to select year, region, and time period.
Optional ML-powered demand forecasting.
Published on Tableau Public for easy access and sharing.

8. CHANNELS of BEHAVIOUR — CH

8.1 ONLINE

Download datasets from energy portals (POSOCO, Ministry of Power)

Read insights or trends from news portals or LinkedIn

Watch dashboard demos (YouTube, Tableau Public)

8.2 OFFLINE

Attend government briefings

Internal review meetings and printed reports

Collaborate on planning documents manually

Extract online & offline CH of BE