Project Design Phase
Problem – Solution Fit Template

Date	15 February 2025
Team ID	LTVIP2026TMIDS87694
Project Name	EV Battery Performance and Range Monitoring System
Maximum Marks	2 Marks

Problem – Solution Fit Template:

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:

1. CUSTOMER SEGMENT(S)

CS

Who is your customer?

- Electric Vehicle Owners
- Fleet Managers
- EV Data Analysts

6. CUSTOMER CONSTI

What constraints prevent your
of solutions? I.e. spending pow

2. JOBS-TO-BE-DONE / PROBLEMS

J&P

Which jobs-to-be-done / problems) do you address for your customers?

- Accurately predicting EV driving range after charging
- Monitoring battery performance of multiple EVs
- Detecting charging issues early

9. PROBLEM ROOT CA

What is the real reason that this
Whit is the bacs story behind t
I.e. current apps wont telp it bec

3. TRIGGERS

TR

What triggers customers to act? I.e. seeing their neighbour installing solar panels, about a p efficieat more efficiert solution in the news.

- Want more detailed EV data and insights
- Frustrated with manual tracking
- No predictive features currently

8. YOUR SOLUTION

If you're working on an existtin
If you're working on something
keep it blank until you've found

4. EMOTIONS: BEFORE / AFTER

EM

Hore do your customers feehen thoy they hatws tjp bo problem & tifferwartis?
I.e. lost, insecure > confident, in control – use it in your communication stagy & design

- Conflosed, unaure → differnect, confident
- Time comaurming· → Efficient
- Stniss ed· → Assured

8. YOUR SOLUTION

- Interactive dashboard t
- Graphs and charts for e
- Tools to compare perfo
- Early issue detection w

1. Customer Segment(s)

The primary customers for this project are **Electric Vehicle (EV) owners, fleet managers, and EV data analysts**. EV owners want better clarity about charging and driving range. Fleet managers need to monitor multiple vehicles efficiently. Data analysts require structured insights from EV datasets. These users regularly interact with EV performance data but struggle with complex raw information.

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2. Jobs-to-be-Done / Problems

The main job-to-be-done is to **accurately understand and predict EV range after charging**. Customers also need to monitor battery health, compare performance over time, and detect charging issues early. Currently, they find it difficult to interpret raw data and make informed decisions based on it.

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3. Triggers

Customers are triggered to look for a solution when they experience **range anxiety**, inconsistent battery performance, or difficulty planning long trips. Frustration from manual data tracking and the need for more detailed insights also push them to search for better tools. News about EV efficiency improvements and technological advancements may also act as triggers.

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4. Emotions (Before / After)

Before using the solution, customers feel **confused, uncertain, stressed, and frustrated** due to unclear data and unpredictable range performance.
After using the solution, they feel **confident, informed, in control, and assured**, as the dashboard provides clear visualization and reliable insights.

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5. Available Solutions

Currently, customers rely on **basic vehicle dashboards, simple mobile apps, manual Excel sheets, and guesswork** for range estimation. These solutions provide limited insights and lack advanced visualization or predictive analytics.

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6. Customer Constraints

Customers may face constraints such as **limited technical knowledge, time constraints, budget limitations, or lack of advanced analytics tools**. Some may also lack proper internet connectivity or awareness of advanced data visualization tools.

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7. Behavior

To address their problem, customers typically **check vehicle dashboards, use basic EV apps, manually analyze spreadsheets, or estimate travel range based on experience**. Some search online forums or consult EV communities for advice.

8. Channels of Behavior

Online Channels:

Customers use **EV forums, social media groups, manufacturer websites, EV apps, and YouTube tutorials** to gather information.

Offline Channels:

Customers visit **charging stations, service centers, EV community meetups, and dealership support centers** for assistance.

References:

1. https://www.ideahackers.network/problem-solution-fit-canvas/
2. https://medium.com/@epicantus/problem-solution-fit-canvas-aa3dd59cb4fe