# Electric Vehicle Charge and Range Analysis

**Project Name**: Visualization Tool for Electric Vehicle Charge and Range Analysis

**Date**: 25 Feb 2026

**Team ID**:  LTVIP2026TMIDS63931

**Target User**: EV Enthusiasts, Policy Makers, Automotive Analysts, and Researchers

## Empathy Map

| | |
|---|---|
| Says | "I want to know the best EV options for my budget."<br>"Which areas have more charging stations?"<br>"What's the fastest charging car within my price range?" |
| Thinks | "Is the range enough for my daily commute?"<br>"Will I be stranded without a nearby charger?"<br>"How efficient is this EV compared to others?" |
| Does | Compares EV models online<br>Searches EV charging station maps<br>Looks for reviews, specs & charts |
| Feels | Confused due to inconsistent info across sources<br>Overwhelmed with too much technical data |

# Empathy Map - EV Charge and Range Analysis

**SAYS**
- I want a clear comparison of EV models.
- I need to know nearby charging stations.

**THINKS**
- Is this EV's range enough for me?
- Will I find a charging station easily?

**DOES**
- Searches for EV specifications online.
- Uses apps to check charger locations.

**FEELS**
- Overwhelmed by technical comparison
- Anxious about charging availability.

# Define Problem Statements - EV Charge & Range Analysis

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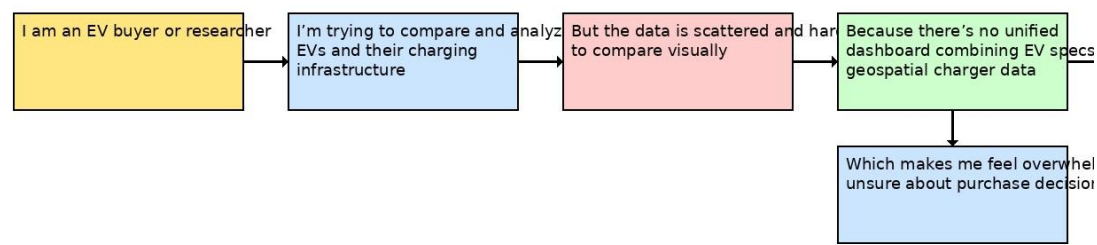**Team ID**:  LTVIP2026TMIDS63931

**Problem Statement 1**:
I am an EV buyer/researcher
I'm trying to evaluate and compare electric vehicles based on efficiency, price, and range
But the data is scattered across multiple sources and difficult to compare visually
Because there is no centralized, interactive dashboard to analyze this information Which makes me feel overwhelmed, confused, and less confident in making a purchase decision

**Problem Statement 2**:
I am a policy maker or EV promoter
I'm trying to understand the current distribution of EV charging stations across regions
But accessing geospatial data for charger locations and analyzing coverage is hard
Because there's no tool integrating vehicle specs and charger locations
Which makes me feel underinformed and unable to make data-backed infrastructure decisions

| Field | Response |
|---|---|
| **I am (Customer)** | An EV buyer or researcher |
| **I'm trying to** | Compare and analyze EVs and their charging infrastructure |
| **But** | The data is scattered and hard to compare visually |
| **Because** | There's no unified dashboard combining EV specs and geospatial charger data |
| **Which makes me feel** | Overwhelmed and unsure about purchase decisions or policy recommendations |

# Electric Vehicle Charge and Range Analysis – Problem Statement

I am an EV buyer or researcher → I'm trying to compare and analyze EVs and their charging infrastructure → But the data is scattered and hard to compare visually → Because there's no unified dashboard combining EV specs geospatial charger data

Which makes me feel overwhelmed unsure about purchase decision

## Brainstorming & Idea Prioritization - EV Charge and Range Analysis

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### Step 1: Select the Problem Statement

Lack of unified, visual, and interactive dashboard to compare electric vehicle specs and charger coverage in India and globally.

### Step 2: Idea Listing

- Integrate multiple CSV datasets on EV specs and charging stations

- Build interactive visualizations (scatter plots, maps, bar charts) in Tableau

- Show comparisons by brand, range, top speed, price, and charging speed

- Use maps to show charging station distribution by region

- Add dashboards with filters for country, brand, segment, and more

- Develop a web page embedding the Tableau dashboards and stories

### Step 3: Prioritize Ideas

| Ideas | Priority |
|---|---|
| EV Range vs Price Comparison | High |
| Interactive Charging Station Map | High |
| Efficiency and Fast Charging Analysis | High |
| Cheapest EVs by Country | Medium |
| Web Embedding and Publishing | Medium |

Idea Prioritization - EV Charge and Range Analysis