**Ideation Phase**

**Empathize & Discover**

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| Date | 1 July 2025 |
| Team ID | LTVIP2025TMID50223 |
| Project Name | Visualization Tool For Electric Vehicle Charge And Range Analysis |
| Maximum Marks | 4 Marks |

**Empathy Map Canvas:**

**Persona:** EV Owner in India – Tech-Savvy, Urban, Range-Conscious

#### 👀 ****What does the user SEE?****

* Numerous EV brands with different range claims
* Complex or inconsistent data across manufacturer websites
* Generic graphs and specs with no personal relevance
* Some scattered forums and YouTube reviews

#### 🗣️ ****What does the user SAY?****

* “How do I know this range is real in my driving conditions?”
* “Why can’t I see my car’s charge vs. range history over time?”
* “I wish I had a dashboard that shows performance based on usage.”
* “It's hard to compare different EVs in one place.”

#### 🧠 ****What does the user THINK?****

* “I’m anxious that the battery won’t last as promised.”
* “Is this EV really saving me money or not?”
* “Other countries seem to have more transparent EV data tools.”
* “I want to be more eco-friendly, but it should also be practical.”

#### 💬 ****What does the user HEAR?****

* Peers discussing range anxiety and charging issues
* News about government subsidies and growing EV adoption
* Social media hype vs. real performance concerns
* Word of mouth: "EVs are good but limited support"

#### 😫 ****PAIN**** (Fears, frustrations, obstacles)

* Lack of reliable and centralized EV data visualization
* Inability to predict or optimize charging based on patterns
* Difficulty making data-based decisions about usage or upgrades
* No clear dashboard or benchmark to compare across time or models

#### 🎯 ****GAIN**** (Wants, needs, hopes)

* Clear, visual tools to track EV usage, charging habits, and range
* Comparative insights between different EVs and geographies
* Confidence in battery health and charging station availability
* A smart, web-based tool to guide ownership and decision-making