# Ideation Phase
# Brainstorm & Idea Prioritization Template

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| Date | 30 June 2025 |
| Team ID | LTVIP2025TMID50516 |
| Project Name | Visualization Tool for Electric Vehicle Charge and Range Analysis |
| Maximum Marks | 4 Marks |

## Step-1: Team Gathering, Collaboration and Select the Problem Statement

**Objective:**
To collaborate as a team, understand challenges faced by electric vehicle (EV) users related to battery charge, range prediction, and plan a data-driven visualization tool.

**Activities Conducted:**

- Discussion on EV adoption trends and user concerns
- Identified common user pain points such as charge anxiety and lack of intuitive insights into battery usage
- Agreed to work on a **visual analytics tool** to address these concerns

**Final Problem Statement Chosen:**

*EV users lack access to an interactive visualization tool that provides clear, data-driven insights into battery usage, charging patterns, and estimated driving range under different conditions.*

### Step-2: Brainstorm, Idea Listing and Grouping

**Goal:**
Generate a wide range of ideas on what features the tool could offer, and organize them into logical groups.

**Ideas Generated:**

- Visual battery charge tracking over time
- Dynamic range estimation based on speed, terrain, and temperature
- Charging session history and patterns
- Interactive maps showing reachable range from current battery level
- Energy consumption breakdown (AC, headlights, acceleration, etc.)
- Suggestions for energy-efficient driving

**Step-3: Idea Prioritization**

- Charging Stations By Region and Type In India
- Different EV Cars in India
- Brand filtered by PowerTrain type
- Number of Models by Each Brand

## Finalized Project Scope

**Title:**
**Visualization Tool for Electric Vehicle Charge and Range Analysis**

**Description:**
A user-friendly dashboard that helps EV users analyze battery charge levels, predict driving range based on key parameters, and visualize charging patterns using interactive graphs and maps.