

Ideation Phase

Brainstorm & Idea Prioritization Template

Date: 31 January 2025

Team ID: LVTIP2026TMIDS81919

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

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Maximum Marks: 4 Marks

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

Problem Statement: How might we develop a visualization tool that helps users analyze electric vehicle battery charge levels and predict travel range effectively?

Objective:

- Create an interactive visualization system for EV charge monitoring
- Help users estimate travel distance based on battery status
- Improve decision-making for charging and trip planning

Step-2: Brainstorm, Idea Listing and Grouping

Idea List:

1. Real-time battery percentage display
2. Range prediction based on speed and terrain
3. Charging station locator integration
4. Graphical charts showing battery usage over time
5. Alerts for low battery and nearest charging point
6. Comparison of energy consumption patterns
7. Mobile-friendly dashboard design
8. Historical data analysis for performance tracking

Grouping of Ideas:

Visualization Features: Battery percentage display, Usage charts, Energy consumption graphs

Prediction & Analysis: Range prediction, Historical performance analysis

User Assistance: Charging station locator, Low battery alerts, Trip planning support

Step-3: Idea Prioritization

High Importance & High Feasibility:

- Battery percentage visualization
- Range prediction system
- Low battery alerts

High Importance & Medium Feasibility:

- Charging station locator
- Energy consumption comparison

Medium Importance & High Feasibility:

- Historical usage charts
- Mobile dashboard