

# Ideation Phase

## Brainstorm & Idea Prioritization Template

Date	4 February 2026
Team ID	LTVIP2026TMIDS91295
Project Name	Visualization Tool for Electric Vehicle Charge and Range Analysis
Maximum Marks	4 Marks

### Brainstorm & Idea Prioritization Template:

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions.

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

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

The screenshot shows the 'Template' section of the Brainstorm & Idea Prioritization Template. It is divided into three main columns:

- Left Column:** Contains a lightbulb icon, the title "Brainstorm & idea prioritization", and sections for "Team Preparation" and "Goals". "Team Preparation" includes tasks like identifying growing demand for EV analytics tools and discussing challenges in EV charging & range data analysis. "Goals" include building an interactive EV visualization system, integrating a dashboard into a web application, and deploying a live website. At the bottom, it specifies a preparation time of 10 minutes, a collaboration time of 1 hour, and recommends 2-8 people.
- Middle Column:** Titled "Before you collaborate", it contains three steps:
  - Team gathering**: Define who should participate in the session and send an invite. Share relevant information or pre-work ahead. (10 minutes)
  - Set the goal**: Think about the problem you'll be focusing on solving in the brainstorming session.
  - Learn how to use the facilitation tools**: Use the Facilitation Superpowers to run a happy and productive session. (Open article)A "PROBLEM" box is shown with the text: "How might we [Visualization Tool for Electric Vehicle Charge and Range Analysis]?"
- Right Column:** Titled "Define your problem statement", it includes a "Key rules of brainstorming" section with tips: Stay in topic, Encourage wild ideas, Defer judgment, Listen to others, Go for volume, and If possible, be visual.

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

2

### Brainstorm

Write down any ideas that come to mind that address your problem statement.

⌚ 10 minutes

**TIP**  
You can select a sticky note and hit the pencil (switch to sketch) icon to start drawing!

Person 1  
EV Charging Station Visualization Dashboard

Person 2  
Electric Vehicle Range Comparison Analysis

Person 3  
Import EV Dataset into MySQL Database

Person 4  
Connect Tableau Desktop with MySQL

Person 5  
Data Preprocessing using Python (Cleaning & Transformation)

Person 6  
Create Interactive Charts (Line, Bar, Map, Bubble)

Person 7  
Publish Dashboard & Story to Tableau Public

Person 8  
Flask Web Integration & Render Deployment

3

### Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.

⌚ 20 minutes

**TIP**  
Add color-coded tags to sticky notes to help organize and categorize important items as themes under your event.



### Data Management Layer

- ④ Download EV Datasets
- ⑤ Import Dataset into MySQL
- ⑥ Database Table Management
- ⑦ Purpose: Store and manage EV charging & range data.



### Data Processing Layer

- ⑧ Data Cleaning using Python
- ⑨ Data Transformation & Preparation
- ⑩ Handling Missing Values
- ⑪ Purpose: Prepare data before Visualization



### Visualization & Analytics Layer

- ⑫ Connect Tableau Desktop to MySQL
- ⑬ Create Charts (Line, Bar, Bubble, Map)
- ⑭ Build Dashboard & Story Visualization
- ⑮ Purpose: Analyze EV charging infrastructure and vehicle ranges



### Web Integration & Deployment Layer

- ⑯ Publish Dashboard to Tableau Public
- ⑰ Flask Web Application Development
- ⑱ Deploy Website using Bonder
- ⑲ Purpose: Provide web based access to EV analytics

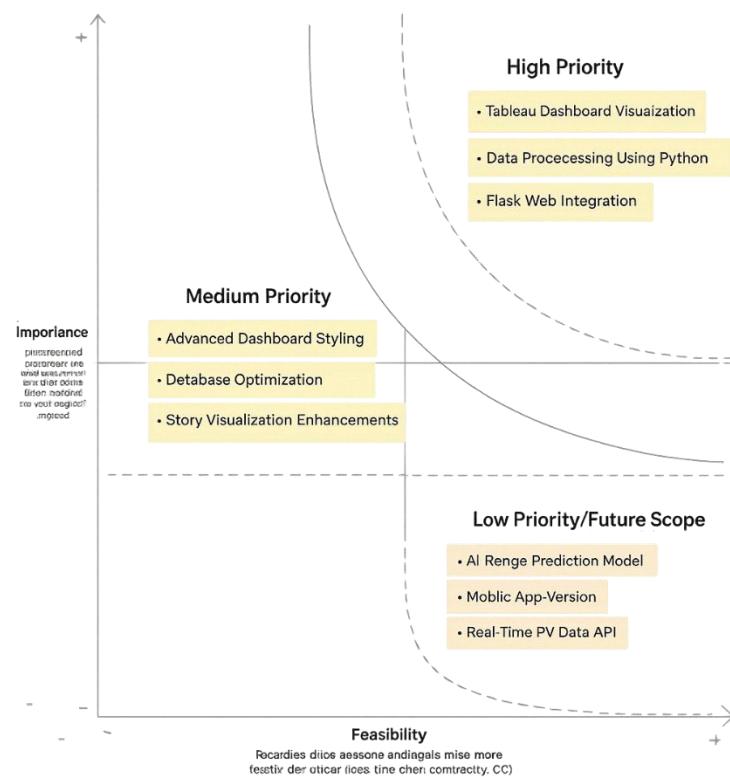
## Step-3: Idea Prioritization

4

### Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

⌚ 20 minutes



5

### After you collaborate

Develop an interactive Electric Vehicle Charge and Range Analysis Visualization Tool that integrates SQL, Python, Tableau, and Flask to provide web-based EV analytics.

#### Key Decisions Taken by Team

- Use MySQL for storing EV datasets.
- Apply Python preprocessing to clean and transform data.
- Create interactive Tableau dashboards & story for visualization.
- Publish dashboards using Tableau Public.
- Integrate visualization into a Flask web application.
- Deploy the final website using Render platform.

#### Expected Outcome

- Centralized EV analytics dashboard.
- Easy comparison of charging infrastructure and vehicle range.
- Interactive web-based platform accessible to users.

#### Next Steps

1. Dataset Download
2. Import into MySQL
3. Tableau Connection
4. Data Preprocessing
5. Dashboard & Story Creation
6. Publish to Tableau Public
7. Flask Web Integration
8. Deploy Website using Render