Ideation Phase
Brainstorm & Idea Prioritization Template

Date	29 April 2023
Team ID	NM2023TMID12066
Project Name	AI enabled car parking using open CV
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.

Reference: https://www.mural.co/templates/empathy-map-canvas

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

Template

Brainstorm & idea prioritization

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.

- **10 minutes** to prepare
- **1 hour** to collaborate
- **2-8 people** recommended

Share template feedback

Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

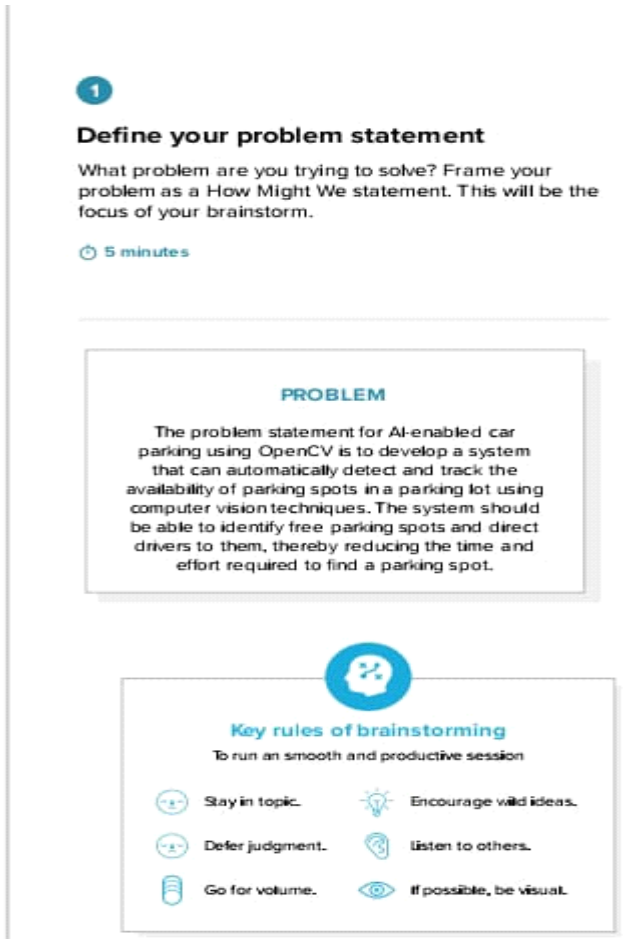
10 minutes

A **Team gathering**
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

B **Set the goal**
Think about the problem you'll be focusing on solving in the brainstorming session.

C **Learn how to use the facilitation tools**
Use the Facilitation Superpowers to run a happy and productive session.

Open article →



Step-2: Brainstorm, Idea Listing and Grouping

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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

Car owner

Need: to find a parking spot quickly and easily

Need: to feel confident that their car is safe and secure

Person 2

Parking attendant

Need: to manage parking spaces efficiently

Need: to detect and prevent unauthorized parking or access

Person 3

Facility manager

Need: to optimize space utilization and revenue generation

Pain point: dealing with complaints about lost or damaged cars

Person 4

Maintenance staff

Need: to monitor and maintain parking equipment (e.g. sensors, barriers)

Pain point: dealing with false alarms or equipment malfunctions

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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 and break it up into smaller sub-groups.

20 minutes

TIP

Add customizable tags to sticky notes to make it easier to find, browse, organize, and categorize important ideas as themes within your mural.

1. Object Detection: Using OpenCV, we can detect cars in real-time and track their movement within the parking lot. This will help in identifying empty parking spaces and guide drivers to those spots.

2. License Plate Recognition: By using OpenCV's image processing capabilities, we can recognize license plates of parked cars and match them with the database of registered vehicles. This will help in identifying unauthorized vehicles and prevent car thefts.

3. Parking Guidance System: By integrating OpenCV with sensors and cameras installed in the parking lot, we can create a smart parking guidance system that will guide drivers to empty spots and provide real-time information on the availability of parking spaces.

4. Automated Payment System: By using OpenCV's facial recognition technology, we can create an automated payment system that will allow users to pay for their parking without having to leave their car.

5. Traffic Management: By analyzing the data collected by OpenCV, we can optimize traffic flow within the parking lot and reduce congestion during peak hours.

Step-3: Idea Prioritization