

## Ideation Phase

### Brainstorm & Idea Prioritization Template

Date	17 September 2022
Team ID	IBM-Project-4146-1658721621
Project Name	Machine Learning based Vehicle Performance Analyzer
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

➔

### 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

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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](#) ➔

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## Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

🕒 5 minutes

### PROBLEM

How might we predict the performance level of cars? The main goal is to predict the performance of the car to improve certain behaviours of the vehicle. This can significantly help to improve the system's fuel consumption and increase efficiency. The performance analysis of the car is based on the engine type, no of engine cylinders, fuel type, horsepower, etc. These are the factors on which the health of the car can be predicted. It is an ongoing process of obtaining, researching, analyzing, and recording health based on the above three factors. The performance objectives like mileage, dependability, flexibility and cost can be grouped together to play a vital role in the prediction engine and engine management system. This approach is a very important step towards understanding the vehicle's performance?



### Key rules of brainstorming

To run a smooth and productive session



Stay in topic.



Encourage wild ideas.



Defer judgment.



Listen to others.



Go for volume.



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 (opens to sketch) icon to start drawing!

Preethi R

Engine Power can be made lower

Speed can be increased

Displacement can be made lower

Wheel base height can be increased

Horse power can be made lower

Turning radius can be made high

Renuka G

Engine Power can be made higher

Engine Torque can be made higher

MSE should be made small

Acceleration can be made minimized

R - Squared should be high

Braking distance should be high

Sivagama Sundari V

Engine torque can be made low

Acceleration can be made high

Fuel consumption can be minimized

Horse Power can be maximized

Departure angle should be made high

Turning radius should be made high

Swati S

Displacement can be made higher

Speed can be decreased

Recent Model year should be new

Fuel consumption can be maximized

Wheel base height can be decreased

Braking distance should be low

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

Renuka G

TIP  
Add customizable tags to sticky notes to make it easier to find, browse, organize, and categorize important ideas as they're within your mind.

## Step-3: Idea Prioritization



### 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

