

Ideation Phase

Date	9 OCTOBER 2022
Team ID	PNT2022TMID42181
Project Name	GAS LEAKAGE MONITORING AND ALERTING SYSTEM FOR INDUSTRIES
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

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](#) →

1


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


This project helps the industries in monitoring the emission of harmful gases. In several areas, the gas sensors will be integrated to monitor the gas leakage. If in any area gas leakage is detected the admins will be notified along with the location. In the web application admins can view the sensor parameter.





Key rules of brainstorming


To run an smooth and productive session


 Stay in topic.

 Defer judgment.

 Go for volume.

 Encourage wild ideas.

 Listen to others.

 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 icon to switch to sketch (can't start drawing)

PARTHIBAN P

Application of controlling industrial pH using internet control strategy.	LPG gas detection using the GSM system.	Gas leakage monitoring and alerting system with MQ-2 sensor.
Low cost gas leakage and surveillance system which is implemented using Raspberry Pi3 and sensors.	Gas leakage with auto ventilation and smart management system.	Gas leakage monitoring and alert via an arduino microcontroller.

NAGARAJAN S

GSM sends message to user mobile	MQ6 sensor is sensitive to LPG	Ensure safety and compliance at low cost
Even detects small amount of gas leakage.	Warning message displayed on LCD screen	LPG with ethene diol detects leakage easily

NAVEEN KUMAR J

Detects and turn off the gas supply	Detector uses infra-red is more sensitive	Prevents loss of lives due to early detection
Buzzer is used to give alert indication	MQ6 sensor has a quick response time which helps to detect leakage easier.	Potentiometer varies the threshold level of leakage condition

MANOJ PANDI P

Design of an automatic leak detection and extinguishing system called FEARLESS.	Reduce false alarm which dwindle unnecessary fear	Gas leakage can be regulated
Gas leakage detection using four modules	LPG detector which only sound out and alarm when there is leakage.	Gas leakage detection uses a gas sensor and GSM.

3

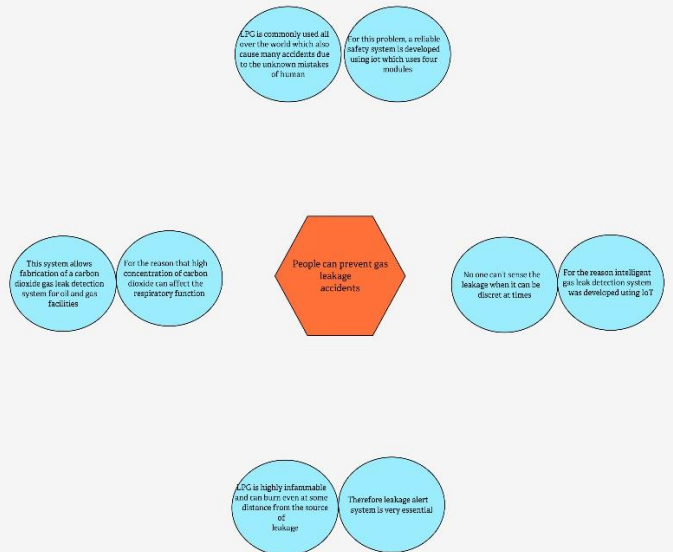
Group ideas

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 customizable tags to sticky notes to make it easier to filter, browse, organize, and categorize important ideas as they are within your mural.



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



After you collaborate

You can export the mural as an image or pdf to share with members of your company who might find it helpful.

Quick add-ons

- A Share the mural**
Share a view link to the mural with stakeholders to keep them in the loop about the outcomes of the session.
- B Export the mural**
Export a copy of the mural as a PNG or PDF to attach to emails, include in slides, or save in your drive.

Keep moving forward

- Strategy blueprint**
Define the components of a new idea or strategy.
[Open the template →](#)
- Customer experience journey map**
Understand customer needs, motivations, and obstacles for an experience.
[Open the template →](#)
- Strengths, weaknesses, opportunities & threats**
Identify strengths, weaknesses, opportunities, and threats (SWOT) to develop a plan.
[Open the template →](#)

[Share template feedback](#)

Full Image:

The image displays six hand-drawn project management templates, each with a title and a brief description of its purpose. The templates are arranged in a grid-like fashion, with some overlapping. The first template, 'Brainstorm & idea prioritization', includes a mind map for brainstorming and a bubble chart for prioritizing ideas. The second template, 'Define your problem statement', provides a structure for writing a problem statement. The third template, 'Group ideas', shows how to categorize ideas into groups. The fourth template, 'Priorities', uses a bubble chart to rank ideas based on effort and impact. The fifth template, 'Actionable ideas', lists specific actions to be taken. The sixth template, 'Action plan', outlines the steps to be followed to achieve the project goals.