


Ideation Phase

Brainstorm & Idea Prioritization

DATE	18 September 2022
TEAM ID	PNT2022TMID22571
PROJECT NAME	Real – Time River Water Quality Monitoring and Control System
MAXIMUM MARKS	4 MARKS




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

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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](#) →




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


check the quality of water and prevention of water pollution and detection of flood





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

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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!

Nandhini Devi

Ensuring the safety of water	Prevent further spread of pollution	Flood detection
Use pH meter for sensing pH value	To determine the acidity & alkalinity	using machine learning algorithm
use temperature sensor	determine the temperature of wastewater and	ML algorithms recommend the values collected by sensors

Parvathi

Monitoring water levels for rainwater harvesting	Direction of river flow	Turbidity sensor used
drift particles can be monitored	water monitoring of lake, reservoir and	sensor values compared with threshold values
Industrial waste water treatment units are monitored	Detection of contaminated water	Arduino board will access sensor values

Pavithraa

Detection of pollution	Detect minerals	TDS meter to test its hardness
Permanent hardness (presence of chlorides, sulphates etc)	Temporary hardness (presence of carbonates & bicarbonates)	Acidity water analysis tool to measure water quality
Ultrasound sensor to measure depth of water	TDS meter also measures the number of dissolved solids	Sensor values are analyzed, examined

Keerthika

use cloud to store data	Use Electrical conductivity meter	Check the electric conductivity of water
used for the purity of water	It also includes temperature, density	to monitor level of salts, impurities in water
Flow sensor to measure the flow of water	Sensor values are updated in cloud	Send email through server the sensor value stored in cloud

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 find, browse, organize, and categorize important ideas as themes within your mural.

In order to ensure safe supply of water the water needs to be monitored in real time

The parameters such as temperature, pH, turbidity are measured in order to detect the water quality

Real time river water quality monitoring will help people to become conscious about contaminated water as well as to stop polluting water

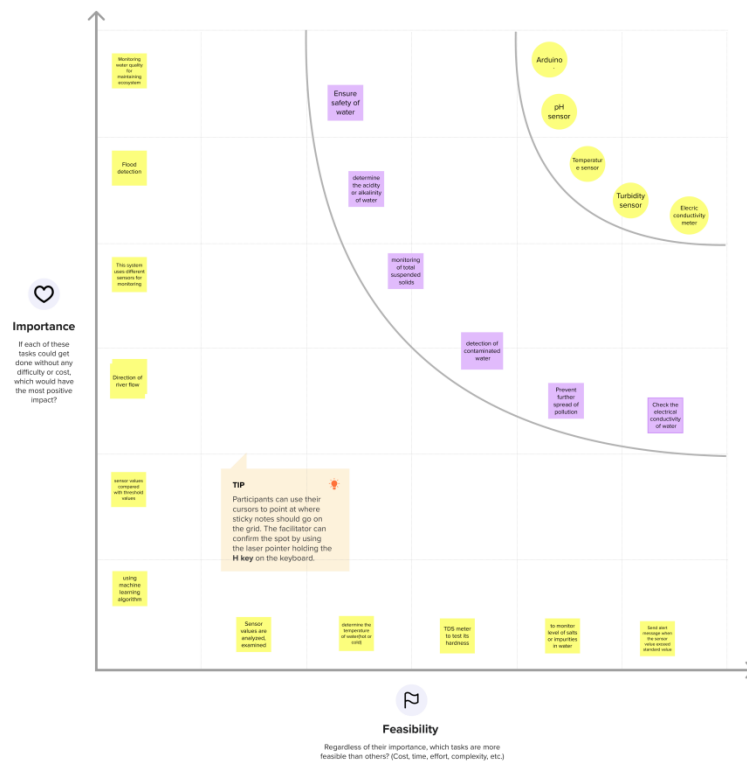
Step-3: Idea Prioritization

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 →](#)

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