

Ideation Phase

Brainstorm & Idea Prioritization Template

Date	19 September 2022
Team ID	PNT2022TMID33019
Project Name	River Water Quality Monitoring and Control System
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



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

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

How might we make better experience for the user so that the water can be free from harmful elements, disease causing micro-organisms?

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 [switch to sketch] icon to start drawing!

Chim

amount of dissolved salt in a water body	Salinity	tend to know if there is any reduction in growth of organisms
Negative if excess algal growth	Dissolved oxygen	total pure water
know about failure of eggs /larvae to survive	distilled water	Nitrogen

Kookie

Conductivity	typical deionized water	parameter of water disinfection
Monitoring via web application	Turbidity	provide healthy origins for various water quality measurables
brackish water	Alerting authority	due to suspended particles

Dore

Check out the PH value	Check the chemical compositions	finding out the harmful chemicals
Check for the disease causing microorganisms	Quality measure	check for any other impurities like plastics
Determine the water clarity	Monitor the colour of the waterbodies	Measure the temperature

Chan

Water should contain calcium	excessive amount of nitrate in drinking water can cause health problems	Carboxylation process results from accumulation of nitrates in lakes or other bodies of water
PHOSPHATES (containing PO4-) are the most common form of phosphorus in natural waters	Essential nutrients	It should contain potassium
It should have sufficient amount of magnesium	sufficient amount of sodium	Too much nitrogen and phosphorus in water can lead to an overgrowth of free-floating plants

Lisa

Presence of plastics	Presence of forever chemicals	PFAS (per- and polyfluoroalkyl substances)
To check the presence of heavy metals in the water	Monitoring the River Water Quality	Presence of Water hyacinth
Zinc, Cobalt, Copper, Manganese, Chromium, Nickel, Lead	The high temperature water used is bacteriostatic and not bacteriocidal, in 10% methanol solution, within 48-60°	presence of pesticides and herbicides

Jennie

Presence of algae bloom	To know if industrial waste are illegally dumped in the water	To know if sewage water is illegally dumped
checking the fertilizer,	cyanobacterial toxins	To check the toxins
Nitrates, phosphates and other organic matter	Sediment yield is the total quantity of particulate matter	pathogens like E.coli can survive for up to 11 months in water temperatures below 50° F (10° C)

San

economically affordable	Opt for water that's far from agricultural fields or pastures	Water quality gets improved
Coldwater is preferred to warm water	less complexity	Stay away from sources with clear sources of contamination (e.g. animal carcasses, sewage)
low power consumption	Choose clear, silt-free water whenever possible	water pollution is reduced

Jisoo

Fast-moving water is better than stagnant water	share the data and warnings using different options such as SMS, WhatsApp and E-mail	consider other filtering water, boiling & treating it with chemical purification tablets, or using ultraviolet lights
compared with previous quality measured	Quality of water impacts the quality of life	location information on Google map for quick judgment
provides facility to analyze water quality data	boiling, filtration, chemicals, and ultraviolet light	water-borne diseases like cryptosporidium, giardia, campylobacter, salmonella, hepatitis A, E.coli, and cryptosporidium

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

check for
any other
impurities
like plastics

TIP

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

Turbidity

Measure the
temperature

amount of
dissolved
salt in a
water body

To check the
toxins

Water
quality gets
improved

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

