


Ideation Phase

Brainstorm & Idea Prioritization Template

Date	19 September 2022
Team ID	PNT2022TMID46026
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




Real-Time River Water Quality Monitoring and Control System

water quality monitoring system is a manual system with a monotonous process and is very time-consuming. This proposes a sensor-based water quality monitoring system. The main components of Wireless Sensor Network (WSN) include a microcontroller for processing the system, communication system for later and intra-network communication and several sensors. Real-time data access can be done by using remote monitoring and Internet of Things (IoT) technology. Data collected at the apart site can be displayed in a visual format on a server PC. Deep learning neural network models, Relief Rule Based (RRB) system and is also equipped with standard culture. If the acquired value is above the threshold value automated warning SMS alert will be sent to the agent. The uniqueness of our proposed is to obtain the water monitoring system with high frequency, high mobility, and low powered. Therefore, our proposed system will immensely help Bangladesh population to become conscious against contaminated water as well as to stop polluting the water.

🕒 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](#) →



Need some inspiration?

See a finished version of this template to kickstart your work.

[Open example](#) →

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

**Due to climate changes
the devices like sensors
may not be work
properly**



Key rules of brainstorming

To run an 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!

TESTING THE QUALITY OF WATER FROM REMOTE LOCATION	SUPPLEMENT KINDS OF SENSORS ARE IMPLEMENTED	WATER QUALITY MONITORING COST IS EFFICIENT	WHEREAS COMMUNICATING PLAYS A VITAL ROLE	EACH AND EVERY MEASUREMENT SHOULD BE DONE TO REMOTE USER	SENSORS ARE ALWAYS BE WATER RESISTANT	THIS ALERT CAN BE MADE IN CASE OF HIGH VALUES	PARTICULAR LEVEL OF PH VALUE SHOULD BE MAINTAINED	ENSURE THE SAFETY OF WATER WHICH CAN BE CONSUMING	THE STATE OF WATER IS MONITORED THE MAIN MADE ACTIVITIES	MONITORING WATER QUALITY IS AT THE POINT WHERE THE WATER IS GOING TO CONSUME OR NOT	LOW POWER AND HIGH PERFORMANCE SHOULD BE NEEDED
THE COLLECTED DATA ARE ANALYZED AND RESULTS ARE UPDATES		IT ALSO CONSUME THE LOW POWER	SENSORS SHOULD BE WATER RESISTANT		DEVELOPED USER INTERFACE	ALARM CAN BE TRIGGERED WHEN THE VALUE GOES BEYOND THE LIMITS		QUALITY OF WATER SHOULD BE MAINTAINED THE PARTICULAR LEVEL OF PH AND SALINITY	REGULAR UPDATES ARE SEND TO THE REMOTE USER		CONSUME THE LESS AMOUNT OF ENERGY TO PROTECT THE MEASUREMENTS
USE TUPPER FOR POWER ELIMINATION	TRANSLATE ANALOG SIGNALS INTO DIGITAL SIGNALS	USE SOLAR PANELS TO ENERGISE THE DEVICE IN DAY TIME	ADVANCED SENSORS ARE IMPLEMENTED	ADVANCED SENSORS ARE USED TO MEASURE THE ACCURATE VALUES	REAL AND EXACT MEASUREMENTS SHOULD BE MAINTAINED REMOTE USER	KEEP THE IOT DEVICE IN SECURED PLACE	WARNING SHOULD BE SENT TO THE REMOTE MONITORING DEVICES	THEY ARE PREDICTIVE THE SITUATION	REAL TIME DATABASE USED LIKE CLOUD SERVER	MULTIPLE REMOTE USER INTERFACE ARE ABLE TO ACCESS	ANALYZE THE PREVIOUS MEASUREMENTS WILL PROVIDE THE DIAGNOSTIC
MISSING LOGGING, ALARMING AND REPORTING ARE USED TO AVOID THE OVER CONSUMPTION OF WATER LEVEL	REMOTE CONTROL THE WATER QUALITY TESTING IS TIME EFFICIENT	QUALITY OF WATER WILL HELP US TO BUILD STRONG ECOSYSTEM	MAINTAIN THE COMMUNICATION BETWEEN USER AND REMOTE	CREATE A LINK BETWEEN USER AND DEVICE	REAL TIME DATABASE MAINTAINED						
WAY OF THE QUALITY OF WATER MEASUREMENTS IN DIGITAL FORMAT		POLLUTION OF WATER CAN BE ANALYZED BY THE STRONGEST OF MECHANISM	CLOUD DATA CAN BE RETRIEVED AND RESTRICTIONS CAN BE DONE		ALWAYS STORE THE DATA IN SECURED WAY						
IT WILL HELP TO PREDICT THE LEVEL OF WATER BEFORE CONSUMING	MAKE PROPER SERVICE AND MAINTAINED	MAKE THE SERVER IS MORE SECURE	USE GSM MODULE WHEN LOW INTERNET CONNECTION	ALWAYS PROVIDE SOME SPARE OF INTERNET TO COMMUNICATE THE SERVICE	WE CAN USE THE SENSORS AND DEVICES SEPARATELY						



STEP 3 GROUP IDEAS

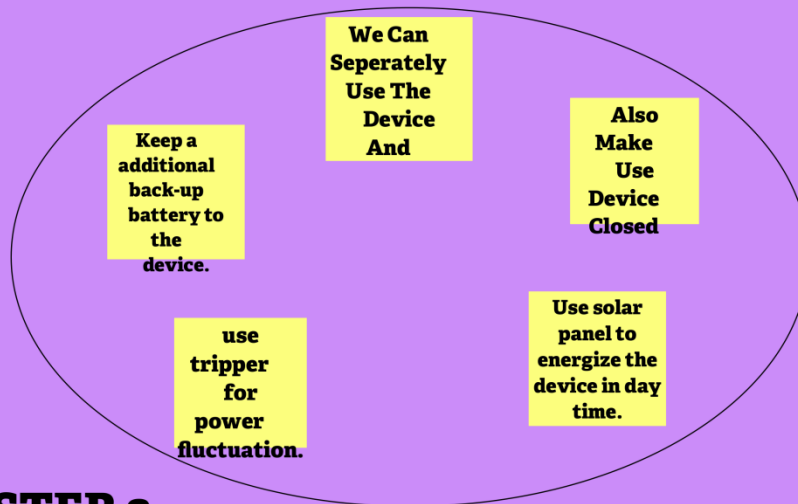
3

Group ideas

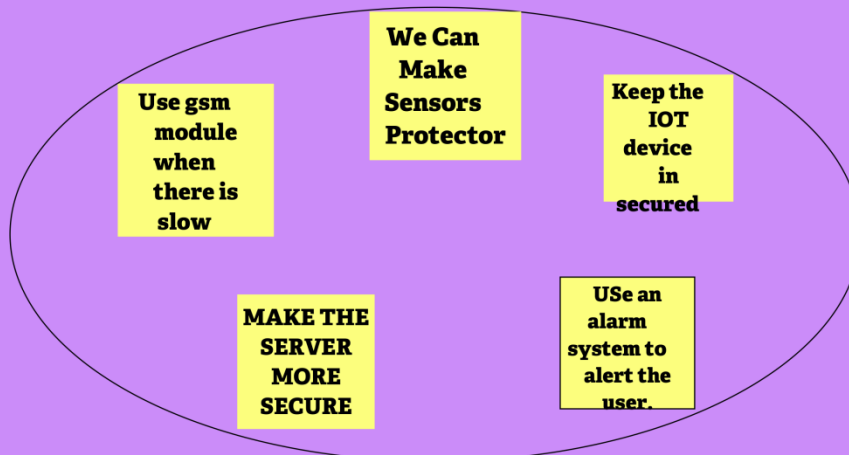
Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.

🕒 20 minutes

CLUSTER 1



CLUSTER 2



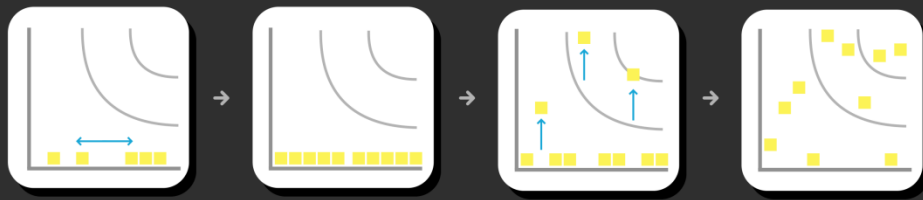
STEP 4:PRIORITIZE

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 CLOBERATE



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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