

Ideation Phase

Brainstorm & Idea Prioritization Template

Date	19 September 2022
Team ID	PNT2022TMID51944
Project Name	VirtualEye - Life Guard for Swimming Pools to Detect Active Drowning
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

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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](#) →

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

Swimming pools are generally places of fun and healthy exercise, but they can be deadly as well. Even with a lifeguard observer on duty, swimmers may still have trouble in underwater or in parts of the pool beyond the lifeguard's field of view.

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!

Joel Paul

Detect victims using portable devices

Vision - based surveillance system to monitor swimmers

A sensor based low cost drowning detection system for human life safety

Using YOLO object detection it can detect whether a person is drowning or it's a normal person.

Location tracking for identifying drowning people

Automatic alarm to notify lifeguard

Drowning detection enabled goggles and an alarm receiver.

SMS alert is communicated to the rescue personnel's phone and family members indicating that there is an emergency.

Gokul Krishna H S

Real-Time image Processing to track swimmers in swimming pools.

Hardware devices like raspberry pi to compute swimmers position

Rescue peoples using Drone.

Infra-red technology can be used to monitor drowning people.

By using Underwater cameras can watch the movements of victims

Check the medical condition before swimming

Bluetooth based headband or wristband can be used to transmit an SOS message.

Light dependent resistor based Automated Drowning Detection System

Abhaya Dev S K

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Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. In the last 10 minutes, 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.

Using Cloud Technology

Detect victims using portable devices

SMS alert is communicated to the rescue personnel's phone and family members indicating that there is an emergency.

Bluetooth based headband or wristband can be used to transmit an SOS message.

Automatic alarm to notify lifeguard

Check the medical condition before swimming

Using Python/Deep Learning

Location tracking for identifying drowning people

Infra-red technology can be used to monitor drowning people.

Drowning detection enabled goggles and an alarm receiver.

A sensor based low cost drowning detection system for human life safety

By using Underwater cameras can watch the movements of victims

Rescue peoples using Drone.

Light Dependent Resistor Based Automated Drowning Detection System

Hardware devices like raspberry pi to compute swimmers position

Using YOLO

Vision - based surveillance system to monitor swimmers

Using YOLO object detection it can detect whether a person is drowning or it's a normal person.

Real-Time image Processing to track swimmers in swimming pools.

Step-3: Idea Prioritization

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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

