


Ideation Phase

Brainstorm & Idea Prioritization Template

Date	19 September 2022
Team ID	PNT2022TMID33070
Project Name	Smart Waste Management for Metropolitan Cities
Maximum Marks	4 Marks


Step-1: Team Gathering, Collaboration and Select the Problem Statement


Template





Conducting a brainstorm


Executing a brainstorm isn't unique; holding a productive brainstorm is. Great brainstorms are ones that set the stage for fresh and generative thinking through simple guidelines and an open and collaborative environment. Use this when you're just kicking-off a new project and want to hit the ground running with big ideas that will move your team forward.

 15 minutes to prepare

 30-60 minutes to collaborate


 3-8 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.

 15 minutes

A

Choose your best "How Might We" Questions

Create 5 HMW statements before the activity to propose them to the team.

B

Set the stage for creativity and inclusivity

Go over the brainstorming rules and keep them in front of your team while brainstorming to encourage collaboration, optimism, and creativity.

1. **Encourage wild ideas** (If none of the ideas sound a bit ridiculous, then you are filtering yourself too much.)
2. **Defer judgement** (This can be as direct as harsh words or as subtle as a condescending tone or talking over one another.)
3. **Build on the ideas of others** ("I want to build on that idea" or the use of "yes, and...")
4. **Stay focused on the topic at hand**
5. **Have one conversation at a time**
6. **Be visual** (Draw and/or upload to show ideas, whenever possible.)
7. **Go for quantity**

C

Interested in learning more?


Check out the Meta Think Kit website for additional tools and resources to help your team collaborate, innovate and move ideas forward with confidence.

[Open the website →](#)

1

Choose your best "How Might We" Questions

Share the top 5 brainstorm questions that you created and let the group determine where to begin by selecting one question to move forward with based on what seems to be the most promising for idea generation in the areas you are trying to impact.

 10 minutes

Problem Statement

Depending on the fill level, the system sends appropriate notification message to alert relevant authorities and concerned citizen(s) for necessary action.

Problem Statement

Design a smart waste collection system that allows citizens to segregate the various types of solid waste they want to dispose and the municipal authorities to efficiently collect the same. The system should be mobile app (Android) based.

Problem Statement

Indiscriminate disposal of solid waste is a major issue in urban centers of most developing countries and it poses a serious threat to healthy living of the citizens. Access to reliable data on the rate of solid waste at different locations within the city will help both the local authorities and the citizens to effectively manage the resource.

Problem Statement

Nowadays, the Garbage Collecting Vehicle (GCV) collects the waste twice or thrice in a week. So, the problem is over flowing of wastages on the roads. Hence, to overcome this limitation, in this paper a scheme on smart waste management.

Step-2: Brainstorm, Idea Listing and Grouping

2

Brainstorm solo

Have each participant begin in the "solo brainstorm space" by silently brainstorming ideas and placing them into the template. This "silent-storming" avoids group-think and creates an inclusive environment for introverts and extroverts alike. Set a time limit. Encourage people to go for quantity.

🕒 10 minutes

Karthika R

No external storage	Easy to design	Indicate a authorize person to collect waste
share the location to garbage collector	cost effective	High efficiency

Divya Bharathi P S

Time consumption	Low power consumption	low cost
High accuracy	light weight and reliable	No need external storage

Zennera Fathima

cost effective	Easy to design	based on web app
waste is cleared	Efficient system	Time consumption

Nivethitha

Use wireless sensor	Obtain quantitative information	Light weight and reliable
High accuracy	Monitoring is easy	To check garbage level using sensor

3

Brainstorm as a group

Have everyone move their ideas into the "group sharing space" within the template and have the team silently read through them. As a team, sort and group them by thematic topics or similarities. Discuss and answer any questions that arise. Encourage "Yes, and..." and build on the ideas of other people along the way.

🕒 15 minutes

TIP

You can use the **Voting session** tool above to focus on the strongest ideas.

Indicate a authorize person to collect waste

share the location to garbage collector

To check garbage level using sensor

Step-3: Idea Prioritization

4

Decide your focus

Give each person two icons to vote which idea should your team focus on.

🕒 5 minutes

karthika



DivyaBharathi



Zennera Fathima



Nivethitha



After you collaborate

A brainstorm like this typically results in a handful of promising ideas that you can carry forward and act upon.

Quick add-ons

A

Cluster related ideas

Look for patterns or similarities in the standout ideas. Could any be combined together to form a stronger concept? Cluster similar ideas and label each cluster with a theme.

B

Vote on the most promising ideas

Narrow your focus to only the strongest few ideas by holding a **Voting Session**. Give each person 2 votes

Keep moving forward



2x2 Prioritization matrix

Build shared understanding and make collective decisions for moving ideas forward.

[Open the template →](#)



Storyboarding

Show existing and/or future consumer experiences through the act of sketching.

[Open the template →](#)



Pre-mortem

Harness the collective experience and wisdom of the team, before the project even starts

[Open the template →](#)

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