


Ideation Phase

Brainstorm & Idea Prioritization Template

Date	29 April 2023
Team ID	NM2023TMID08877
Project Name	Smart City Waste Management System with Connected Trash Cans
Maximum Marks	

Brainstorm & Idea Prioritization:

Team Gathering, Collaboration and Select the Problem Statement



Brainstorm & idea prioritization

Brainstrom

- 🕒 10 minutes to prepare
- 🕒 1 hour to collaborate
- 👥 2-8 people recommended

PROBLEM

Residents are struggling to dispose of their waste properly due to frequently overflowing trash bins, leading to unhygienic surroundings and inconvenience.

Brainstorm

Person 1

The project aims to develop a smart waste management system that can help prevent overflowing trash cans and improve waste collection and disposal.

We could develop a feature that allows the web application to notify waste management teams when the smart trash cans are nearing full capacity, so they can schedule waste collection in advance.

Person 2

The smart trash cans are connected to the cloud, allowing real-time monitoring of the trash fill levels and sending alerts to users when the cans are full.

To ensure that users dispose of their waste in the right way, we could develop a system that provides audio or visual feedback when waste is disposed of improperly.

Person 3

The project includes the development of a web application that can be used to monitor the status of the smart trash cans and manage waste collection schedules.

We could integrate a camera system into the smart trash cans that could be used to monitor the waste disposal process and detect any abnormalities.

Person 4

The project involves community engagement, encouraging users to provide feedback on the system and the waste management process, and collaborating with stakeholders to develop effective solutions.

To promote greater community engagement, we could develop a feature that allows users to share their waste reduction and recycling efforts on social media platforms.

Person 5

The project incorporates technological innovations such as IoT sensors, cloud connectivity, and data visualization to create a smart waste management system that is efficient, sustainable, and effective.

We could develop an analytics dashboard that provides insights on waste generation patterns, enabling stakeholders to make data-driven decisions on waste management policies.

Group ideas

The project aims to develop a smart waste management system that utilizes connected trash cans and a web application for real-time monitoring and waste collection scheduling. It promotes sustainable practices through a gamification system and includes maintenance and security mechanisms. Additional features could include notifying waste management teams of nearing full capacity, providing feedback for proper waste disposal, integrating a camera system for monitoring, developing an analytics dashboard for data-driven decisions, and promoting community engagement through social media sharing.

The project could include the development of an intelligent routing system that optimizes waste collection routes based on real-time data from the smart trash cans. This could help reduce the time and resources required for waste collection while also minimizing the environmental impact of waste collection vehicles. The routing system could also incorporate machine learning algorithms that adapt to changing waste generation patterns and traffic conditions.

Idea Prioritization

Prioritize

