Ideation Phase
Empathize & Discover

Date	06 May 2023
Team ID	NM2023TMID15707
Project Name	Smart City waste Management System with connected trashcans
Maximum Marks	4 Marks

Empathy Map Canvas:

- **What does the user Think and Feel?**
  - ➤ There must be a better way to optimize waste collection routes.
  - ➤ It would be great to have real-time data on trash can fill levels.
  - ➤ How can we improve waste segregation practices?

- **What does the user See?**
  - ➤ Overflowing trash cans and littered streets.
  - ➤ Inefficient waste collection and disposal processes.
  - ➤ Environmental and health hazards caused by improper waste management.

- **What does the user Hear?**
  - ➤ Complaints from residents about irregular waste collection.
  - ➤ Calls for better waste segregation practices.
  - ➤ Suggestions for improving waste management through technology.

- **What does the user Say and Do?**
  - ➤ The current waste management system is inefficient and outdated.
  - ➤ I want a cleaner and more sustainable city.
  - ➤ Conducts waste collection and disposal operations.

- **What does the user Pain?**
  - ➤ Inefficient waste collection routes and schedules.
  - ➤ Lack of real-time data on trash can fill levels.

- **What does the user Pain?**
  - ➤ Optimized waste collection routes and schedules.
  - ➤ Real-time monitoring of trash can fill levels.

Example: Smart City waste Management System with connected trashcans

Says

What have we heard them say?
What can we imagine them saying?

The current waste management system is inefficient and outdated.

I want a cleaner and more sustainable city.

Conducts waste collection and disposal operations.

Thinks

What are their wants, needs, hopes, and dreams? What other thoughts might influence their behavior?

There must be a better way to optimize waste collection routes

How can we improve waste segregation practices?

It would be great to have real-time data on trash can fill levels.

Smart city Waste Management System (people)

Implements recycling initiatives and programs.

Enforces waste management regulations and policies

Collaborates with technology providers and environmental organizations.

I need to find a solution to encourage citizens to recycle more

Collaborates with technology providers and environmental organizations.

I want to engage residents and raise awareness about waste management

Does

What behavior have we observed?
What can we imagine them doing?

Feels

What are their fears, frustrations, and anxieties? What other feelings might influence their behavior?