# What do they Think and feel?

Empathy Map

# What do they Say and Do?

- Garbage level detection in bins.
- We can view the location of every bin in the web app.
- Garbage mangement.

#### • Create a cleaner, healthier smart cities.

- Setting the IOT device in the garbage can may lead to damage of the syetem.
- Optimize waste operation.
- Improve street sanition

## What do they Hear?

- Save the environment from the toxic effects.
- Improper management of garbage leads to diseases.
- Overflowing garbage can affects the cleanlines of the city.
- Spread diseases.

### Smart waste management

## What do the see?

- For utilities to reduce traffic and fuel use.
- Human
- Animals

### Pain:

- Overfilled trash bins create unhygienic, conditions.
- Non-optimized truck routes.
- Improper detection of waste reduces the efficiency of the system.

#### Gain:

- Increase profitability.
- Helps us to reduce the pollution.
- Reduced overflows.
- Time saving
- Become a smart city