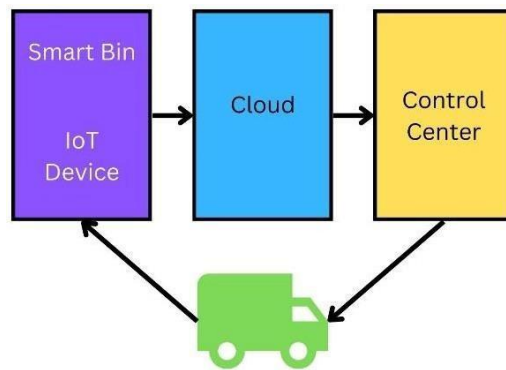


Project Design Phase-II

Data Flow Diagram

Date	19 September 2022
Team ID	PNT2022TMID26648
Project Name	Smart Waste Management System for Metropolitan Cities
Maximum Marks	4 Marks

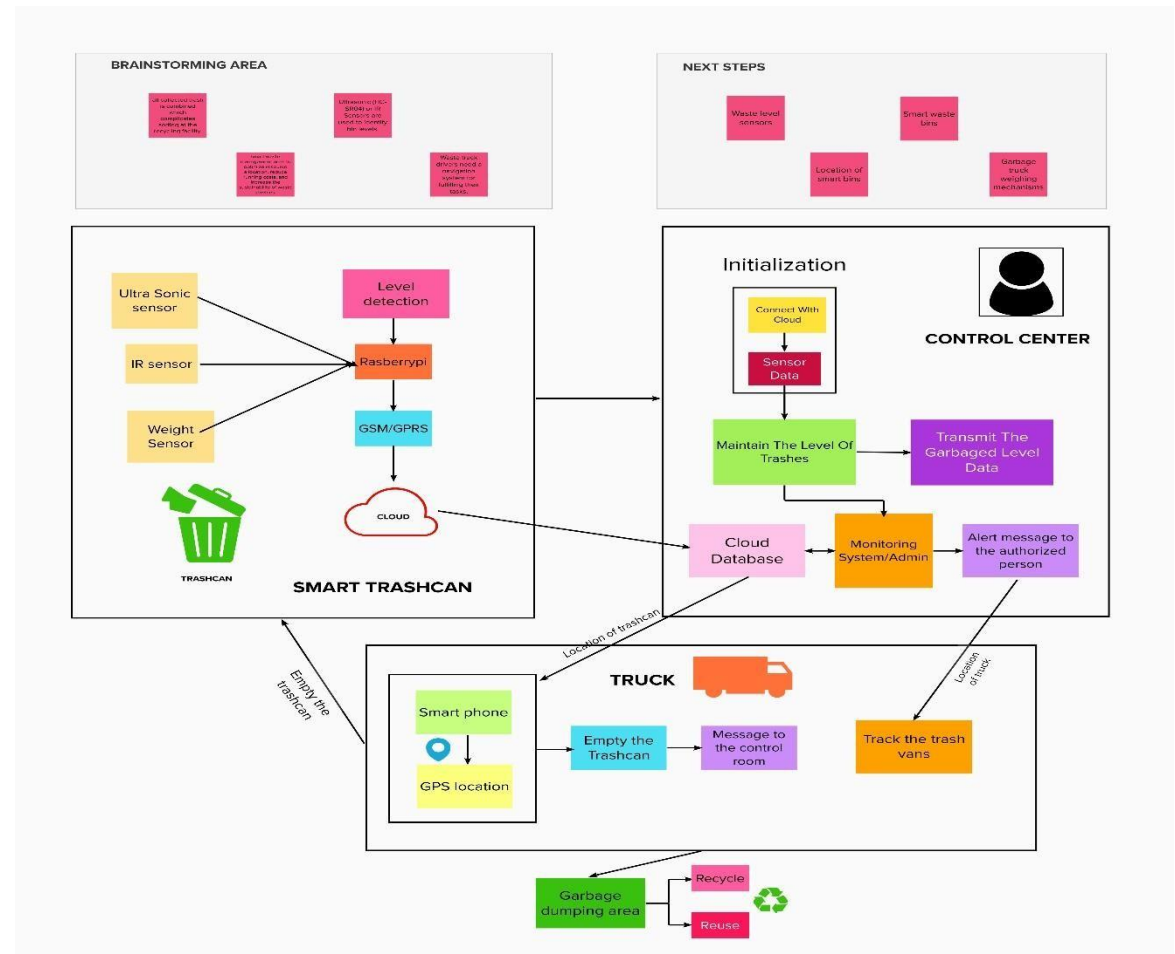
Data Flow Diagram:



Simplified Diagram

The IoT device is fitted in the trashcans.

- The sensors in the device sense the garbage level.
- The GSM/GPRS will send the information about the garbage level to the cloud.
- The admin in the control center notifies the authorized person to collect the garbage.



- The truck driver will be notified the route to the filled dumpsters.
- The trashes are loaded to the truck.
- The more number of bins needed in high populated area.
- The overflowing of trashcans can be avoided.
- No missed pickups of trashcans.
- New smart dustbins can be install by just connecting the IoT device to the cloud.

User Stories:

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Admin	Login	USN-1	As an admin, I can monitor every dustbin and its garbage levels.	I can monitor the system.	High	Sprint-4
		USN-2	As an admin, I will inform the authorized person to empty the trashcan.	I can inform authorized person.	Medium	Sprint-2
		USN-3	As an admin, I can notice the trash level of every dustbin.	I can notice the trash level.	Low	Sprint-2
Admin 2	Login	USN-4	As a Co-Admin, I can send alert message to the truck drivers.	I can alert truck driver.	High	Sprint-1
Trash Van Driver	Login	USN-5	As a trash van driver, I will follow the route to the dustbin.	I can reach the filled trashcans.	High	Sprint-2
Garbage Collector		USN-6	As a waste collector, I will collect all the trash from the dumpsters and load it to the truck.	I can empty the trashcans.	Medium	Sprint-2

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Municipal officer	Login	USN-7	As a municipality officer, I can supervise the process and ensure the cleanliness of city.	I can manage all these process going good.	High	Sprint-1
Trashcan Monitor	Register	USN-8	As a trashcan monitor, I can initialize new trashcans.	I can register new smart trashcans.	Medium	Sprint-3
		USN-9	As a trashcan monitor, I can check the quality of IoT device's quality.	I can check the IoT device.	Medium	Sprint-3