Project Design Phase-II
Data Flow Diagram & User Stories

Date	12 October 2022
Team ID	PNT2022TMID01046
Project Name	Project – Smart Waste Management
Maximum Marks	4 Marks

Data Flow Diagrams:

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.
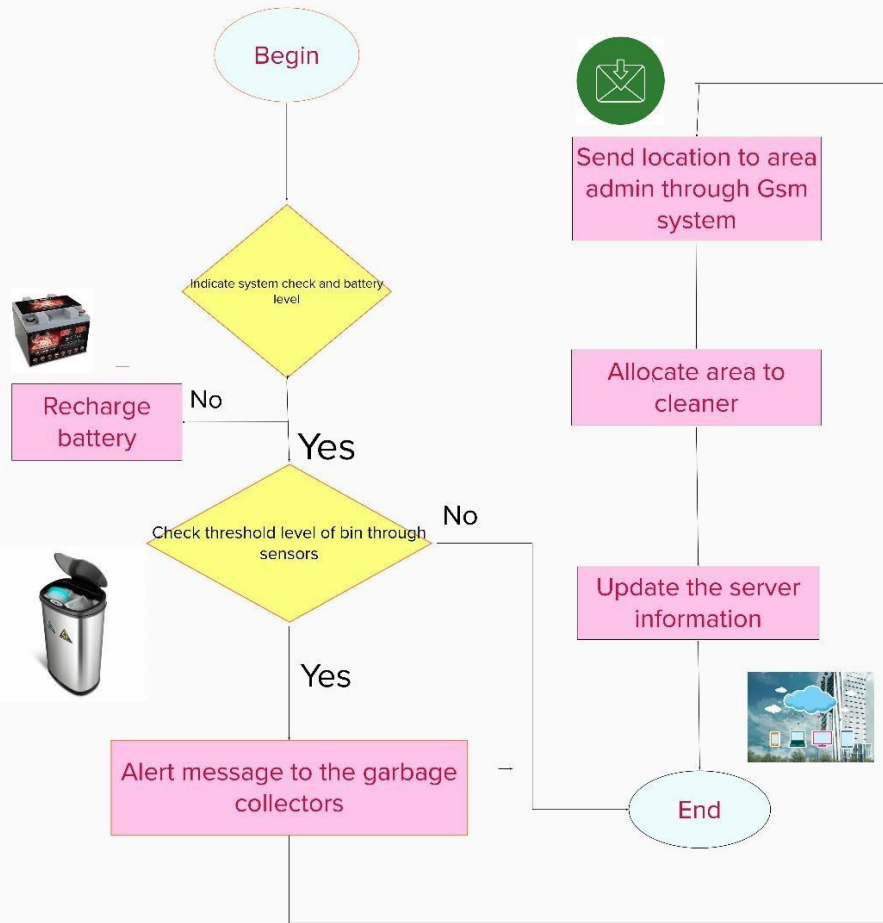
Flow Diagram:

Our waste generation is constantly growing to form a **global garbage crisis**. Even though we indulge in creating a more sustainable and greener, we still fail to handle our waste generation and management. Combining technology support with a vision of social, economic and environmental sustainability is the best way out of this problem. It is done in the following manner:

- The smart bin system undergoes a thorough system check and battery level monitoring in order to function efficiently.
- If the battery level is found to be low, it has to be recharged immediately, else it can proceed to the next step.
- The threshold level levels of the bin are indicated my multiple sensors attached to bin. If the garbage exceeds the level, then an alert message is sent to the garbage collectors as well as to the municipality or area administration.
- The area in which garbage is found to overflow is allocated to respective garbage collectors in the form of messages through GSM system.
- Once the waste bin is emptied, an information update is sent to the municipality and server is updated.

    This is how the waste from bins can be efficiently handled and managed using technology which in turn keeps the environment clean and healthy.

Keep the environment clean and healthy :)

Begin

Indicate system check and battery level

Send location to area admin through Gsm system

Recharge battery

No

Yes

Allocate area to cleaner

Check threshold level of bin through sensors

No

Update the server information

Yes

Alert message to the garbage collectors

End

User Stories

Use the below template to list all the user stories for the product.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Admin (Corporate Authority)	Login	USN-1	As an administrator, I assigned user names and passwords to each employee and managed them.	I can control my online account and dashboard.	Medium	Sprint-1
Co-Admin	Login	USN-2	As a Co-Admin, I'll control the waste level monitor. If a garbage filling alert occurs, I will notify the trash truck of the location and rubbish ID.	I can handle the waste collection.	High	Sprint-1
Truck Driver	Login	USN-3	As a Truck Driver, I'll follow Co Admin's instruction to reach the filled garbage.	I can take the shortest path to reach the waste filled route specified.	Medium	Sprint-2
Local Garbage Collector	Login	USN-4	As a Local Garbage Collector, I'll gather all the waste from the garbage, load it onto a garbage truck, and deliver it to Landfills	I can collect the trach, pull it to the truck, and send it out.	Medium	Sprint-3
Municipality officer	Login	USN-5	As a Municipality officer, I'll make sure everything is proceeding as planned and without any problems.	All of these processes are under my control.	High	Sprint-4