

TASK-9

SMART WASTE MANAGEMENT SYSTEM:

LIST OF COMPONENTS:

1. **ESP32/ESP8266:** As the microcontroller with Wi-Fi capability for processing and wireless communication.
2. **GPS Module:** To track the location of the truck.
3. **GPRS/GSM Module:** For sending data to the central database over cellular networks.
4. **RFID Reader:** Installed on the truck to read RFID tags on the dustbins.
5. **RFID Tags:** Attached to each dustbin for identification.
6. **Sensors:** Such as ultrasonic sensors to measure the fill level of the dustbins.
7. **Database:** A server or cloud service to store and manage the data collected.
8. **Power Supply:** Batteries or solar panels for powering the microcontroller and sensors.
9. **Display/Indicator:** To show status or alerts on the truck.
10. **Communication Interface:** The ESP32/ESP8266 can handle local data transfer via Wi-Fi.

Flowchart:



