PROJECT TITLE:

Smart waste management system

**Date of Submission: 16/09/2022**

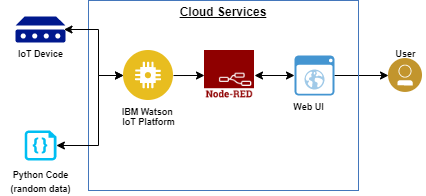
# Team Members:

* Jothi Ramalingam A(1904018)
* Dharineesh S S(1904008)
* Mohanram E(1904026)
* Nagulan A(1904027)

# Problem Statement:

* + Smart waste management system would include; a sensor attached to the trash bin that measures fill level; and a communication system that transfers this data to Cloud.
  + By exploiting this data, trash collection can be planned as well as truck routes can be optimized.

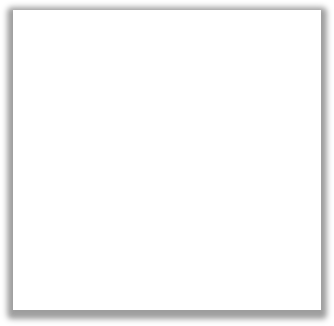
# Technical Architecture:

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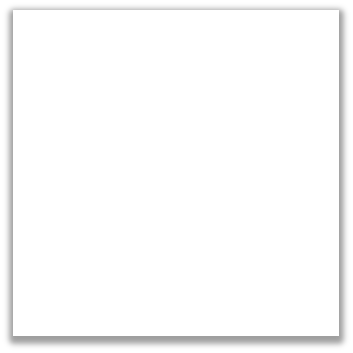
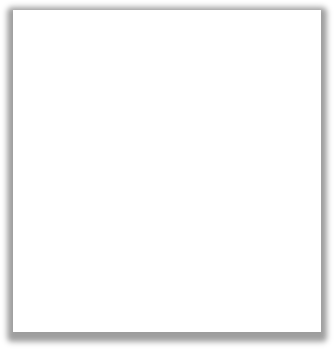
**BRAINSTORMING IDEAS:**

Jothi Ramalingam A Dharineesh S S

The proposed system would be able to automate the solid waste monitoring process and management of the overall collection process using IOT (Internet of Things).



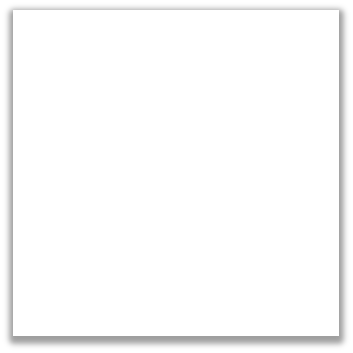
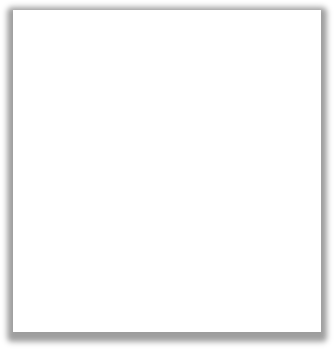
Placing Ultrasonic sensor to detect level of bins



Waste generation analysis to understand cities usages

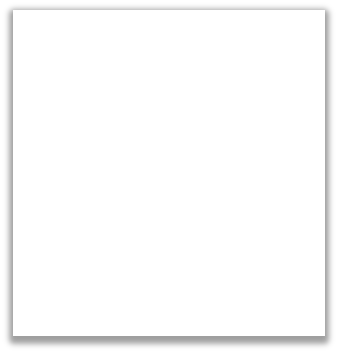
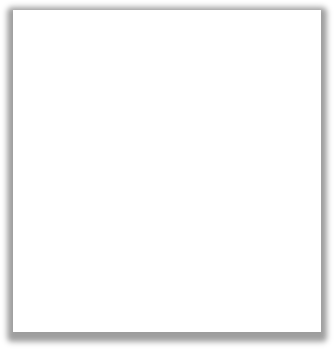
Enable GPS function to locate bins easier

Mohanram ENagulan A



Place Arduino board at left side of bins

Load cell on bottom of bins



solar panels for power supply for IOT devices

Visual fill status indicators on top of bins

|  |  |  |
| --- | --- | --- |
| **IDEA 1** | **IDEA 2** | **IDEA 3** |
| The proposed system would be able to automate the solid waste monitoring process and management of the overall collection process using IOT. | Waste generation analysis to understand cities usages. Enable GPS function to locate bins easier. Load cells should be placed on the bins. | Visual fill status indicators can be placed on the top of bins. Solar panels can be placed on the top of the bins for providing power supply for IOT devices. |