

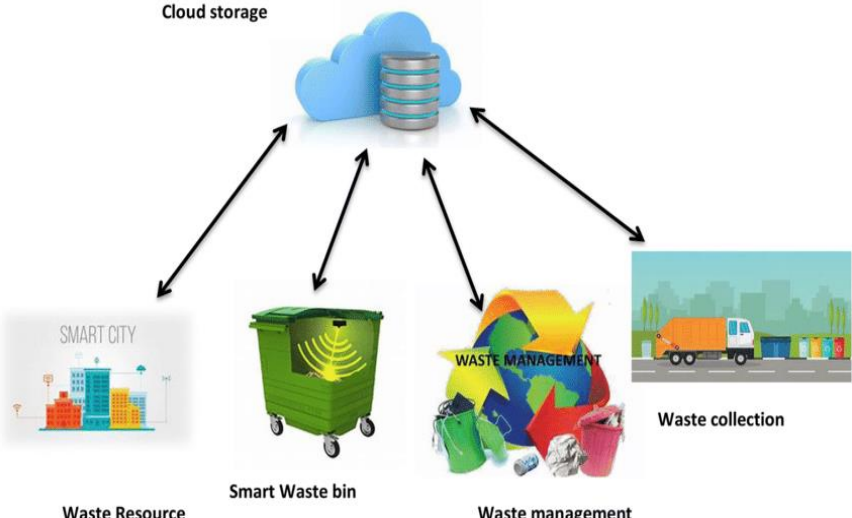
Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID11434
Project Name	Project – Smart waste management system for metropolitan cities
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	<p>Indiscriminate disposal of solid waste is a major issue in urban centers of most developing countries and it poses a serious threat to healthy living of the citizens.</p> <p>Access to reliable data on the state of solid waste at different locations within the city will help both the local authorities and the citizens to effectively manage the menace.</p>
2.	Idea / Solution description	<p>The GPS coordinates of the garbage bin will be sent to the IoT platform.</p> <p>The location of the bins along with bin status can be viewed in the Web Application.</p> <p>Notifies the admin if the bin value crosses the threshold value</p>
3.	Novelty / Uniqueness	<p>Garbage level of the bins can be monitored through a web App.</p> <p>We can view the location of every bin in the web application by sending GPS location from the device.</p> <p>Alerts the authorized person to empty the bin whenever the bins are full.</p>
4.	Social Impact / Customer Satisfaction	<p>At present, we are here to display the live working of the model and give an idea about the actual implications.</p> <p>For any society to flourish, it is manifestly important that they remain fair and orderly.</p> <p>Deciding how best to ensure this, in light of the huge growth in both the uptake and complexity of technology that has occurred in the last decade, and which can be expected to continue in the next, this here is one of the products that can be used to contribute to the better management of waste and increase the efficiency of resources.</p>

5.	Business Model (Revenue Model)	 <p>The diagram illustrates the architecture of an IoT-based waste management system. At the top, 'Cloud storage' is represented by a blue cloud and a database cylinder. Below it, four components are shown: 'Waste Resource' (a smart city icon), 'Smart Waste bin' (a green bin with a yellow sensor icon), 'Waste management' (a recycling symbol with the text 'WASTE MANAGEMENT'), and 'Waste collection' (a truck icon). Double-headed arrows connect the cloud storage to each of the four components below it, indicating bidirectional communication.</p>
6.	Scalability of the Solution	<p>This project-based on IoT gives users the freedom of changing hardware as well as software specifications as per the arising need.</p> <p>IoT based projects are already designed while keeping future demands in mind and in a rising economy like India where the concept of smart cities is new the demand for our project will keep on increasing.</p> <p>This project here is a model of the large scale application which spans pan India in different smart cities.</p> <p>The implementation of this project has been divided into various phases. Starting from the metropolitan cities and moving towards the concept of smart cities</p>