PROJECT DESIGN PHASE-II

Technology Stack (Architecture & Stack)

Date	**01 November 2022**
Team ID	**PNT2022TMID40462**
Project Name	**SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITAN CITIES - IOT**
Maximum Marks	**4 Marks**

Technical Architecture:

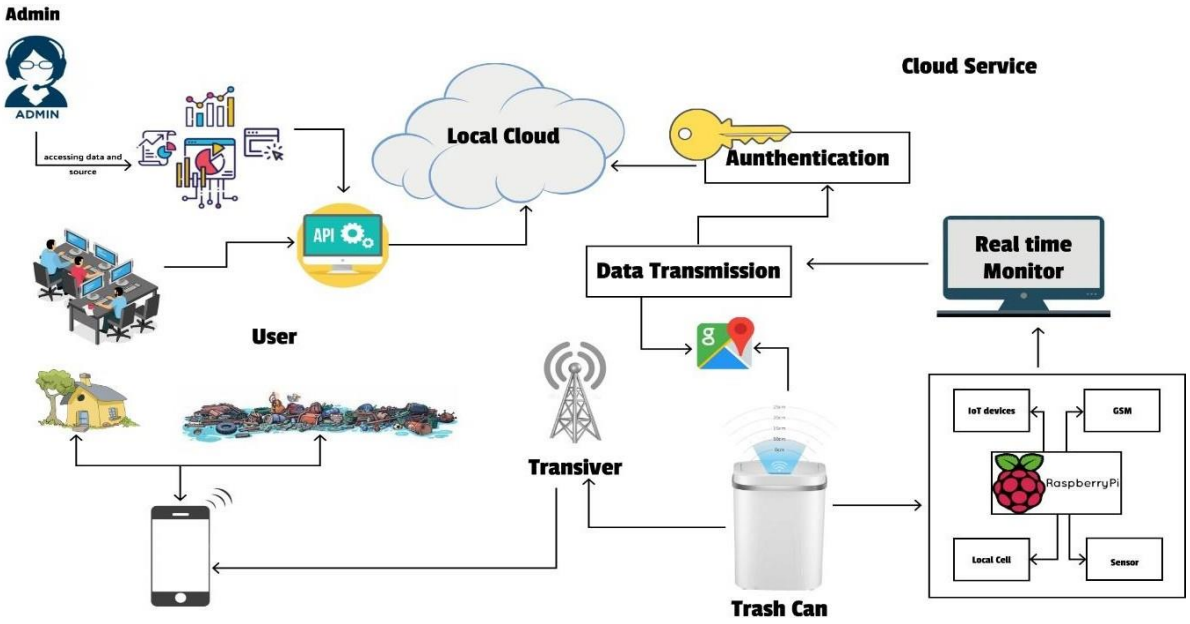

Table-1: Components & Technologies:

S.NO	COMPONENT	DESCRIPTION	TECHNOLOGY
1.	Raspberry pi controller	The Arduino Uno is an open-source microcontrollerboard based on the Microchip ATmega328P microcontroller.	Arduino programming itself is done in **python.**

2.	Application Logic-1	Logic for Ultrasonic sensor data.	Python
3.	GPRS	To track the location of the bin	Python
4.	IOT	To collect the data & alert the users	IBM Watson IoT Platform, Node Red
5.	Cloud Database	Stores the collected data in cloud	Cloudant DB

Table-2:

Application Characteristics:

S.NO	Component	Description	Technology
1.	Open-Source Microcontroller	Arduino Uno is used to make the IoT device	Python
2.	Security	Encryption/Decryption used for security purpose	GPRS, Python
3.	Scalable Architecture	New features can be added.	Node Red

4.	Availability	Web application can be accessed from anywhere	IBM Watson IoT Platform, Node red
5.	Performance	All truck drivers can access the application at sametime.	Cloudant DB, IBM Watson IoTPlatform