Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	17 October 2022
Team ID	PNT2022TMID11760
Project Name	Smart Waste Management for Metropolitan Cities
Maximum Marks	4 Marks

Technical Architecture:

USER IBM WATSON SERVICE ADMIN

CLOUD DB

GPS GSM Network

BROWSER UI Rasberry pi

Table-1 : Components & Technologies:

S.No	Component	Description	Technology

1.	User Interface	Web UI, Mobile App.	HTML, CSS, JavaScript
2.	Application Logic-1	Logic for a process in the application	Python
3.	Application Logic-2	Logic for a process in the application	IBM Watson STT service
4.	Application Logic-3	Logic for a process in the application	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	MySQL,
6.	Cloud Database	Database Service on Cloud, to store data	IBM DB2, IBM Cloudant
7.	File Storage	File storage requirements, To retrieve data	IBM Block Storage
8.	Machine Learning Model	To recognize the things	Object Recognition Model
9.	Infrastructure (Server / Cloud)	Local Server Configuration:MAMP Cloud Server Configuration : Cloud Config Server	Local, Cloud Foundry

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Provides permission to use the source code	IBM Cloud
2.	Security Implementations	Sends alert to the admin once the bin get filled	UI
3.	Scalable Architecture	Ensures that product are made to be recycled back	IBM Watson Platform
4.	Availability	Directs the truck drivers to pre-decide routes.	Real Time GPS, Cloud Server
5.	Performance	Measured data is send to the cloud, Trash is collected based on that.	IOT