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

Team ID	PNT2022TMID16132
Project Name	SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITAN CITIES - IOT
Maximum Marks	4 Marks

Technical Architecture:

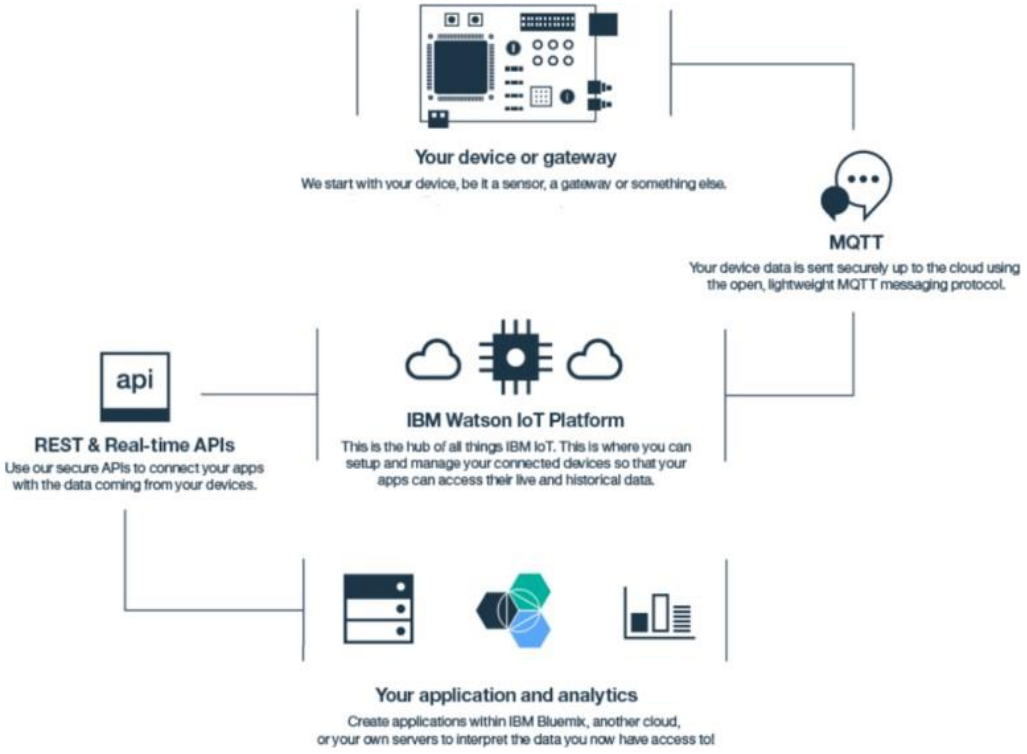

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g.WebUI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular JS /React JS etc.
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 service
4.	Application Logic-3	Logic for a process in the application	IBM Watson Cloud service
5.	Database	Data Type, Configurations etc.	MySQL,NoSQL
6.	Cloud Database	Database Service on Cloud	IBM Cloudant
7.	File Storage	File storage requirements	Stored Area Network (SANs)
8.	External API-1	Purpose of External API used in the application	Location Tracking
9.	External API-2	Purpose of External API used in the application	Waste Monitoring
10.	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model, etc.
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Monitor and clean
2.	Security Implementations	List all the security / access controls implemented,use of firewalls etc.	Encryptions
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	To help prevent clean environment
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Available any time
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Monitor & dispose the waste