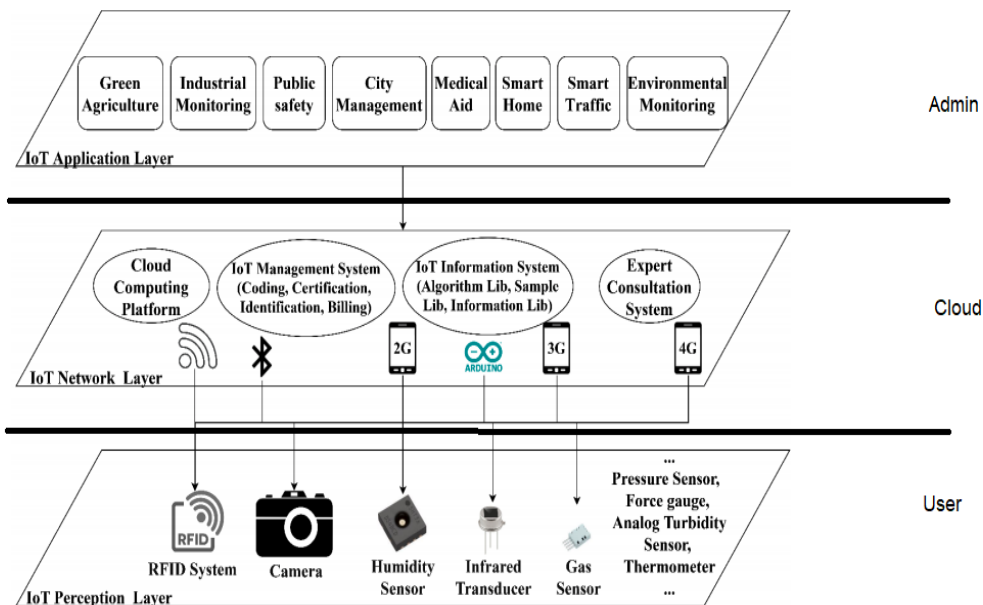


Project Design Phase-II Technology Stack (Architecture & Stack)

Date	15 October 2022
Team ID	PNT2022TMID50497
Project Name	Project - Hazardous Area Monitoring for Industrial plant power by lot
Maximum Marks	4 Marks

Technical Architecture:



Guideline:

IoT technologies for ambient air quality monitoring were reviewed.

IoT platform for ambient air quality management was established.

Case studies of pollution monitoring, trace, prevention and improvement were evaluated.

Strategies on smart air pollution control could be achieved by A-IoT technologies.

S.No	Component	Description	Technology
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1.	User Interface	RFID System, Camera, Humidity Sensor, Infrared Transducer, Gas Sensor	HTML, CSS, JavaScript / Angular Js / React Js, Pressure Sensor, Force gauge, Analog Turbidity Sensor, Thermometer
2.	Application Logic-1	Logic for a process in the application	Java / 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	MySQL, NoSQL
6.	Cloud Database	Cloud Computing platform	Wi-Fi monitoring system
7.	File Storage	File storage requirements	Storage or Other Storage Service or Local Filesystem
8.	External API-1	Purpose of External API used in the application	Open Weather API
9.	External API-2	Coding, Certification, Identification, Billing	The 2G process
10.	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model, etc.
11.	Infrastructure (Server / Cloud)	Local System / Cloud	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Technology of collection processing, analysis, and visualization of data
2.	Security Implementations	Firewalls, Google	Data leaks Malware risks Cyberattacks Secure networks Secure data
3.	Scalable Architecture	Scalability of architecture	Scalability will be key to handling the explosive growth in the Internet of Things (IoT). This means that IoT applications must have the ability to support an increasing number of connected devices, users, application features, and analytics capabilities,

S.No	Characteristics	Description	Technology
			without any degradation in the quality of service.
4.	Availability	The applications	Technology used
5.	Security framework	Number of requests per sec, use of Cache, use of CDN's	The Rambus IoT Security Framework is a series of embedded software toolkits that protect cost-sensitive devices which possess limited abilities to protect the internal SoC with a rich set of security protocols that include TLS and IPsec.