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

Team ID	PNT2022TMID31708
Project Name	GAS LEAKAGE MONITERING AND ALERTING SYSTEM
Maximum Marks	4 Marks

TECHNOLOGY ARICHITECTURE

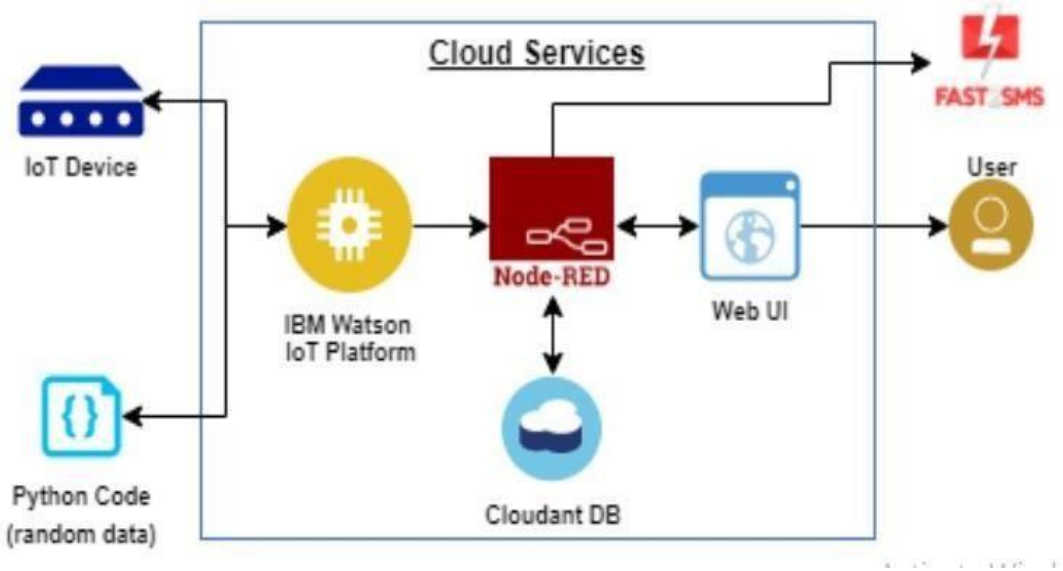

Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Mobile App	**IOT Platform**
2.	Application Logic-1	Mobile App to identify the Gas leak	**Python**
3.	Application Logic-2	Gets the location of the leakage data from database	**IBM Watson IoT API Call data**
4.	Application Logic-3	Converts the Data into a text Notification and alert	**IBM Watson Assistant**
5.	Database	Incident location and kind of leakage	**MySQL**
6.	Cloud Database	Call the data IBM Cloud is used and user login credentials	**IBM DB2, IBM Cloudant**
7.	File Storage	App code and IoT credentials are stored and API keys	**IBM Block Storage**
8.	External API-1	To get the status of location of gas leak	**IBM box status API**
9.	External API-2	To get the login credentials in IBM DB2	**Username and Password API**
10.	Machine Learning Model	To convert the Gas leak location and to alert for averting Incident	**Notification alert**
11.	**Infrastructure (Server / Cloud)**	**To host the server and application**	**Cloud Foundry, Node Red**

Table-2: Application Characteristics:

S.NO	CHARACTERISTICS	DESCRIPTION	TECHNOLOGY
1	Open-Source Frameworks	To develop the application interface, we use IOT Device	IOT Device
2	Security Implementations	To secure the users login credentials and personal information	IBM Watson IOT platform
3	Scalable Architecture	To scale the application database	IBM Auto scaling
4	Availability	To make use the application and data are available 24/7	IBM Cloud load balancer
5	Performance	To increase the performance the application in hosted in the high-performance instance	IBM instance