

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

Date	14 October 2022
Team ID	PNT2022TMID28556
Project Name	GAS LEAKAGE MONITORING AND ALERTING SYSTEM FOR INDUSTRIES
Maximum Marks	4 Marks

TECHNOLOGY ARCHITECTURE



INDUSTRIES

GAS LEAKAGE OCCURS



SMS ALERT
TO THE
MOBILE
APP

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User interacts with application e.g. Web UI, Mobile App, Chatbot etc.	MIT App Inventor
2.	Language	Logic for a process in the application	Python
3.	Application Logic	If it detects gas leakage it will alert the user	Gas Sensor Module
4.	Application Logic	Sends message alert to the user through mobile phone	GSM Module
5.	Database	Data Type, Configurations etc.	MySQL.
6.	Cloud Database	Database Service on Cloud	IBM Cloudant
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	GAS sensor	Detection of gas leakage	MQ5 GAS SENSOR MODULE
9.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Cloud Server Configuration : IBM	Cloud Foundry

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Technology of Opensource framework
2.	Scalable Architecture	GAS sensor can be increased further	GAS sensor module
3.	Availability	All Time Available	IBM Cloud
4.	Performance	It can detect the minute leakage of gases. It responses as soon as it detects the leakage of gas	Raspberry pi