Project Design Phase-II Technology Stack
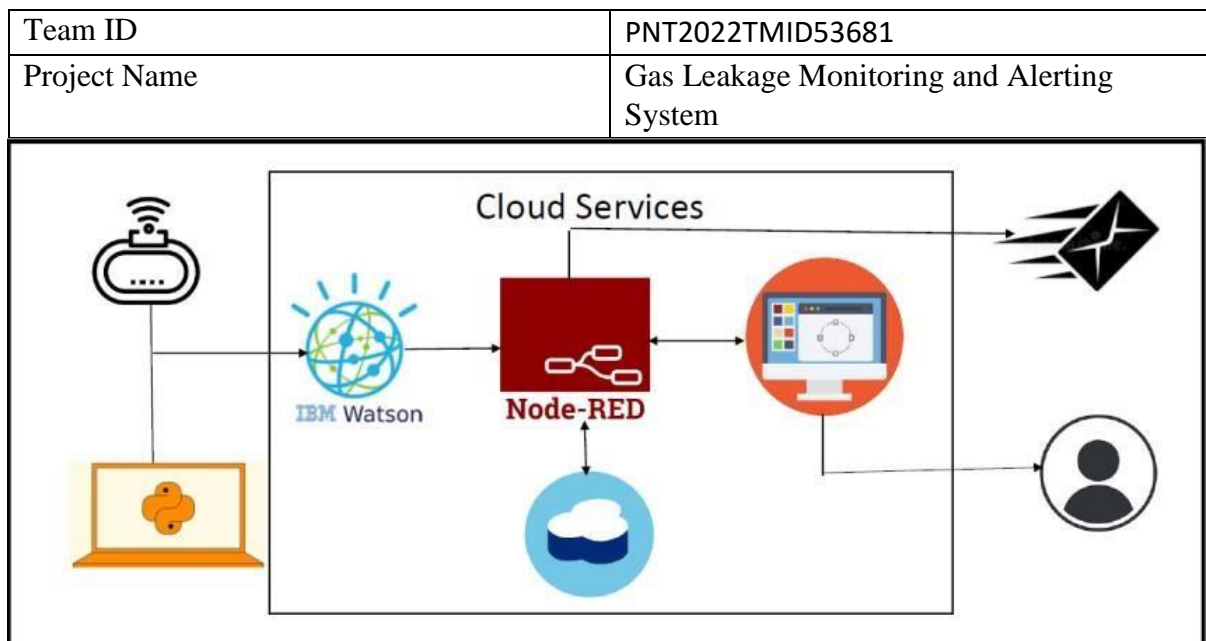
Team ID	PNT2022TMID53681
Project Name	Gas Leakage Monitoring and Alerting System

Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Web UI	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	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM Cloudant.
7.	File Storage	File storage requirements	IBM Block Storage
8.	External API-1	Purpose of External API used in the application	IBM Weather API
9.	External API-2	Purpose of External API used in the application	Aadhar API
10.	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration:	Cloud Foundry

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	The open-source frameworks used	Mozilla Firefox
2.	Security Implementations	The security / access controls implemented, use of firewalls etc.	IBM cloud Encryptions

3.	Scalable Architecture	The scalability of architecture (3 – tier, Micro- services)	IBM cloud architecture
4.	Availability	The availability of application (e.g., use of load balancers, distributed servers etc.)	Web application can even be used by the workers in the industry
5.	Performance	Consideration design for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Since the web application is high efficient, it can be used by the workers irrespective of time.