Project Design Phase-II Technology

Stack (Architecture & Stack)

Date	29 October 2022
Team ID	PNT2022TMID04616
Project Name	Gas leakage monitoring and alerting system for industries
Maximum Marks	4 Marks

Technical Architecture:

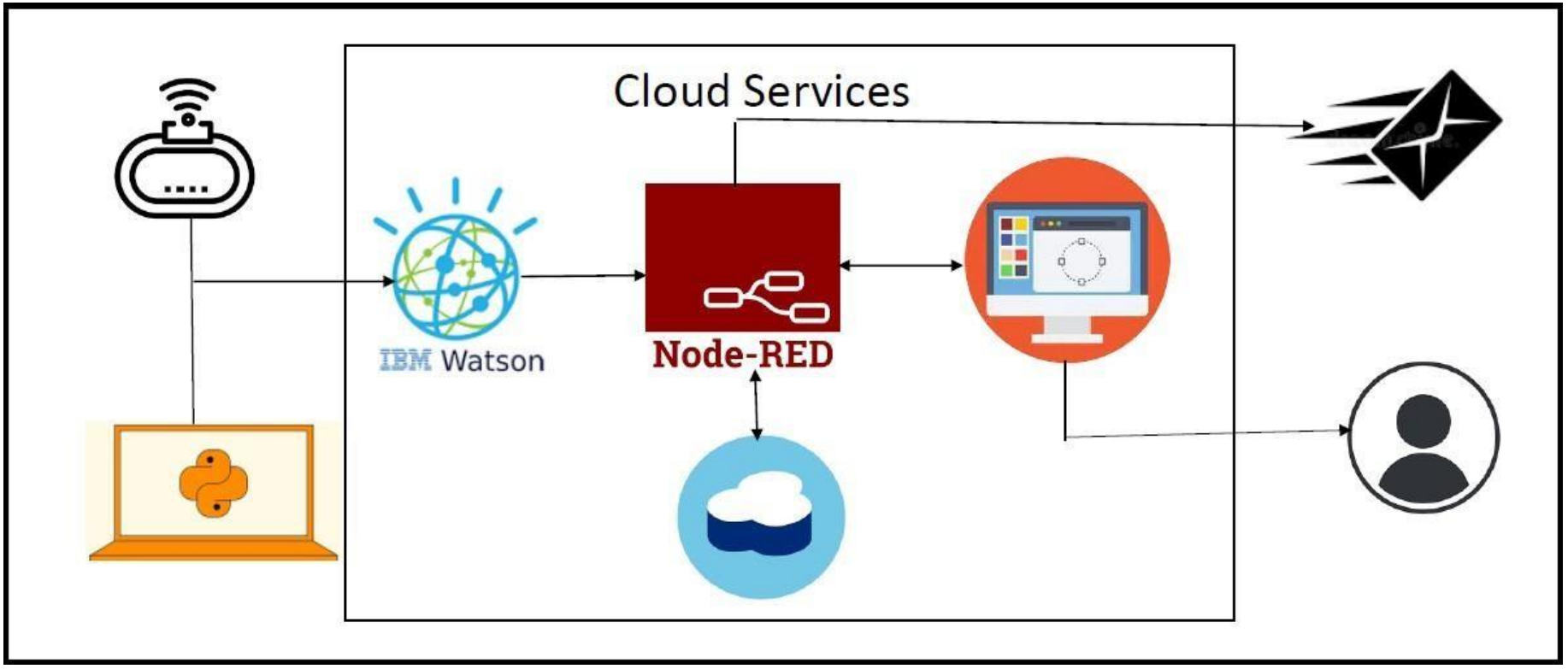

Table-1: Components & Technologies:

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 / CloudLocal 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 usage of firewalls, security and access controls, etc.	IBM cloud Encryptions
3.	Scalable Architecture	The scalability of architecture (3 – tier, Micro-services)	IBM cloud architecture
4.	Availability	Application accessibility (e.g., use of load balancers, distributed servers etc.)	Web applications are even accessible to industrial employees
5.	Performance	Take into account the application's performance when designing it (requests per second, cache usage, CDN usage, etc.).	The online application may be used by employees at any time because of its excellent efficiency.