

ProjectDesignPhase-II

TechnologyStack(Architecture&Stack)

Date	18October2022
TeamID	PNT2022TMID26613
ProjectName	Gas leakage monitoring and alertingsystemfor industries
MaximumMarks	4 Marks

TechnicalArchitecture:

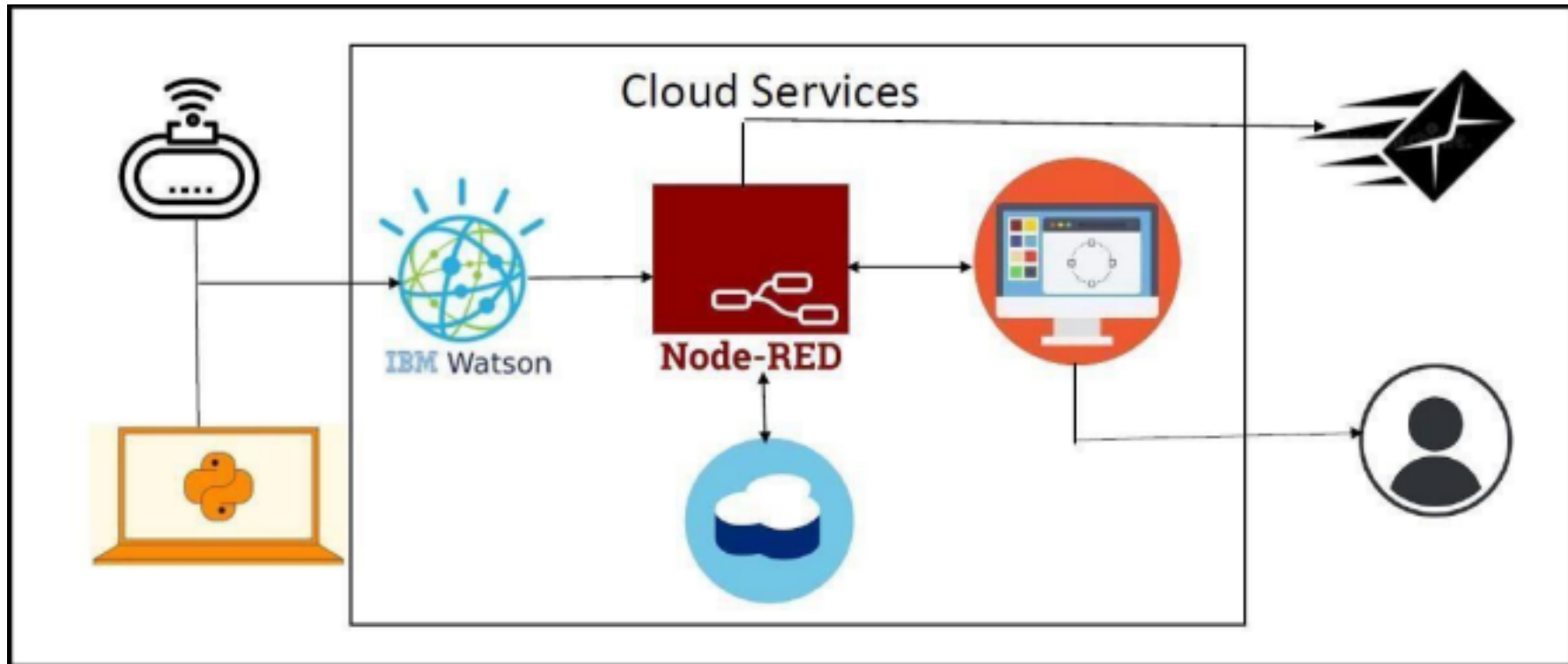


Table-1:Components&Technologies:

S.No	Component	Description	Technology
1.	UserInterface	WebUI	HTML,CSS,Javascript
2.	ApplicationLogic-1	Logicforaprocessintheapplication	Python
3.	ApplicationLogic-2	Logicforaprocessintheapplication	IBMWatsonSTTservice
4.	ApplicationLogic-3	Logicforaprocessintheapplication	IBMWatsonAssistant
5.	Database	Data Type	MySQL,NoSQL,etc.
6.	CloudDatabase	DatabaseServiceonCloud	IBMCloudant.
7.	FileStorage	Filestoragerequirements	IBMBlock Storage
8.	ExternalAPI-1	PurposeofExternalAPIusedintheapplication	IBMWeatherAPI
9.	ExternalAPI-2	PurposeofExternalAPIusedintheapplication	AadharAPI
10.	MachineLearningModel	PurposeofMachineLearningModel	ObjectRecognitionModel
11.	Infrastructure(Server/Cloud)	ApplicationDeploymentonLocalSystem/Cloud LocalServerConfiguration: CloudServerConfiguration:	CloudFoundry

Table-2:ApplicationCharacteristics:

S.No	Characteristics	Description	Technology
1.	Open-SourceFrameworks	Theopen-sourceframeworksused	MozillaFirefox
2.	SecurityImplementations	Thesecurity/accesscontrolsimpemented,use of firewallsetc.	IBMcloudEncryptions
3.	ScalableArchitecture	The scalability of architecture (3 – tier, Micro-services)	IBMcloudarchitecture
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,useofCa che,useofCDN's)etc.	Since the web application is high efficient, it can be used by The workers irrespective of time.

