

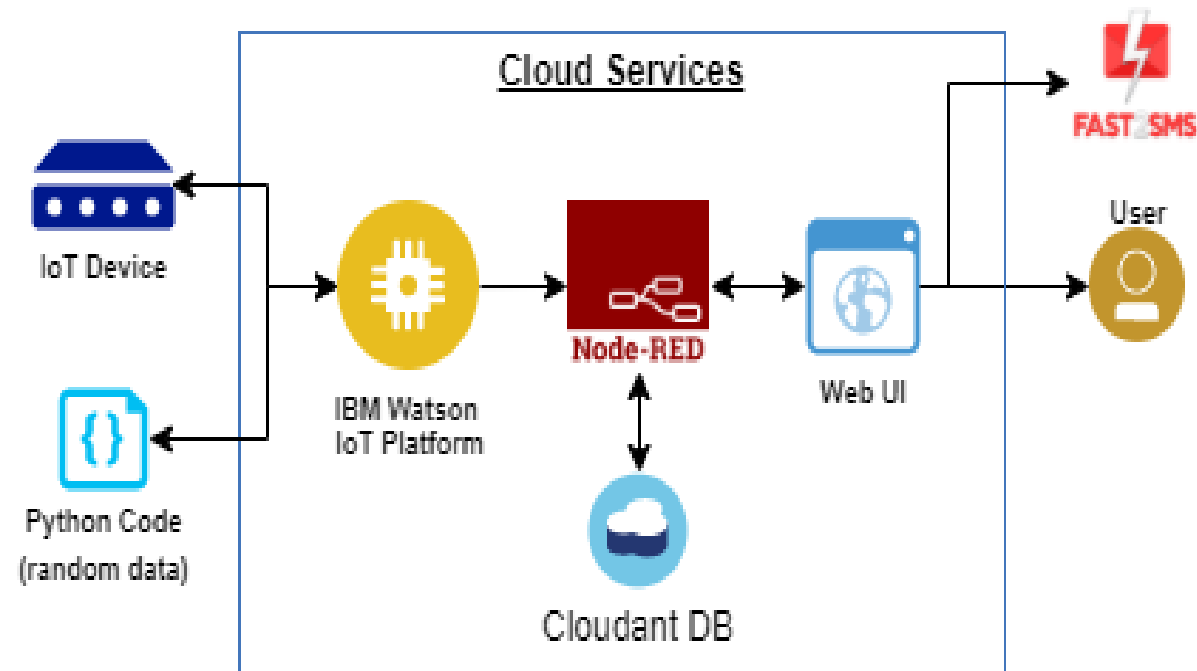
## Project Design Phase-II

### TechnologyStack (Architecture&Stack)

Date	20 October 2022
TeamID	PNT2022TMID48285
ProjectName	Project – Industry-Specific intelligent firemanagementsystem
MaximumMarks	4 Marks

#### TechnicalArchitecture:

The Deliverables shall include the architectural diagrams below and the information as per the table 1 & table 2



## **Guidelines:**

1. Include all the processes (As an application logic/Technology Block)
2. Provide infrastructural demarcation (Local / Cloud)
3. Indicate external interfaces (third party API's etc.)
4. Indicate Data Storage components/services
5. Indicate interface to machine learning models (if applicable)

**Table-1:Components&Technologies:**

S.No	Component	Description	Technology
1.	UserInterface	WebUI,Node-RED,MITapp	IBM IoT Platform, IBM Node red, IBMCloud
2.	ApplicationLogic-1	Create IBM Watson IoT platform and create node-redservice	IBMWatson,IBMcloud service ,IBM node-red
3.	ApplicationLogic-2	Develop python script to publish and subscribe toIBMIoTPlatform	python
4.	ApplicationLogic-3	Builda webapplicationusingnode-redservice	IBMNode-red
5.	Database	Data Type,Configurationsetc.	MySQL
6.	CloudDatabase	DatabaseServiceonCloud	IBMDB2,IBMCloudant
7.	FileStorage	Developingmobileapplicationtostoreandreceivethe sensorsinformationand toreactaccordingly	WebUI,Python
8.	ExternalAPI-1	Using this IBM fire management API we can trackthe temperature of the incident place and wherethefire hadbeen attacked.	IBMfiremanagement API
9.	ExternalAPI-2	Using this IBM Sensors it detects the fire, gasleaks , temperature and provides the activation ofsprinklersto webUI	IBMSensors
10.	MachineLearningModel	Using this we can derive the object recognitionmodel	ObjectRecognitionModel
11.	Infrastructure(Server/Cloud)	Application Deployment on Local System / CloudServerConfiguration	IBMcloudant,IBMIoTPlatform

**Table-2:ApplicationCharacteristics:**

S.No	Characteristics	Description	Technology
1.	Open-SourceFrameworks	MITapplInventor	MITLicense
2.	SecurityImplementations	IBMServices	Encryptions,IBMControls
3.	ScalableArchitecture	sensor-IoTCloudbasedarchitecture	cloudcomputingand AI
4.	Availability	Mobile,laptop,desktop	MITapp
5.	Performance	DetectstheFire,gasleak,temperature	sensors