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

Date	16 October 2022
Team ID	PNT2022TMID42730
Project Name	Project – Industry-Specific Intelligent Fire Management System
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

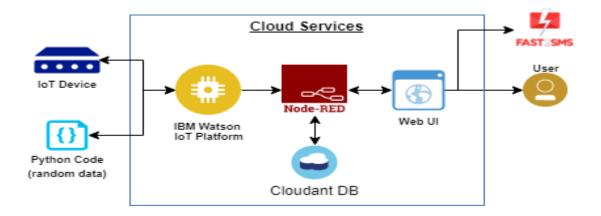**Title: Industry-Specific Intelligent Fire Management System**

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User interacts with the application using website.	HTML, CSS, JavaScript
2.	Fire Protection system	Fire protection system is to protect a building's occupants and minimise the damage associated with fire.	Python
3.	Smoke Detector	A smoke detection unit is one of the best fire protection equipment works as an alarm system that sounds when smoke is detected	IBM Watson STT service
4.	Alarm and Evacuation	ensure ultimate safety and help warn and keep people safe and reduce the amount of destruction to a building. This is probably the major reason as to why a business will install a fire detection system	Python
5.	Database	Training and testing data are stored	Kaggle
6.	Cloud Database	Database Service on Cloud	Local Storage.
7.	File Storage	Stores the trained and tested data	Other Storage Service or Local Filesystem
8.	Algorithm/Method	Convolutional Neural Networks (CNN) is used for predicting the diseases in plants/crops.	CNN
9.	Detection	Smoke can be easily detected	Python.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	RAM-Minimum 4GB Processor-Min. Configuration OS-Windows/Linux/MAC	Python, HTML, CSS
2.	Security Implementations	User data is confidential and the user account is checked with the email ID provided at secure.	OWASP
3.	Scalable Architecture	Scalability is built into ELM at all levels of data collection, processing, storage and notifications. It can handle multiple tiers of network	Python
4.	Availability	We can find the location of the fire and easy to handle	IBM Cloud
5.	Performance	Alert occupants of the fire condition. Activate safety control functions. Alert the local fire department..	Convolutional Neural Network