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

Date	03 October 2022
Team ID	PNT2022TMID19393
Project Name	Project - Industry–Specific Intelligent Fire Management System
Maximum Marks	4 Marks

Technical Architecture:

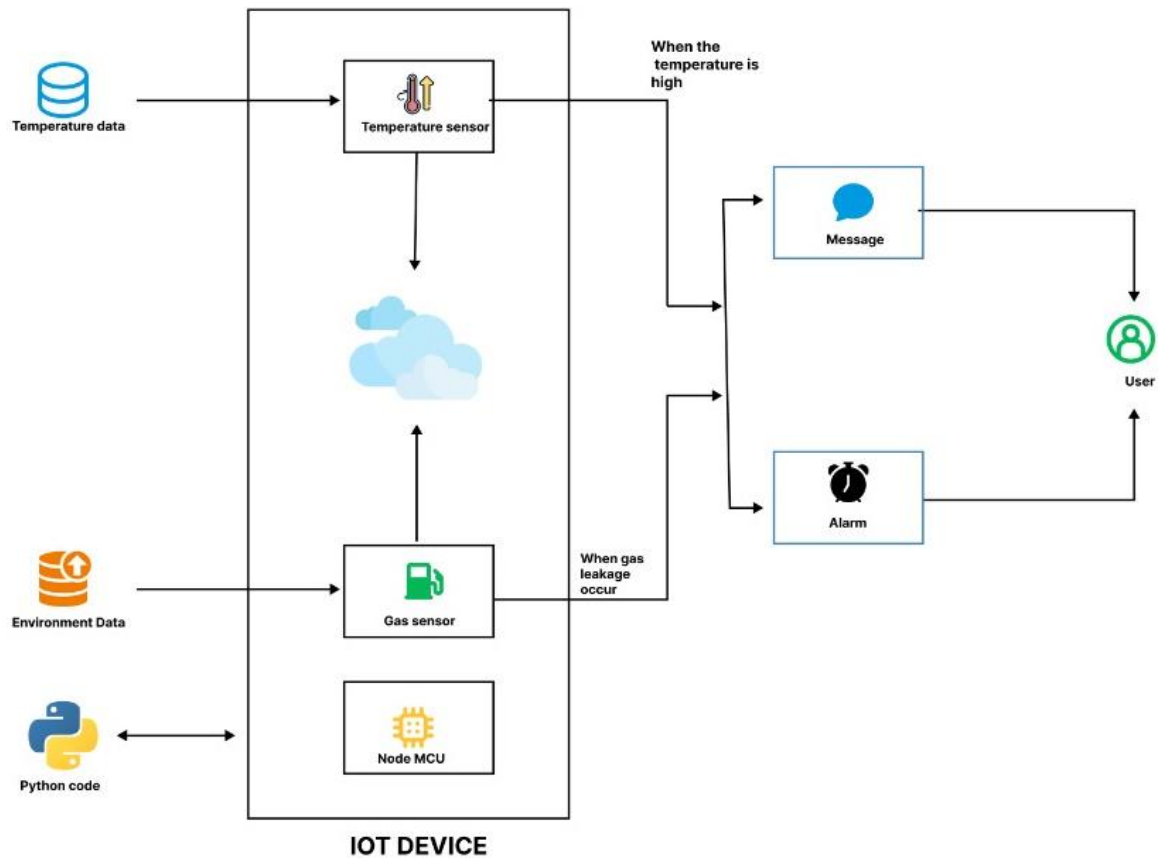The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	Gas sensor	Detect the noxious and harmful gases and natural gas leakage.	Java / Python
2.	Temperature sensor	Detect the temperature.	Java / Python
3.	Microcontroller-Arduino	Purpose of Arduino used to read inputs and turn it into an output.	C / C++
4.	Buzzer	Purpose of buzzer used in buzzing or beeping sound.	Connect with arduino
5.	Notification system	Used to notify a message	Python
6.	Data Storage	Data storage requirements	MySQL
7.	Switch	Used to on/off	Ethernet

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Node MCU	Based on ESP-12 module
2.	Security Implementations	Sensors: ➢ Temperature sensor ➢ Gas sensor	Java / Python
3.	Scalable Architecture	Application data is connected with cloud	IBM DB2, IBM Cloudant etc.
4.	Availability	Use of sensors will intimate any abnormal conditions	Java / Python
5.	Performance	Quick alert to the user incase of emergency	HTML / CSS / Java