**Project Design Phase-II**
**Data Flow Diagram &User Stories**

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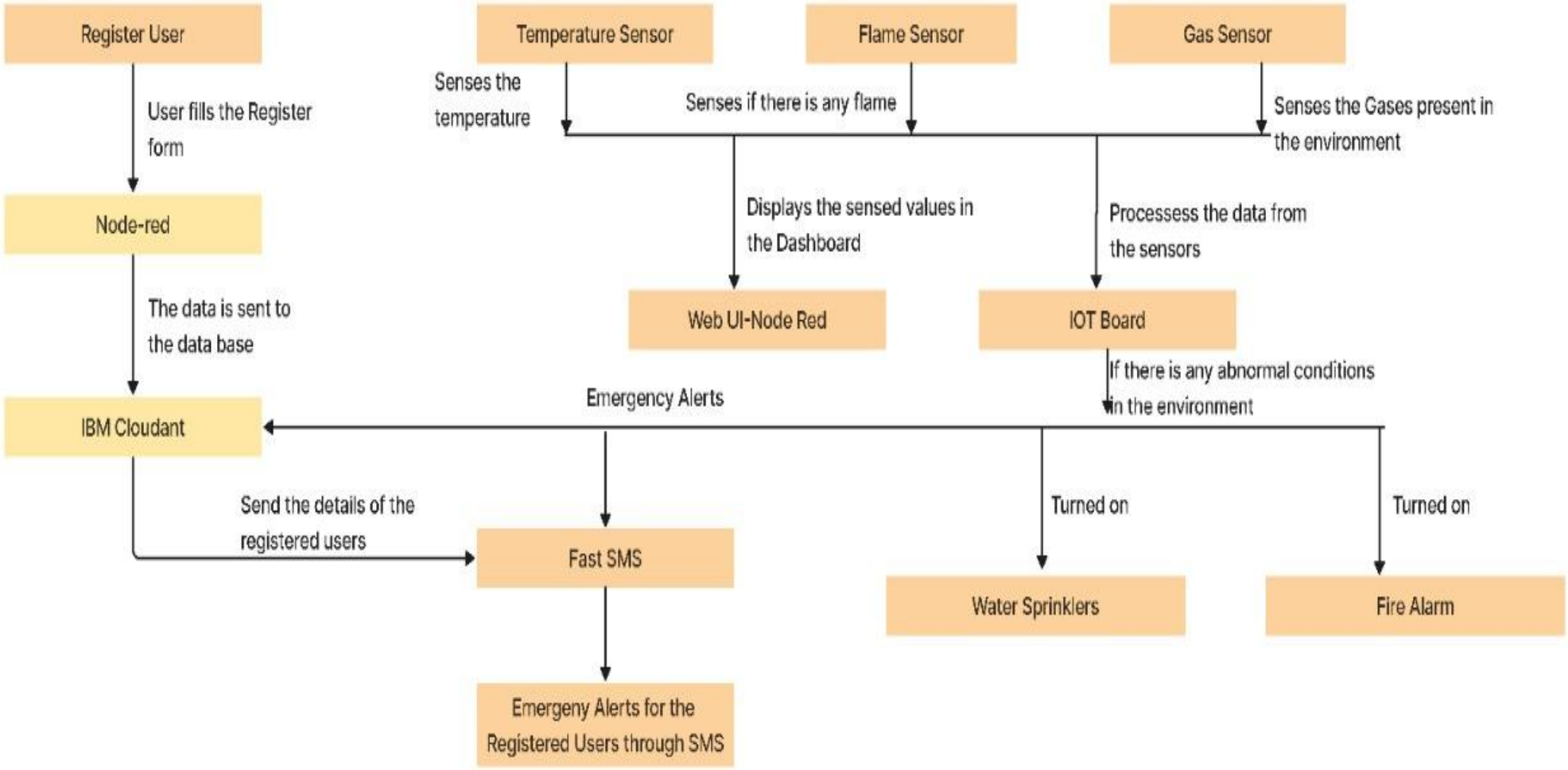
| Date | 03October 2022 |
| Team ID | PNT2022TMID42571 |
| Project Name | Project - Industry specific intelligent fire management system |
| Maximum Marks | 4 Marks |

**Data Flow Diagram:**

1. The user should provide information to get registered in the web application and this user database will be stored in IBM cloudant through node-red.
2. Here we use IOT's such as temperature sensor, gas sensor, flame sensor.
3. Temperature sensor senses the temperature, flame sensor senses if there is any flame and the gas sensor senses the gases present in the environment.
4. The Web UI-Node Red will display the sensed values in the dashboard. Whereas IOT Board process the data from the sensors, if any changes detected in the environment then it will turn on the water sprinklers and fire alarm.
5. It will also send an emergency alert to IBM cloudant so that the registered user will receive a Fast SMS and nearby fire station will be notified.


Register User
User fills the Register form
Node-red
The data is sent to the data base
IBM Cloudant
Send the details of the registered users
Fast SMS
Emergeny Alerts for the Registered Users through SMS
Temperature Sensor
Senses the temperature
Flame Sensor
Senses if there is any flame
Gas Sensor
Senses the Gases present in the environment
Displays the sensed values in the Dashboard
Web UI-Node Red
Processess the data from the sensors
IOT Board
If there is any abnormal conditions in the environment
Emergency Alerts
Turned on
Water Sprinklers
Turned on
Fire Alarm

**User Stories:**

| User Type | Functional Requirement (Epic) | User Story Number | User Story / Task | Acceptance criteria | Priority | Release |
|---|---|---|---|---|---|---|
| Customer (Mobile user, web user) | Registration | USN-1 | As a user, I can provide my details to the admin to get registered for the application by entering my name, phone number | I can register my account . | High | Sprint-2 |
| | | USN-2 | As a user, I will receive a pop-up message that I registered for the application. | I can click Okay button and confirm the registration | Medium | Sprint-2 |
| Administrator, Care Executive | Login | USN-1 | As a admin, I can log into the application by entering username & password. | I can login with my phone number and password. | High | Sprint-1 |
| | Dashboard | USN-2 | As a admin, I can login through the application and access the Dashboard | I can login & access the dashboard with Internet | Medium | Sprint-3 |
| | | USN-3 | As a admin, I can monitor the sensor data continuously in the dashboard | I can monitor the environment continuously | High | Sprint-4 |