

Project Development Phase

Delivery of Sprint 2

Date	3 November 2022
Team ID	PNT2022TMID21463
Project Name	Project –Gas leakage monitoring and alerting system for industries

Task:

Sensed data is brought to Node-RED and displayed in the dashboard

Steps:

1. IBM IoT node is used to gather sensor data.
 - a. Necessary API key is provided to establish a connection.
2. Using functions namely Temperature, Humidity, and Gas the data is obtained independently and displayed in the dashboard.
3. Dashboard Nodes are used to display the sensed data to the user in a portal.

Source code:

```
Temperature: msg.payload = msg.payload.Temp;  
return msg;  
Humidity: msg.payload = msg.payload.Hum;
```

```
return msg;
```

```
Concentration of Gas: msg.payload = msg.payload.gas;
```

```
return msg;
```

OUTPUT:

The screenshot displays the Node-RED web interface in a browser. The address bar shows the URL: `node-red-iuqti-2022-11-09.eu-gb.mybluemix.net/red/#flow/8a0bf0e22bdcaeda`. The interface is divided into several panels:

- Left Panel (Nodes):** Contains a search bar and two categories of nodes:
 - common:** Includes nodes like `inject`, `debug`, `complete`, `catch`, `status`, `link in`, `link call`, `link out`, and `comment`.
 - function:** Includes `function` and `switch` nodes.
- Flow 1 Canvas:** The central workspace showing a flow diagram. It features two `IBM IoT` nodes (one at the top left, one at the bottom right), both marked as "connected". The top `IBM IoT` node is connected to three function nodes (`temp`, `Humid`, `gas`), which are then connected to three output nodes (`Temp`, `Humid`, `gas`). The bottom `IBM IoT` node is connected to three input nodes (`Alarm on`, `Alarm off`, `Sprinkler`), which are then connected to a `msg.payload` node. A `msg.payload` node is also connected to the top `IBM IoT` node.
- Right Panel (Info):** Displays information about the current flow. It shows the flow name "Flow 1" and its ID "8a0bf0e22bdcaeda". Below this, there is a text box with instructions: "Hold down `ctrl` when you `click` on a node to add or remove it from the current selection".

The Windows taskbar at the bottom shows the time as 08:53 on 16/11/2022, along with various system icons and application shortcuts.

ApplicationsPlacesSystem

Node-RED Dashboard - Brave

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node-red-iuqti-2022-11-09.eu-gb.mybluemix.net/ui/#/0?socketid=SnSETsO6Dpt6XTGRAABX

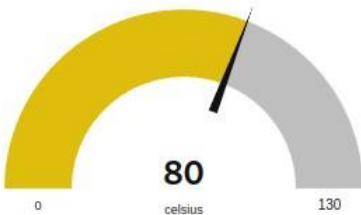
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26 °CWed Nov 16, 11:17 AM

Gas Leakage

Temperature


Temperature



80
celsius

Humidity Level


Humidity



34
% Humidity

Gas Level

Gas level



781
ppm

switch board

ALARM ON

ALARM OFF

In Case Of Fire

Sprinkler

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