

Project Development Phase

Delivery of Sprint 4

Date	3 November 2022
Team ID	PNT2022TMID20329
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-wqxhm-2022-11-12.mybluemix.net/red/#flow/5a30966a75a80daa`. The interface includes a left sidebar with a node palette, a central workspace for 'Flow 1', and a right sidebar with a dashboard and tabs & links.

Node Palette (Left Sidebar):

- filter nodes**
- websocket out**
- tcp in**
- tcp out**
- tcp request**
- udp in**
- udp out**
- input**
 - ibmiot in**
- output**
 - OpenWhisk**
 - ibmiot out**
- sequence**

Flow 1 (Central Workspace):

- Top Path:** An **IBM IoT** node (connected) is linked to a **msg.payload** node, which is then linked to a **Gas** node.
- Bottom Path:** Two nodes, **Light on** and **Light off**, are both linked to an **IBM IoT** node (connected).
- Intermediate Node:** A **gas** function node is connected to the **IBM IoT** node in the top path.

Right Sidebar:

- dashboard** tab is active.
- Layout**, **Site**, and **Theme** tabs are visible.
- Tabs & Links** section shows a **Smart Home** category with sub-items: **Hall AC** and **switch**.

The bottom of the image shows a Windows taskbar with various application icons and system information: 25°C, 21:16, 18-11-2022.

Smart Home

Hall AC

switch

LIGHT OFF

LIGHT ON

Gas

