

# SPRINT-2

Team ID	PNT2022TMID06909
Project Name	Hazardous Area Monitoring for Industrial Plantpowered by IoT

- Device Creation using IoT Watson platform with credentials:

- IBM Watson IoT platform acts as the mediator to connect the web application to the IoT device,so create the IBM Watson IoT platform.
- In order to connect the IoT device to the IBM cloud, we need to create a device in the IBMWatson IoT platform and get the device credentials.
- To configure the connection security and create API keys that are used in the Node-RED servicefor accessing the IBM IoT Platform.

Browse   Action   Device Types   Interfaces

[Add Device](#)

## Browse Devices

All Devices
Diagnose

This table shows a summary of all devices that have been added. It can be filtered, organized, and searched on using different criteria. To get started, you can add devices by using the Add Device button, or by using API.

---

Search by Device ID

Device Simulator ☒

<input type="checkbox"/>	Device ID	Status	Device Type ▲	Class ID	Date Added	Descriptive Location
> <input type="checkbox"/>	Temperature_today	<span style="color: gray;">●</span> Disconnected	Temperature_device	Device	23 Oct 2022 13:21	
> <input type="checkbox"/>	hazard_report	<span style="color: green;">●</span> Connected	hazardous_monitoring	Device	6 Nov 2022 19:37	

Items per page: 50 ▾ | 1–2 of 2 items

1 of 1 page < 1 ▾ >

1 Simulation running

The screenshot shows the Node-RED web interface. On the left is a sidebar with various icons. The main area displays a list of devices. The 'hazard\_report' device is selected, showing its status as 'Connected' and its type as 'hazardous\_monitoring'. Below this, there are tabs for 'Identity', 'Device Information', 'Recent Events', 'State', and 'Logs'. The 'Recent Events' tab is active, showing a table of events.

Event	Value	Format	Last Received
IoTSensor	{"temp":6,"humidity":31,"oxygen":17}	json	a few seconds ago
IoTSensor	{"temp":71,"humidity":25,"oxygen":92}	json	a few seconds ago
IoTSensor	{"temp":47,"humidity":58,"oxygen":68}	json	a few seconds ago
IoTSensor	{"temp":14,"humidity":19,"oxygen":22}	json	a few seconds ago
IoTSensor	{"temp":27,"humidity":72,"oxygen":80}	json	a few seconds ago

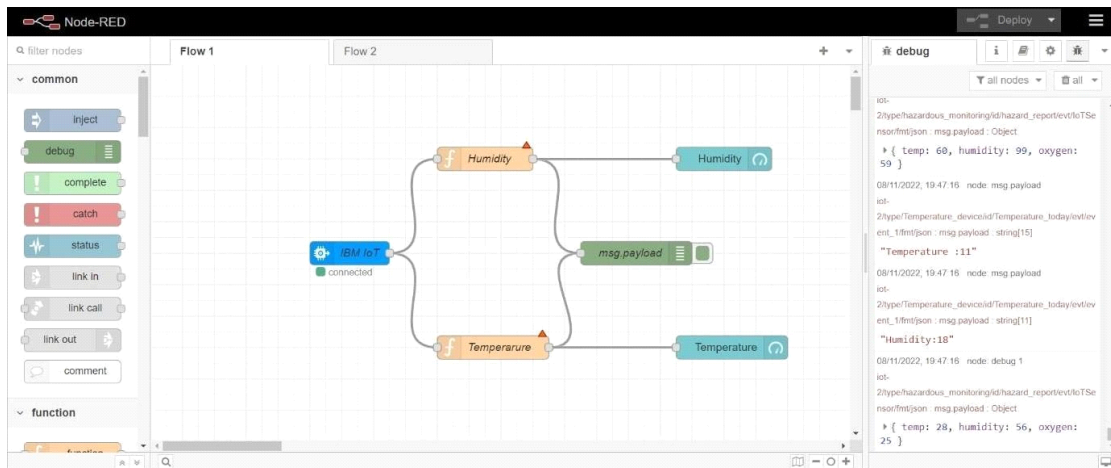
1 Simulation running

- Required Performance of device using Local Node-Red Platform:

The screenshot shows the Node-RED desktop application. The main workspace displays a flow with two nodes: 'Hello Node-RED!' and 'msg.payload'. The left sidebar shows the 'function' and 'network' categories. The right sidebar shows the 'debug' console, which displays a stream of messages from the 'hazard\_report' device, including temperature, humidity, and oxygen levels.





```

{ temp: 64, humidity: 22, oxygen: 28 }
11/8/2022, 4:05:41 PM node:cd0cee7c5ea14b31
iot-
2/type/hazardous_monitoring/ld/hazard_report/ev/IoTSens
msg.payload: Object
{ temp: 55, humidity: 58, oxygen: 2 }
11/8/2022, 4:05:42 PM node:cd0cee7c5ea14b31
iot-
2/type/hazardous_monitoring/ld/hazard_report/ev/IoTSens
msg.payload: Object
{ temp: 28, humidity: 23, oxygen: 48 }
11/8/2022, 4:05:43 PM node:cd0cee7c5ea14b31
iot-
2/type/hazardous_monitoring/ld/hazard_report/ev/IoTSens
msg.payload: Object
{ temp: 95, humidity: 83, oxygen: 39 }
11/8/2022, 4:05:44 PM node:cd0cee7c5ea14b31
iot-
2/type/hazardous_monitoring/ld/hazard_report/ev/IoTSens
msg.payload: Object
{ temp: 45, humidity: 18, oxygen: 7 }
  
```



Cloudant DB is used to create a database to store the location data.

## Name \_\_\_\_\_

Name	Size	# of Docs	Partitioned	Actions
hazard	14 bytes	1	No	   
noderedmfcnc20221108	25.7 KB	4	No	