

# SPRINT 2

Team ID	PNT2022TMID48099
Project Name	Hazardous Area Monitoring for Industrial Plant powered by IoT

## 1. 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 IBM Watson IoT platform and get the device credentials.
- To configure the connection security and create API keys that are used in the Node-RED service for accessing the IBM IoT Platform.

The screenshot shows the 'Browse Devices' section of the IBM Watson IoT Platform. The top navigation bar includes 'Browse', 'Action', 'Device Types', 'Interfaces', and a prominent blue 'Add Device' button. On the left, there's a vertical sidebar with various icons. The main area is titled 'Browse Devices' and contains two tabs: 'All Devices' (selected) and 'Diagnose'. A descriptive text block explains the purpose of the table below. Below this is a search bar labeled 'Search by Device ID'. The main content is a table with columns: Device ID, Status, Device Type, Class ID, Date Added, and Descriptive Location. Two devices are listed: 'Temperature\_today' (Disconnected, Temperature\_device, Device, 23 Oct 2022 13:21) and 'hazard\_report' (Connected, hazardous\_monitoring, Device, 6 Nov 2022 19:37). At the bottom, there are pagination controls ('Items per page: 50', '1-2 of 2 items'), a page number ('1 of 1 page'), and a status message '1 Simulation running'.

	Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
>	Temperature_today	Disconnected	Temperature_device	Device	23 Oct 2022 13:21	
>	hazard_report	Connected	hazardous_monitoring	Device	6 Nov 2022 19:37	

The screenshot shows a web-based interface for managing IoT devices. On the left is a vertical sidebar with icons for different device types: Sensors, Actuators, Cloud, Edge, and Rules. The main area has a header with 'Browse', 'Action', 'Device Types', 'Interfaces', and a 'Add Device' button.

The main content area displays two device entries:

- Temperature\_today**: Status: Disconnected, Type: Temperature\_device, Last Seen: 23 Oct 2022 13:21.
- hazard\_report**: Status: Connected, Type: hazardous\_monitoring, Last Seen: 6 Nov 2022 19:37.

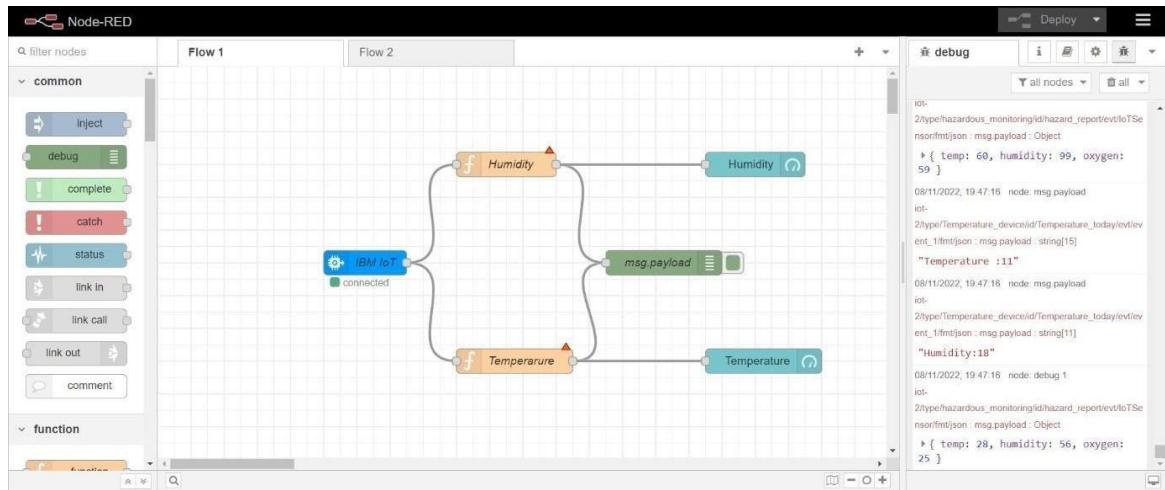
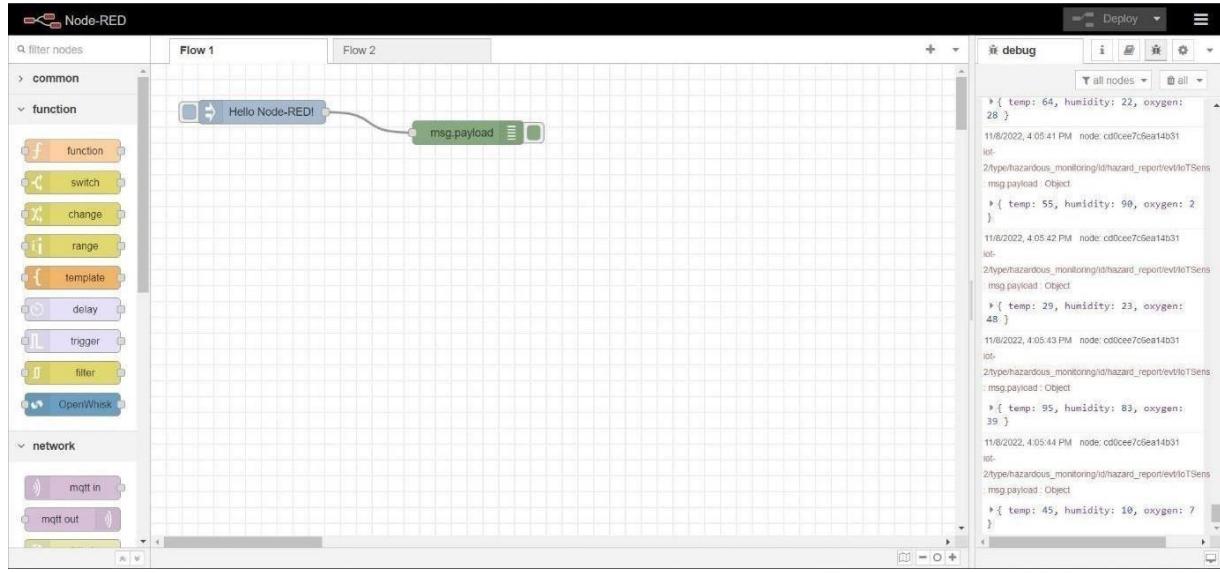
Below the device list is a navigation bar with tabs: Identity, Device Information, Recent Events (which is selected), State, and Logs. A close button (X) is also present.

A message states: "The recent events listed show the live stream of data that is coming and going from this device."

A table lists recent events for the 'hazard\_report' device:

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	1 Simulation running
IoTSensor	{"temp":27,"humidity":72,"oxygen":80}	json	

## 2. Required Performance of device using Local Node-RED Platform:



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

Databases

Database name  Create Database { } JSON

Your Databases

Name	Size	# of Docs	Partitioned	Actions
hazard	14 bytes	1	No	
noderedmfnc20221108	25.7 KB	4	No	

Showing 1–2 of 2 databases. Databases per page: 20  1