

# PROJECT DEVELOPMENT PHASE

## SPRINT 2

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TEAM ID	PNT2022TMID36762
PROJECT NAME	GAS LEAKAGE MONITORING AND ALERTING SYSTEM FOR INDUSTRIES

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Node red link : <http://159.122.179.50:31329/red/#flow/6f5fb75fb6a52592>

UI software link : <http://159.122.179.50:31329/ui>

IBM Watson link : <https://7bpns1.internetofthings.ibmcloud.com/dashboard/devices/browse>

### SPRINT 2:

Create device in the IOT Watson platform, workflow for IOT scenarios using local node red

### SOURCE CODE:

#### TEMPERATURE:

```
msg.payload=msg.payload.temp  
global.set('h',msg.payload)  
return msg;
```

#### HUMIDITY:

```
msg.payload=msg.payload.humidity  
global.set('h',msg.payload)  
return msg;
```

#### GAS LEVEL:

```
msg.payload=msg.payload.gas_percent  
global.set('h',msg.payload)  
return msg;
```

OUTPUT:

The screenshot displays the IBM Watson IoT Platform dashboard. The top navigation bar includes tabs for 'Browse', 'Action', 'Device Types', and 'Interfaces'. A sidebar on the left contains icons for various IoT functions. The main content area shows a list of devices. The first device is '1229', which is 'Disconnected' and of type 'IOTsensor'. The second device is 'Test1', which is also 'Disconnected' and of type 'monitor'. The 'Test1' device is selected, and its details are shown in a modal window. The modal has tabs for 'Identity', 'Device Information', 'Recent Events', 'State', and 'Logs'. The 'Recent Events' tab is active, displaying a table of recent events. The table has four columns: 'Event', 'Value', 'Format', and 'Last Received'. There are five rows of events, all labeled 'event\_2'. The values are JSON strings representing temperature, humidity, and gas percent data. The format for all events is 'json', and they were all received 'a few seconds ago'. A status message at the bottom right of the modal indicates '1 Simulation running'.

Event	Value	Format	Last Received
event_2	{"temp":79,"humidity":61,"gas_percent":11}	json	a few seconds ago
event_2	{"temp":73,"humidity":43,"gas_percent":44}	json	a few seconds ago
event_2	{"temp":49,"humidity":91,"gas_percent":93}	json	a few seconds ago
event_2	{"temp":8,"humidity":99,"gas_percent":14}	json	a few seconds ago
event_2	{"temp":30,"humidity":78,"gas_percent":66}	json	a few seconds ago

Node-RED interface showing a flow diagram and a debug console.

**Flow Diagram:**

- IBM IoT** (connected) node connects to **humidity**, **temp**, and **gas\_level** function nodes.
- humidity** function node connects to **humidity** and **temp** output nodes.
- temp** function node connects to **temp** and **gas** output nodes.
- gas\_level** function node connects to **gas** output node.
- All three output nodes (**humidity**, **temp**, **gas**) connect to a **msg.payload** node.

**Debug Console:**

```
msg.payload: number
72
11/19/2022, 11:01:41 AM node: 1f88880dd0b748
iot-2/type/monitorId/Test/ev/ev/ev_2/fmt/json :
msg.payload: number
2
11/19/2022, 11:01:45 AM node: 1f88880dd0b748
iot-2/type/monitorId/Test/ev/ev/ev_2/fmt/json :
msg.payload: Object
{ temp: 86, humidity: 93,
  gas_percent: 15 }
11/19/2022, 11:01:45 AM node: 1f88880dd0b748
iot-2/type/monitorId/Test/ev/ev/ev_2/fmt/json :
msg.payload: number
93
11/19/2022, 11:01:45 AM node: 1f88880dd0b748
iot-2/type/monitorId/Test/ev/ev/ev_2/fmt/json :
msg.payload: number
85
11/19/2022, 11:01:46 AM node: 1f88880dd0b748
iot-2/type/monitorId/Test/ev/ev/ev_2/fmt/json :
msg.payload: number
15
```

switch interface showing three gauges for humidity, temp, and gas.

**humidity**

18 percentage

**temp**

92 celsius

**gas**

47