

SPRINT 2

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|--------------|---|
| Team ID | PNT2022TMID02630 |
| Project Name | Hazardous Area Monitoring for Industrial Plant powered by IoT |

1. Device Creation using IoT Watson platform with credentials:

← → ↻ 5jil5s.internetofthings.ibmcloud.com/dashboard/devices/browse

IBM Watson IoT Platform

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ID: 5jil5s

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

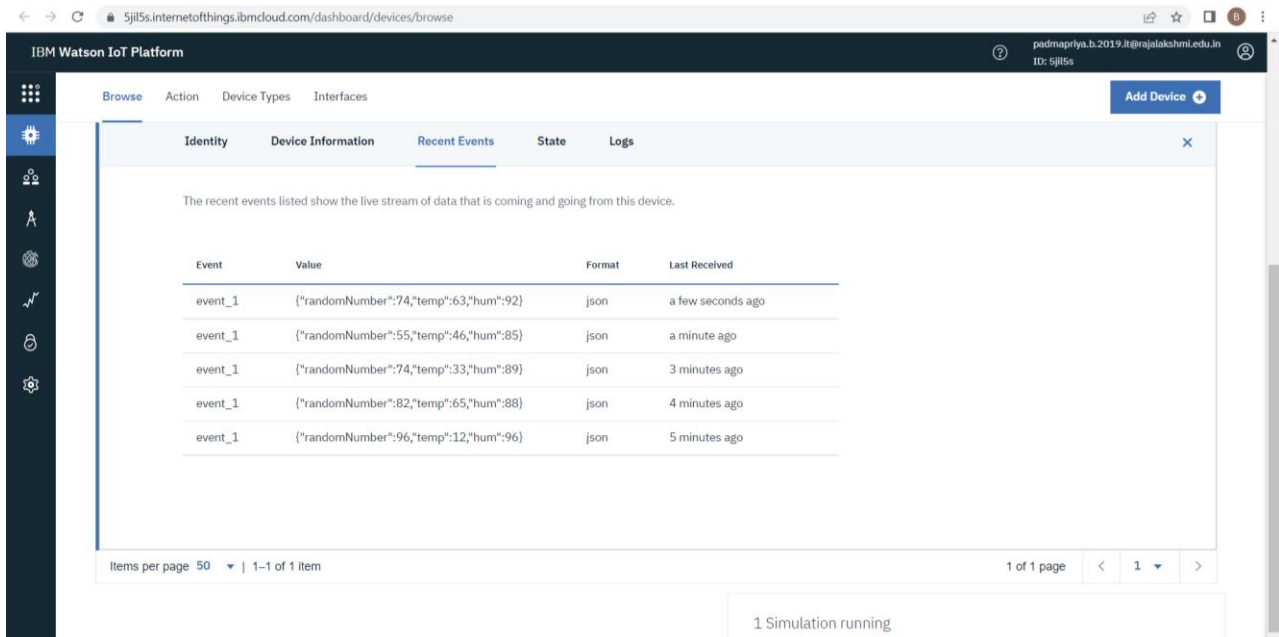
| | Device ID | Status | Device Type | Class ID | Date Added | Descriptive Location |
|---|-----------|-----------|-------------|----------|----------------------|----------------------|
| > | 12345 | Connected | abod | Device | Nov 17, 2022 8:27 PM | |

Items per page 50 | 1-1 of 1 item

1 of 1 page

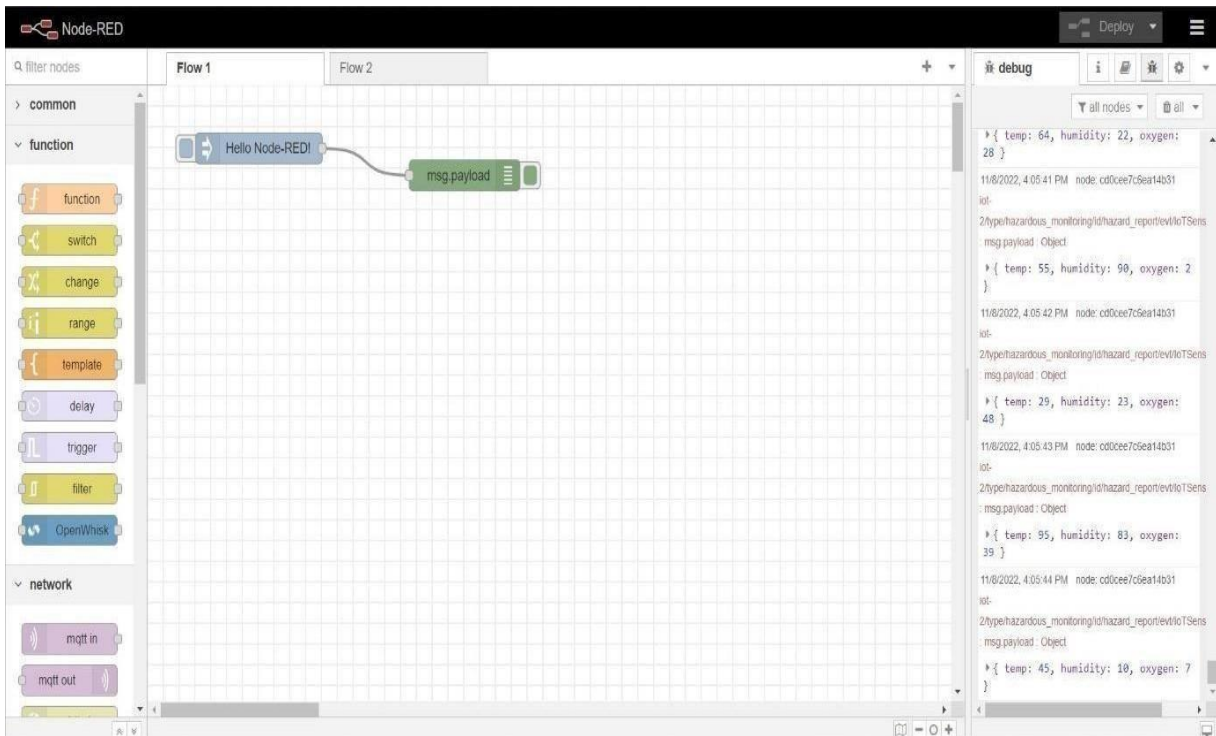
1 Simulation running

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



The screenshot displays the IBM Watson IoT Platform dashboard. The top navigation bar includes the IBM logo, the text "IBM Watson IoT Platform", and a user profile section with the name "padmapriya.b.2019.ii@rajalakshmi.edu.in" and ID "5jlt5s". The main content area is titled "Browse" and shows a list of devices. The "Recent Events" tab is selected, displaying a table of events. The table has four columns: "Event", "Value", "Format", and "Last Received". The events are listed as "event_1" with various JSON payloads. Below the table, it indicates "Items per page 50" and "1 of 1 page". A status bar at the bottom right shows "1 Simulation running".

| Event | Value | Format | Last Received |
|---------|--|--------|-------------------|
| event_1 | {"randomNumber":74,"temp":63,"hum":92} | json | a few seconds ago |
| event_1 | {"randomNumber":55,"temp":46,"hum":85} | json | a minute ago |
| event_1 | {"randomNumber":74,"temp":33,"hum":89} | json | 3 minutes ago |
| event_1 | {"randomNumber":82,"temp":65,"hum":88} | json | 4 minutes ago |
| event_1 | {"randomNumber":96,"temp":12,"hum":96} | json | 5 minutes ago |



The screenshot shows the Node-RED interface. The main workspace displays a flow named "Flow 1" with two nodes: "Hello Node-RED!" and "msg.payload". The left sidebar contains a list of nodes categorized under "common", "function", and "network". The right sidebar shows the "debug" console, which displays a series of messages received from the device, including timestamps, node IDs, and JSON payloads.

```
graph LR; A[Hello Node-RED!] --> B[msg.payload];
```

debug console output:

```
11/8/2022, 4:05:41 PM node:cd0cee7c5ea14b31 iot-2/typehazardous_monitoring/1d/hazard_reportevWIoTSENS :msg.payload : Object  
{ temp: 55, humidity: 90, oxygen: 2 }  
11/8/2022, 4:05:42 PM node:cd0cee7c5ea14b31 iot-2/typehazardous_monitoring/1d/hazard_reportevWIoTSENS :msg.payload : Object  
{ temp: 29, humidity: 23, oxygen: 48 }  
11/8/2022, 4:05:43 PM node:cd0cee7c5ea14b31 iot-2/typehazardous_monitoring/1d/hazard_reportevWIoTSENS :msg.payload : Object  
{ temp: 95, humidity: 83, oxygen: 39 }  
11/8/2022, 4:05:44 PM node:cd0cee7c5ea14b31 iot-2/typehazardous_monitoring/1d/hazard_reportevWIoTSENS :msg.payload : Object  
{ temp: 45, humidity: 10, oxygen: 7 }
```

Node-RED

Deploy

filter nodes

Flow 1Flow 2

common

inject

debug

complete

catch

status

link in

link call

link out

comment

function

function

switch

change

IBM IoT

connected

temperature

humidity

temperature

humidity

msg.payload

debug

current flow

all

19/11/2022, 13:21:42 node: d5f591a755158270
iot-2/type/efgh/id/56789/evt/event_1/fmt/json :
msg.payload : number
66

19/11/2022, 13:21:43 node: d5f591a755158270
iot-2/type/efgh/id/56789/evt/event_1/fmt/json :
msg.payload : number
98

19/11/2022, 13:21:44 node: d5f591a755158270
iot-2/type/abcd/id/12345/evt/event_1/fmt/json :
msg.payload : number
55

19/11/2022, 13:21:45 node: d5f591a755158270
iot-2/type/efgh/id/56789/evt/event_1/fmt/json :
msg.payload : number
97

19/11/2022, 13:22:03 node: d5f591a755158270
iot-2/type/efgh/id/56789/evt/event_1/fmt/json :
msg.payload : number
52


19/11/2022, 13:22:04 node: d5f591a755158270
iot-2/type/efgh/id/56789/evt/event_1/fmt/json :
msg.payload : number
81


3.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 | <div>↔</div> <div>🔒</div> <div>🗑️</div> |
| noderedmfcnc20221108 | 25.7 KB | 4 | No | <div>↔</div> <div>🔒</div> <div>🗑️</div> |

Log Out

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

⏪

1

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