SPRINT-2

SOFTWARE

Date	13 November 2022
Team ID	PNT2022TMID42278
Project Name	Hazardous Area Monitoring for Industrial Power Plant powered by IOT

PROCEDURE:

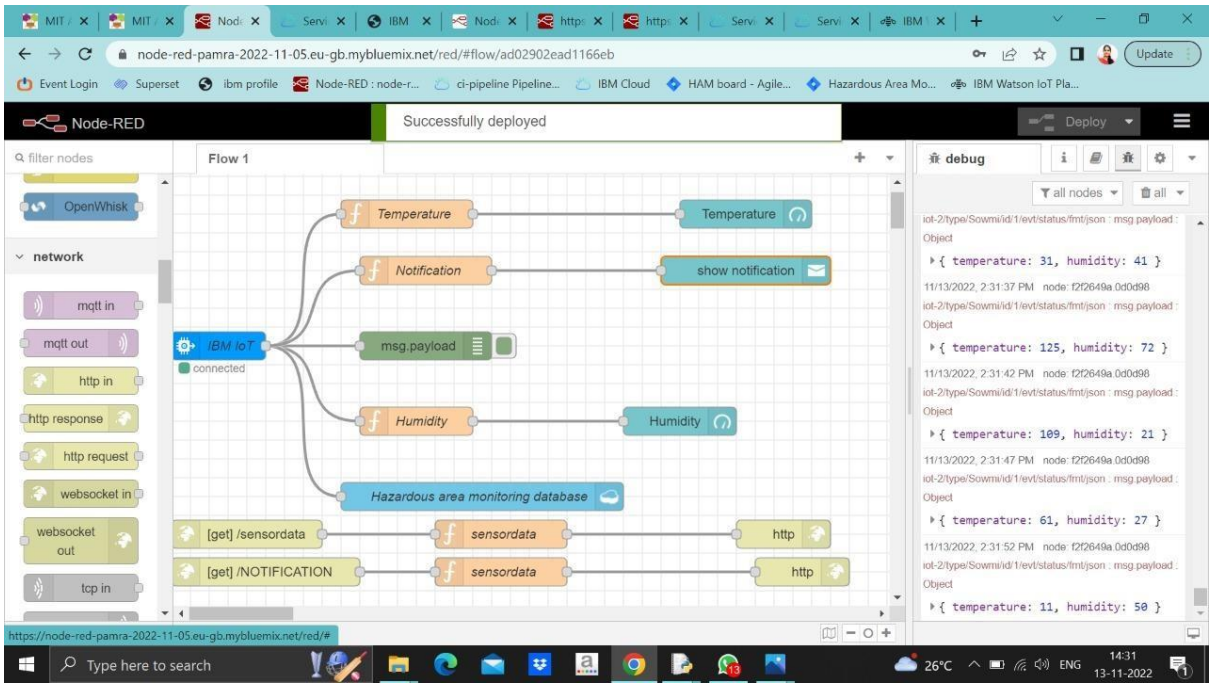
Step1: Develop node red application.

Step2: Install the required nodes from manage palette option.

Step3: Connect the node flow. Step4:

Deploy the flow.

NODE RED:



FUNCTION NODE COMMAND TO INDICATE THE TEMPERATURE:

msg.payload=msg.payload.temperature;

global.set('temperature',msg.payload); return

msg;

FUNCTION NODE COMMAND TO INDICATE THE HUMIDITY:

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

FUNCTION NODE COMMAND TO SHOW THE STATUS:

```
temperature=msg.payload.temperature;
humidity=msg.payload.humidity; if(temperature>50
& humidity>50){ msg.payload="Temperature and
Humidity Alert!";
}
else if(temperature>50){ msg.payload="Temperature
Alert!";
}
else if(humidity>50){ msg.payload="Humidity
Alert!";
}
else {msg.payload="safe";} return
msg;
```

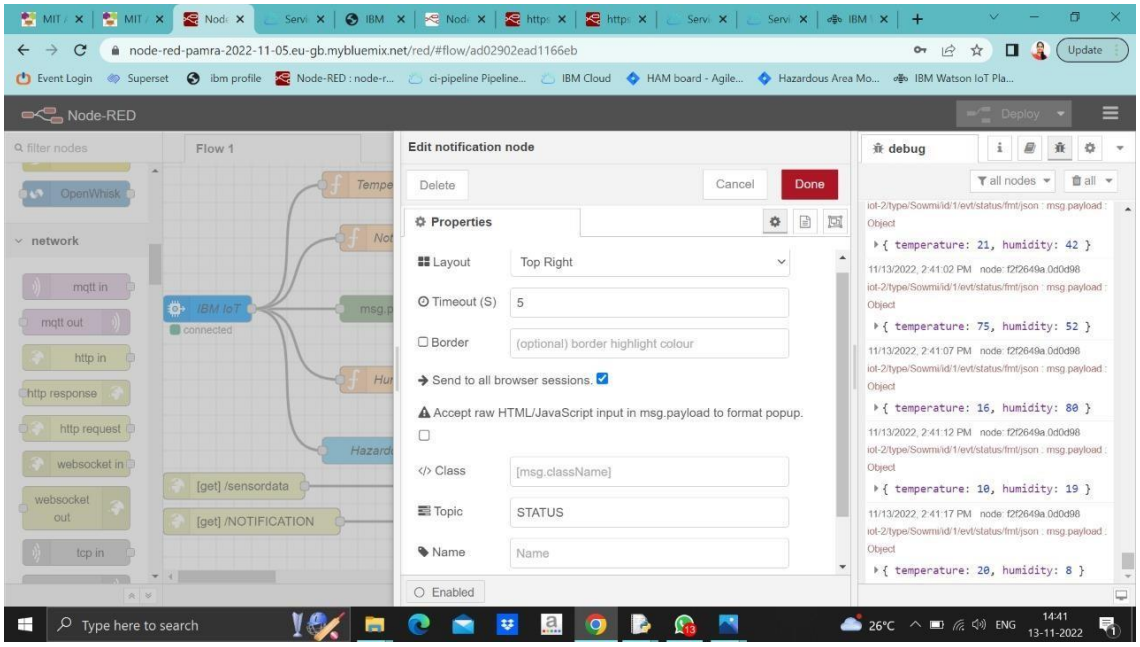
FUNCTION NODE COMMAND TO GET THE HTTP REQUEST FOR SENSOR DATA:

```
msg.payload={
   "temperature":global.get('temperature'),
   "humidity":global.get('humidity')
}
return msg;
```

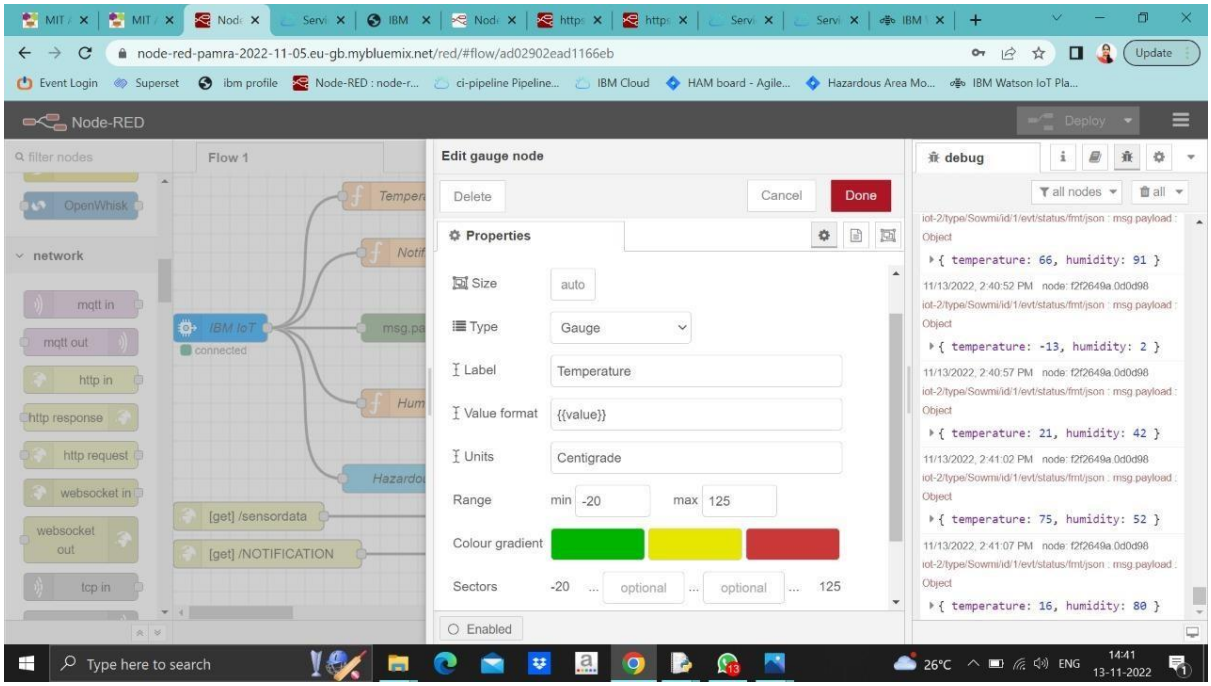
FUNCTION NODE COMMAND TO GET THE HTTP REQUEST FOR STATUS:

```
msg.payload={
   "temperature":global.get('temperature'),
   "humidity":global.get('humidity')
}
temperature=msg.payload.temperature;
humidity=msg.payload.humidity; if(temperature>50
& humidity>50){ msg.payload="Temperature and
Humidity Alert!";
}
else if(temperature>50){ msg.payload="Temperature
Alert!";
}
else if(humidity>50){ msg.payload="Humidity
Alert!";
}
else {msg.payload="safe";} return
msg;
```

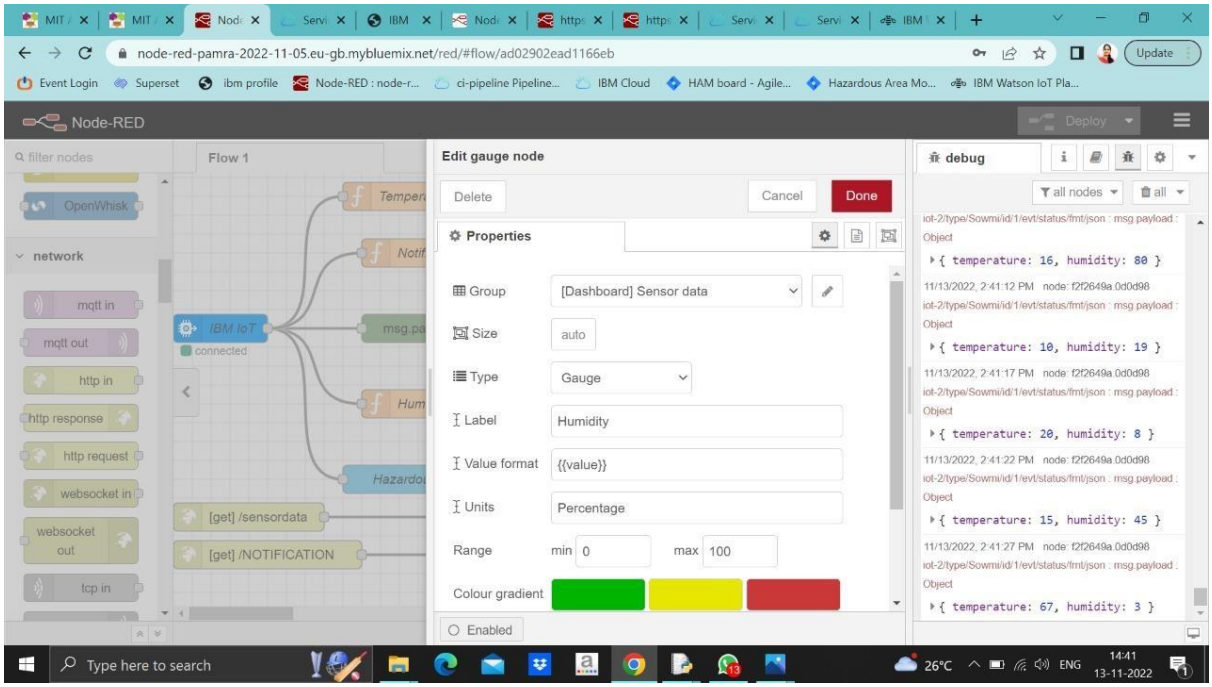
NOTIFICATION NODE:



GAUGE-TEMPERATURE NODE:



GAUGE-HUMIDITY NODE:


node-red-pamra-2022-11-05.eu-gb.mybluemix.net/red/#flow/ad02902ead1166eb
Node-RED
Deploy
Flow 1
Edit gauge node
Delete
Cancel
Done
Properties
Group
[Dashboard] Sensor data
Size
auto
Type
Gauge
Label
Humidity
Value format
{{value}}
Units
Percentage
Range
min 0
max 100
Colour gradient
Enabled
debug
all nodes
{ temperature: 16, humidity: 80 }
{ temperature: 10, humidity: 19 }
{ temperature: 20, humidity: 8 }
{ temperature: 15, humidity: 45 }
{ temperature: 67, humidity: 3 }
IBM IoT
connected
[get] /sensordata
[get] /NOTIFICATION
mqtt in
mqtt out
http in
http response
http request
websocket in
websocket out
tcp in
OpenWhisk
network
Type here to search
26°C
ENG
14:41
13-11-2022