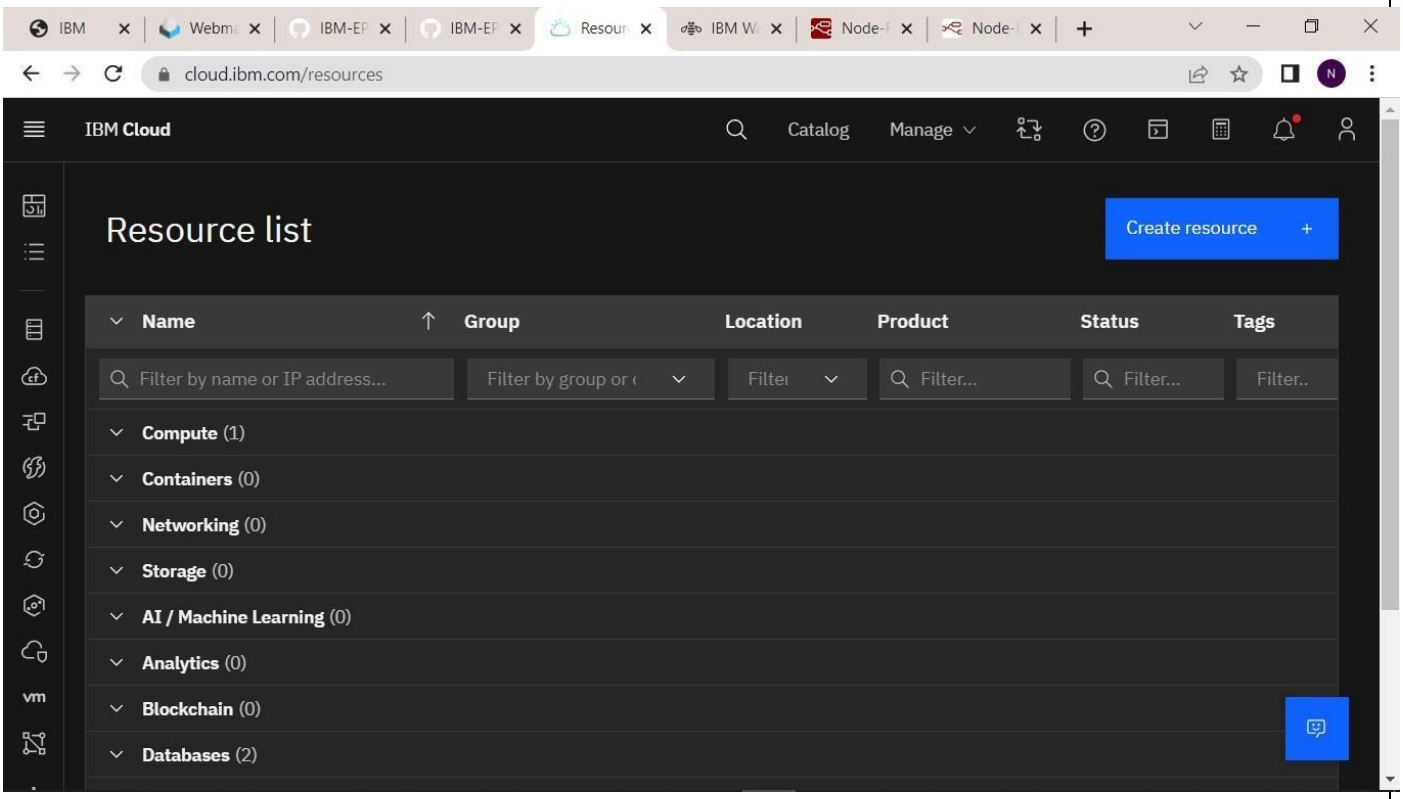
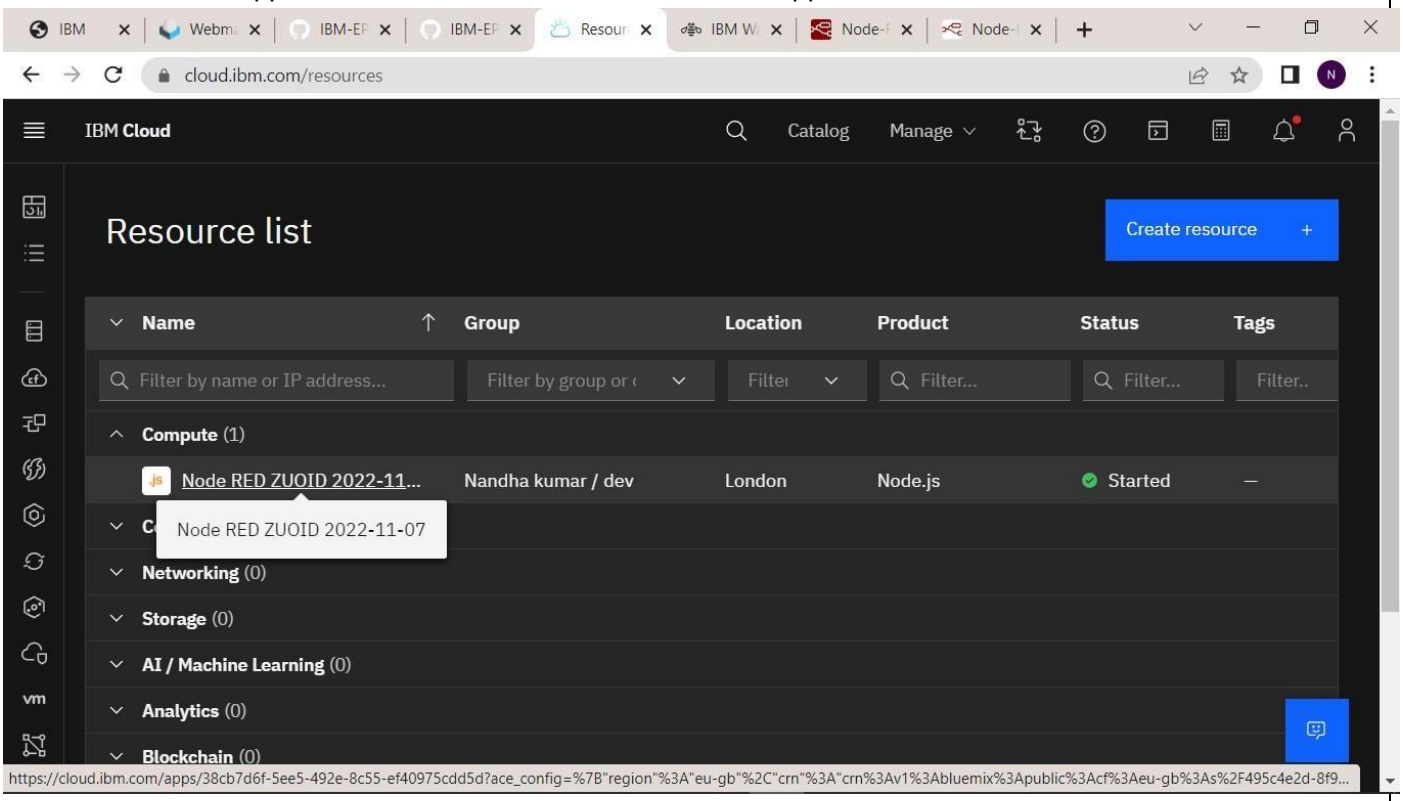
Creating a Node-Red Web Application to view data in Separate Numerical form

Date	07 November 2022
Team ID	PNT2022TMID53803
Project Name	Project - Gas Leakage Monitoring and Alerting System for Industries.

- In IBM cloud dashboard, click on Cloud Foundry apps



- A new window appears where we need to NODE-RED SELDZ app created before.



- Click on Visit App URL in Node RED SELDZ service dashboard.

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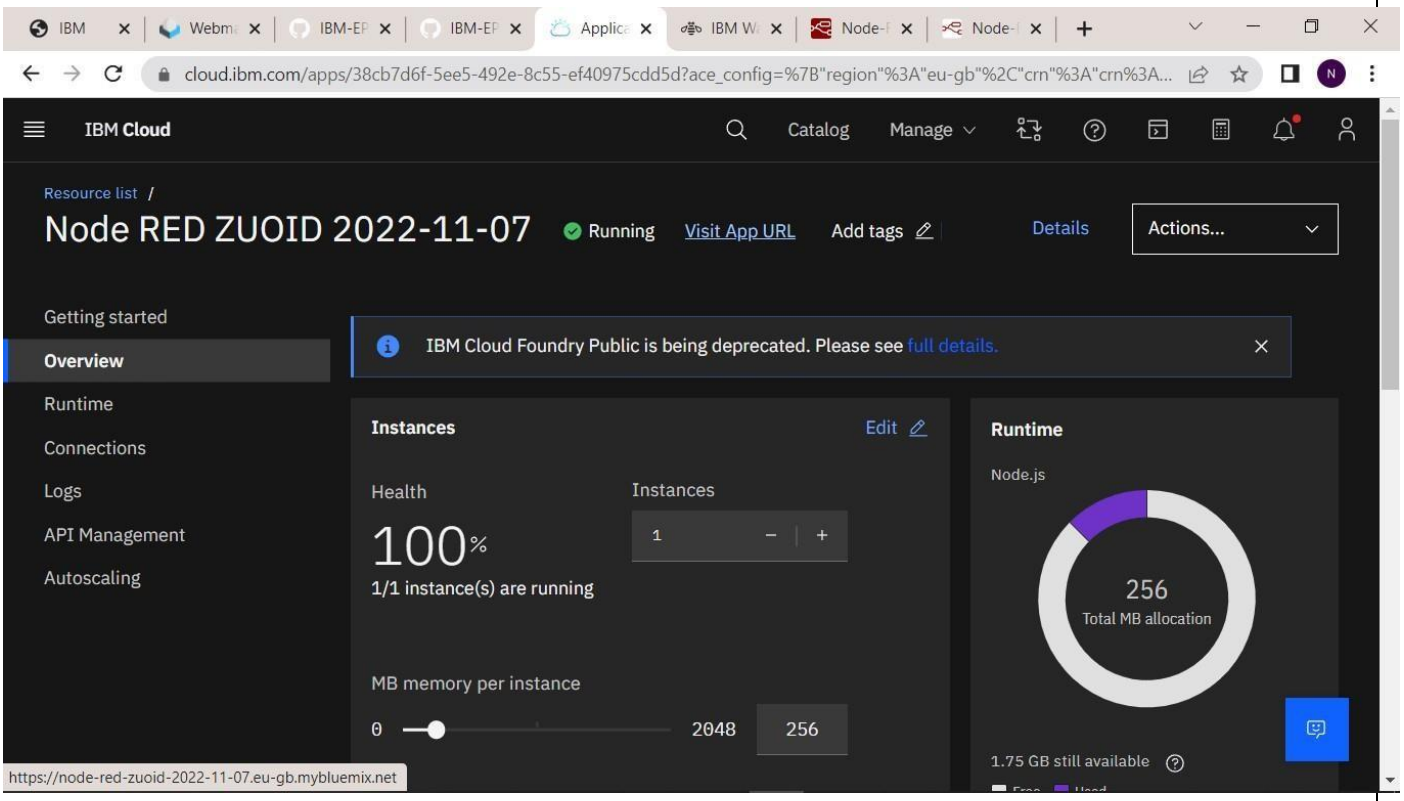
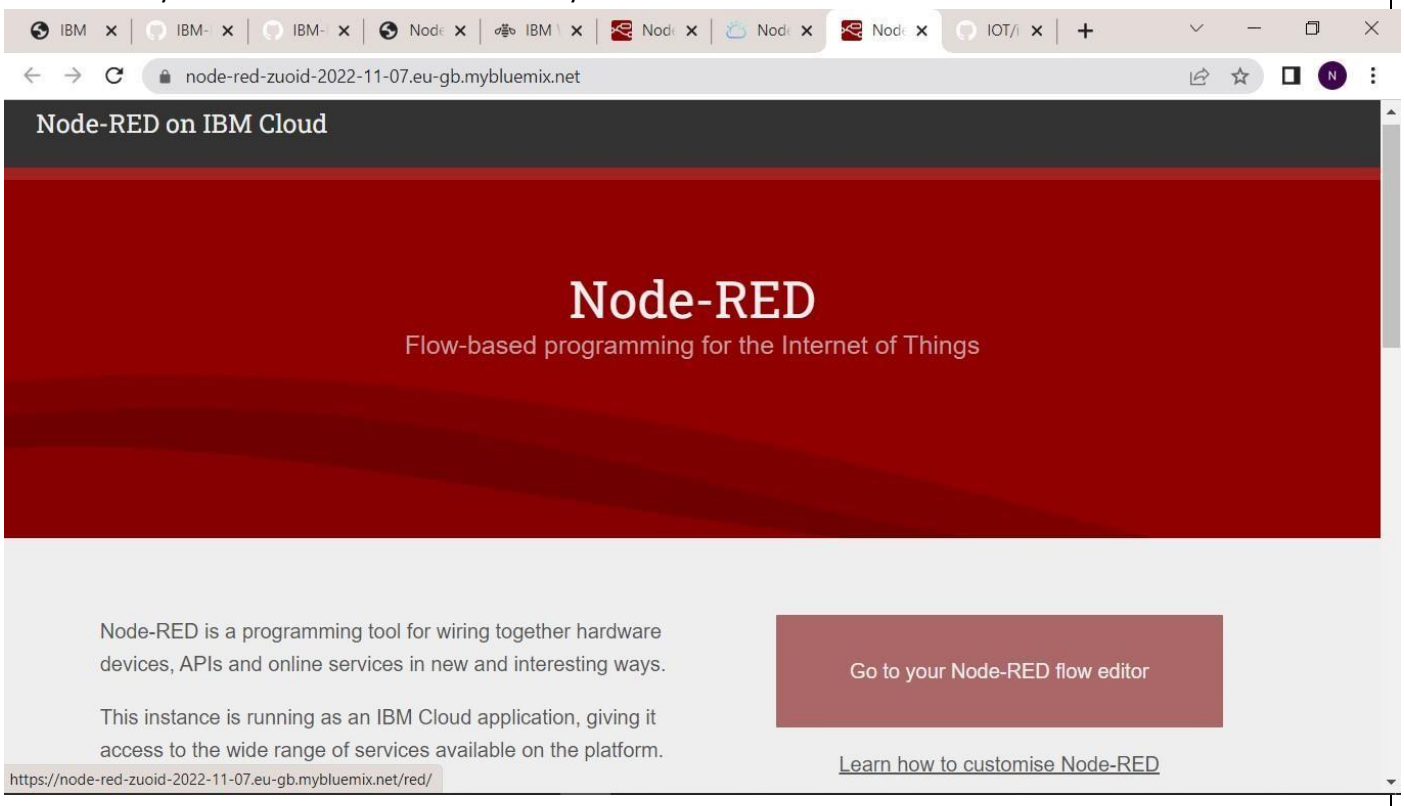
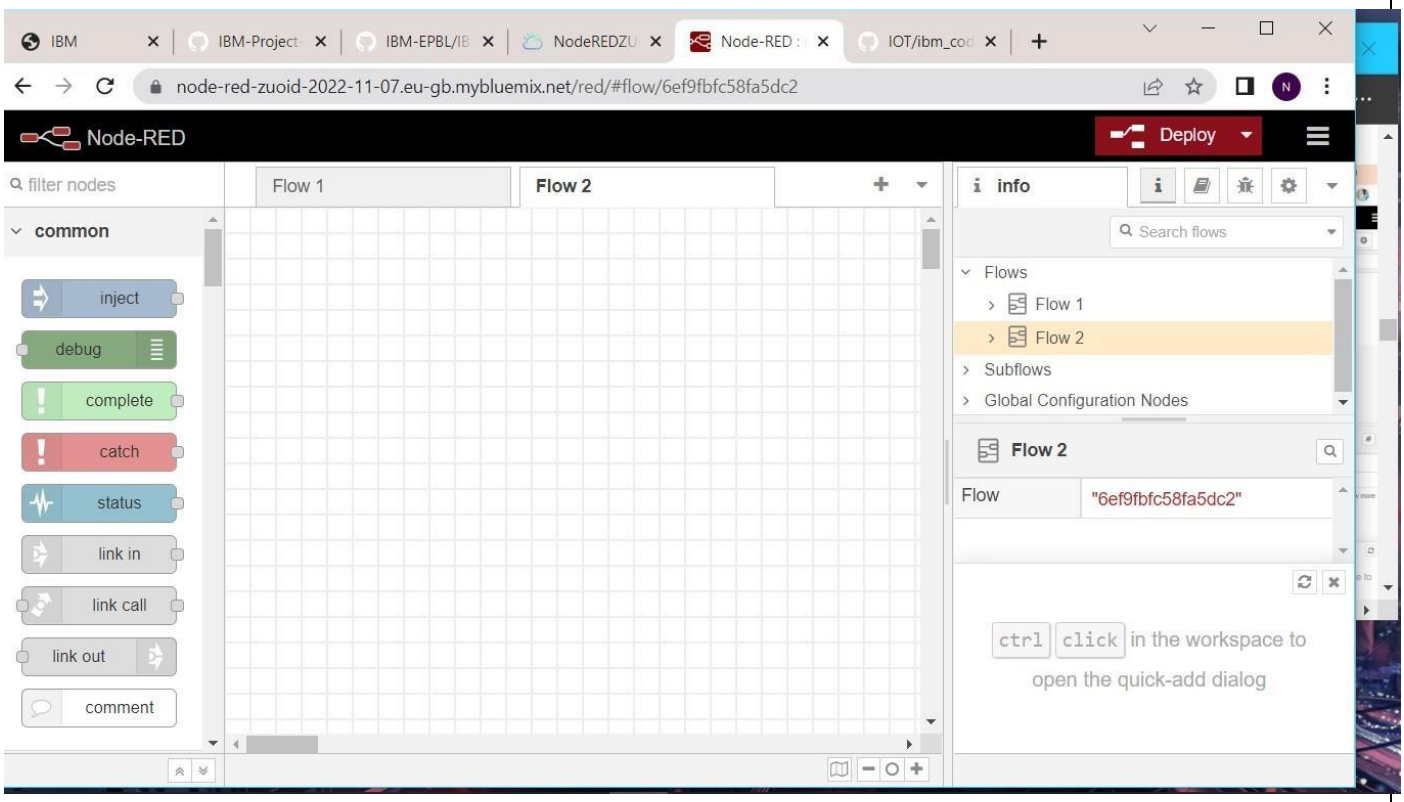


Click on your Node-RED flow editor where you will be redirected to the Node-RED flow editor.





To install IBM nodes in Node-red flow editor click on manage palette in the menu option which is on the top-right of the screen.

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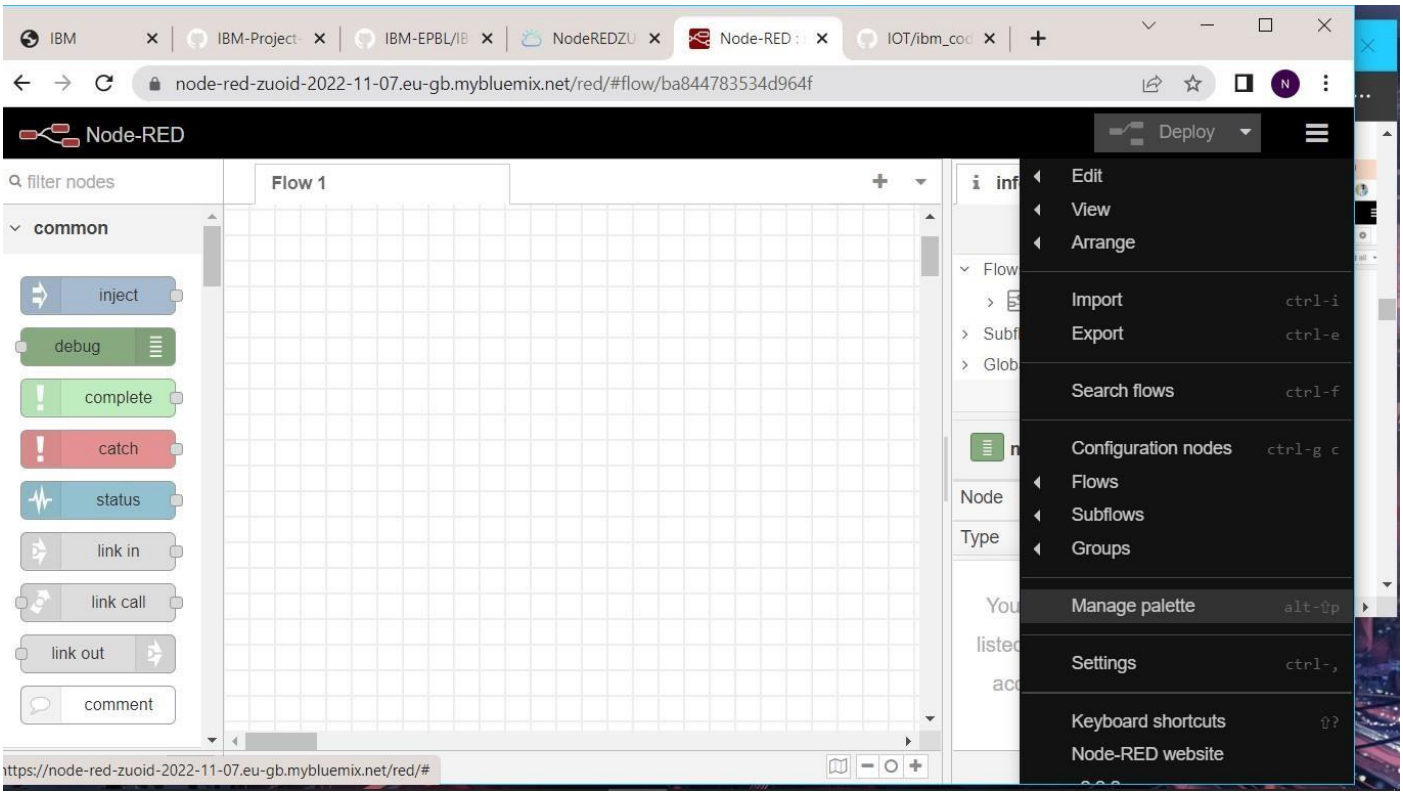
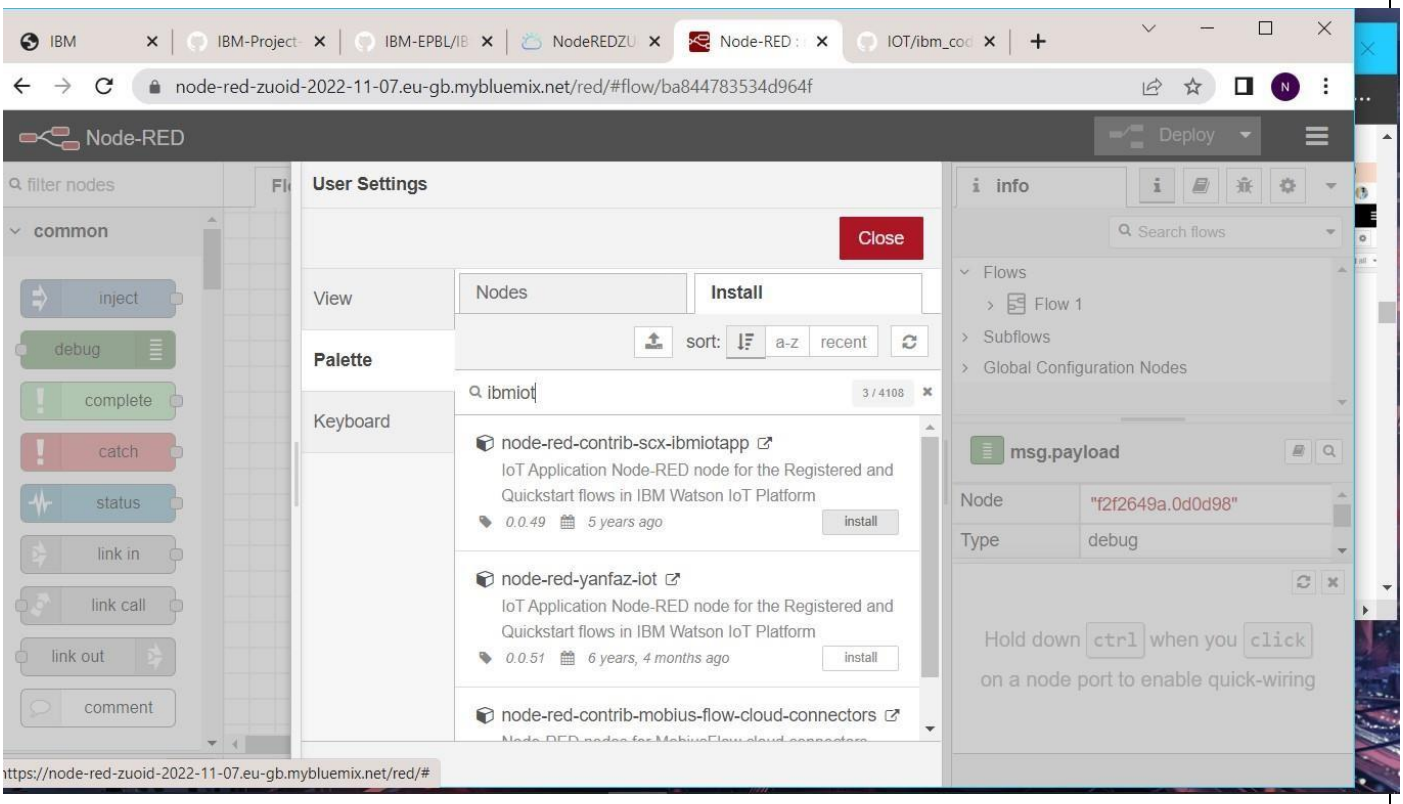
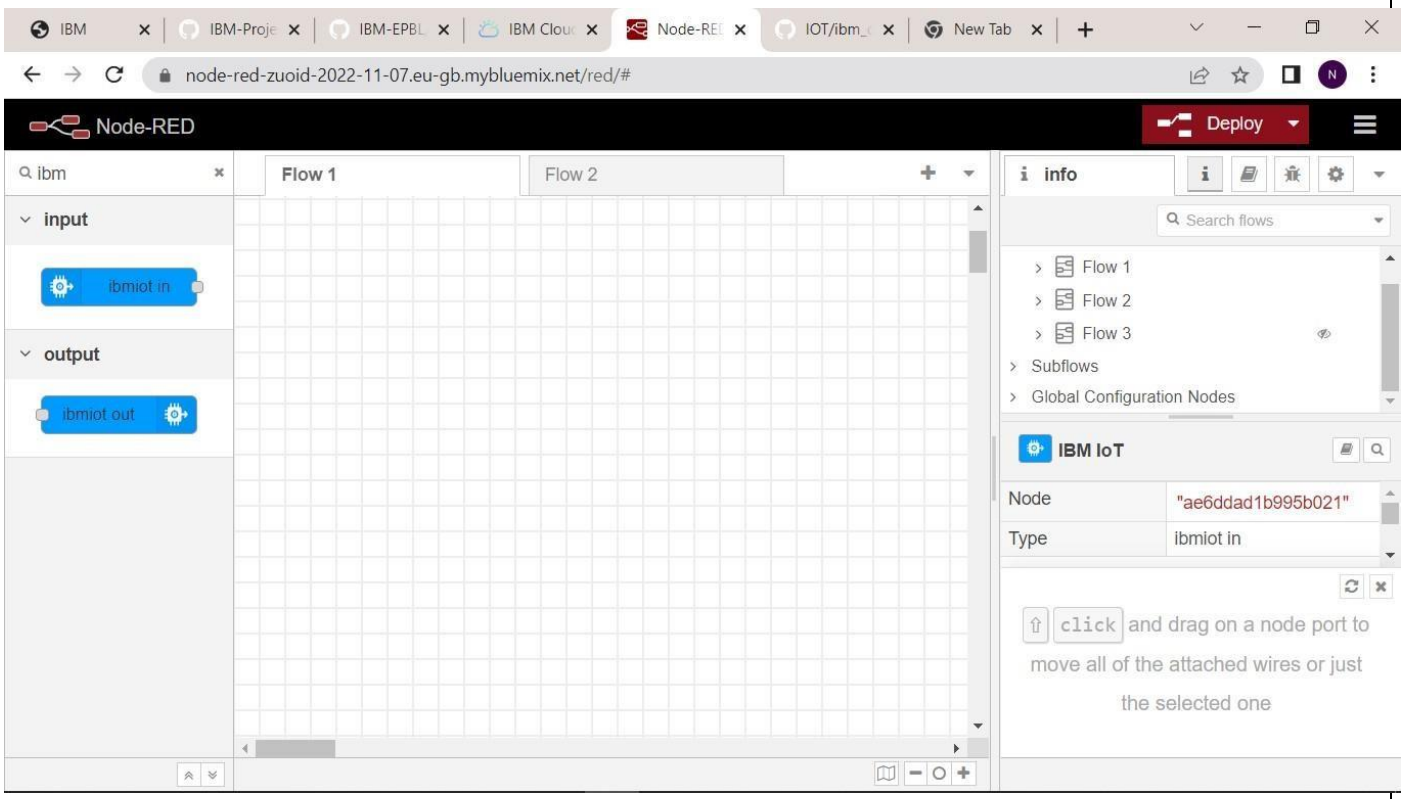


- In install section search for ibmiot and install the ibm nodes to flow editor.



Search for IBM nodes in the filter nodes section



- To Retrieve the data from the IBM IoT platform by using Node-RED IBM IoT Input node and double click on the IBM IoT input node

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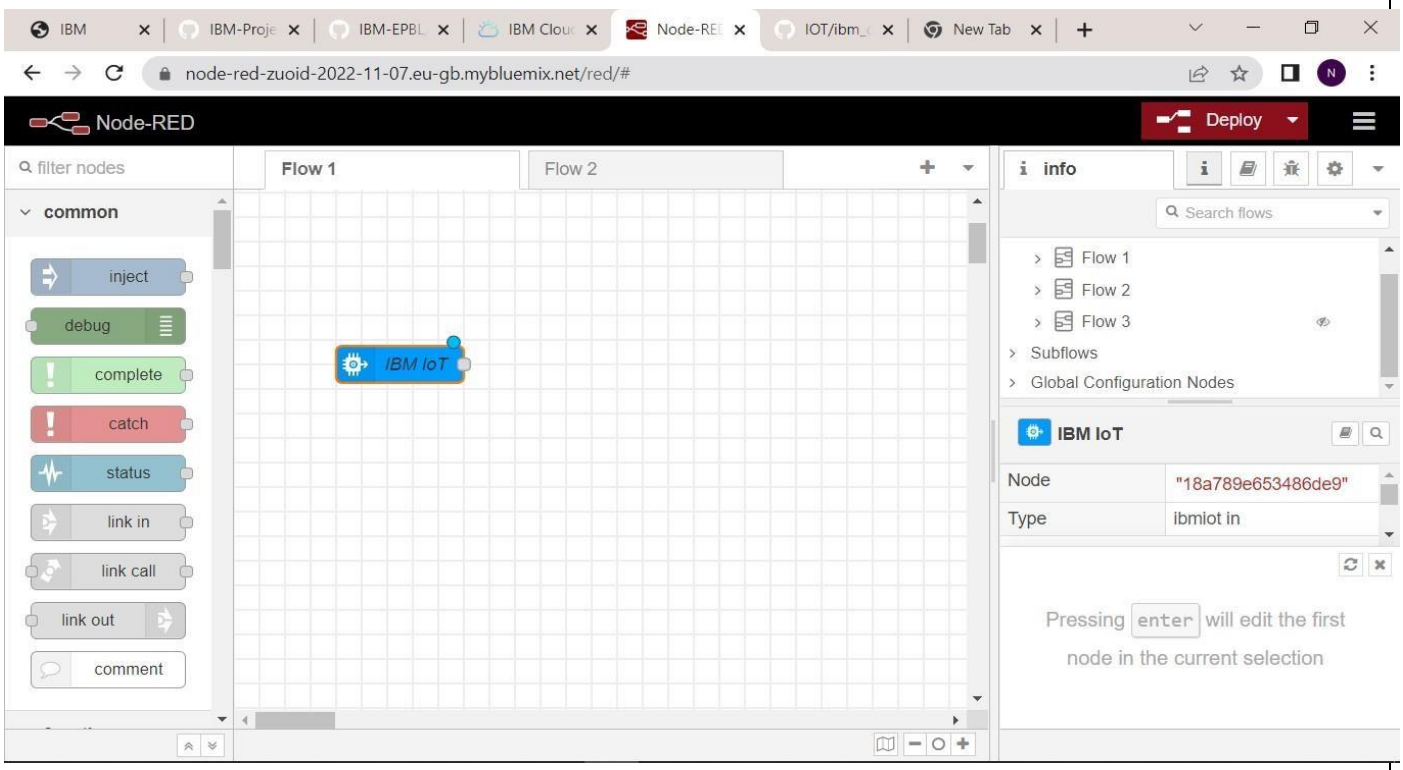
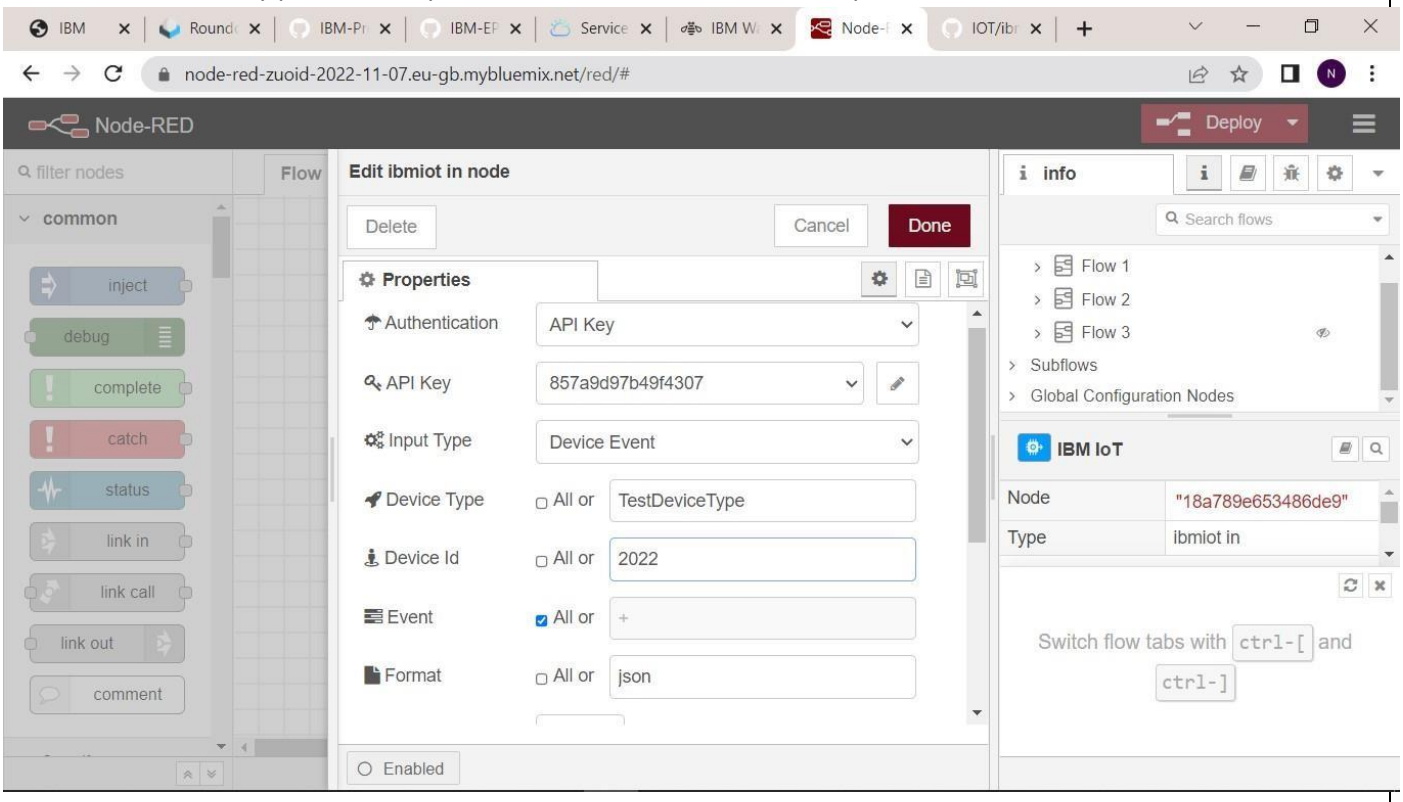


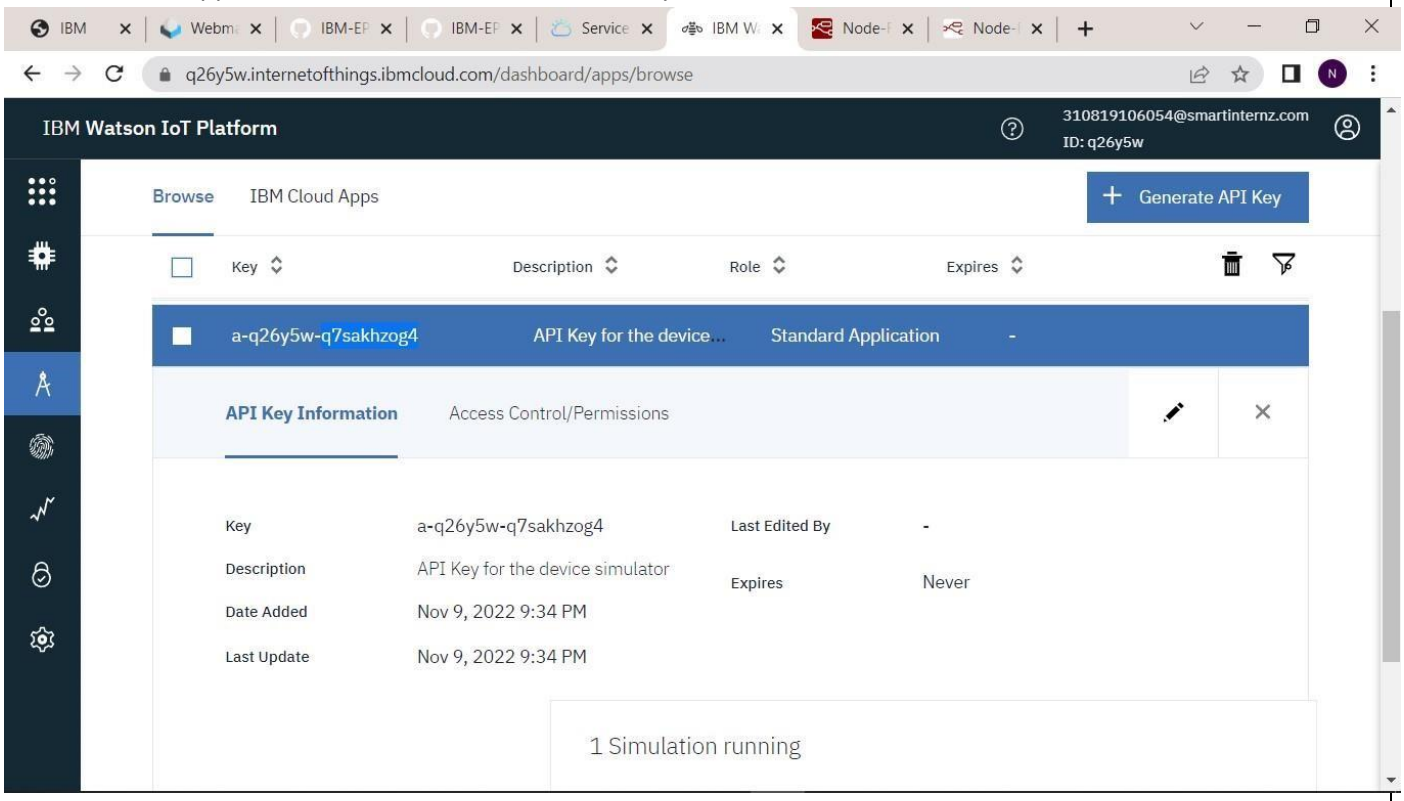
Select API Key from Authentication in properties.

- In API Key paste API Key, API Token and server name and update it



- Also update your input type as event, Device type, Device ID, command and format in the propertiees section and click on Done

- **To generate API Key go to IBM IoT platform**
- In Apps Section -> Click onGenerate API Key



- Click on Deploy option to check the connection status. If the status is disconnected check for IBM IoT properties and try again.

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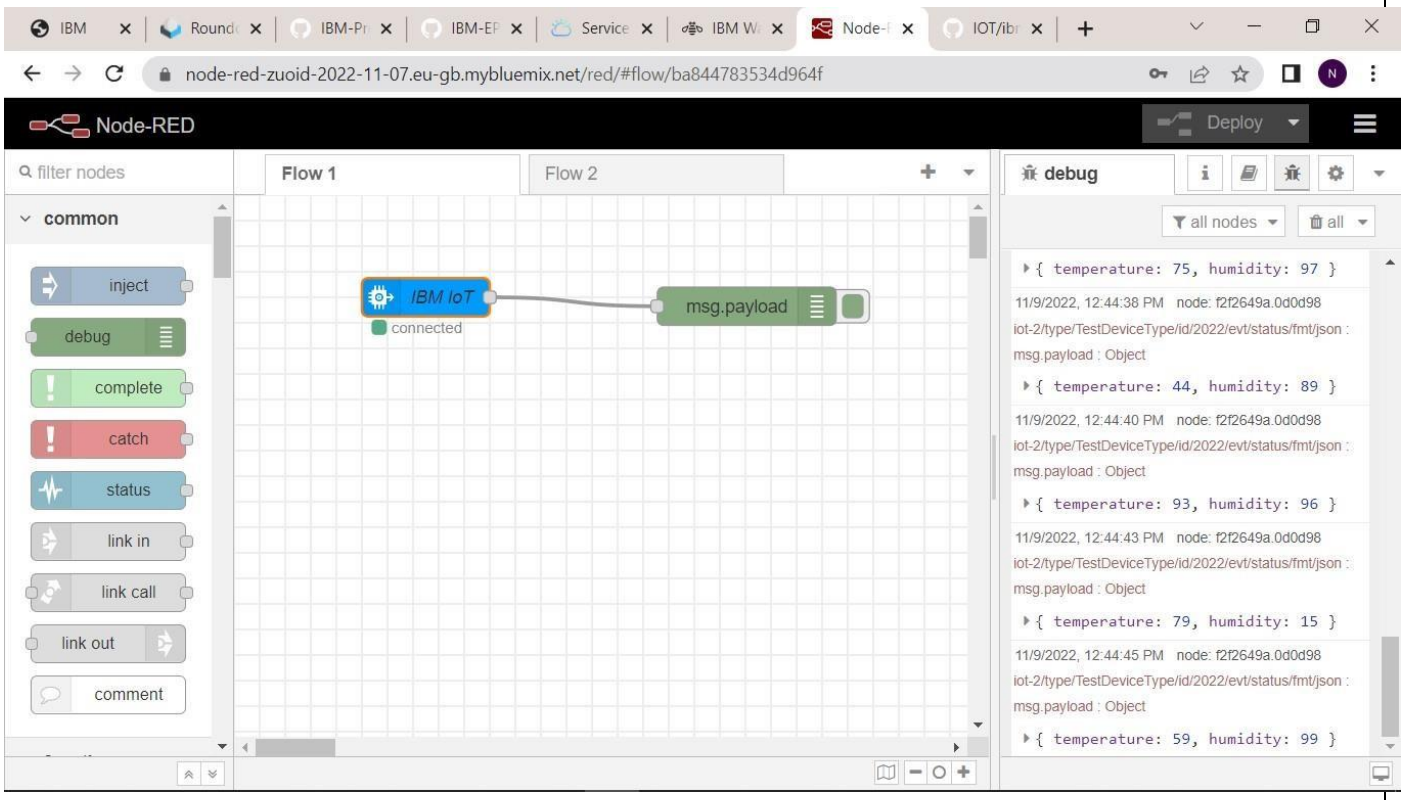

Place the debug node in the flow editor and click on deploy to see the temperature and humidity value in the debug tab

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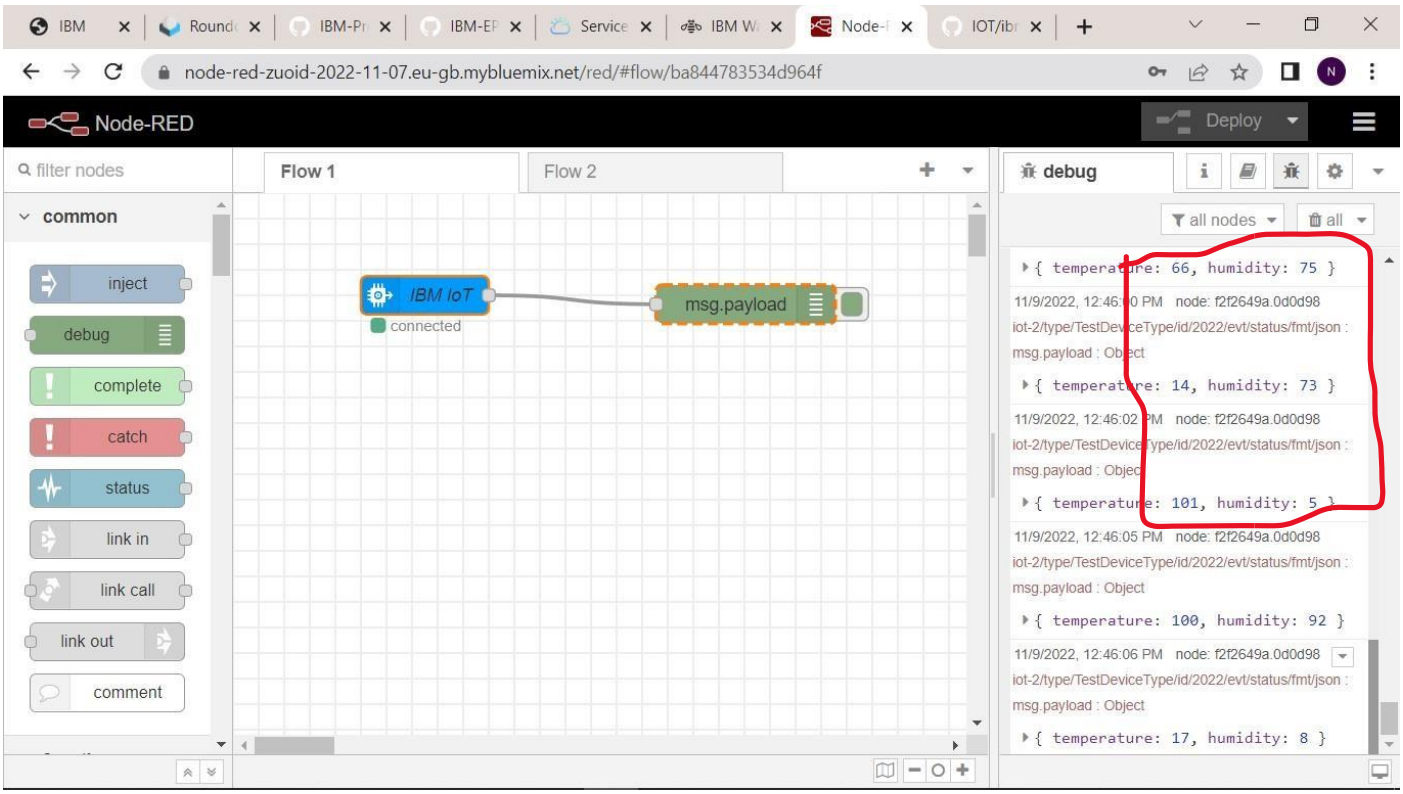
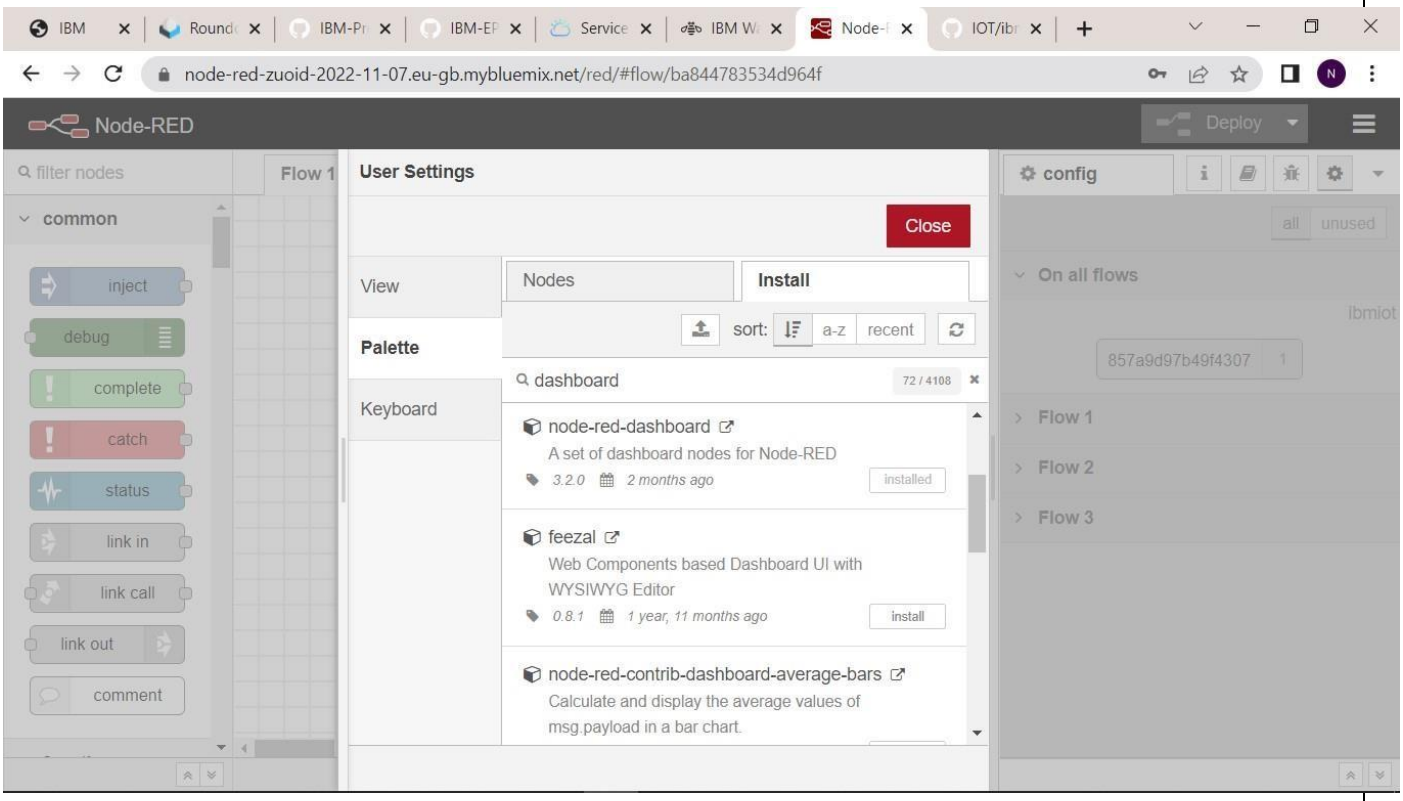
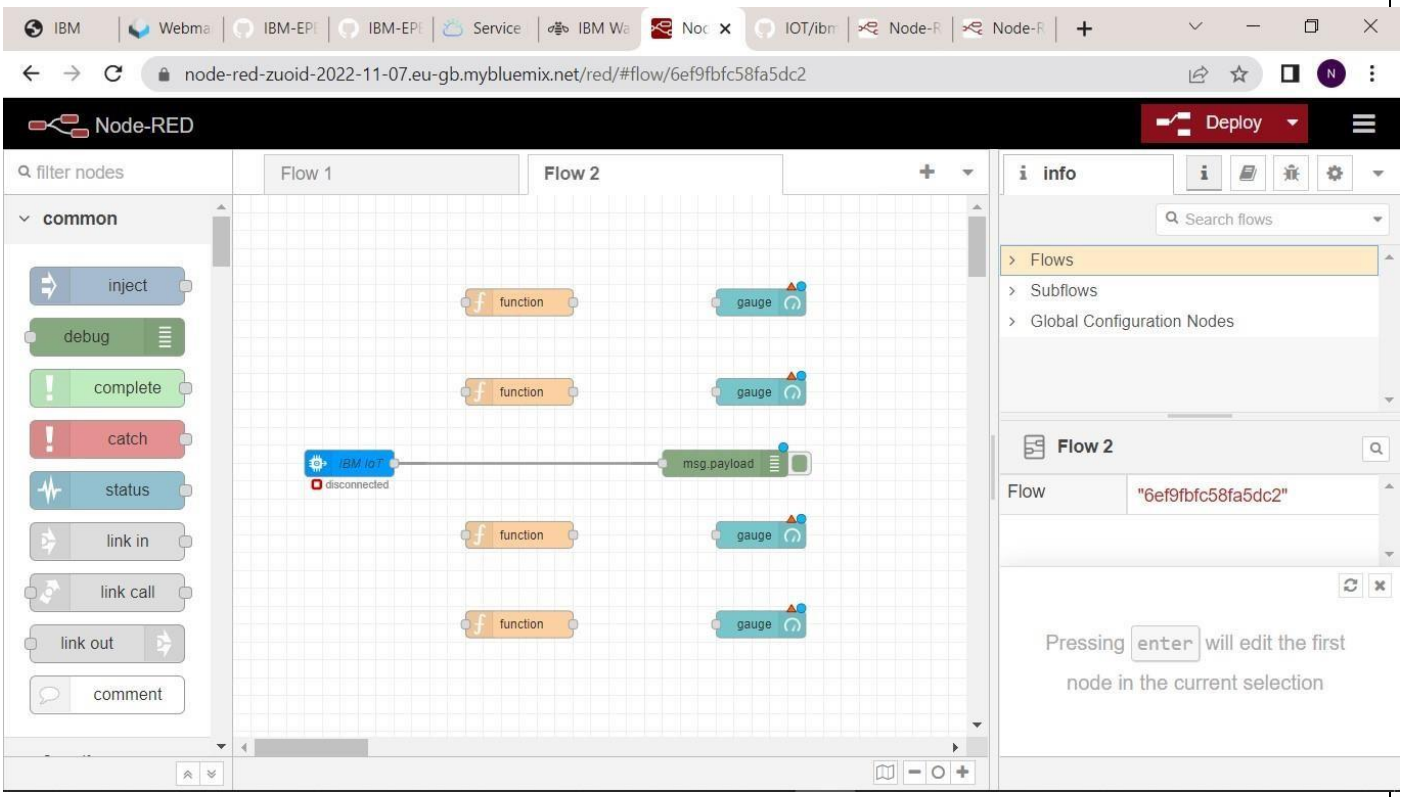

IBM
Round
IBM-Pr
IBM-EP
Service
IBM W
Node-
IOT/ibr
node-red-zuoid-2022-11-07.eu-gb.mybluemix.net/red/#flow/ba844783534d964f
Node-RED
Deploy
filter nodes
Flow 1
Flow 2
common
inject
debug
complete
catch
status
link in
link call
link out
comment
IBM IoT
connected
msg.payload
debug
all nodes
all
{ temperature: 66, humidity: 75 }
11/9/2022, 12:46:00 PM node: f2f2649a.0d0d98
iot-2/type/TestDeviceType/id/2022/evt/status/fmt/json :
msg.payload : Object
{ temperature: 14, humidity: 73 }
11/9/2022, 12:46:02 PM node: f2f2649a.0d0d98
iot-2/type/TestDeviceType/id/2022/evt/status/fmt/json :
msg.payload : Object
{ temperature: 101, humidity: 5 }
11/9/2022, 12:46:05 PM node: f2f2649a.0d0d98
iot-2/type/TestDeviceType/id/2022/evt/status/fmt/json :
msg.payload : Object
{ temperature: 100, humidity: 92 }
11/9/2022, 12:46:06 PM node: f2f2649a.0d0d98
iot-2/type/TestDeviceType/id/2022/evt/status/fmt/json :
msg.payload : Object
{ temperature: 17, humidity: 8 }

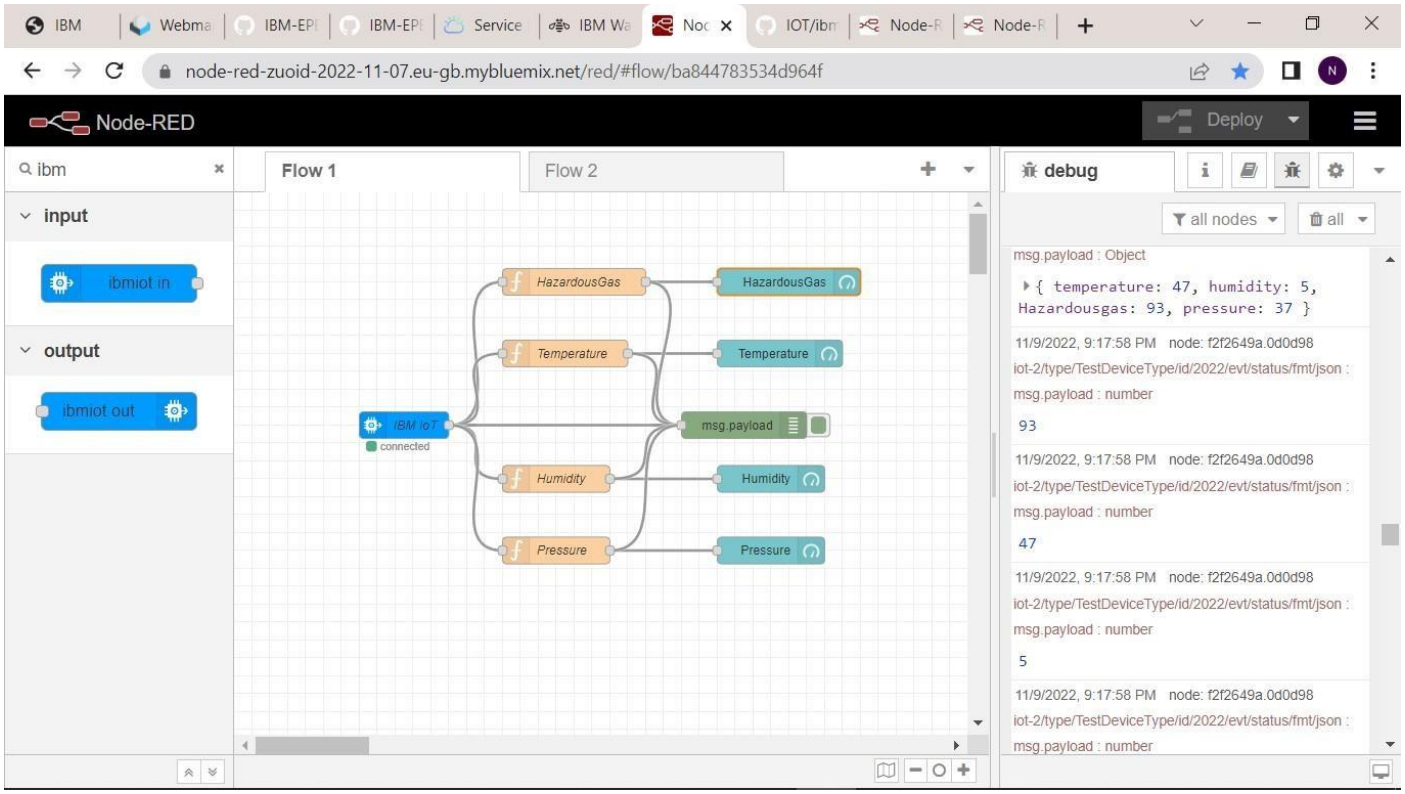
- Install the dashboard node from the manage pallet to create a UI to display temperature and humidity values in the Dashboard



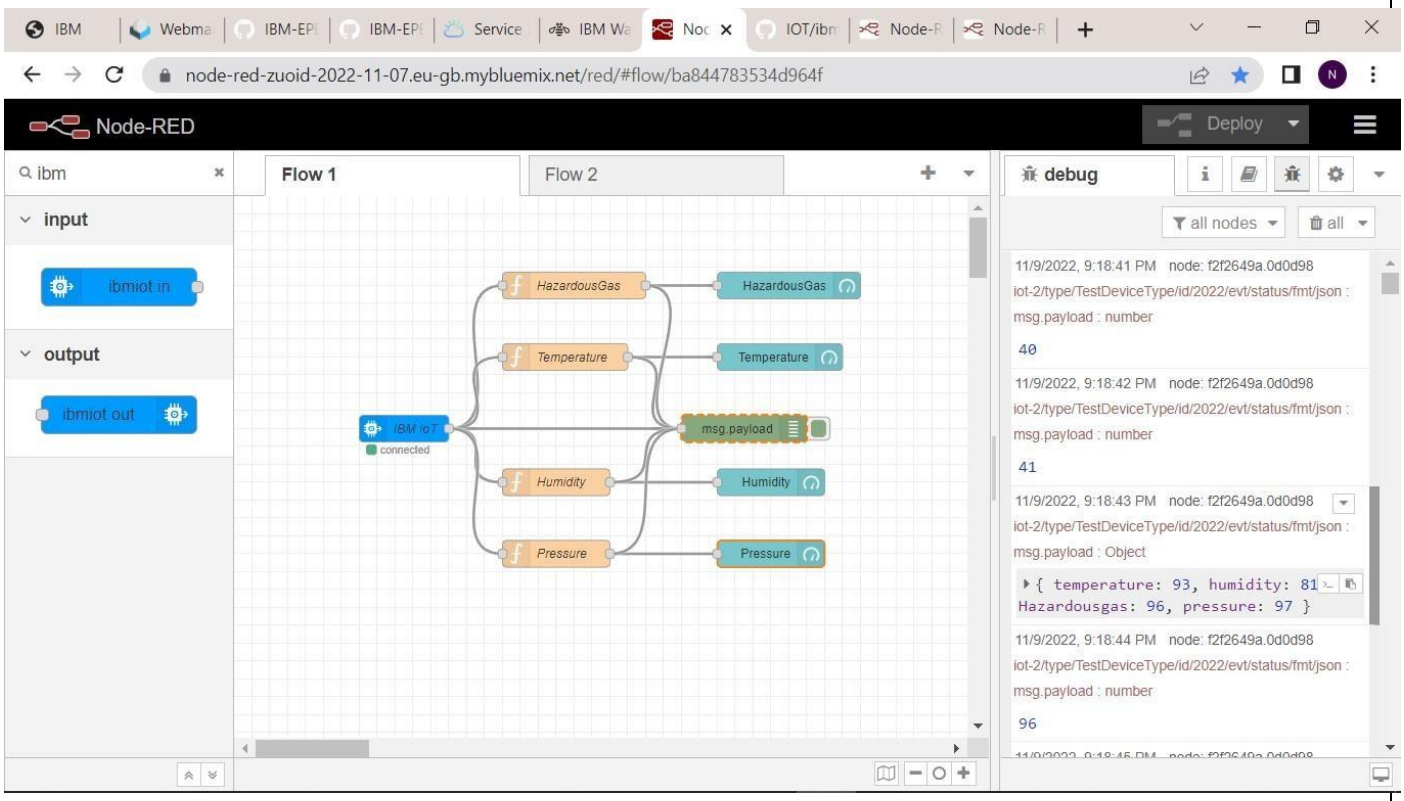
- Drag and place the function node ang gauge node in the flow editor to separate the temperature and humidity value



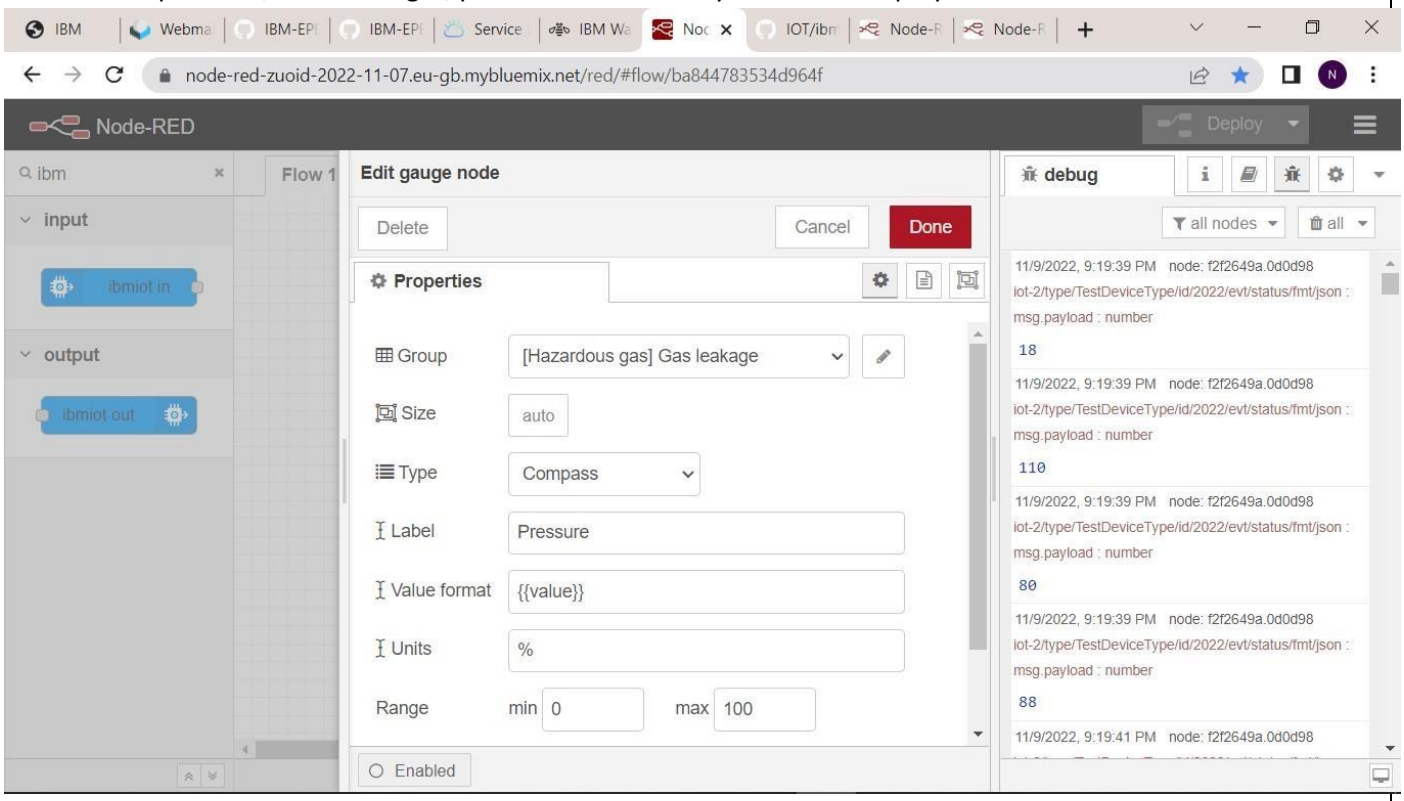
- Double click on function and update the details as follow, - Type msg.payload=msg.payload.Temperature in one function.
- Type msg.payload=msg.payload.Humidity in another function
- Type msg.payload=msg.payload.HazardousGas
- Type msg.payload=msg.payload.d.Pressure
- To separate the humidity and temperature values from payload and click deploy



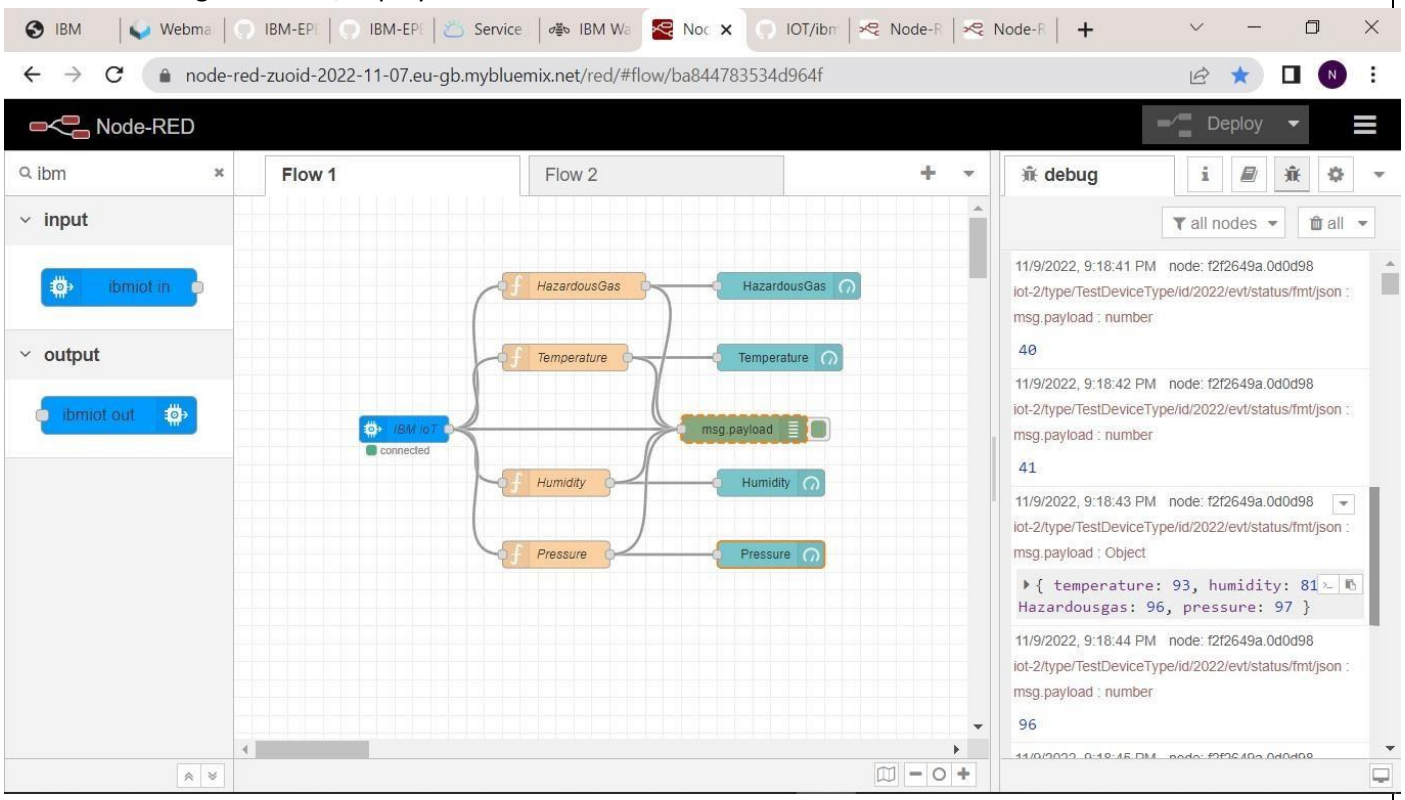
Select gauge function and these nodes to temperature, pressure, hazardous gas and humidity



- Edit temperature, hazardous gas, pressure and humidity nodes and deploy it.



- After editing the nodes, deploy it



RESULT:

Thus, the Node-Red Web Application is created successfully.