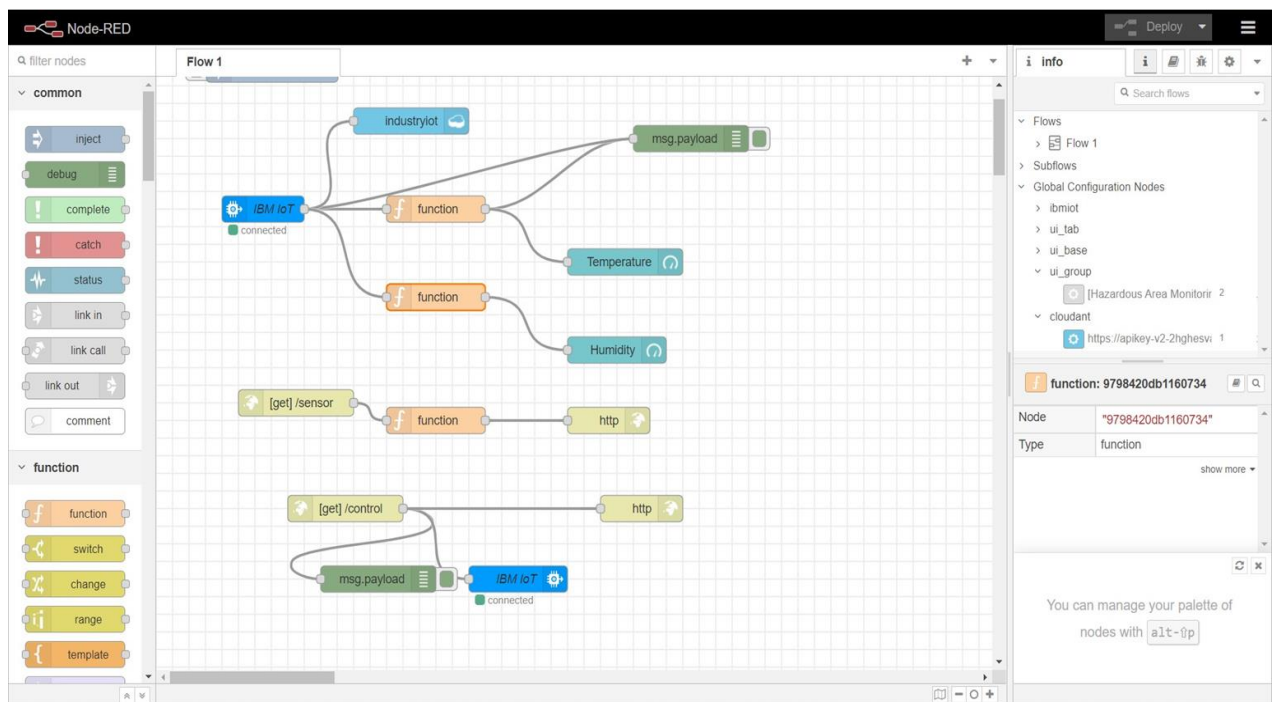


Develop The Web Application Using Node-RED

Date	10 November 2022
Team Id	PNT2022TMID10955
Title	Hazardous Area Monitoring for Industrial Plant using IoT

Node red flow



Function blocks

The screenshot shows the Node-RED web interface. On the left, the 'function' node palette is visible. The main workspace displays a flow with an 'IBM IoT' node connected to two 'function' nodes. The 'Edit function node' dialog is open, showing the following code:

```
1 msg.payload = msg.payload.temp;
2 global.set('t',msg.payload)
3 return msg;
```

The right sidebar shows the 'info' panel with a tree view of the flow and configuration nodes. A message at the bottom indicates: "Pressing **enter** will edit the first node in the current selection".

This screenshot shows the same Node-RED interface as above, but with a different function node selected. The 'Edit function node' dialog now displays the following code:

```
1 msg.payload = msg.payload.humid;
2 global.set('h',msg.payload)
3 return msg;
```

The right sidebar shows the same flow structure. A message at the bottom indicates: "Show the Info tab with **ctrl-g i** or the Debug tab with **ctrl-g d**".

Node-RED

filter nodes

common

- inject
- debug
- complete
- catch
- status
- link in
- link call
- link out
- comment

function

- function
- switch
- change
- range
- template

Flow 1

industryiot

function

function

[get] /sensor

function

[get] /control

msg.payload

IBM IoT

connected

connected

Edit ibmiot in node

Delete Cancel Done

Properties

- Authentication: API Key
- API Key: Industryiot
- Input Type: Device Event
- Device Type: ☐ All or NodeMCU
- Device Id: ☐ All or IoT001
- Event: ☒ All or +
- Format: ☐ All or json
- QoS: 0
- Name: IBM IoT
- Service: registered

Use the Input Type property to configure this node to receive Events sent by IoT Devices, Commands sent to IoT Devices, Status Messages referring to IoT Devices, or Status Messages referring to IoT Applications. Check the info tab, to get more information about each of the fields

Enabled

Node-RED

filter nodes

common

- inject
- debug
- complete
- catch
- status
- link in
- link call
- link out
- comment

function

- function
- switch
- change
- range
- template

Flow 1

industryiot

function

function

[get] /sensor

function

[get] /control

msg.payload

IBM IoT

connected

connected

Edit function node

Delete Cancel Done

Properties

Name

Setup On Start On Message On Stop

```
1 msg.payload = msg.payload.humid;
2 global.set('h',msg.payload)
3 return msg;
```

Enabled

info

Search flows

- Flows
 - Flow 1
- Subflows
- Global Configuration Nodes
 - ibmiot
 - ui_lab
 - ui_base
 - ui_group
 - [Hazardous Area Monitor 2
- cloudant
 - https://apikey-v2-2ghesw 1

function: 9798420db1160734

Node "9798420db1160734"

Type function

Show the Info tab with **ctrl-g** or the Debug tab with **ctrl-g**

Node-RED interface showing a flow diagram and the 'Edit gauge node' configuration panel.

Flow Diagram: The flow starts with an 'IBM IoT' node (connected) feeding into a 'function' node. This 'function' node branches into two paths: one leading to an 'industryiot' node and another to a 'function' node. The 'industryiot' node feeds into a 'function' node, which then feeds into a 'function' node. The 'function' node feeds into a '[get]/sensor' node, which feeds into a 'function' node. The 'function' node feeds into a '[get]/control' node, which feeds into a 'msg.payload' node. The 'msg.payload' node feeds into an 'IBM IoT' node (connected).

Edit gauge node configuration:

- Group: [Hazardous Area Monitoring for Industri]
- Size: auto
- Type: Gauge
- Label: Temperature
- Value format: {{value}}
- Units: c
- Range: min 0, max 100
- Colour gradient: [Green, Yellow, Red]
- Sectors: 0, optional, optional, 100
- Class: Optional CSS class name(s) for widget
- Name:

Info panel:

- Flows: Flow 1
- Subflows:
- Global Configuration Nodes: ibmiot, ui_tab, ui_base, ui_group
- cloudant: [Hazardous Area Monitorir 2]
- https://apikey-v2-2ghesv: 1
- Temperature
- Node: "50e22bf31d3e6148"
- Type: ui_gauge

Node-RED interface showing a flow diagram and the 'Edit gauge node' configuration panel.

Flow Diagram: The flow starts with an 'IBM IoT' node (connected) feeding into a 'function' node. This 'function' node branches into two paths: one leading to an 'industryiot' node and another to a 'function' node. The 'industryiot' node feeds into a 'function' node, which then feeds into a 'function' node. The 'function' node feeds into a '[get]/sensor' node, which feeds into a 'function' node. The 'function' node feeds into a '[get]/control' node, which feeds into a 'msg.payload' node. The 'msg.payload' node feeds into an 'IBM IoT' node (connected).

Edit gauge node configuration:

- Group: [Hazardous Area Monitoring for Industri]
- Size: auto
- Type: Gauge
- Label: Humidity
- Value format: {{value}}
- Units: %
- Range: min 0, max 100
- Colour gradient: [Green, Yellow, Red]
- Sectors: 0, optional, optional, 100
- Class: Optional CSS class name(s) for widget
- Name:

Info panel:

- Flows: Flow 1
- Subflows:
- Global Configuration Nodes: ibmiot, ui_tab, ui_base, ui_group
- cloudant: [Hazardous Area Mor]
- https://apikey-v2-2hgt
- Humidity
- Node: "a214ca6c4eabe"
- Type: ui_gauge

Export the selected node:
current tab with `ctrl`