

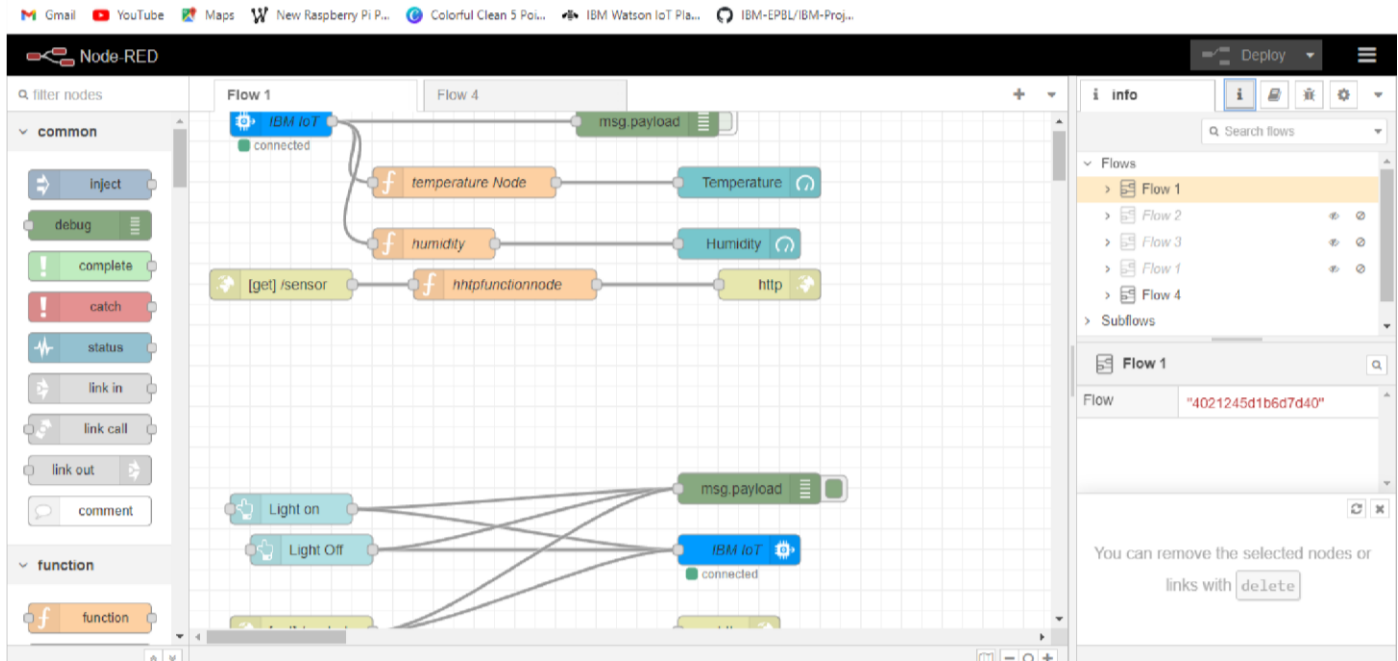
# DEVELOP A WEB APPLICATION USING NODE-RED SERVICE

## Use Dashboard Nodes for creating UI (Web App)

Date : 04 November 2022

Team ID : PNT2022TMID51479

Project Name Project - SIGNS WITH SMART CONNECTIVITY FOR BETTER ROAD SAFETY



This screenshot shows the Node-RED web interface with the 'debug' node selected and its configuration panel open. The 'Properties' section shows the output is 'msg.payload' and it is configured to send data to the 'debug window'. The 'Name' field is empty. The debug console on the right displays a series of incoming messages from an IoT device. Each message is a JSON object containing a timestamp, a node ID, an IoT type, and a sample object with a random number. The messages are as follows:

```
11/12/2022, 9:17:03 PM node: f2f2649a.0d0d98  
iot-2/type/NodeMCU/id/12345/evt/event_2/fmt/json :  
msg.payload : Object  
{  
  randomNumber: 5,  
  sampleObject: object  
}  
  
11/12/2022, 9:17:07 PM node: f2f2649a.0d0d98  
iot-2/type/NodeMCU/id/12345/evt/event_2/fmt/json :  
msg.payload : Object  
{  
  randomNumber: 79,  
  sampleObject: object  
}  
  
11/12/2022, 9:17:07 PM node: f2f2649a.0d0d98  
iot-2/type/NodeMCU/id/12345/evt/event_2/fmt/json :  
msg.payload : Object  
{  
  randomNumber: 78,  
  sampleObject: object  
}  
  
11/12/2022, 9:17:11 PM node: f2f2649a.0d0d98  
iot-2/type/NodeMCU/id/12345/evt/event_2/fmt/json :  
msg.payload : Object  
{  
  randomNumber: 20,  
  sampleObject: object  
}  
  
11/12/2022, 9:17:12 PM node: f2f2649a.0d0d98  
iot-2/type/NodeMCU/id/12345/evt/event_2/fmt/json :  
msg.payload : Object  
{  
  randomNumber: 15,  
  sampleObject: object  
}
```

IBM Watson IoT Platform

Find - OpenWeatherMaphttps://api.openweathermap.orgIBM Watson IoT Platform

ebp7p7.internetofthings.ibmcloud.com/dashboard/devices/browse

muthuroc07@gmail.comID: ebp7p7

BrowseActionDevice TypesInterfaces

Add Device

12345DisconnectedNodeMCUDeviceNov 7, 2022 7:39 PM

IdentityDevice InformationRecent EventsStateLogs

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
eventflow	{"randomNumber":100,"temp":95,"HUM":84}	json	a few seconds ago
eventflow	{"randomNumber":37,"temp":94,"HUM":81}	json	a minute ago
eventflow	{"randomNumber":7,"temp":98,"HUM":65}	json	2 minutes ago
eventflow	{"randomNumber":35,"temp":92,"HUM":91}	json	3 minutes ago
eventflow	{"randomNumber":70,"temp":98,"HUM":73}	json	4 minutes ago

1 Simulation running

Search the web and Windows

10:32 AM11/12/2022

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muthuroc07@gmail.comID: ebp7p7

BrowseActionDevice TypesInterfaces

Browse Devices

All DevicesDiagnose

This table shows a summary of all devices that have been added. It can be filtered, organized, criteria. To get started, you can add devices by using the Add Device button, or by using API.

Search by Device ID

Device ID	Status	Device Type
12345	Disconnected	NodeMCU

IdentityDevice InformationRecent EventsState

The recent events listed show the live stream of data that is coming and going from this device.

Simulations

Import/Export simulation

1/50 Simulations Running

New Simulation

Device TypeNodeMCU1 Event

1 Device

12345

1 xCreate Simulated DeviceUse Registered Device

Search the web and Windows

10:45 AM11/12/2022

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muthuroc07@gmail.com  
ID: ebp7p7

Add Device +

### Event Payload

Event Name: eventflow

Time Received: Nov 12, 2022 10:43 AM

```
1 {  
2   "randomNumber": 18,  
3   "temp": 91,  
4   "HUM": 95  
5 }
```

1 Simulation running

1 of 1 page

Activate Windows  
Go to Settings to activate Windows.

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ebp7p7.internetofthings.ibmcloud.com/dashboard/devices/browse

muthuroc07@gmail.com  
ID: ebp7p7

## Browse Devices

All Devices | Diagnose

This table shows a summary of all devices that have been added. It can be filtered, organized, criteria. To get started, you can add devices by using the Add Device button, or by using API.

Search by Device ID

Device ID	Status	Device Type
12345	Disconnected	NodeMCU

Identity | Device Information | Recent Events | State

The recent events listed show the live stream of data that is coming and going from this device.

### Device Type: NodeMCU

Events 1 | New event type +

Event type name: eventflow | Send |

Schedule: 1 | Every Minute

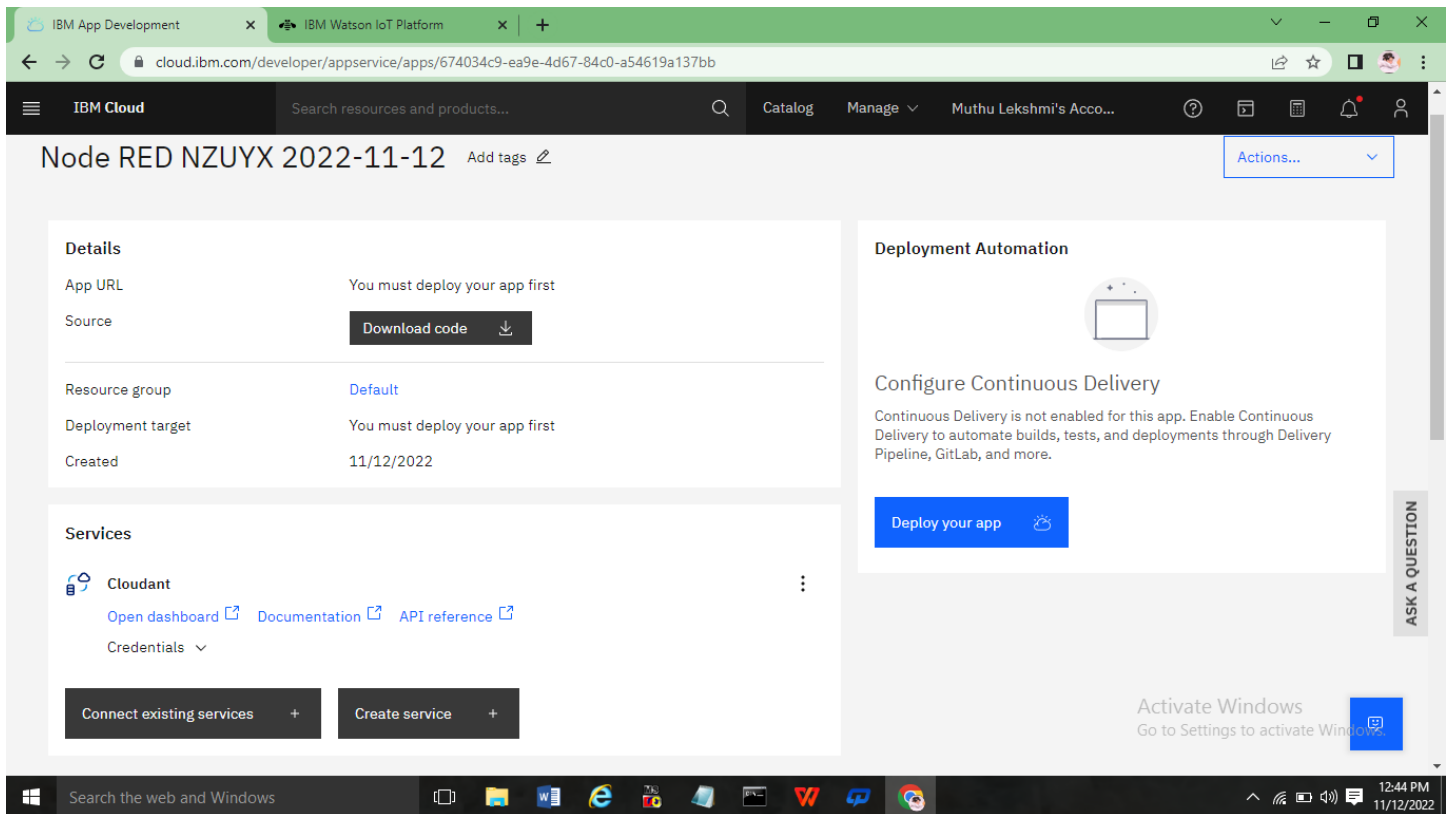
Payload

Specify the event payload in the editor window or by uploading a CSV file.

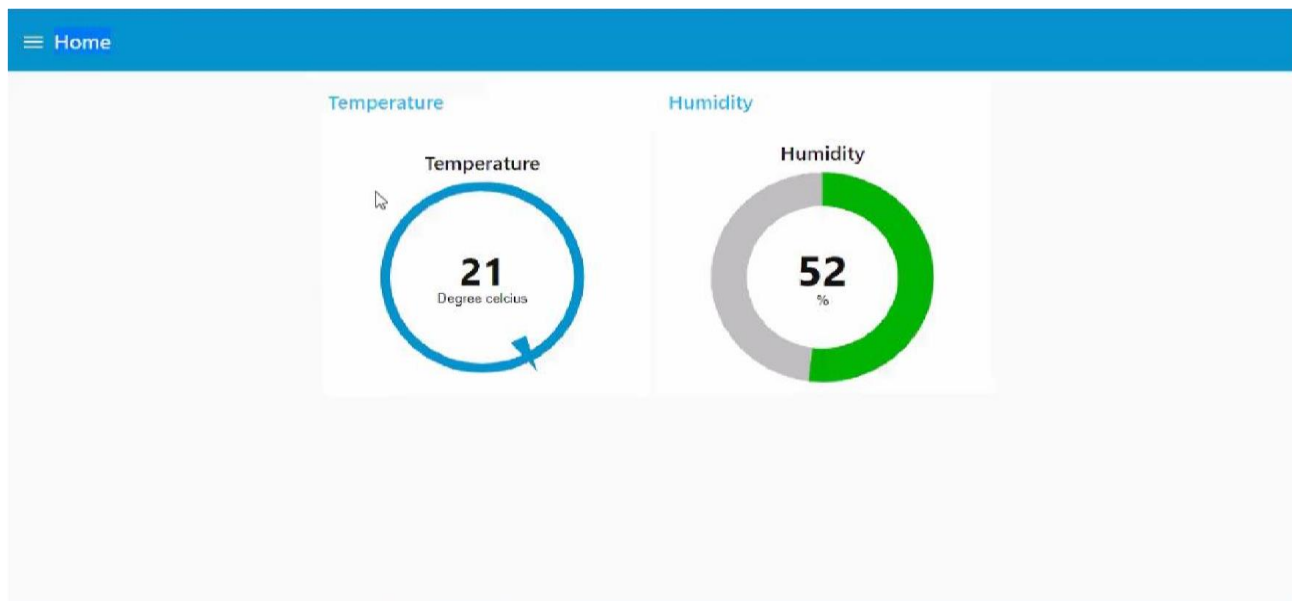
```
0 {  
1   "randomNumber": random(0, 100),  
2   "temp": random(90, 110),  
3   "HUM": random(60, 100)  
4 }
```

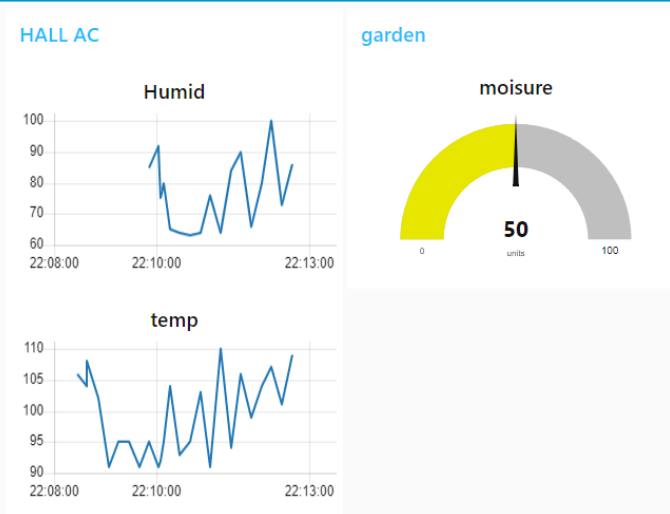
Upload a CSV file

Activate Windows  
Go to Settings to activate Windows.



## By using User interface (UI) in NODE-RED





Activate Windows  
Go to Settings to activate Windows.

Search the web and Windows

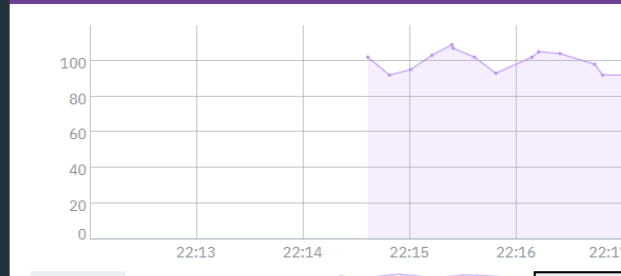
IBM-Project-42700-1660707 x IBM Watson IoT Platform x IBM App Development x Node-RED : node-red-ahoyv-2022-11-12.eu-gb.mybluemix.net/ui/#/0?socketid=tlG0W0zVyMIVYCD6AAAD x ci-pipeline De x +

ebp7p7.internetofthings.ibmcloud.com/dashboard/boards/9b7200ed-6d14-4c6e-909c-040d41269312

## IBM Watson IoT Platform

### smart home

#### Line chart



Time	Temperature	Humidity
22:13	100	90
22:14	95	85
22:15	100	75
22:16	105	70
22:17	100	85

5 minutes

temperature humidity

now

Device Type: NodeMCU

Events 2

New event type +

Event type name event\_2 Send

Event type name eventflow Send

Search the web and Windows

10:08 PM 11/12/2022

10:16 PM 11/12/2022

Activate Windows  
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