

## DEVELOP A WEB APPLICATION USING NODE-RED SERVICE

### DEVELOP THE WEB APPLICATION USING NODE-RED SERVICE

<b>Date</b>	06 November 2022
<b>Team ID</b>	PNT2022TMID13566
<b>Project Name</b>	Industry-specific intelligent fire management system
<b>Maximum Marks</b>	8 Marks

Node-RED

Deploy

filter nodes

Flow 1

common

inject

debug

complete

catch

status

link in

link call

link out

comment

function

switch

Test

msg.payload

debug

all nodes

all

11/5/2022, 3:02:28 PM node: f2f2649a.0d0d98  
msg.payload : string[15]  
"Hello Node-RED!"

11/5/2022, 3:02:38 PM node: f2f2649a.0d0d98  
msg.payload : string[15]  
"Hello Node-RED!"

11/5/2022, 3:02:48 PM node: f2f2649a.0d0d98  
msg.payload : string[15]  
"Hello Node-RED!"

11/5/2022, 3:02:58 PM node: f2f2649a.0d0d98  
msg.payload : string[15]  
"Hello Node-RED!"

11/5/2022, 3:03:08 PM node: f2f2649a.0d0d98  
msg.payload : string[15]  
"Hello Node-RED!"

11/5/2022, 3:03:18 PM node: f2f2649a.0d0d98  
msg.payload : string[15]  
"Hello Node-RED!"

11/5/2022, 3:03:28 PM node: f2f2649a.0d0d98  
msg.payload : string[15]  
"Hello Node-RED!"

Node-RED

Deploy

filter nodes

Flow 1

tcp in

tcp out

tcp request

udp in

udp out

input

ibmiot in

output

OpenWhisk

ibmiot out

sequence

split

IBM IoT

connected

msg payload

debug

all nodes

all

11/5/2022, 3:31:22 PM node: f2f2649a.0d0d98  
iot-2/type/123/id/123\_2/evt/eventtest/mtl/json :  
msg payload : Object  
{  
 randomNumber: 17, temp: 33, hum:  
 84  
}

11/5/2022, 3:31:22 PM node: f2f2649a.0d0d98  
iot-2/type/123/id/123\_2/evt/eventtest/mtl/json :  
msg payload : Object  
{  
 randomNumber: 36, temp: 37, hum:  
 85  
}

11/5/2022, 3:31:22 PM node: f2f2649a.0d0d98  
iot-2/type/123/id/123\_456/evt/eventtest/mtl/json :  
msg payload : Object  
{  
 randomNumber: 33, temp: 43, hum:  
 85  
}

11/5/2022, 3:31:22 PM node: f2f2649a.0d0d98  
iot-2/type/123/id/123\_3/evt/eventtest/mtl/json :  
msg payload : Object  
{  
 randomNumber: 87, temp: 61, hum:  
 97  
}

11/5/2022, 3:31:22 PM node: f2f2649a.0d0d98  
iot-2/type/123/id/123\_1/evt/eventtest/mtl/json :  
msg payload : Object  
{  
 randomNumber: 66, temp: 44, hum:  
 81  
}

Node-RED

Deploy

filter nodes

common

function

Flow 1

IBM IoT

Temp

Humidity

Moisture

msg.payload

debug

all nodes

all

94

11/5/2022, 3:52:00 PM node: f2f2649a.0d0d98  
iot-2/type/123/id/123\_3/evt/eventtest/!mt/json :  
msg.payload : number

81

11/5/2022, 3:52:01 PM node: f2f2649a.0d0d98  
iot-2/type/123/id/123\_2/evt/eventtest/!mt/json :  
msg.payload : Object

> { randomNumber: 19, temp: 13, hum: 100 }

11/5/2022, 3:52:01 PM node: f2f2649a.0d0d98  
iot-2/type/123/id/123\_2/evt/eventtest/!mt/json :  
msg.payload : number

13

11/5/2022, 3:52:01 PM node: f2f2649a.0d0d98  
iot-2/type/123/id/123\_2/evt/eventtest/!mt/json :  
msg.payload : number

100

11/5/2022, 3:52:01 PM node: f2f2649a.0d0d98  
iot-2/type/123/id/123\_2/evt/eventtest/!mt/json :  
msg.payload : number

19

Node-RED interface showing a flow for processing IoT data.

The flow starts with an **IBM IoT** node (connected) and branches into three parallel processing paths:

- Temp** (Temperature)
- Humidity**
- Moisture**

All three paths converge into a **msg.payload** node.

The **debug** console shows the following log entries:

```
94
11/5/2022, 3:52:00 PM node: f2f2649a.0d0d98
iot-2/type/123/id/123_3/evt/eventtest/!mt/json :
msg.payload : number

81
11/5/2022, 3:52:01 PM node: f2f2649a.0d0d98
iot-2/type/123/id/123_2/evt/eventtest/!mt/json :
msg.payload : Object
> { randomNumber: 19, temp: 13, hum: 100 }

11/5/2022, 3:52:01 PM node: f2f2649a.0d0d98
iot-2/type/123/id/123_2/evt/eventtest/!mt/json :
msg.payload : number
13

11/5/2022, 3:52:01 PM node: f2f2649a.0d0d98
iot-2/type/123/id/123_2/evt/eventtest/!mt/json :
msg.payload : number
100

11/5/2022, 3:52:01 PM node: f2f2649a.0d0d98
iot-2/type/123/id/123_2/evt/eventtest/!mt/json :
msg.payload : number
19
```