

USE DASHBOARD NODES FOR CREATING UI (WEB APP)

DATE	11 NOVEMBER 2022
TEAM ID	PNT2022TMID36352
PROJECT NAME	REAL-TIME RIVER WATER QUALITY MONITORING AND CONTROL SYSTEM

- The dashboard nodes in Node –red have been used to design the flow.
- The design flow can be used to create UI.

Node-RED interface showing a flow named "Flow 2". The flow starts with an "IBM IoT" node (connected) which branches into four function nodes: "pH", "temperature", "humidity", and "turbidity". Each function node is connected to a corresponding output node: "pH", "temperature", "Humidity", and "Turbidity". A "msg payload" node is also connected to the "pH" function node.

The debug console shows the following log entries:

```
11/13/2022, 5:59:31 PM node: 1d80527787dc9cb7
iot-2/type/nodemcuid/2002/evt/event_1/fmt/json :
msg.payload : Object
{
  pH: 4, temperature: 23,
  turbidity: 88, humidity: 73
}

11/13/2022, 5:59:35 PM node: 1d80527787dc9cb7
iot-2/type/nodemcuid/2002/evt/event_1/fmt/json :
msg.payload : Object
{
  pH: 5, temperature: 73,
  turbidity: 70, humidity: 31
}

11/13/2022, 5:59:37 PM node: 1d80527787dc9cb7
iot-2/type/nodemcuid/2002/evt/event_1/fmt/json :
msg.payload : Object
{
  pH: 3, temperature: 85,
  turbidity: 87, humidity: 38
}

11/13/2022, 5:59:42 PM node: 1d80527787dc9cb7
iot-2/type/nodemcuid/2002/evt/event_1/fmt/json :
msg.payload : Object
{
  pH: 6, temperature: 29,
  turbidity: 19, humidity: 15
}

11/13/2022, 5:59:45 PM node: 1d80527787dc9cb7
iot-2/type/nodemcuid/2002/evt/event_1/fmt/json :
msg.payload : Object
{
  pH: 3, temperature: 85,
  turbidity: 87, humidity: 38
}
```

Node-RED interface showing a flow named "Flow 2". The flow starts with an "IBM IoT" node (connected) which branches into four function nodes: "pH", "temperature", "humidity", and "turbidity". Each function node is connected to a corresponding output node: "pH", "temperature", "Humidity", and "Turbidity". A "msg payload" node is also connected to the "pH" function node.

The debug console shows the following log entries:

```
11/13/2022, 6:11:30 PM node: a87803b97115443c
msg.payload : string[7]
"lighton"

11/13/2022, 6:12:02 PM node: 1d80527787dc9cb7
iot-2/type/nodemcuid/2002/evt/event_1/fmt/json :
msg.payload : Object
{
  pH: 5, temperature: 98,
  turbidity: 64, humidity: 77
}

11/13/2022, 6:12:05 PM node: 1d80527787dc9cb7
iot-2/type/nodemcuid/2002/evt/event_1/fmt/json :
msg.payload : Object
{
  pH: 1, temperature: 31,
  turbidity: 16, humidity: 41
}

11/13/2022, 6:12:08 PM node: 1d80527787dc9cb7
iot-2/type/nodemcuid/2002/evt/event_1/fmt/json :
msg.payload : Object
{
  pH: 3, temperature: 81,
  turbidity: 62, humidity: 60
}

11/13/2022, 6:12:11 PM node: 1d80527787dc9cb7
iot-2/type/nodemcuid/2002/evt/event_1/fmt/json :
msg.payload : Object
{
  pH: 1, temperature: 71,
  turbidity: 17, humidity: 78
}
```

Node-RED: node-red-fvyix-2022-11-10-au-syd.mybluemix.net/red/#flow/e34e13340420317c

Node-RED

Flow 2

filter nodes

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

function

- function
- switch
- change
- range
- template

msg payload

pH

temperature

humidity

turbidity

[get] /sensor_data

function

http

LightON

LightOFF

IBM IoT

msg payload

[get] /control

function

http

debug

```
{ pH: 5, temperature: 98, turbidity: 64, humidity: 77 }
11/13/2022, 6:12:05 PM node: 1d80527787dc9cb7
iot-2/type/nodemcu/id/2002/evt/event_1/fmt/json :
msg.payload : Object
{ pH: 1, temperature: 31, turbidity: 16, humidity: 41 }
11/13/2022, 6:12:08 PM node: 1d80527787dc9cb7
iot-2/type/nodemcu/id/2002/evt/event_1/fmt/json :
msg.payload : Object
{ pH: 3, temperature: 81, turbidity: 62, humidity: 60 }
11/13/2022, 6:12:11 PM node: 1d80527787dc9cb7
iot-2/type/nodemcu/id/2002/evt/event_1/fmt/json :
msg.payload : Object
{ pH: 1, temperature: 71, turbidity: 17, humidity: 78 }
11/13/2022, 6:12:14 PM node: 1d80527787dc9cb7
iot-2/type/nodemcu/id/2002/evt/event_1/fmt/json :
msg.payload : Object
{ pH: 7, temperature: 56, turbidity: 60, humidity: 49 }
11/13/2022, 6:28:37 PM node: a87803e97115443c
msg.payload : string[71]
```

Type here to search

27°C

06:30 PM 13-11-22