

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

<b>Date</b>	12 November 2022
<b>Team ID</b>	PNT2022TMID05221
<b>Project Name</b>	Smart Waste Management System For Metropolitan Cities
<b>Maximum Marks</b>	8 Marks

**Node-RED** is a flow-based development tool for visual programming developed originally by IBM for wiring together hardware devices, APIs and online services as part of the Internet of Things.

Node-RED provides a web browser-based flow editor, which can be used to create JavaScript functions. Elements of applications can be saved or shared for re-use. The runtime is built on Node.js. The flows created in Node-RED are stored using JSON. Since version 0.14, MQTT nodes can make properly configured TLS connections.

Node-RED

Deploy

filter nodes

Flow 1

common

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

function

- function
- switch

Test 2

msg.payload

debug

all nodes

all

11/5/2022, 3:02:28 PM node: f20649a-0d0d98  
msg.payload : string[15]  
"Hello Node-RED!"

11/5/2022, 3:02:38 PM node: f20649a-0d0d98  
msg.payload : string[15]  
"Hello Node-RED!"

11/5/2022, 3:02:48 PM node: f20649a-0d0d98  
msg.payload : string[15]  
"Hello Node-RED!"

11/5/2022, 3:02:58 PM node: f20649a-0d0d98  
msg.payload : string[15]  
"Hello Node-RED!"

11/5/2022, 3:03:08 PM node: f20649a-0d0d98  
msg.payload : string[15]  
"Hello Node-RED!"

11/5/2022, 3:03:18 PM node: f20649a-0d0d98  
msg.payload : string[15]  
"Hello Node-RED!"

11/5/2022, 3:03:28 PM node: f20649a-0d0d98  
msg.payload : string[15]  
"Hello Node-RED!"

Node-RED

Deploy

filter nodes

Flow 1

debug

all nodes

all

msg payload : Object

{ randomNumber: 17, temp: 33, hum: 84 }

11/5/2022, 3:31:22 PM node: f2Q649a 0d0d98

iot-2/type/123/ld/123\_2/ev/eventtest/fmt/json :

msg payload : Object

{ randomNumber: 36, temp: 37, hum: 85 }

11/5/2022, 3:31:22 PM node: f2Q649a 0d0d98

iot-2/type/123/ld/123\_456/ev/eventtest/fmt/json :

msg payload : Object

{ randomNumber: 33, temp: 43, hum: 85 }

11/5/2022, 3:31:22 PM node: f2Q649a 0d0d98

iot-2/type/123/ld/123\_3/ev/eventtest/fmt/json :

msg payload : Object

{ randomNumber: 87, temp: 61, hum: 97 }

11/5/2022, 3:31:22 PM node: f2Q649a 0d0d98

iot-2/type/123/ld/123\_1/ev/eventtest/fmt/json :

msg payload : Object

{ randomNumber: 66, temp: 44, hum: 81 }

```
graph LR; read_to_f[read to f] --> msg_payload[msg payload];
```

