

Build a Web Application using the Node-RED Service

Using Node-RED Service:

The screenshot displays the Node-RED web interface in a browser. The address bar shows the URL: `169.51.203.65:30772/red/#flow/79af65da768bd289`. The interface includes a left sidebar with node categories (common, function), a central workspace with a flow titled "Smart Agriculture IoT Appli", and a right sidebar with a debug console.

The flow in the workspace consists of the following nodes:

- An **inject** node (blue) connected to a **Hello Node-RED!** node (blue).
- A **debug** node (green) connected to the **Hello Node-RED!** node.
- An **IBM IoT** node (blue) with a status of "connected".
- A **msg.payload** node (green) connected to the **IBM IoT** node.

The debug console on the right shows a series of messages received from the **IBM IoT** node. Each message is a JSON object containing temperature and humidity data:

```
11/18/2022, 5:31:11 PM node: d6a8b7caf9e6841d
iot-2/type/ESP32/id/1814/ev/IoTSensor/fmt/json :
msg.payload : Object
  { temp: 110, Humid: 74 }

11/18/2022, 5:31:21 PM node: d6a8b7caf9e6841d
iot-2/type/ESP32/id/1814/ev/IoTSensor/fmt/json :
msg.payload : Object
  { temp: 109, Humid: 65 }

11/18/2022, 5:31:41 PM node: d6a8b7caf9e6841d
iot-2/type/ESP32/id/1814/ev/IoTSensor/fmt/json :
msg.payload : Object
  { temp: 105, Humid: 69 }

11/18/2022, 5:31:51 PM node: d6a8b7caf9e6841d
iot-2/type/ESP32/id/1814/ev/IoTSensor/fmt/json :
msg.payload : Object
  { temp: 100, Humid: 64 }

11/18/2022, 5:31:51 PM node: d6a8b7caf9e6841d
iot-2/type/ESP32/id/1814/ev/IoTSensor/fmt/json :
msg.payload : Object
  { temp: 106, Humid: 78 }
```

The bottom of the screenshot shows the Windows taskbar with the system clock indicating 17:31 on 18-11-2022.

Node-RED

Successfully deployed

Deploy

Smart Agriculture IoT Appli

filter nodes

common

inject

debug

complete

catch

status

link in

link call

link out

comment

function

function

IBM IoT

connected

Soil Moisture

Humidity

Temperature

Soil Moisture

Humidity

Temperature

msg.payload

switch

http request

msg.payload

[get] /data

data

http

Motor On

Motor Off

[get] /command

msg.payload

http

IBM IoT

connected

debug

all nodes

all

command: "motoron"

11/18/2022, 5:03:36 PM node: 9ec1acf858428dea

msg.payload: Object

command: "motoroff"

11/18/2022, 5:03:37 PM node: 9ec1acf858428dea

msg.payload: Object

command: "motoron"

11/18/2022, 5:03:38 PM node: 9ec1acf858428dea

msg.payload: Object

command: "motoroff"

11/18/2022, 5:03:40 PM node: 9ec1acf858428dea

msg.payload: Object

command: "motoroff"

11/18/2022, 5:03:41 PM node: 9ec1acf858428dea

msg.payload: Object

command: "motoroff"

28°C

Sunset

Search

ENG

IN

17:04

18-11-2022

