

SPRINT-2

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TEAM ID	PNT2022TMID53009
Project Name	IoT Enabled Smart Farming Application
Maximum mark	20 marks

STEP1: Setup Node-Red

The screenshot displays the Node-RED web interface in a browser. The address bar shows the URL: 159.122.186.217:31392/red/#flow/e8a7d966569bf576. The interface includes a top navigation bar with a 'Deploy' button. On the left, there is a 'filter nodes' search bar and two categories of nodes: 'common' and 'function'. The 'common' category includes nodes like inject, debug, complete, catch, status, link in, link call, link out, and comment. The 'function' category includes function, switch, change, and range. The main workspace, titled 'Flow 1', shows a flow with two nodes: a blue 'Hello Node-RED!' node connected to a green 'msg.payload' node. On the right, there is an 'info' panel showing the flow's details, including its ID 'e8a7d966569bf576' and a search bar for nodes using 'ctrl-f'.

STEP 2: Connect IBM IOT in and Debug 1 and Deploy.

The image shows the Node-RED web interface. In the center workspace, a flow named 'Flow 1' contains two nodes connected in sequence: an 'IBM IoT' node (blue with a gear icon) and a 'debug 1' node (green with a list icon). The 'IBM IoT' node has a small green status indicator and the text 'connected' below it. On the left sidebar, the 'common' nodes section is expanded, showing 'inject', 'debug', 'complete', 'catch', 'status', 'link in', 'link call', 'link out', and 'comment'. The 'function' nodes section is also expanded, showing 'function', 'switch', 'change', and 'range'. On the right sidebar, the 'debug' console is open, displaying a list of messages received by the 'debug 1' node. The messages are JSON objects containing temperature, humidity, and soil moisture data, along with timestamps and node identifiers.

```
2/type/PNT2022TMID47477/Id/PNT2022TMID47477/evnt
/revent_1/fmt/json - msg.payload - Object
  { temperature: 86, humidity: 31,
    soil moisture: 54 }
11/5/2022, 11:20:36 AM node: debug 1
iot:
2/type/PNT2022TMID47477/Id/PNT2022TMID47477/evnt
/revent_1/fmt/json - msg.payload - Object
  { temperature: 8, humidity: 64,
    soil moisture: 59 }
11/5/2022, 11:20:39 AM node: debug 1
iot:
2/type/PNT2022TMID47477/Id/PNT2022TMID47477/evnt
/revent_1/fmt/json - msg.payload - Object
  { temperature: 98, humidity: 96,
    soil moisture: 53 }
11/5/2022, 11:20:44 AM node: debug 1
iot:
2/type/PNT2022TMID47477/Id/PNT2022TMID47477/evnt
/revent_1/fmt/json - msg.payload - Object
  { temperature: 96, humidity: 35,
    soil moisture: 25 }
11/5/2022, 11:20:50 AM node: debug 1
iot:
2/type/PNT2022TMID47477/Id/PNT2022TMID47477/evnt
/revent_1/fmt/json - msg.payload - Object
  { temperature: 78, humidity: 1,
    soil moisture: 28 }
```

STEP 3: Edit gauge node (Here the gauge nodes are named as Temperature, Humidity and Soil moisture).

The screenshot shows the Node-RED interface with a flow named 'Flow 1'. A gauge node is connected to an 'IBM IoT' node. The 'Edit gauge node' dialog is open, showing the following properties:

- Group: [CROP PRODUCTION] MONITORIN
- Size: auto
- Type: Gauge
- Label: gauge
- Value format: {{value}}
- Units: units
- Range: min 0, max 10
- Colour gradient: A gradient bar with green, yellow, and red segments.
- Sectors: 0, optional, optional, 10
- Class: Optional CSS class name(s) for widget
- Enabled: ☐ Enabled

The right sidebar shows the 'info' tab for the 'gauge' node, displaying its ID '2fa1b50866f72a6e' and type 'ui_gauge'.

The screenshot shows the Node-RED interface with a flow named 'Flow 1'. A gauge node is connected to an 'IBM IoT' node. The 'Edit gauge node' dialog is open, showing the following properties:

- Group: [CROP] MONITORING
- Size: auto
- Type: Gauge
- Label: TEMPERATURE
- Value format: {{value}}
- Units: C
- Range: min 0, max 100
- Colour gradient: A gradient bar with green, yellow, and red segments.
- Sectors: 0, optional, optional, 100
- Class: Optional CSS class name(s) for widget
- Name:
- Enabled: ☐ Enabled

The right sidebar shows the 'debug' tab, displaying a log of messages received from the 'IBM IoT' node, including temperature, humidity, and soil moisture data.

