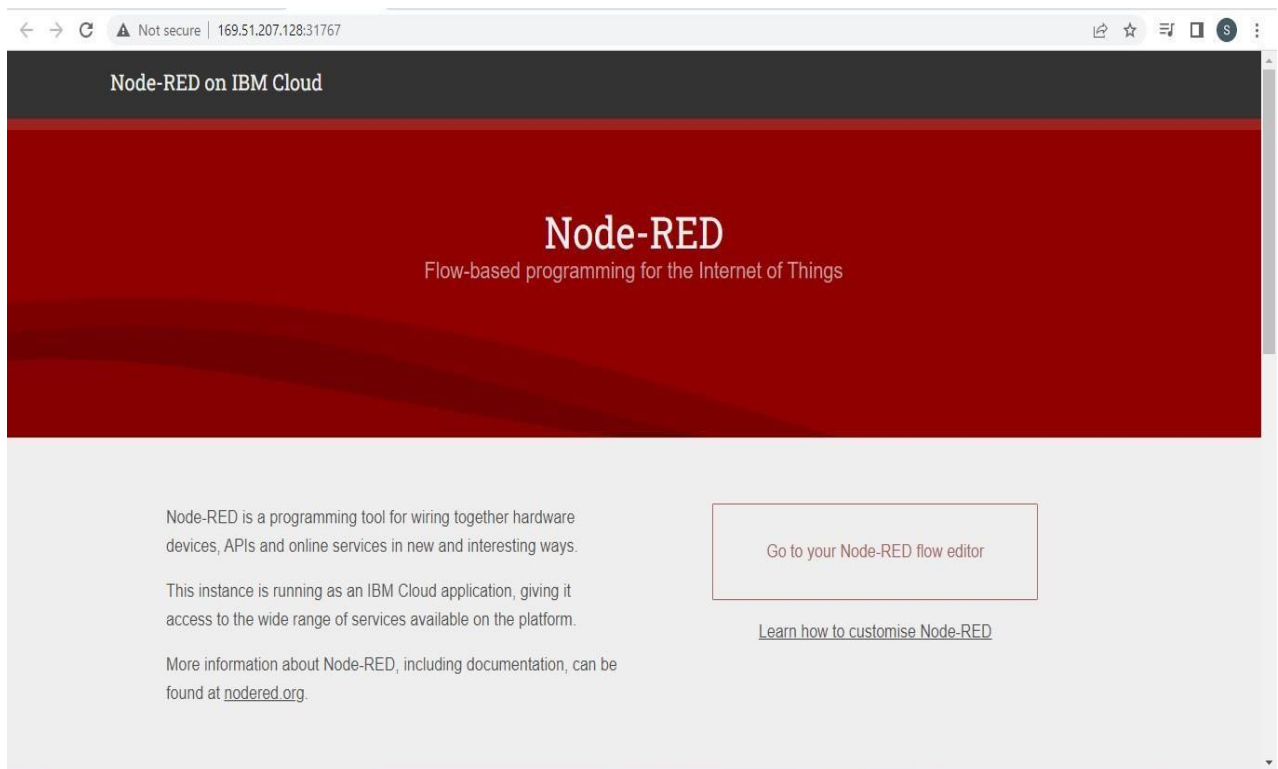


# PROJECT DEVELOPMENT DELIVERY

## SPRINT-2

Date	02 NOVEMBER 2022
TEAMID	PNT2022TMID33093
ProjectName	IoT Based smart crop Protection system for Agriculture
Maximummark	20marks

### STEP1:Download and Install NODERED



## STEP2:Connect IBM IOT in and Debug1and Deploy.

The screenshot shows the Node-RED web interface. On the left, the 'common' and 'function' node palettes are visible. The main workspace contains a flow with three nodes: 'Hello Node-RED!', 'msg.payload', and 'IBM IoT'. The 'IBM IoT' node is connected to the 'msg.payload' node. On the right, the 'debug' console displays a list of messages received from the IoT device, each containing temperature and humidity data.

```
msg.payload : Object
  temp: 92, Humid: 66
11/15/2022, 6:38:16 PM node: f2f2649a.0d0d98
iot-2/type/ABCD/id/1234/ev/IoTSensorfmt/json :
msg.payload : Object
  temp: 101, Humid: 85
11/15/2022, 6:38:26 PM node: f2f2649a.0d0d98
iot-2/type/ABCD/id/1234/ev/IoTSensorfmt/json :
msg.payload : Object
  temp: 104, Humid: 73
11/15/2022, 6:38:36 PM node: f2f2649a.0d0d98
iot-2/type/ABCD/id/1234/ev/IoTSensorfmt/json :
msg.payload : Object
  temp: 106, Humid: 77
11/15/2022, 6:38:46 PM node: f2f2649a.0d0d98
iot-2/type/ABCD/id/1234/ev/IoTSensorfmt/json :
msg.payload : Object
  temp: 109, Humid: 97
11/15/2022, 6:38:56 PM node: f2f2649a.0d0d98
iot-2/type/ABCD/id/1234/ev/IoTSensorfmt/json :
msg.payload : Object
  temp: 93, Humid: 70
```

## STEP3: Edit gauge node (Here the gauge nodes are named as Temperature, Humidity and Soilmoisture).

The screenshot shows the Node-RED web interface with the 'Edit gauge node' dialog box open. The dialog box is configured for a gauge node named 'humidity' with a range from 0 to 100. The 'debug' console on the right shows a list of messages received from the IoT device, each containing temperature, humidity, and moisture data.

```
msg.payload : Object
  temp: 57, Humid: 86, Moisture: 80
11/16/2022, 11:00:25 AM node: f2f2649a.0d0d98
iot-2/type/ABCD/id/1234/ev/IoTSensorfmt/json :
msg.payload : Object
  temp: 61, Humid: 94, Moisture: 80
11/16/2022, 11:06:53 AM node: f2f2649a.0d0d98
iot-2/type/ABCD/id/1234/ev/IoTSensorfmt/json :
msg.payload : Object
  temp: 78, Humid: 87, Moisture: 99
11/16/2022, 11:07:03 AM node: f2f2649a.0d0d98
iot-2/type/ABCD/id/1234/ev/IoTSensorfmt/json :
msg.payload : Object
  temp: 83, Humid: 62, Moisture: 99
11/16/2022, 11:07:13 AM node: f2f2649a.0d0d98
iot-2/type/ABCD/id/1234/ev/IoTSensorfmt/json :
msg.payload : Object
  temp: 47, Humid: 66, Moisture: 81
```

Node-RED interface showing a flow for IoT sensor data processing. The flow includes an IBM IoT node connected to a [get] /sensor node, which outputs data to three function nodes: Temperature, Humidity, and Moisture. These function nodes are connected to a msg.payload node. The debug console shows the following data:

```
msg.payload: Object
{
  temp: 57, Humid: 86, Moisture: 80
}
11/16/2022, 11:00:25 AM node: f2f2649a.0d0d98
iot-2/type/ABCD/id/1234/evt/IoTSensor/fmt/json :
msg.payload: Object
{
  temp: 61, Humid: 94, Moisture: 80
}
11/16/2022, 11:06:53 AM node: f2f2649a.0d0d98
iot-2/type/ABCD/id/1234/evt/IoTSensor/fmt/json :
msg.payload: Object
{
  temp: 78, Humid: 87, Moisture: 99
}
11/16/2022, 11:07:03 AM node: f2f2649a.0d0d98
iot-2/type/ABCD/id/1234/evt/IoTSensor/fmt/json :
msg.payload: Object
{
  temp: 83, Humid: 62, Moisture: 99
}
11/16/2022, 11:07:13 AM node: f2f2649a.0d0d98
iot-2/type/ABCD/id/1234/evt/IoTSensor/fmt/json :
msg.payload: Object
{
  temp: 47, Humid: 66, Moisture: 81
}
```

The Edit gauge node properties are shown, including:

- Group: [Home] control
- Size: auto
- Type: Gauge
- Label: Moisture
- Value format: {{value}}
- Units: units
- Range: min 0 max 10
- Colour gradient: Green, Yellow, Red
- Sectors: 0 optional optional 10
- Name:
- Enabled: ☐

Node-RED interface showing a flow for IoT sensor data processing. The flow includes an IBM IoT node connected to a [get] /sensor node, which outputs data to three function nodes: Temperature, Humidity, and Moisture. These function nodes are connected to a msg.payload node. The debug console shows the following data:

```
msg.payload: Object
{
  temp: 57, Humid: 86, Moisture: 80
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11/16/2022, 11:00:25 AM node: f2f2649a.0d0d98
iot-2/type/ABCD/id/1234/evt/IoTSensor/fmt/json :
msg.payload: Object
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  temp: 61, Humid: 94, Moisture: 80
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11/16/2022, 11:06:53 AM node: f2f2649a.0d0d98
iot-2/type/ABCD/id/1234/evt/IoTSensor/fmt/json :
msg.payload: Object
{
  temp: 78, Humid: 87, Moisture: 99
}
11/16/2022, 11:07:03 AM node: f2f2649a.0d0d98
iot-2/type/ABCD/id/1234/evt/IoTSensor/fmt/json :
msg.payload: Object
{
  temp: 83, Humid: 62, Moisture: 99
}
11/16/2022, 11:07:13 AM node: f2f2649a.0d0d98
iot-2/type/ABCD/id/1234/evt/IoTSensor/fmt/json :
msg.payload: Object
{
  temp: 47, Humid: 66, Moisture: 81
}
```

The Edit gauge node properties are shown, including:

- Group: [Home] control
- Size: auto
- Type: Gauge
- Label: temperature
- Value format: {{value}}
- Units: C
- Range: min 0 max 100
- Colour gradient: Green, Yellow, Red
- Sectors: 0 optional optional 100
- Name:
- Enabled: ☐