

# SPRINT - 04

<b>Date :</b>	16 November 2022
<b>Team ID :</b>	PNT2022TMID47905
<b>Project Name</b>	SIGNS WITH SMART CONNECTIVITY FOR BETTER ROAD SAFETY

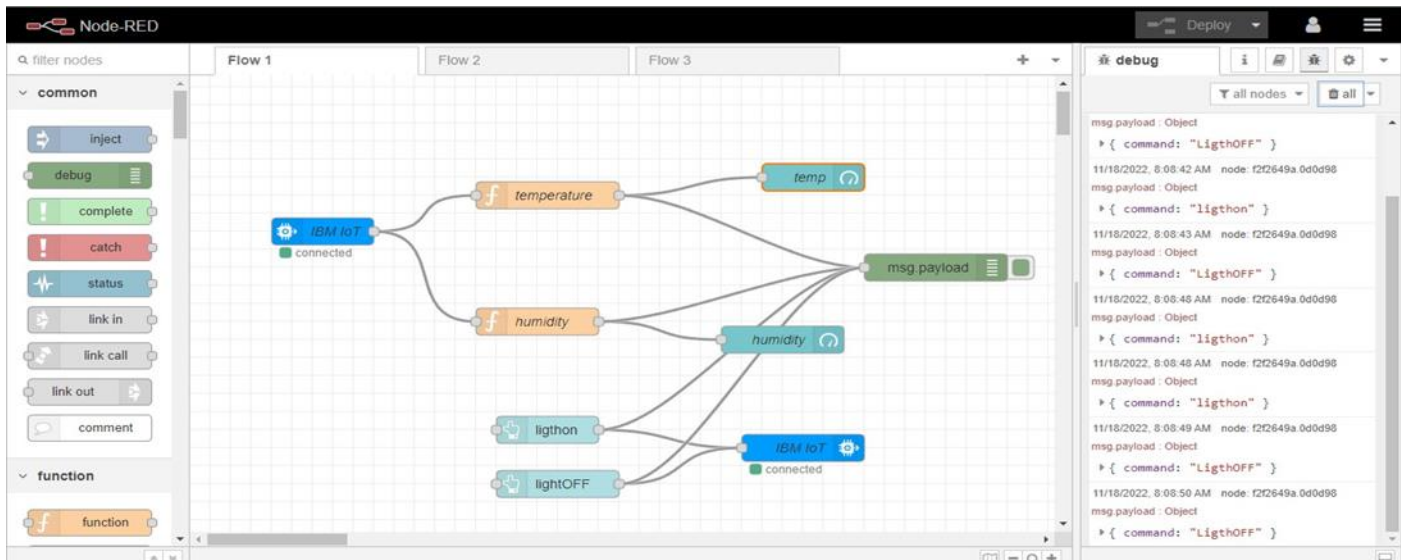
## SPRINT GOAL:

Optimize all the shortcomings and provide better user experience.

### Process 01:

**Aim:** Having a USER INTERFACE method to get the Light system in Road Safety

## Platform: NODE-RED



Node-RED interface showing the configuration of an IBM IoT node.

**Flow 1:** The flow starts with an **IBM IoT** node (connected) and branches into two function nodes: **temp** and **hum**.

**Edit ibmiot in node Properties:**

- Authentication:** API Key
- API Key:** 208d113e39a8247f
- Input Type:** Device Event
- Device Type:** ☐ All or ☐ deepi\_resheery
- Device Id:** ☐ All or ☐ 56789
- Event:** ☒ All or ☐ +
- Format:** ☐ All or ☐ json
- QoS:** 0
- Name:** IBM IoT
- Enabled:** ☐ Enabled

**debug console:**

```
msg.payload : Object
  { command: "LigthOFF" }
11/18/2022, 8:08:42 AM node: f2f2649a.0d0d98
msg.payload : Object
  { command: "ligthon" }
11/18/2022, 8:08:43 AM node: f2f2649a.0d0d98
msg.payload : Object
  { command: "LigthOFF" }
11/18/2022, 8:08:48 AM node: f2f2649a.0d0d98
msg.payload : Object
  { command: "ligthon" }
11/18/2022, 8:08:48 AM node: f2f2649a.0d0d98
msg.payload : Object
  { command: "ligthon" }
11/18/2022, 8:08:49 AM node: f2f2649a.0d0d98
msg.payload : Object
  { command: "LigthOFF" }
11/18/2022, 8:08:50 AM node: f2f2649a.0d0d98
msg.payload : Object
  { command: "LigthOFF" }
```

Node-RED interface showing the configuration of a gauge node.

**Flow 1:** The flow starts with an **IBM IoT** node (connected) and branches into two function nodes: **temp** and **hum**.

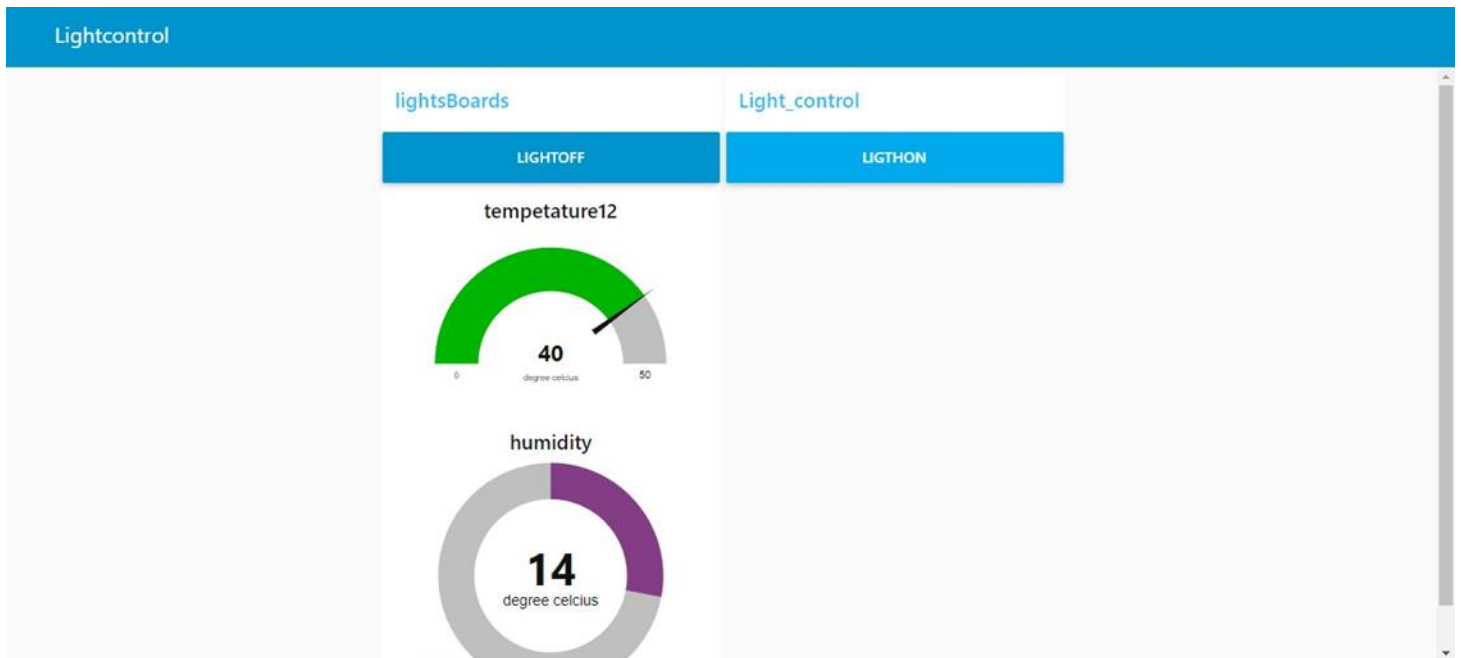
**Edit gauge node Properties:**

- Group:** [Lightcontrol] lightsBoards
- Size:** auto
- Type:** Donut
- Label:** humidity
- Value format:** {{value}}
- Units:** degree celcius
- Range:** min 0 max 50
- Colour gradient:** [gradient bar]
- Sectors:** 0 ... 181 ... 230 ... 50
- Enabled:** ☐ Enabled

**debug console:**

```
msg.payload : Object
  { command: "LigthOFF" }
11/18/2022, 8:08:42 AM node: f2f2649a.0d0d98
msg.payload : Object
  { command: "ligthon" }
11/18/2022, 8:08:43 AM node: f2f2649a.0d0d98
msg.payload : Object
  { command: "LigthOFF" }
11/18/2022, 8:08:48 AM node: f2f2649a.0d0d98
msg.payload : Object
  { command: "ligthon" }
11/18/2022, 8:08:48 AM node: f2f2649a.0d0d98
msg.payload : Object
  { command: "ligthon" }
11/18/2022, 8:08:49 AM node: f2f2649a.0d0d98
msg.payload : Object
  { command: "LigthOFF" }
11/18/2022, 8:08:50 AM node: f2f2649a.0d0d98
msg.payload : Object
  { command: "LigthOFF" }
```

**OUTPUT:**  
**User Interface (UI):**



**OUTPUT:**

11/18/2022, 8:08:42 AMnode: f2f2649a.0d0d98msg.payload : Object

{ command: "ligthon" }

11/18/2022, 8:08:43 AMnode: f2f2649a.0d0d98msg.payload : Object

{ command: "LigthOFF" }

11/18/2022, 8:08:48 AMnode: f2f2649a.0d0d98msg.payload : Object

{ command: "ligthon" }

11/18/2022, 8:08:48 AMnode: f2f2649a.0d0d98msg.payload : Object

{ command: "ligthon" }

11/18/2022, 8:08:49 AMnode: f2f2649a.0d0d98msg.payload : Object

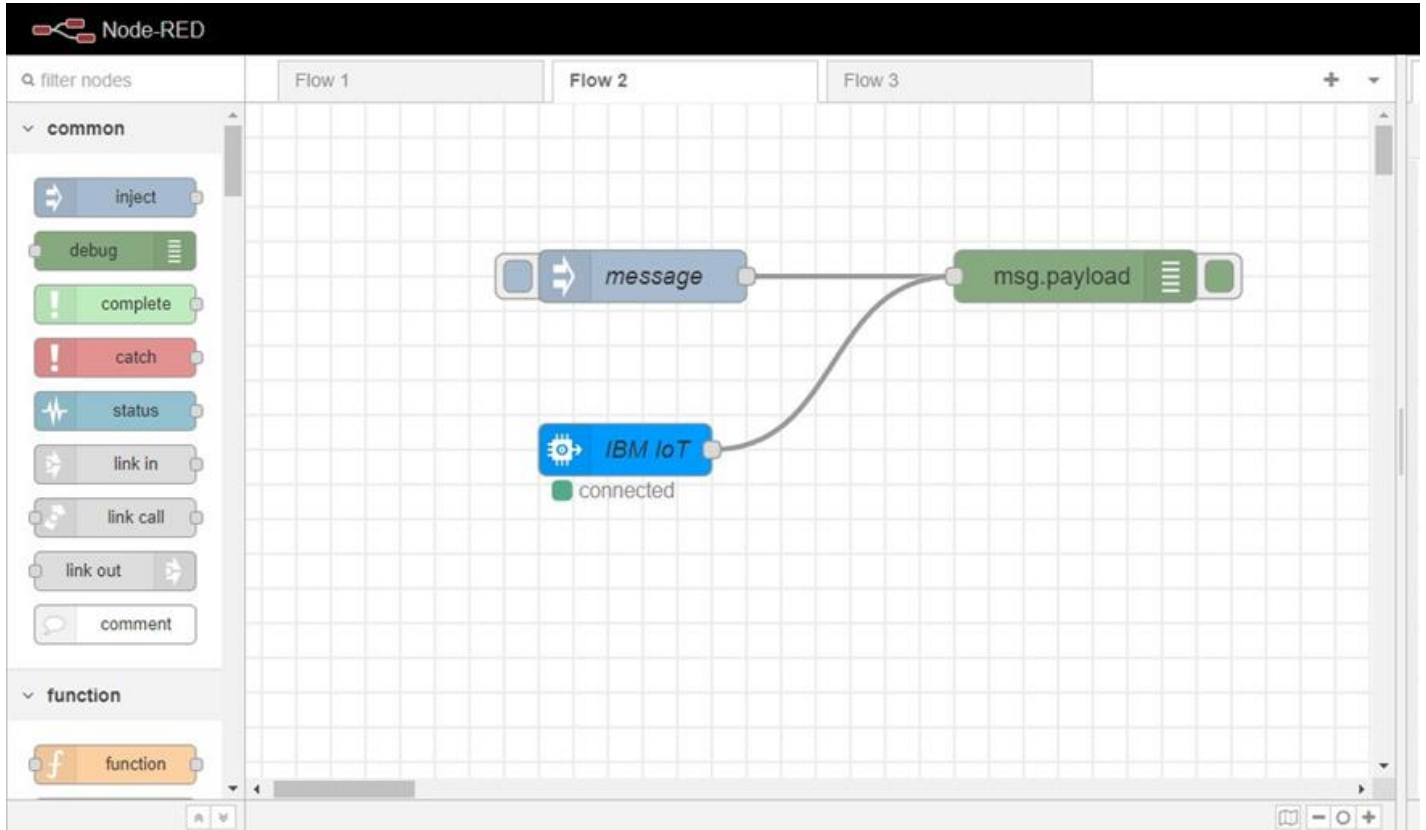
{ command: "LigthOFF" }

## Process 02 :

**Aim:** Having a Temperature and Humidity in Road Safety

**Platform:** NODE-RED

## OUTPUT :



2/type/ jerom /id/1234/evt/event\_1/fmt/json : msg.payload : Object

{ temperature: 63, humidity: 17 }

11/21/2022, 8:21:57 AMnode: 86ccf52288ce7c49iot-2/type/ jerom /id/1234/evt/event\_1/fmt/json : msg.payload : Object

{ temperature: 46, humidity: 18 }

11/21/2022, 8:21:57 AMnode: 86ccf52288ce7c49iot-2/type/ jerom /id/1234/evt/event\_1/fmt/json : msg.payload : Object

{ temperature: 34, humidity: 27 }

11/21/2022, 8:21:57 AMnode: 86ccf52288ce7c49iot-2/type/ jerom /id/1234/evt/event\_1/fmt/json : msg.payload : Object

{ temperature: 83, humidity: 18 }

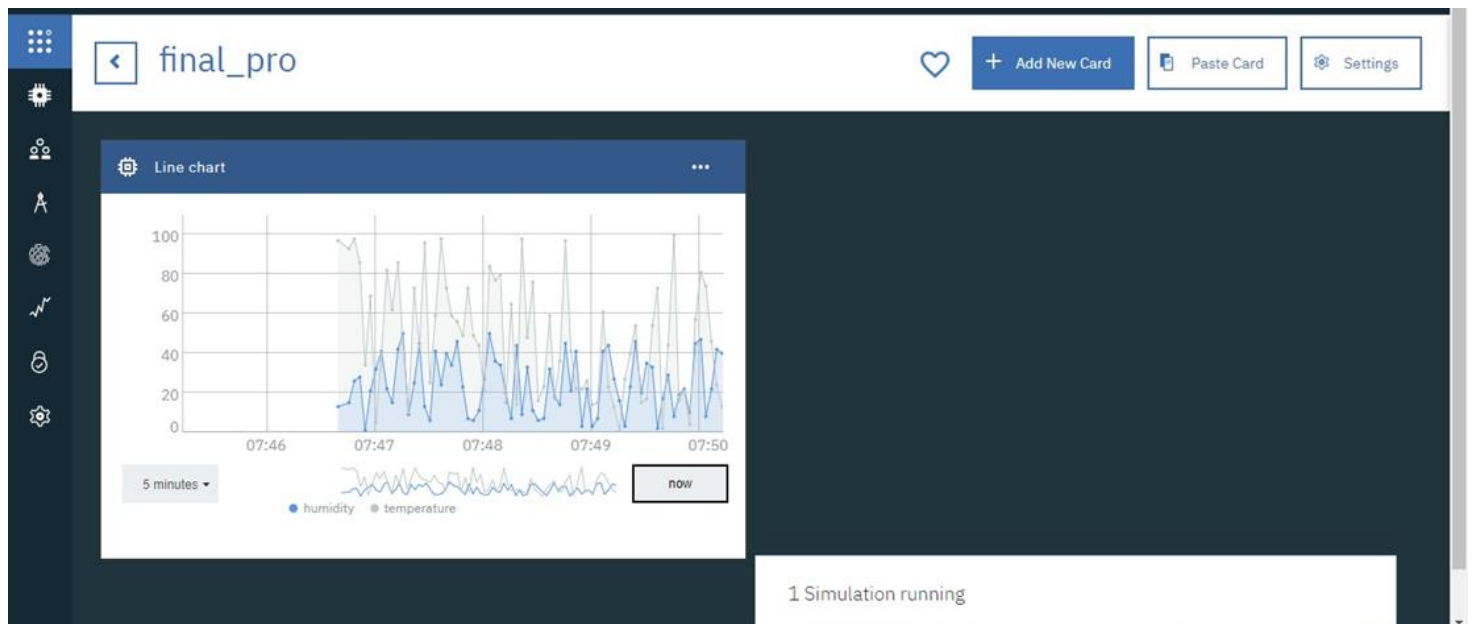
11/21/2022, 8:21:57 AMnode: 86ccf52288ce7c49iot-2/type/ jerom /id/1234/evt/event\_1/fmt/json : msg.payload : Object

{ temperature: 97, humidity: 34 }

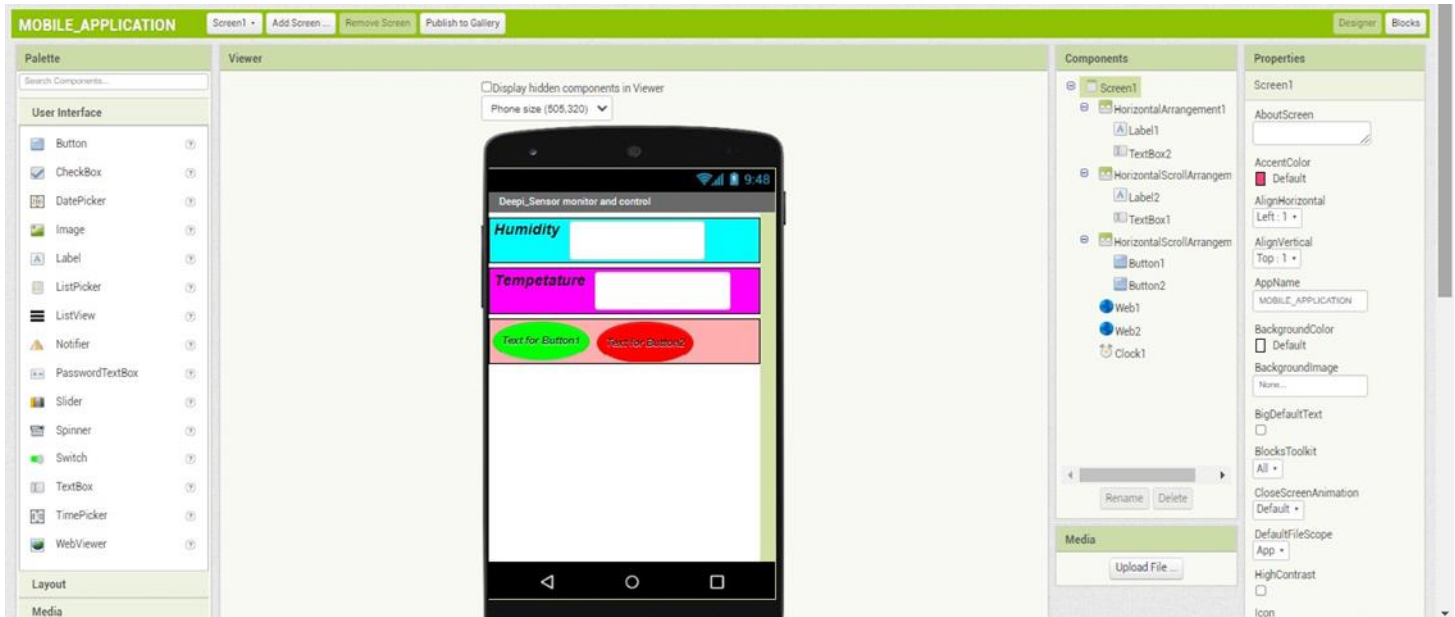
11/21/2022, 8:23:15 AMnode: 86ccf52288ce7c49iot-2/type/ jerom /id/1234/evt/event\_1/fmt/json : msg.payload : Object

{ temperature: 61, humidity: 5 }

### LINE CHART



By the use of MIT- APP inventor



## **Conclusion:**

Hence by the use of NODE\_RED and the IBM cloud we set an identification of temperature and the alertness for the safety vehicle in Road Safety