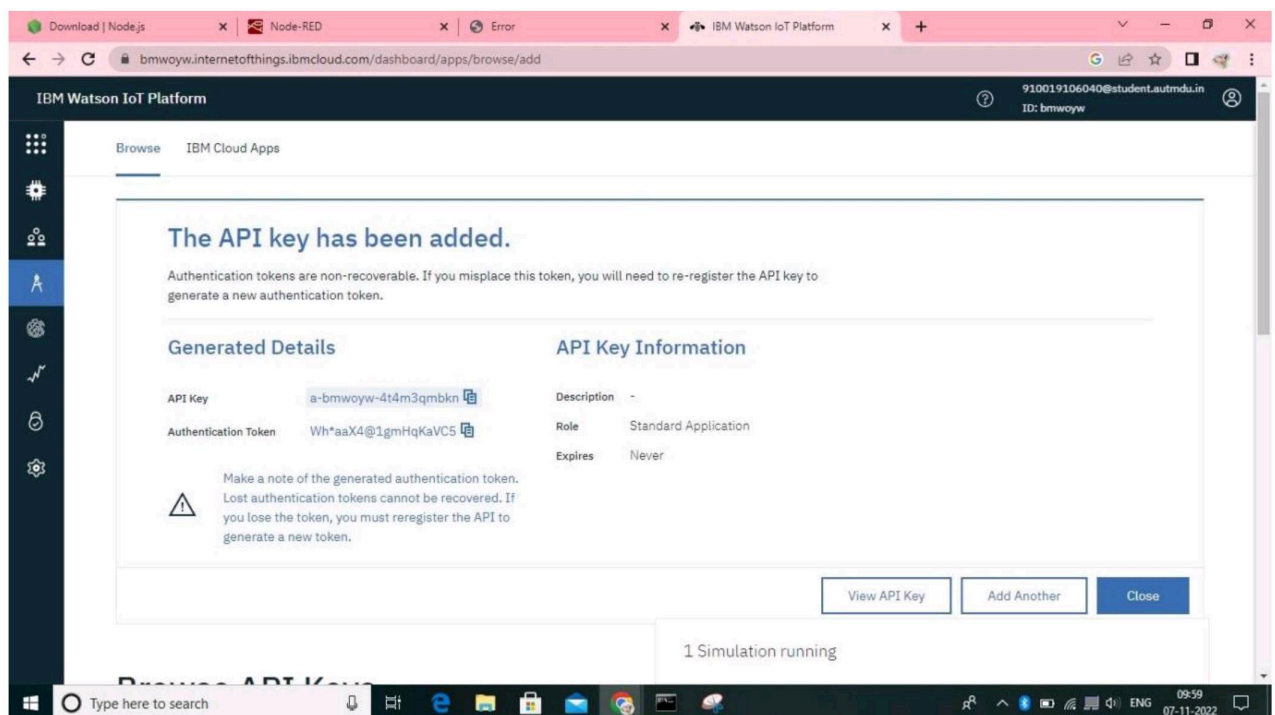


Date	07-11-2022
Team ID	PNT2022TMID47485
Project name	Signs with smart connectivity for better road safety
Maximum marks	20 marks

Sprint-2	US-1	Configure the connection security and create API keys that are used in the Node-RED service for accessing the IBM IoT Platform.
Sprint-2	US-2	Create a Node-RED service.

US-1 Configure the connection security and create API keys that are used in the Node-red service for accessing the IBM IOT platform



US-2 Create a Node-red service

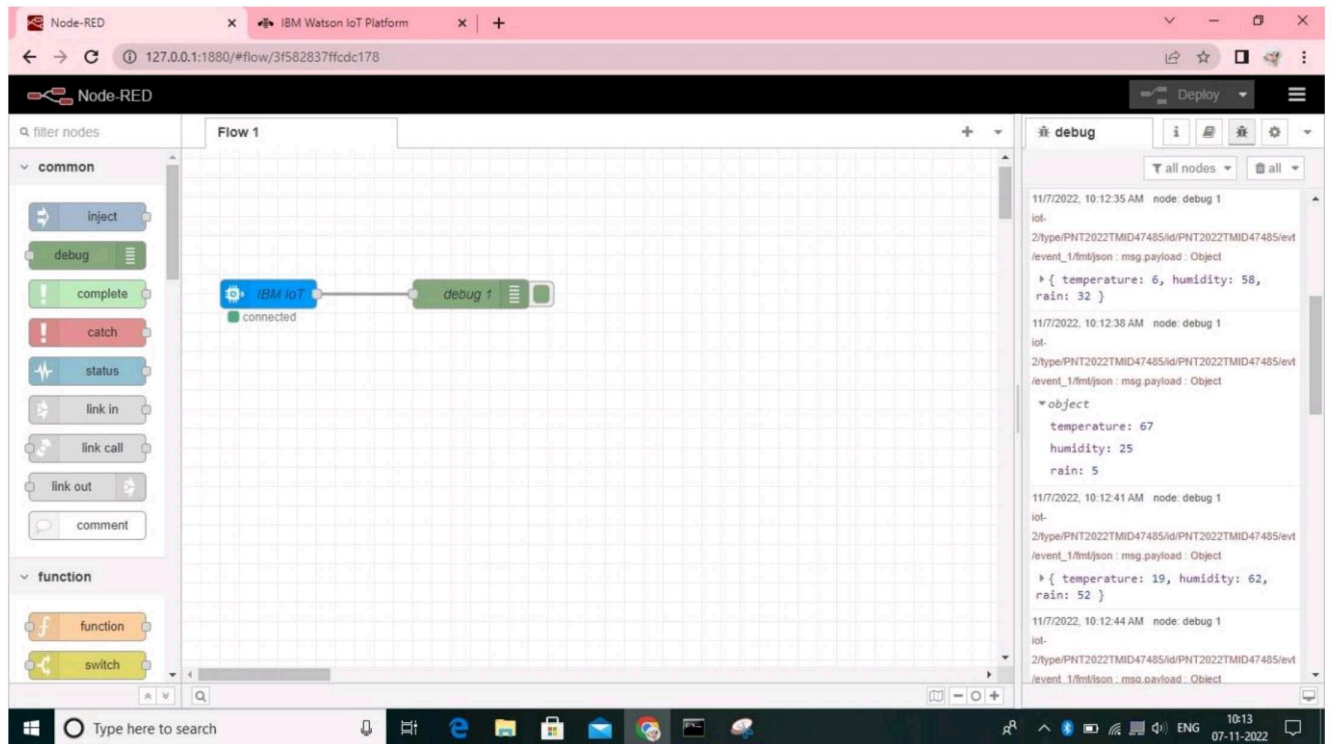
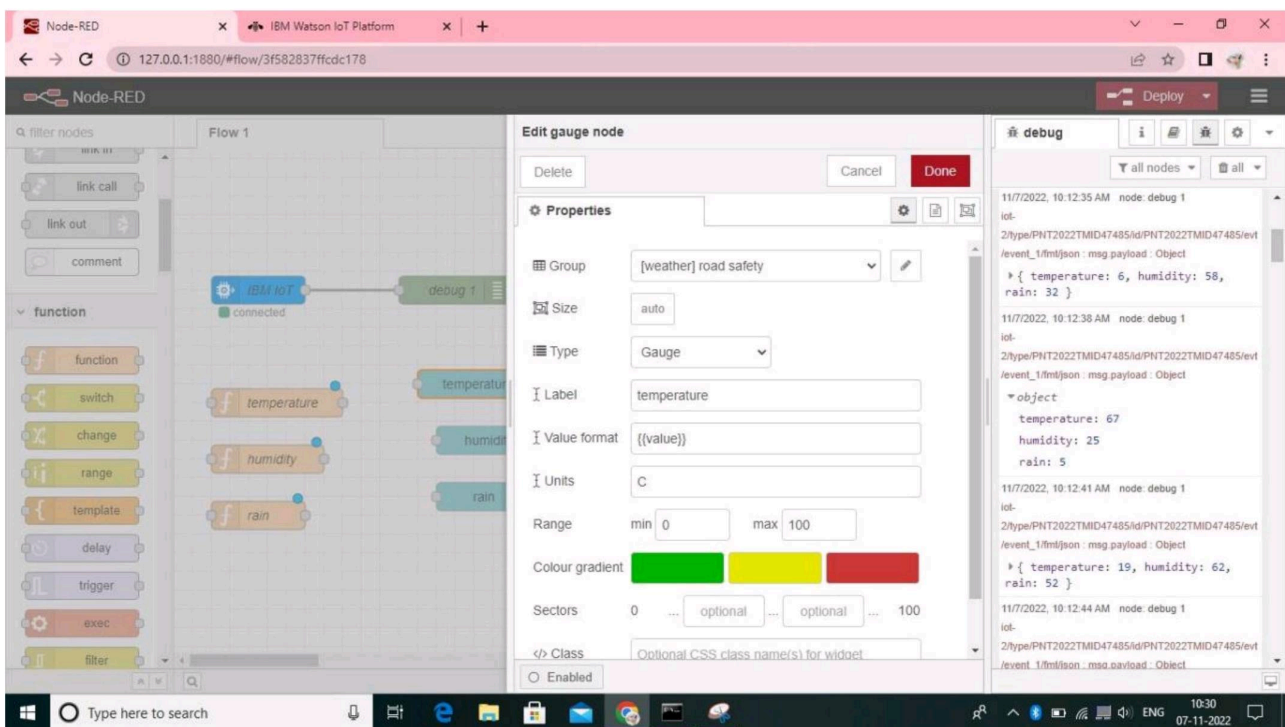


Fig: Monitoring the sensor values- temperature, humidity, rain .



Node-RED interface showing a flow with an IBM IoT node connected to a debug node. The 'Edit gauge node' panel is open, displaying properties for a gauge widget. The gauge is configured with the label 'rain', value format '{{value}}', units 'units', and a range from 0 to 100. The 'debug' console shows the received JSON payload.

Edit gauge node Properties:

- Group: [weather] road safety
- Size: auto
- Type: Gauge
- Label: rain
- Value format: {{value}}
- Units: units
- Range: min 0 max 100
- Colour gradient: [Green, Yellow, Red]
- Sectors: 0 optional optional 100
- Class: Optional CSS class name(s) for widget
- Enabled: ☐

debug console:

```
11/7/2022, 10:12:35 AM node debug 1
iot-
2/type/PNT2022TMID47485/id/PNT2022TMID47485/evt
/event_1/fmt/json : msg.payload : Object
  { temperature: 6, humidity: 58,
    rain: 32 }

11/7/2022, 10:12:38 AM node debug 1
iot-
2/type/PNT2022TMID47485/id/PNT2022TMID47485/evt
/event_1/fmt/json : msg.payload : Object
  { temperature: 67,
    humidity: 25,
    rain: 5 }

11/7/2022, 10:12:41 AM node debug 1
iot-
2/type/PNT2022TMID47485/id/PNT2022TMID47485/evt
/event_1/fmt/json : msg.payload : Object
  { temperature: 19, humidity: 62,
    rain: 52 }
```

Node-RED interface showing the same flow, but the 'Edit gauge node' panel is now configured for 'humidity'. The gauge label is set to 'humidity', and the value format is '{{value}}'. The 'debug' console shows the received JSON payload.

Edit gauge node Properties:

- Group: [weather] road safety
- Size: auto
- Type: Gauge
- Label: humidity
- Value format: {{value}}
- Units: units
- Range: min 0 max 100
- Colour gradient: [Green, Yellow, Red]
- Sectors: 0 optional optional 100
- Class: Optional CSS class name(s) for widget
- Enabled: ☐

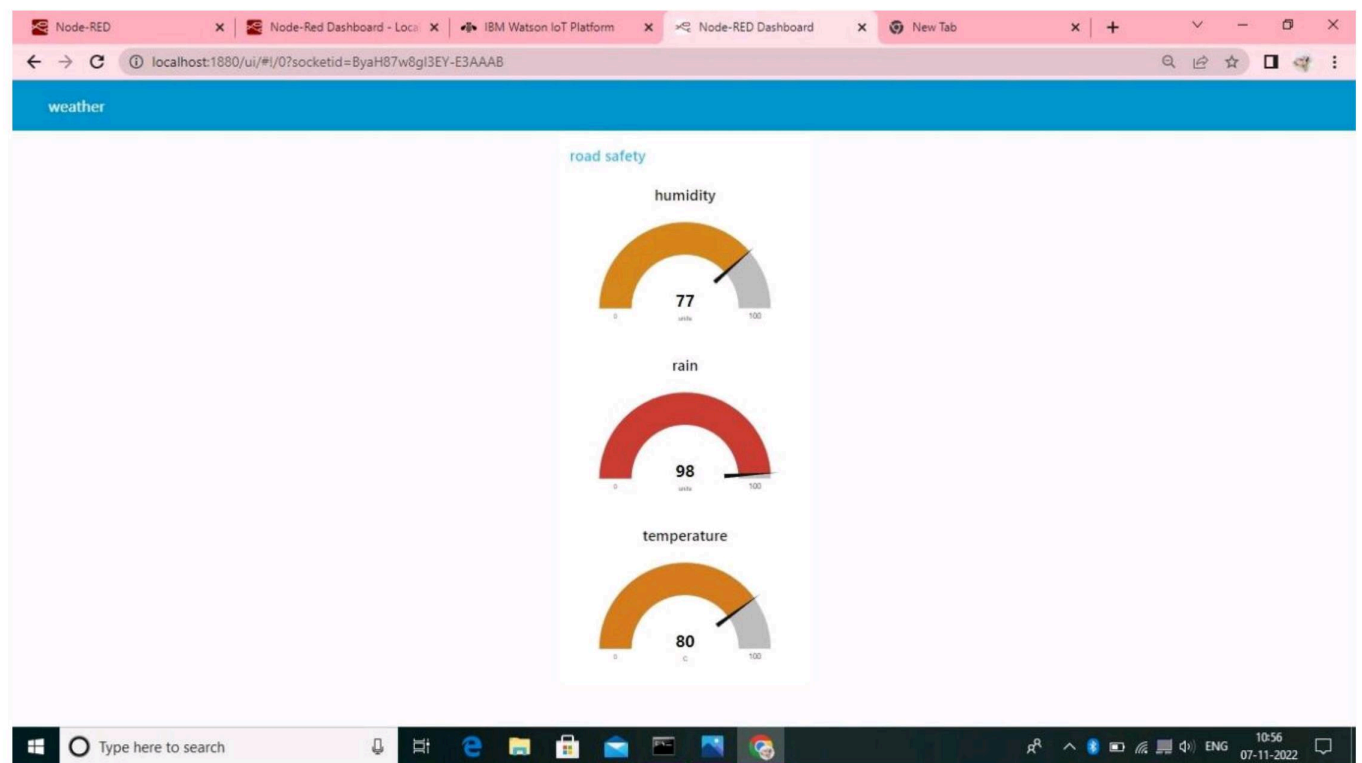
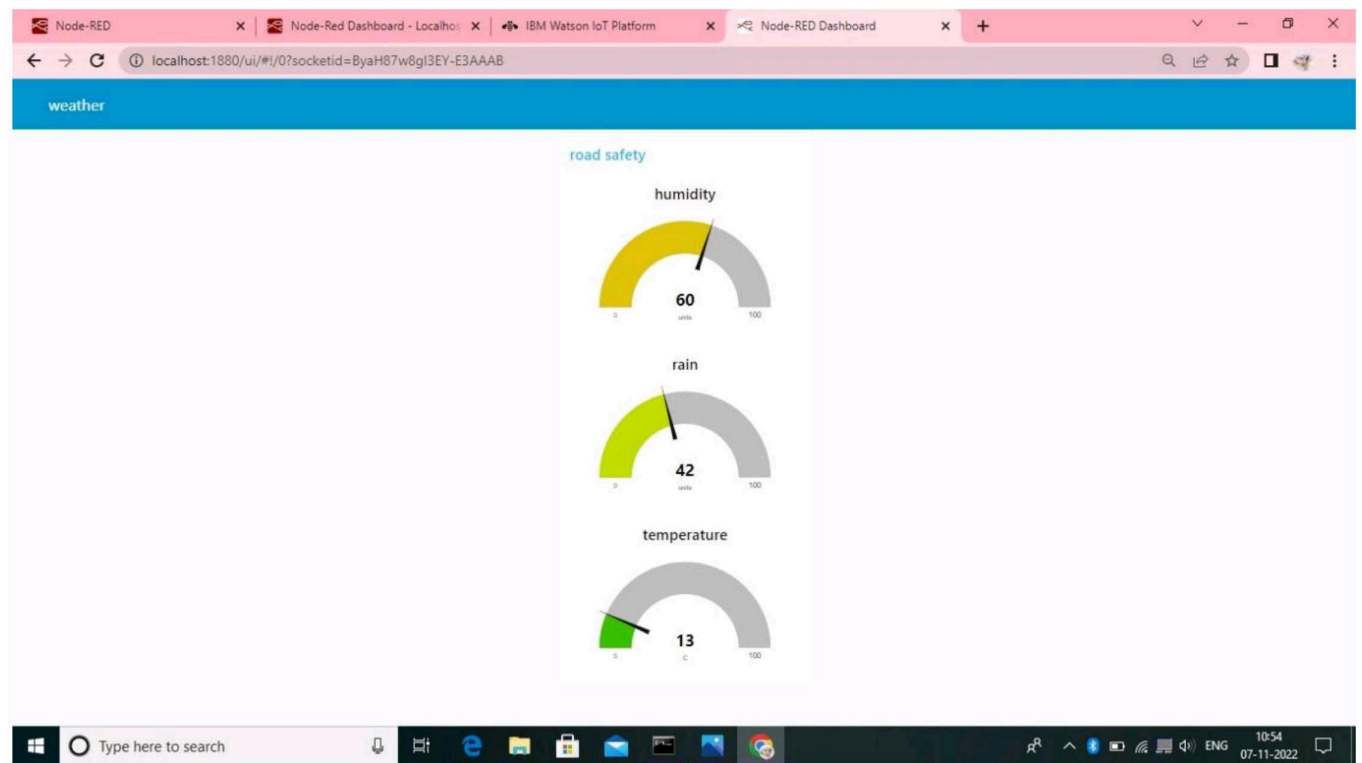
debug console:

```
11/7/2022, 10:12:35 AM node debug 1
iot-
2/type/PNT2022TMID47485/id/PNT2022TMID47485/evt
/event_1/fmt/json : msg.payload : Object
  { temperature: 6, humidity: 58,
    rain: 32 }

11/7/2022, 10:12:38 AM node debug 1
iot-
2/type/PNT2022TMID47485/id/PNT2022TMID47485/evt
/event_1/fmt/json : msg.payload : Object
  { temperature: 67,
    humidity: 25,
    rain: 5 }

11/7/2022, 10:12:41 AM node debug 1
iot-
2/type/PNT2022TMID47485/id/PNT2022TMID47485/evt
/event_1/fmt/json : msg.payload : Object
  { temperature: 19, humidity: 62,
    rain: 52 }
```

Fig : output from recent event



MIT APP INVERTER TO DESIGN THE APP:

