

Date		09-11-2022
Team ID		PNT2022TMID10209
Project name		Signs with smart connectivity for better road safety
Maximum marks		20 marks
Sprint-2	US-I	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-I : Configure the connection security and create API keys that are used in the Node-red service for accessing the IBM IOT platform

The screenshot displays the IBM Watson IoT Platform interface. At the top, the header shows 'IBM Watson IoT Platform' and a user profile with email '19106124@hiet.ac.in' and ID 'yjcwk7'. A sidebar on the left contains various navigation icons. The main content area features a blue banner stating 'The API key has been added.' with a warning that authentication tokens are non-recoverable. Below this, two sections are visible: 'Generated Details' and 'API Key Information'. The 'Generated Details' section lists the 'API Key' as 'a-yjcwk7-4icwkatcco' and the 'Authentication Token' as 'jQl-b5yG7ksXU7aDXl'. The 'API Key Information' section shows the 'Description' as '-', 'Role' as 'Standard Application', and 'Expires' as 'Never'. A warning icon and text advise users to note the token as it cannot be recovered. At the bottom of the message box are buttons for 'View API Key', 'Add Another', and 'Close'. Below the message box, the 'Browse API Keys' section is visible, including a search bar and a note that the table shows a summary of API keys for the organization.

Generated Details

API Key	a-yjcwk7-4icwkatcco
Authentication Token	jQl-b5yG7ksXU7aDXl

API Key Information

Description	-
Role	Standard Application
Expires	Never

Browse API Keys

This table shows a summary of the API keys that have been added for the organization. It can be filtered.

US-2 :Create a Node-red service

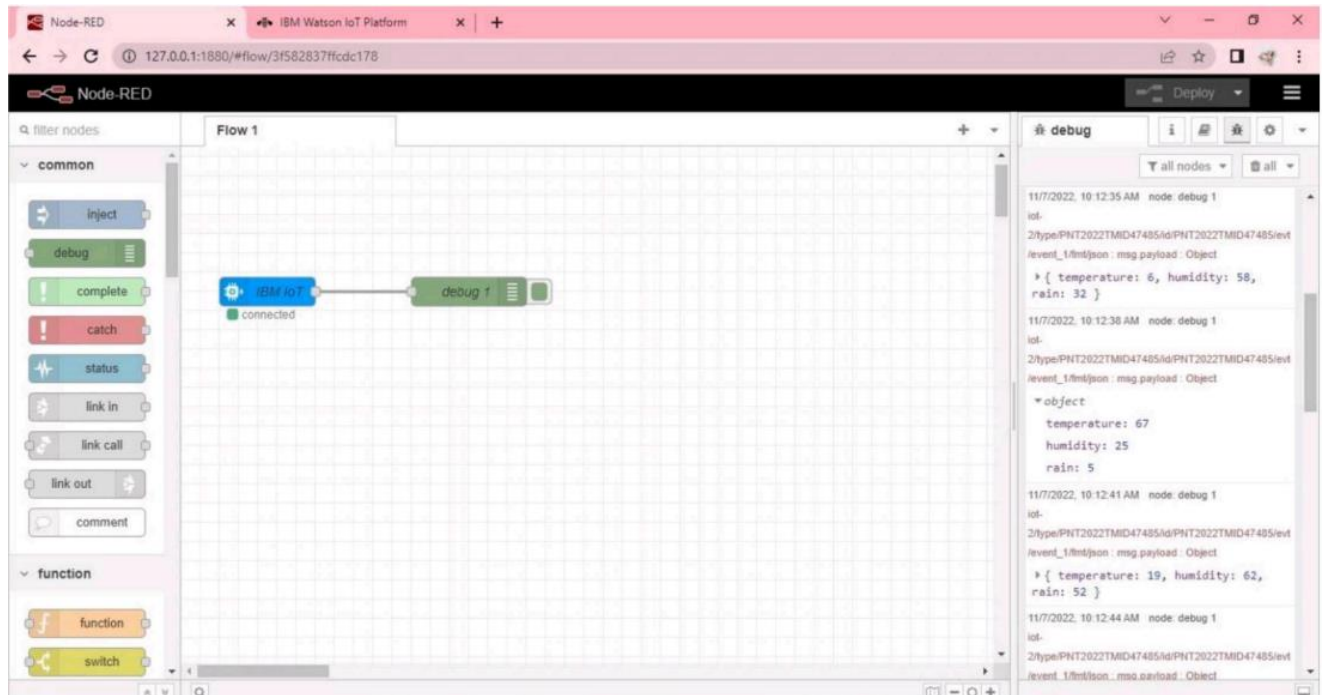
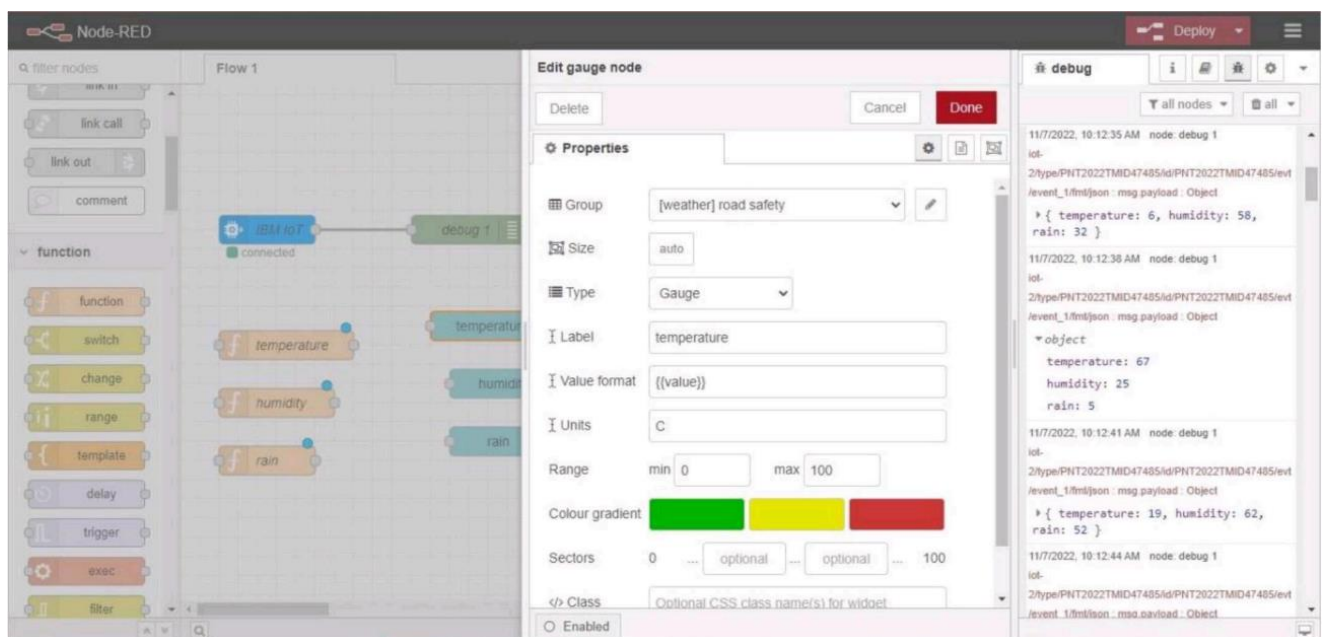


Fig: Monitoring the sensor values- temperature, humidity, rain .



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 group '[weather] road safety', type 'Gauge', label 'humidity', value format '{{value}}', units 'units', and a range from 0 to 100. The color gradient is set to green, yellow, and red. The debug console shows the following log entries:

```
11/7/2022, 10:12:35 AM node: debug 1
iot-
2/type/PNT2022TMD47485/id/PNT2022TMD47485/evnt
/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/PNT2022TMD47485/id/PNT2022TMD47485/evnt
/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/PNT2022TMD47485/id/PNT2022TMD47485/evnt
/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 the 'rain' property. The gauge label is set to 'rain', and the value format is still '{{value}}'. The debug console shows the same log entries as the previous image:

```
11/7/2022, 10:12:35 AM node: debug 1
iot-
2/type/PNT2022TMD47485/id/PNT2022TMD47485/evnt
/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/PNT2022TMD47485/id/PNT2022TMD47485/evnt
/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/PNT2022TMD47485/id/PNT2022TMD47485/evnt
/event_1/fmt/json : msg.payload : Object
{ temperature: 19, humidity: 62,
rain: 52 }
```

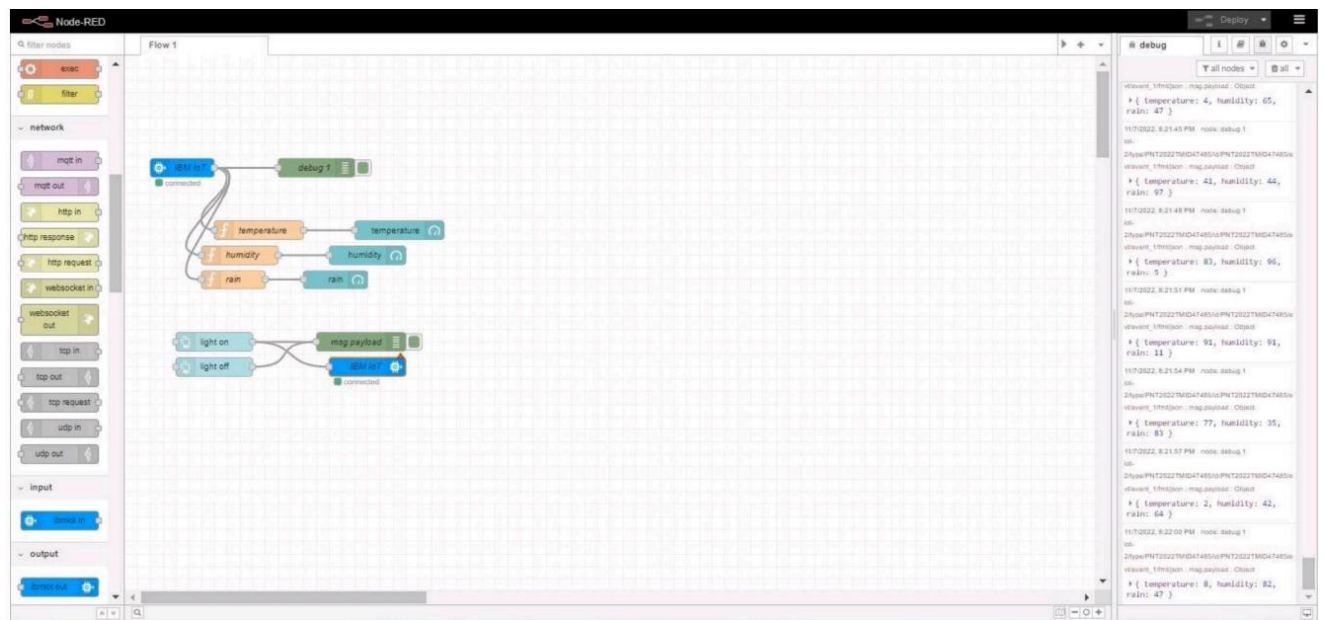


Fig : Output from recent events





MT APP INVENTOR TO DESIGN THE APP :

