

Date	04 NOVEMBER 2022
Team ID	PNT2022TMID47456
Project Name	SMART WASTE MANAGEMENT FOR METROPOLITEN CITIESS
Maximum Marks	20 Marks

SPRINT-2

FIG 1: login to IBM cloud

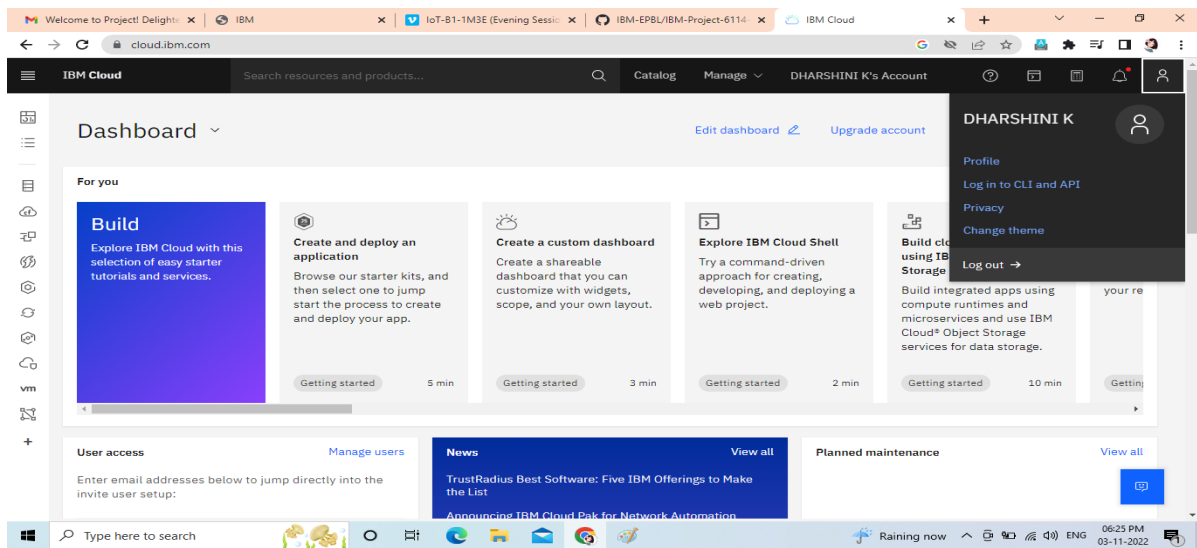


FIG 2: Go to resource list

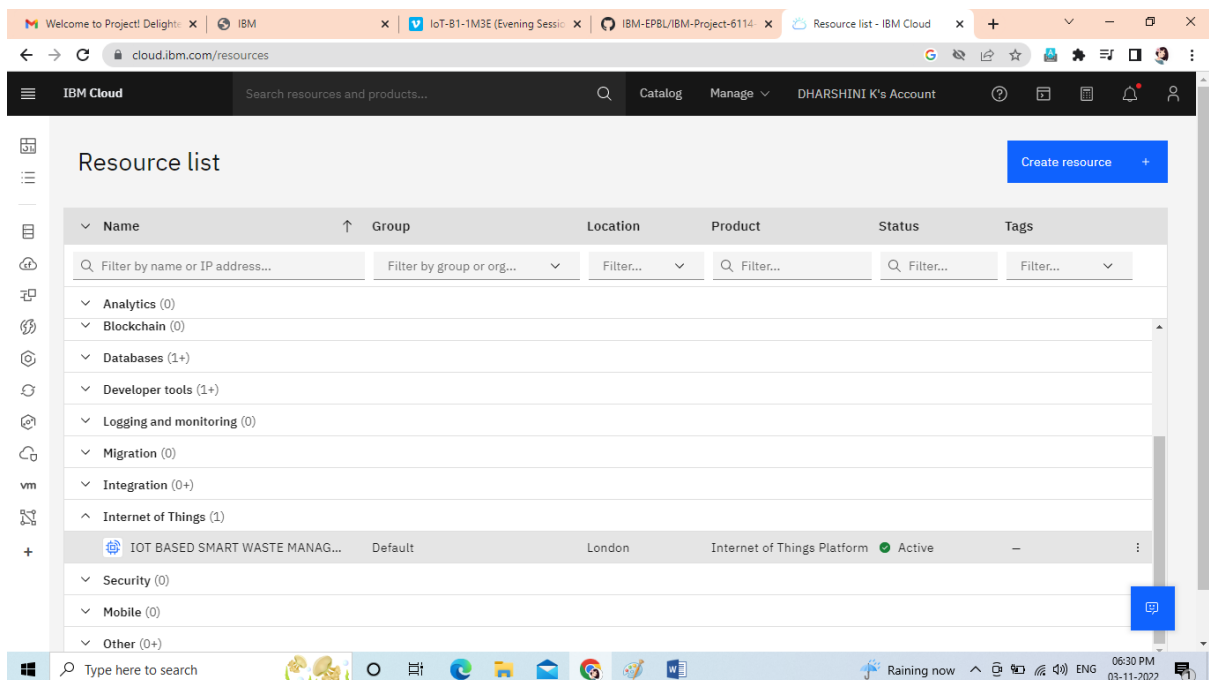


FIG 3: Launch the IBM Watson IoT platform

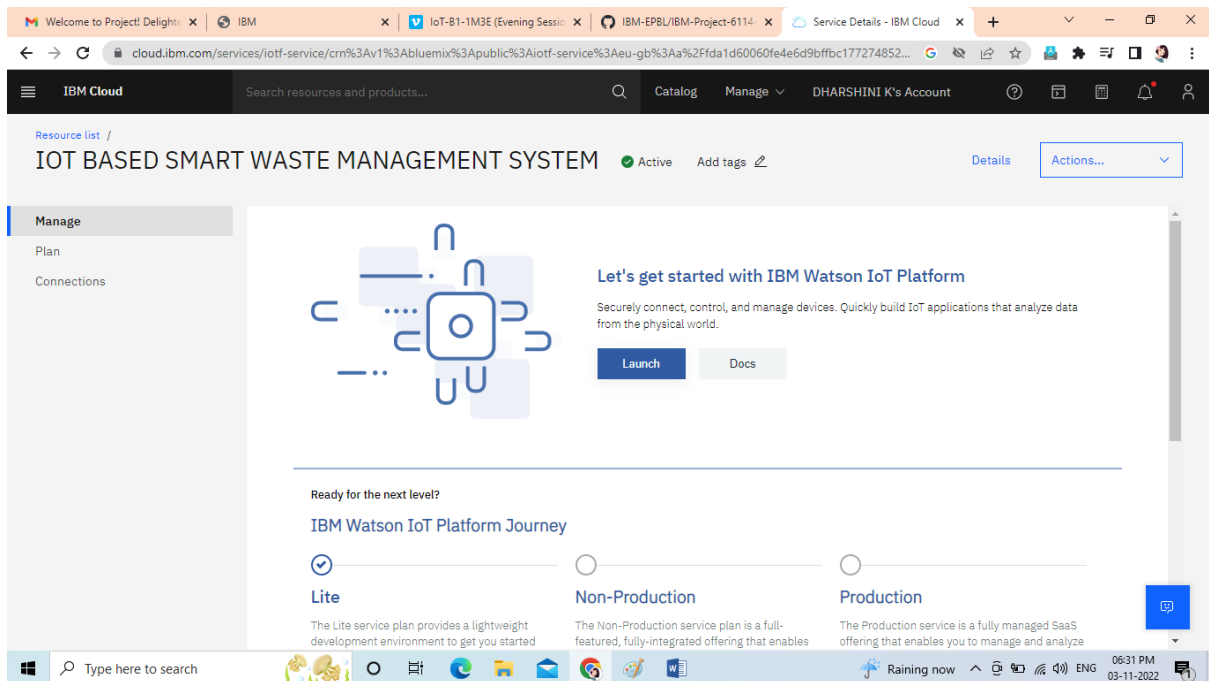


FIG 4: Goes to apps

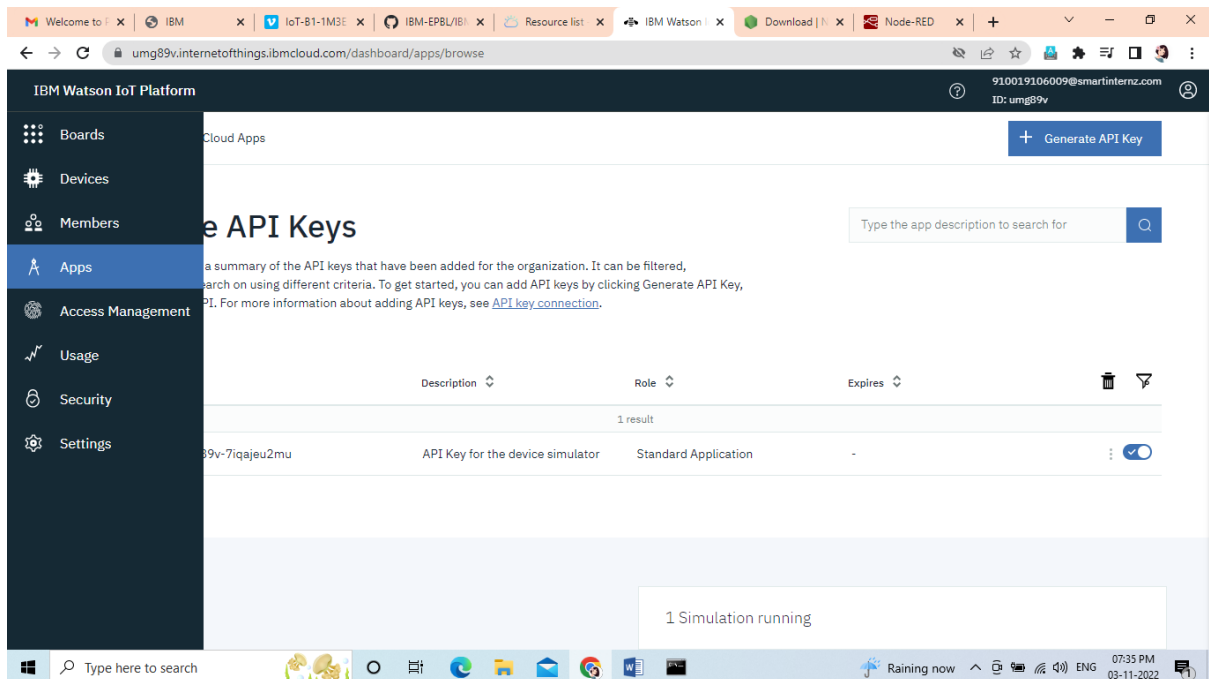


FIG 5: Click on generate API key

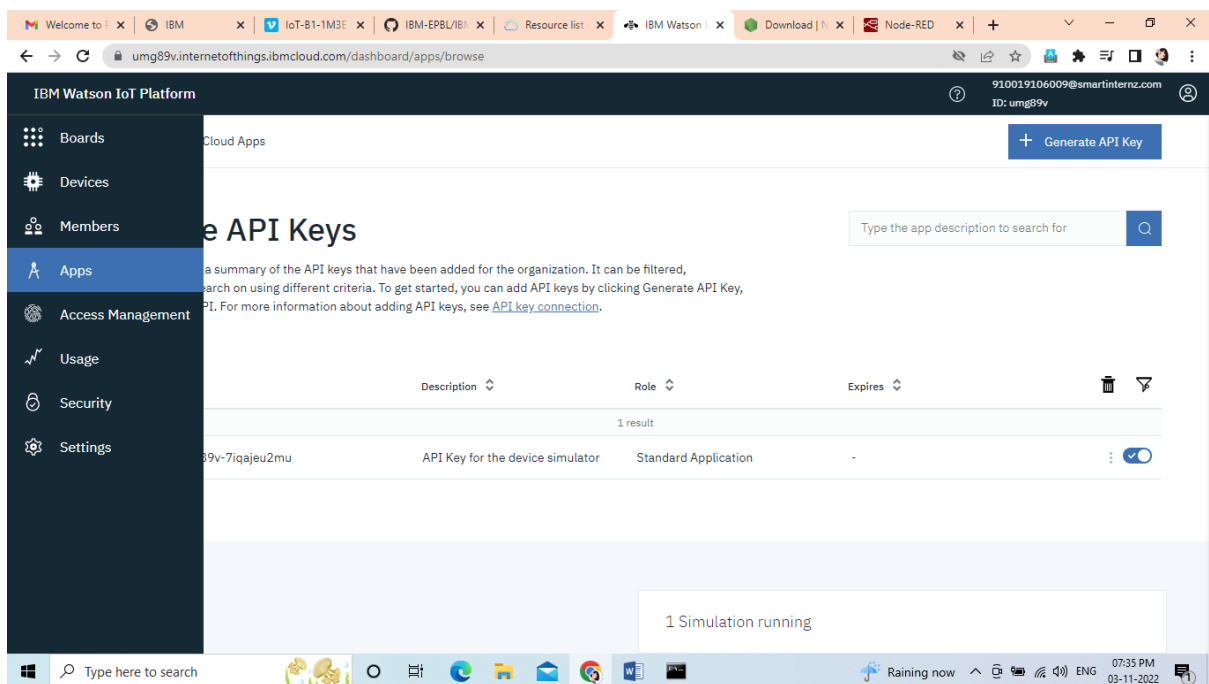


FIG 6: Generated Details

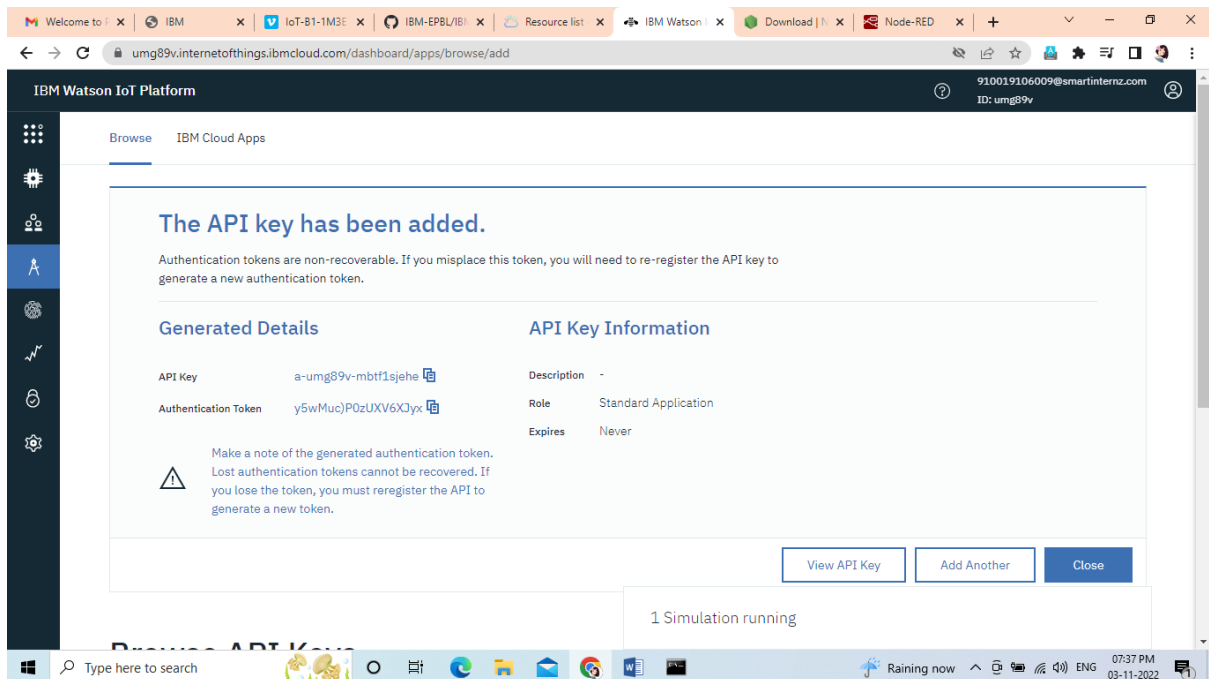


FIG 7: Select IBM IOT input in node

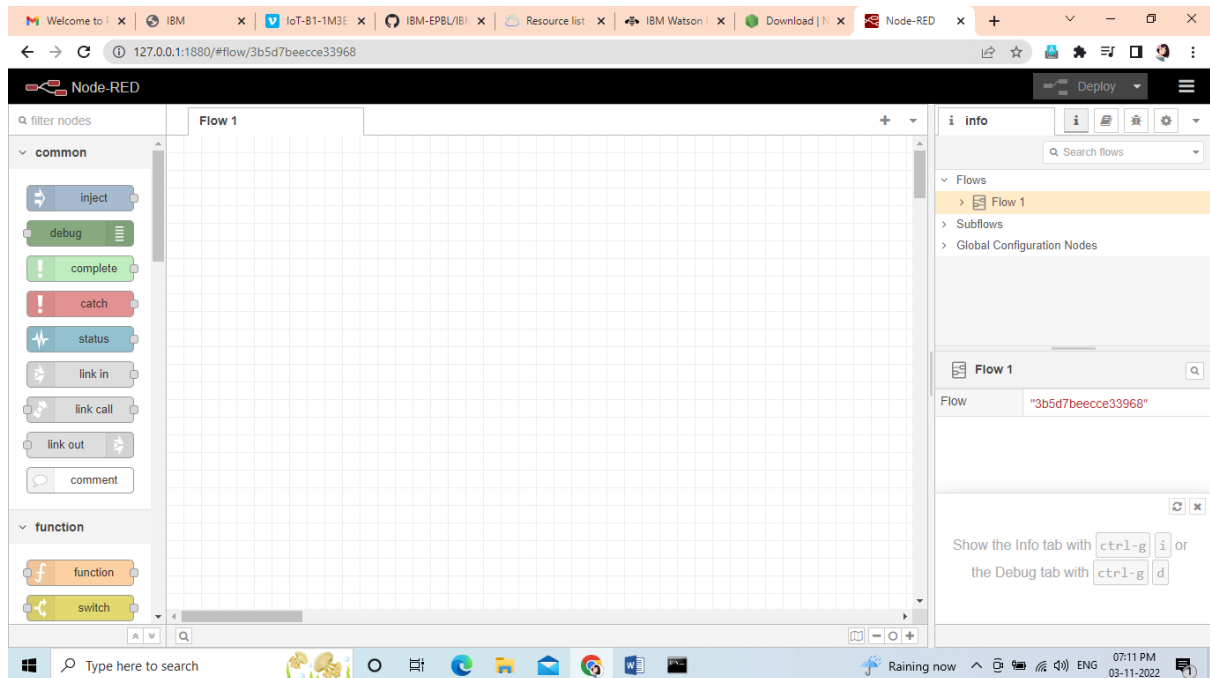
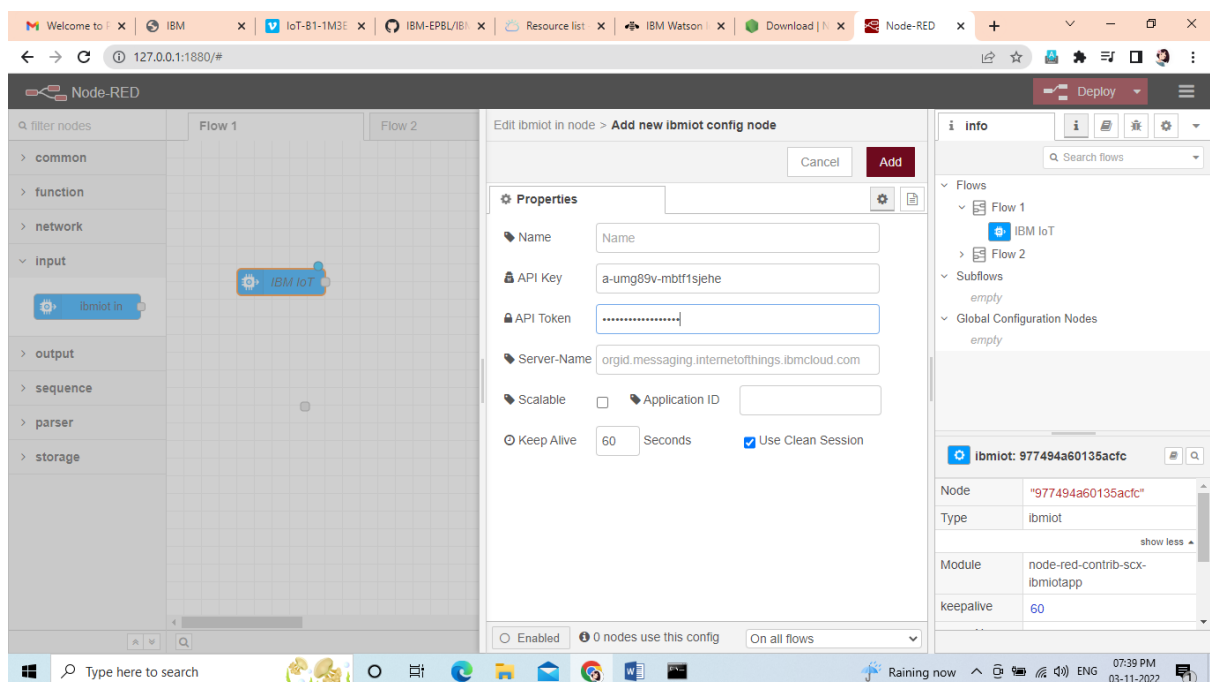


FIG 8: Copy and paste the generated API keys in the node-red



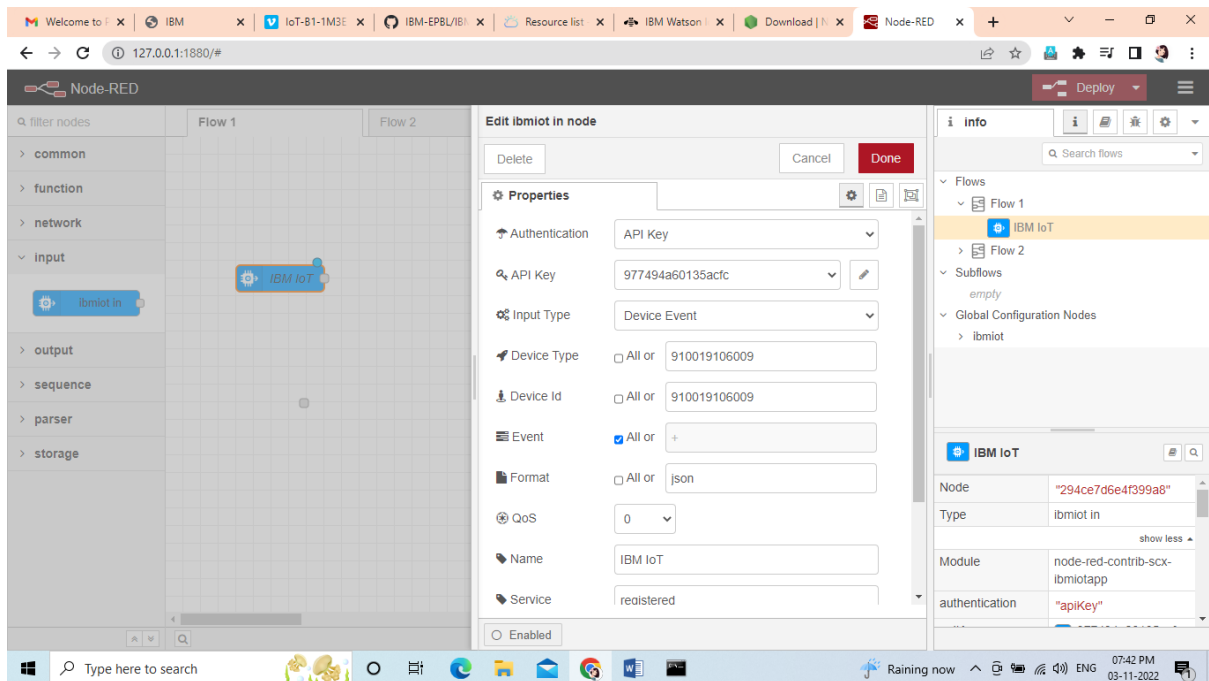


FIG 9: Add debug to the IBM IoT

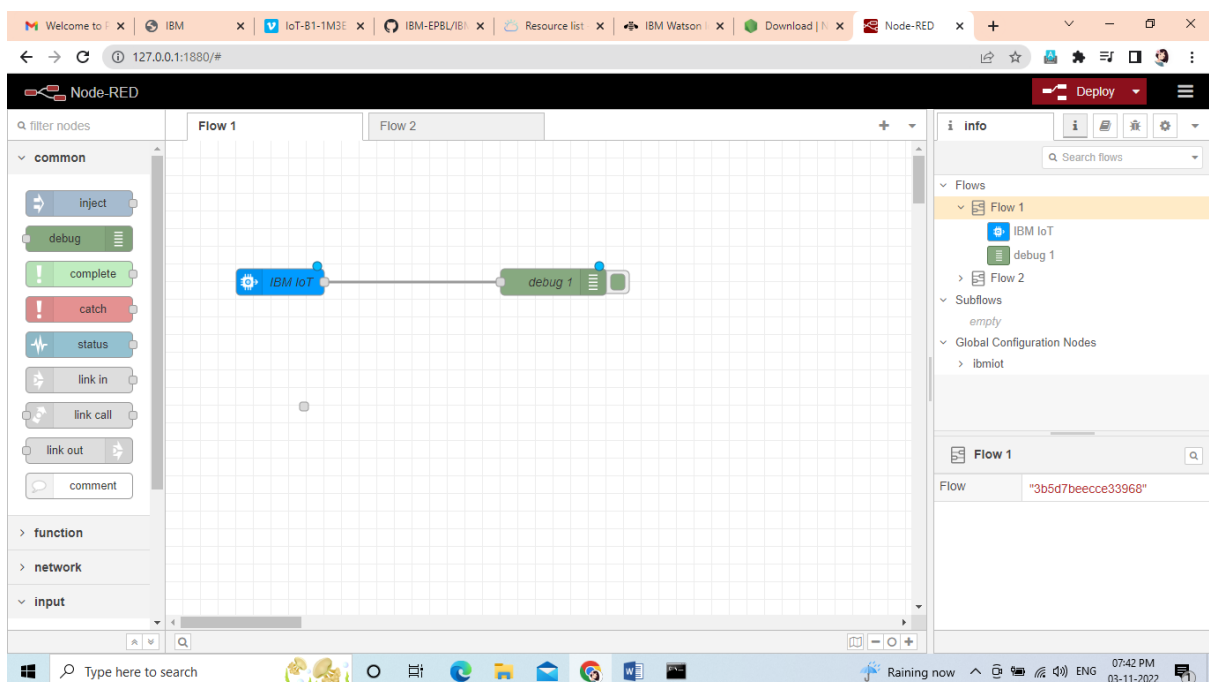


FIG 10: Output shows in the debug

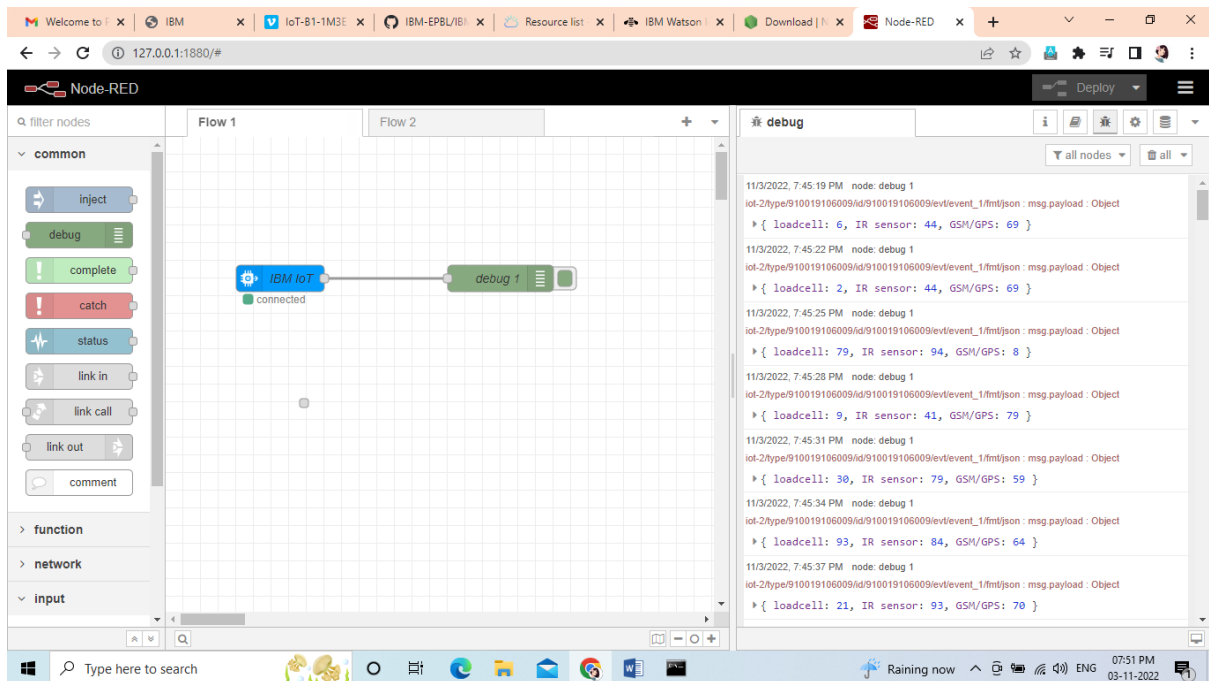


FIG 11: click gauge from the dashboard node

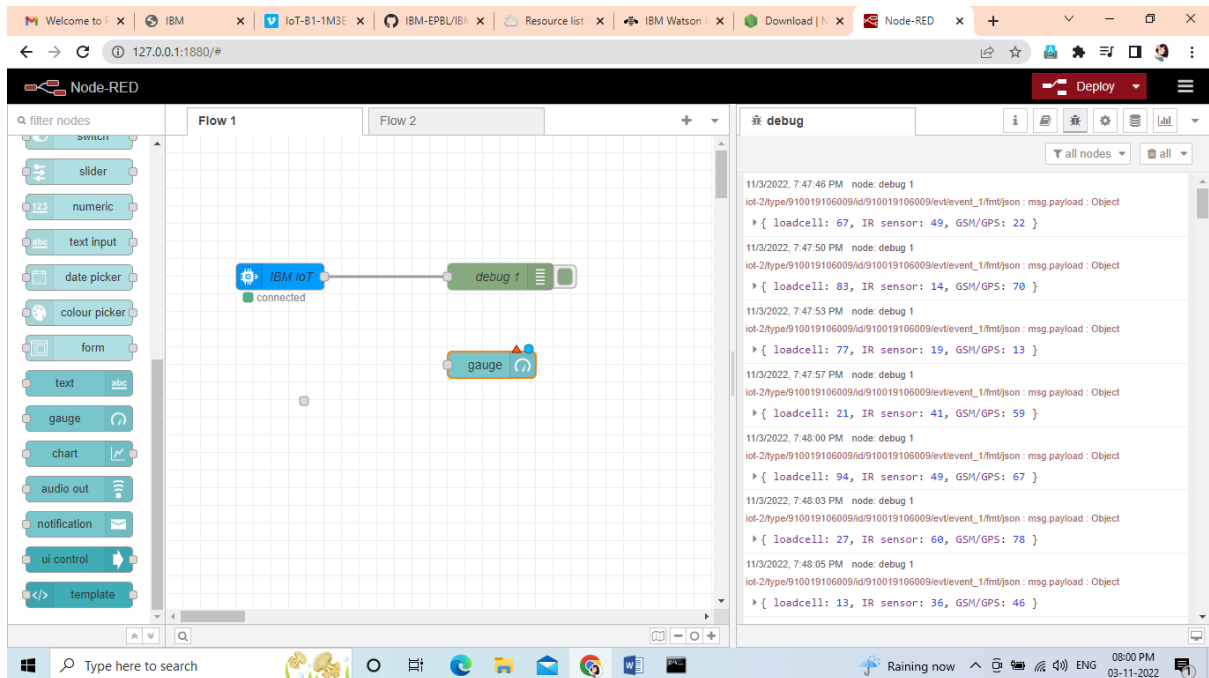


FIG 12: Edit gauge node

Node-RED interface showing the 'Edit gauge node' dialog. The dialog is titled 'Edit gauge node' and has tabs for 'Properties', 'Settings', and 'Help'. The 'Properties' tab is active, showing the following configuration:

- Group: Add new dashboard group...
- Size: auto
- Type: Gauge
- Label: gauge
- Value format: {{value}}
- Units: units
- Range: min 0, max 10
- Colour gradient: [Green, Yellow, Red]
- Sectors: 0, optional, optional, 10
- Name: [empty]
- Enabled: ☐

The debug console on the right shows a series of JSON messages from an IoT device:

```
11/3/2022, 7:47:46 PM node: debug 1
iot-2/type/910019106009/id/910019106009/evt/event_1/fmt/json : msg.payload : Object
{ loadcell: 67, IR sensor: 49, GSH/GPS: 22 }

11/3/2022, 7:47:50 PM node: debug 1
iot-2/type/910019106009/id/910019106009/evt/event_1/fmt/json : msg.payload : Object
{ loadcell: 83, IR sensor: 14, GSH/GPS: 70 }

11/3/2022, 7:47:53 PM node: debug 1
iot-2/type/910019106009/id/910019106009/evt/event_1/fmt/json : msg.payload : Object
{ loadcell: 77, IR sensor: 19, GSH/GPS: 13 }

11/3/2022, 7:47:57 PM node: debug 1
iot-2/type/910019106009/id/910019106009/evt/event_1/fmt/json : msg.payload : Object
{ loadcell: 21, IR sensor: 41, GSH/GPS: 59 }

11/3/2022, 7:48:00 PM node: debug 1
iot-2/type/910019106009/id/910019106009/evt/event_1/fmt/json : msg.payload : Object
{ loadcell: 94, IR sensor: 49, GSH/GPS: 67 }

11/3/2022, 7:48:03 PM node: debug 1
iot-2/type/910019106009/id/910019106009/evt/event_1/fmt/json : msg.payload : Object
{ loadcell: 27, IR sensor: 60, GSH/GPS: 78 }

11/3/2022, 7:48:05 PM node: debug 1
iot-2/type/910019106009/id/910019106009/evt/event_1/fmt/json : msg.payload : Object
{ loadcell: 13, IR sensor: 36, GSH/GPS: 46 }
```

Node-RED interface showing the 'Add new dashboard group config node' dialog. The dialog is titled 'Add new dashboard group config node' and has tabs for 'Properties', 'Settings', and 'Help'. The 'Properties' tab is active, showing the following configuration:

- Name: monitoring
- Tab: Add new dashboard tab...
- Width: 6
- Display group name: ☒
- Allow group to be collapsed: ☐
- Enabled: ☐
- 0 nodes use this config
- On all flows

The debug console on the right shows the same series of JSON messages as the previous screenshot:

```
11/3/2022, 7:47:46 PM node: debug 1
iot-2/type/910019106009/id/910019106009/evt/event_1/fmt/json : msg.payload : Object
{ loadcell: 67, IR sensor: 49, GSH/GPS: 22 }

11/3/2022, 7:47:50 PM node: debug 1
iot-2/type/910019106009/id/910019106009/evt/event_1/fmt/json : msg.payload : Object
{ loadcell: 83, IR sensor: 14, GSH/GPS: 70 }

11/3/2022, 7:47:53 PM node: debug 1
iot-2/type/910019106009/id/910019106009/evt/event_1/fmt/json : msg.payload : Object
{ loadcell: 77, IR sensor: 19, GSH/GPS: 13 }

11/3/2022, 7:47:57 PM node: debug 1
iot-2/type/910019106009/id/910019106009/evt/event_1/fmt/json : msg.payload : Object
{ loadcell: 21, IR sensor: 41, GSH/GPS: 59 }

11/3/2022, 7:48:00 PM node: debug 1
iot-2/type/910019106009/id/910019106009/evt/event_1/fmt/json : msg.payload : Object
{ loadcell: 94, IR sensor: 49, GSH/GPS: 67 }

11/3/2022, 7:48:03 PM node: debug 1
iot-2/type/910019106009/id/910019106009/evt/event_1/fmt/json : msg.payload : Object
{ loadcell: 27, IR sensor: 60, GSH/GPS: 78 }

11/3/2022, 7:48:05 PM node: debug 1
iot-2/type/910019106009/id/910019106009/evt/event_1/fmt/json : msg.payload : Object
{ loadcell: 13, IR sensor: 36, GSH/GPS: 46 }
```

FIG 13: Add functions to the gauge

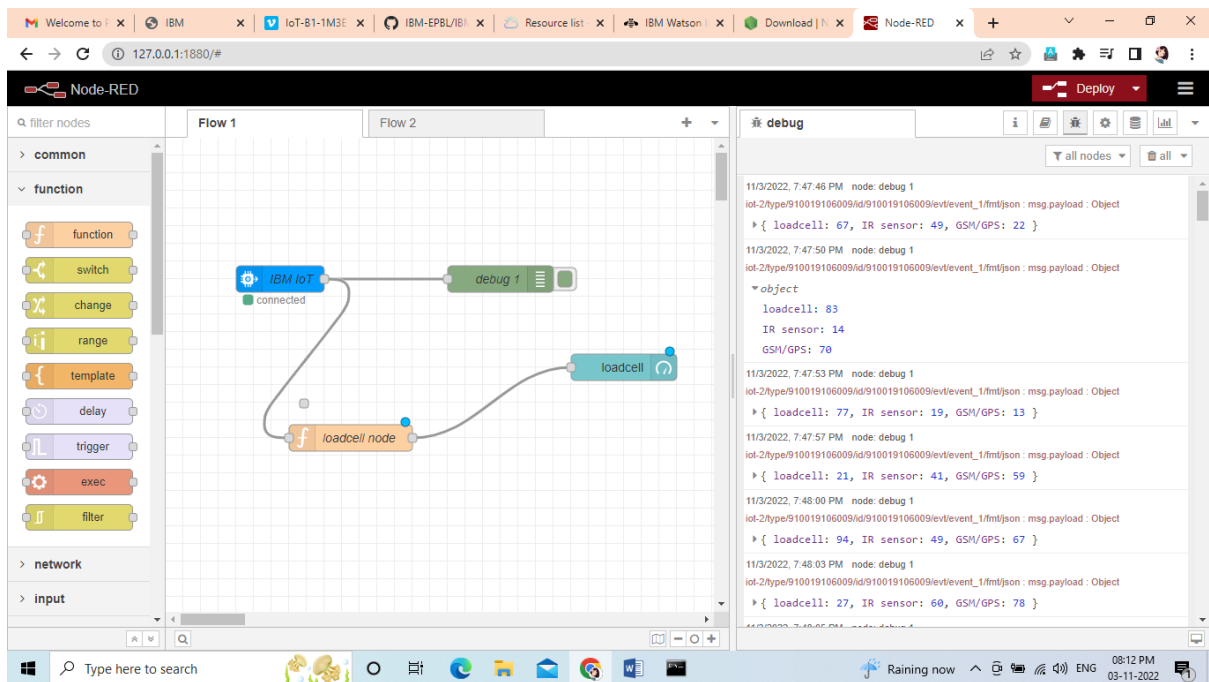
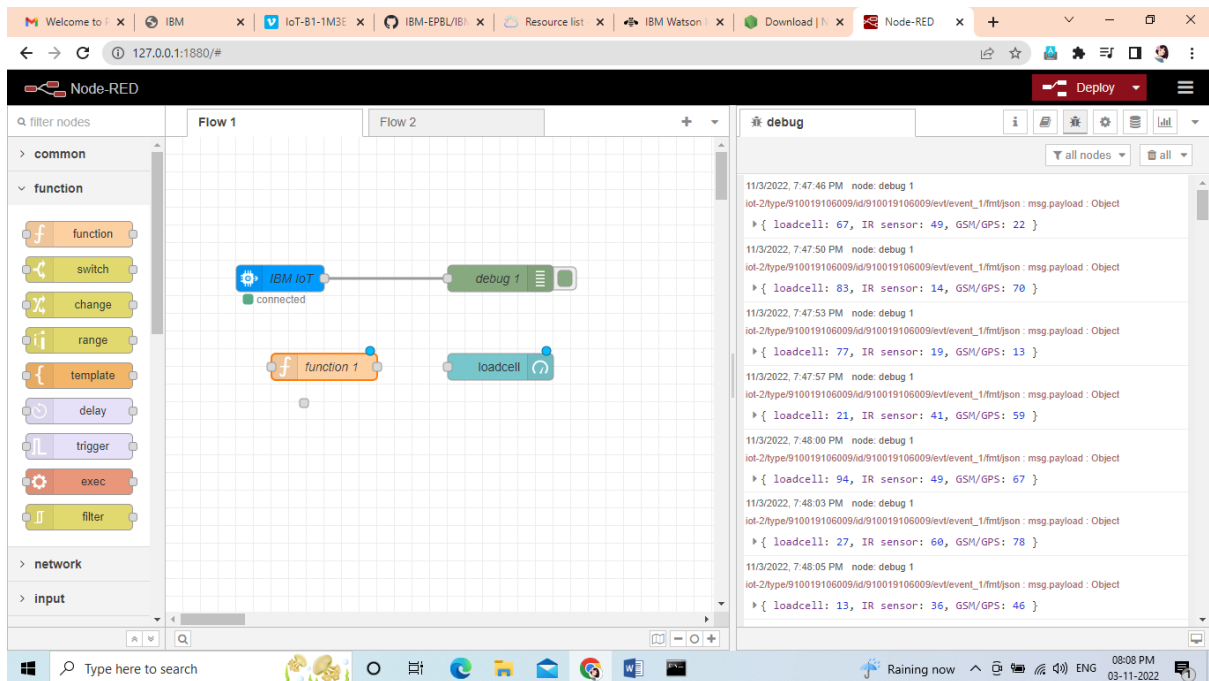


FIG 14: Similarly create gauge and functions to all sensors

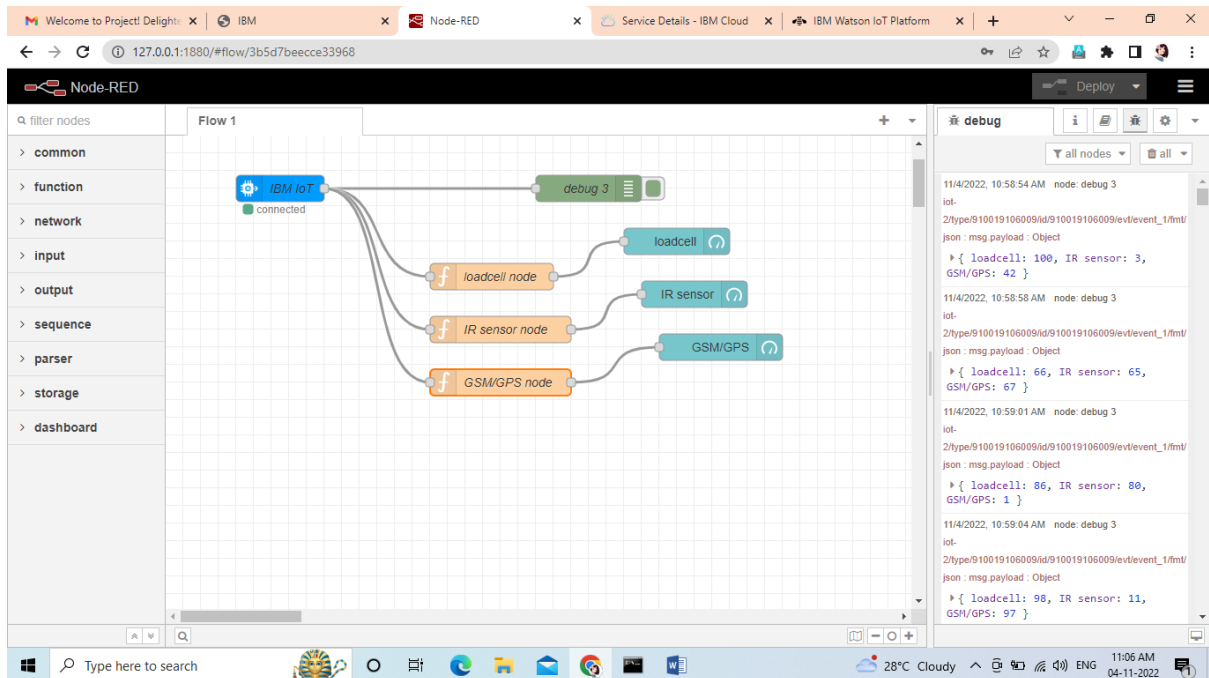
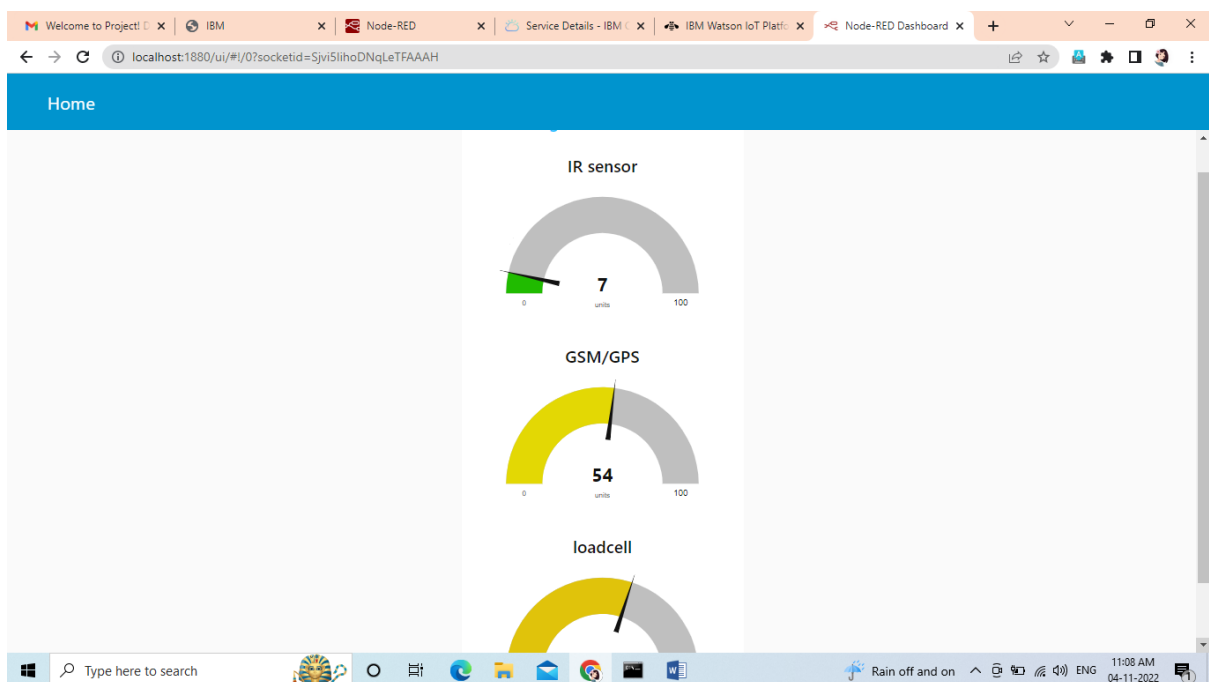


FIG 15: output from node red



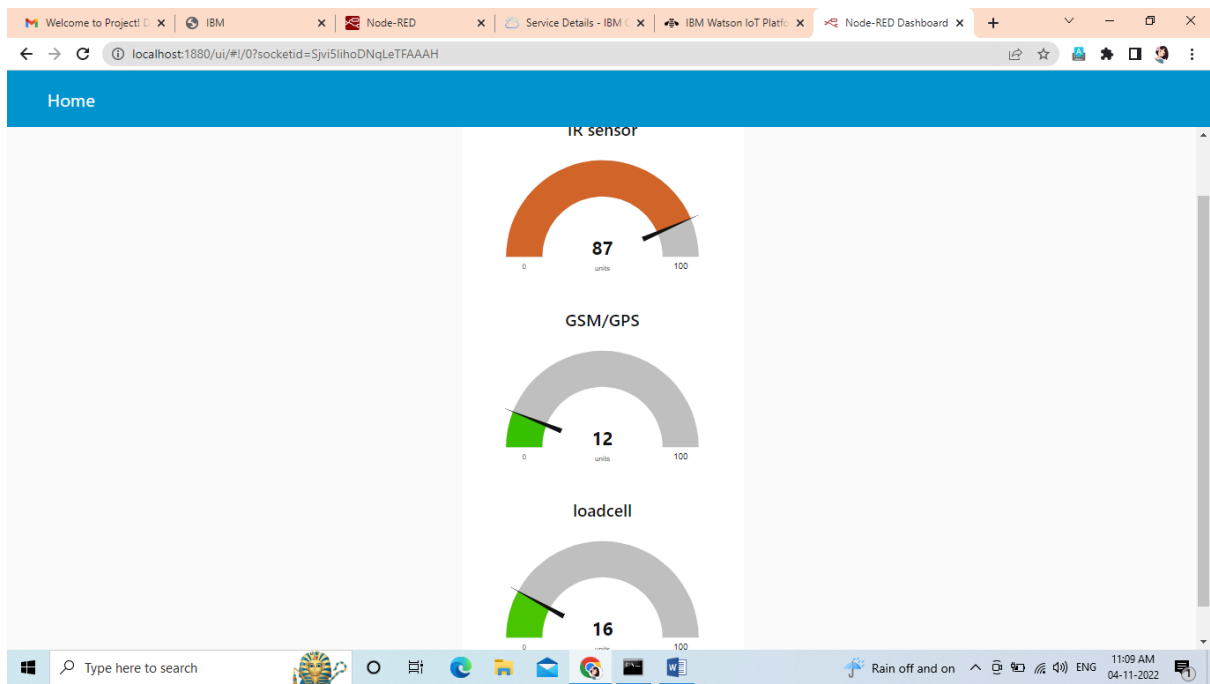
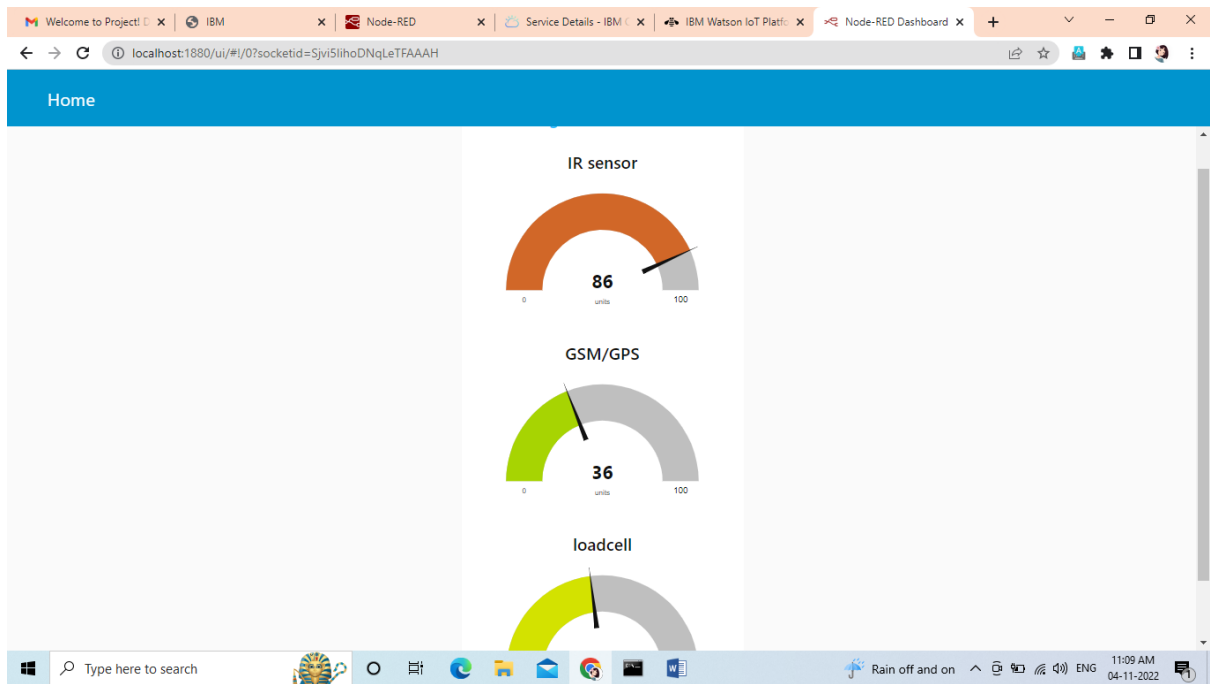


FIG 16: click button to set light on and off

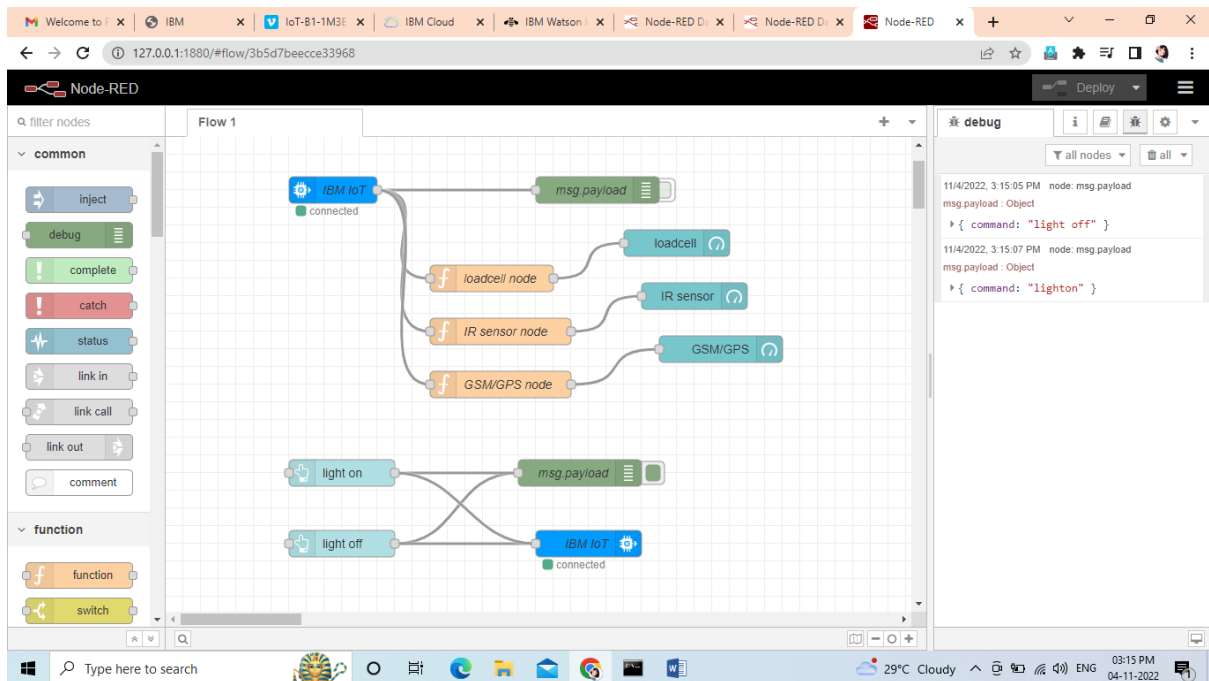


FIG 17: output with light on and off button

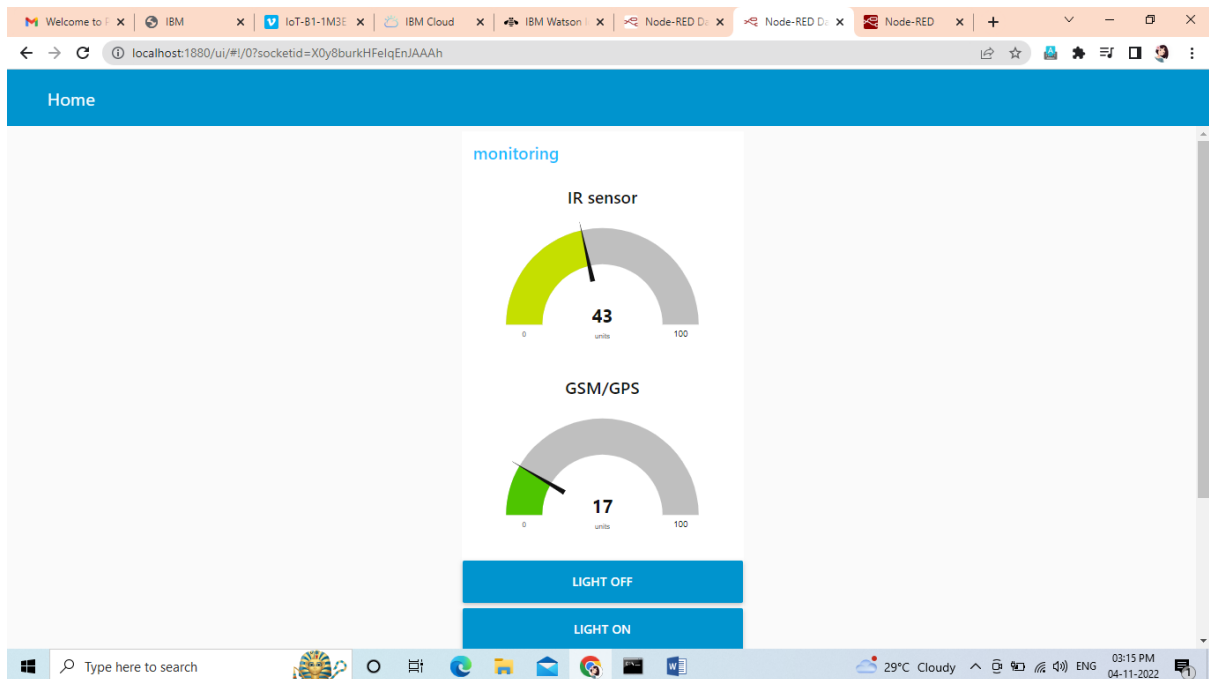


FIG 18: login to MIT app inventor and then design

