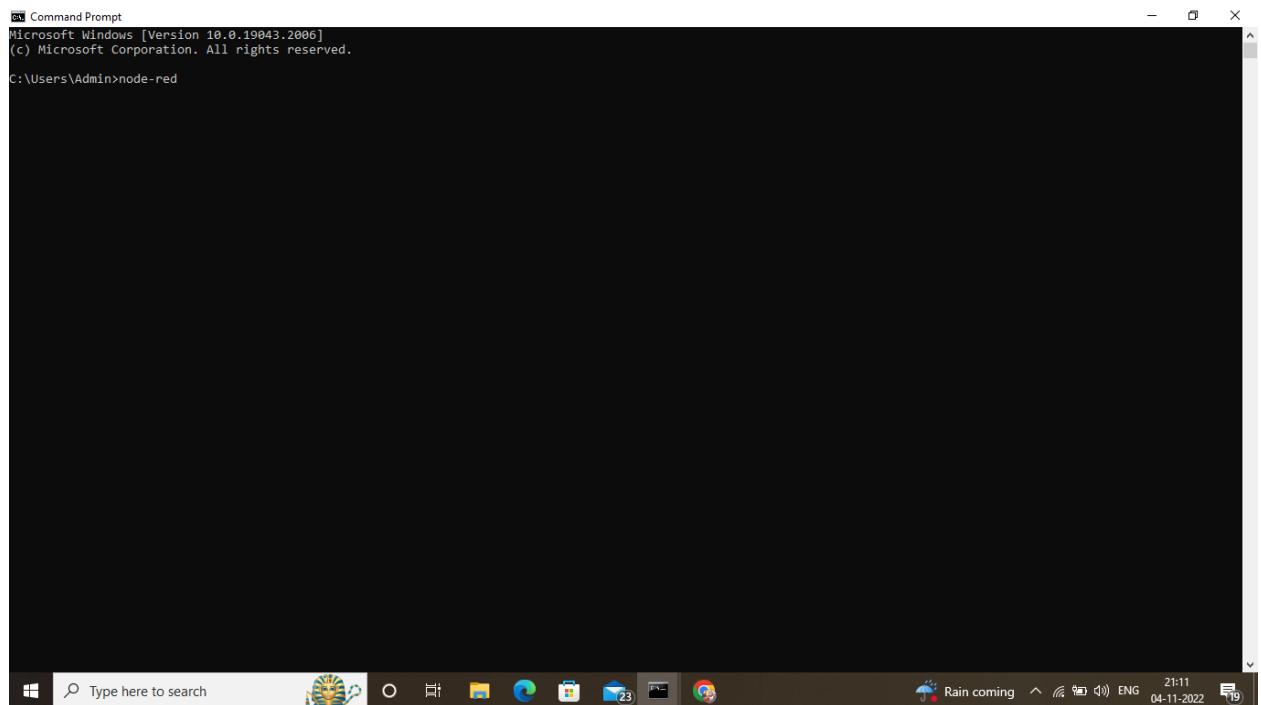


Project Development Phase

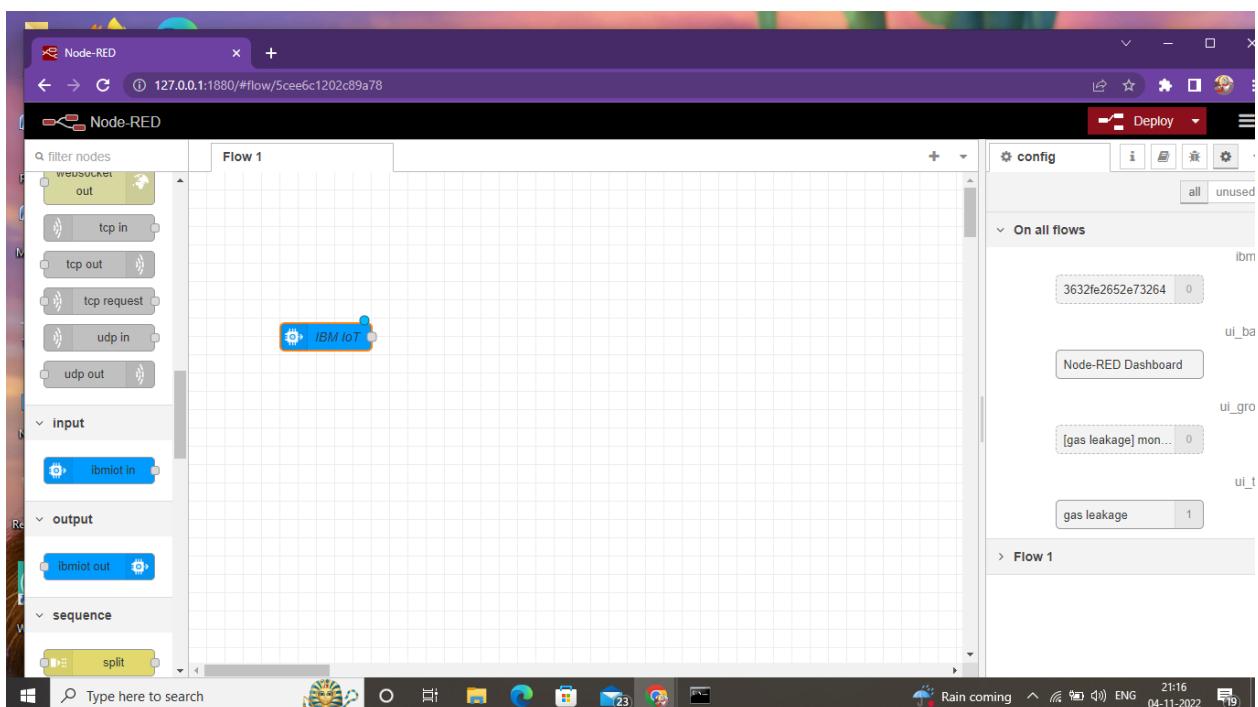
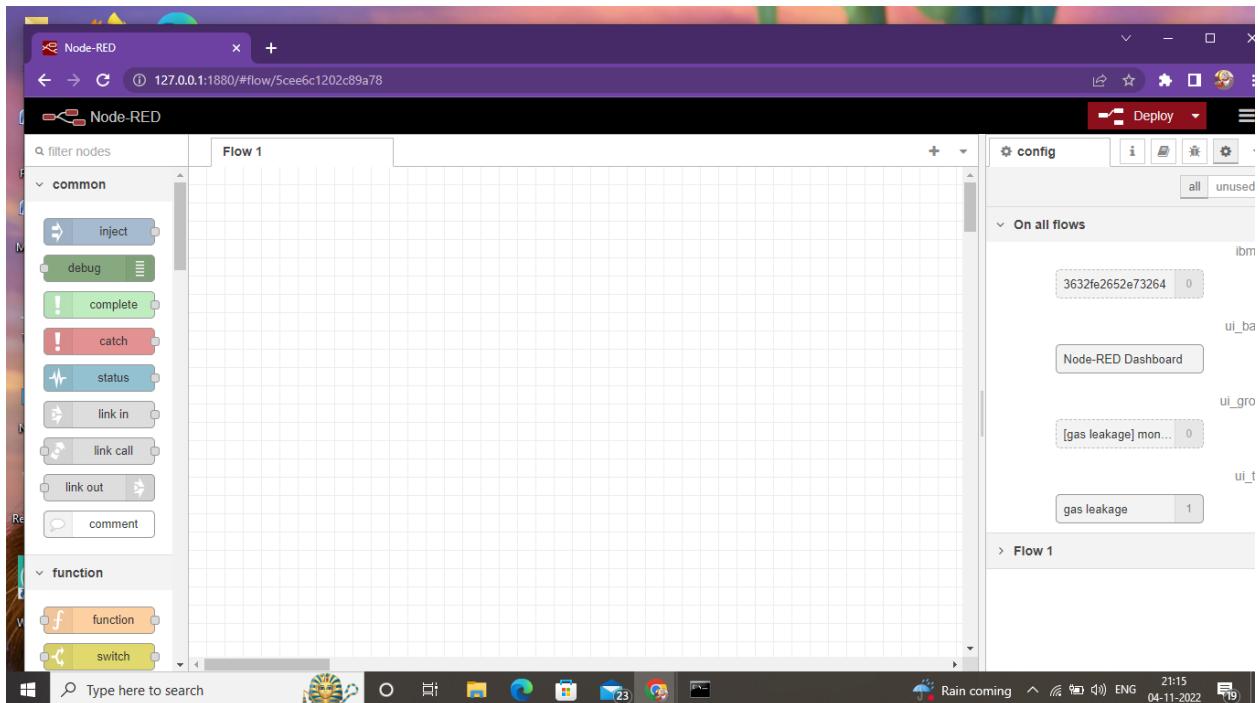
Delivery of Sprint 2

DATE	05 NOVEMBER 2022
TEAM ID	PNT2022TMID47483
PROJECT NAME	GAS LEAKAGE DETECTION AND ALERTING
MAXIMUM MARKS	20

Step1: Install node red and open node red in command prompt



Step 2: Select IBM IoT input in node



Step 3: In IBM Watson platform, go to apps

The screenshot shows a Microsoft Edge browser window with the URL vq4nsy.internetofthings.ibmcloud.com/dashboard/apps/browse. The title bar says "IBM Watson IoT Platform". The left sidebar has a dark theme with icons for Boards, Devices, Members, and Apps (which is selected). The main content area is titled "API Keys" and displays a table of three API keys:

Description	Role	Expires	Actions
sy-khlo2gokku	Standard Application	-	⋮ <input checked="" type="checkbox"/>
sy-rokt0gd5cl	Visualization Application	-	⋮ <input checked="" type="checkbox"/>
sy-w7sz37wjvr	Standard Application	-	⋮ <input checked="" type="checkbox"/>

A message at the bottom of the table says "1 Simulation running". The bottom of the screen shows the Windows taskbar with various pinned icons and the system tray.

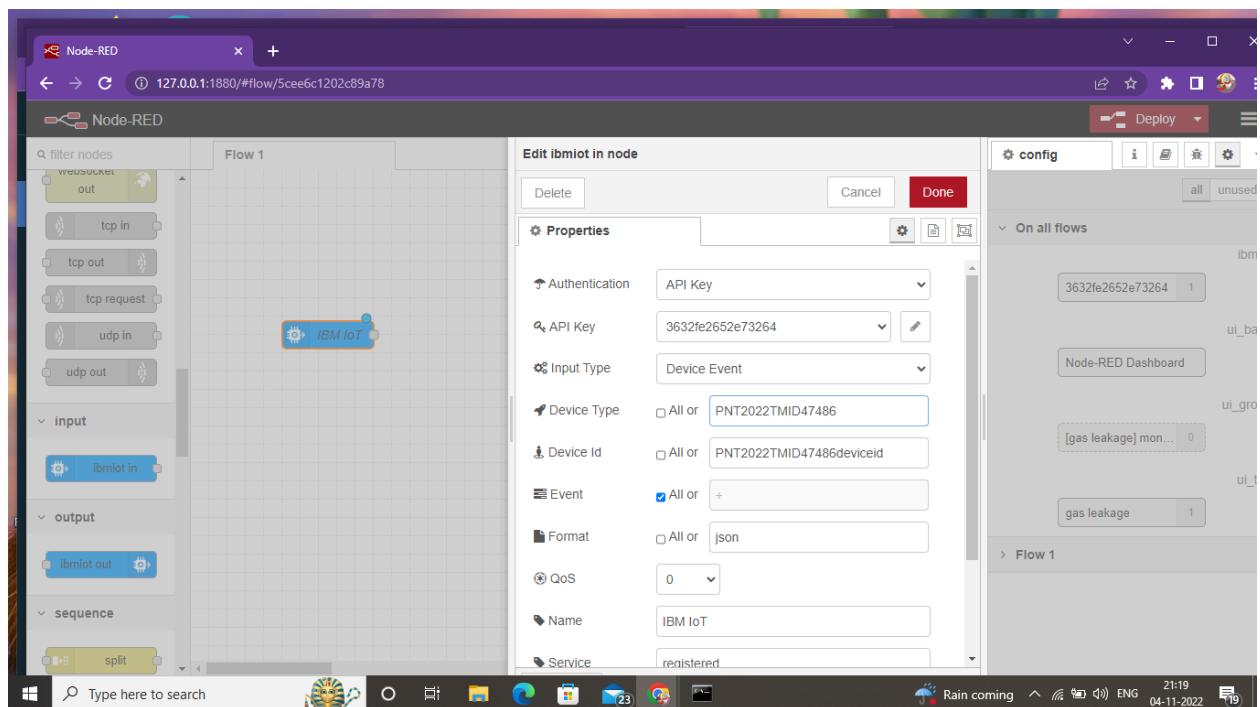
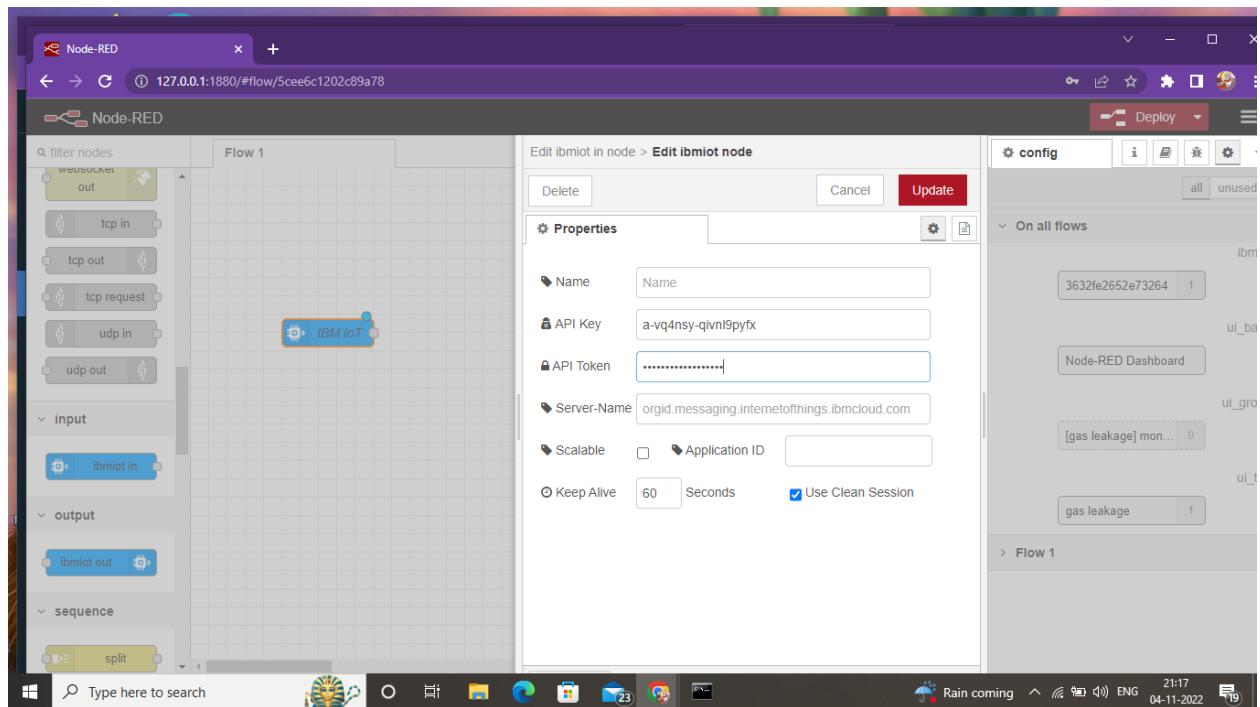
Step 4: Click on generate API keys

The screenshot shows a Microsoft Edge browser window with the URL vq4nsy.internetofthings.ibmcloud.com/dashboard/apps/browse/add. The page is titled "IBM Watson IoT Platform" and displays a "Generate API Key" form. The "Information" tab is selected, indicated by a checked radio button. Below it, a message states: "The application will have access for the following role:". A dropdown menu labeled "Role" is set to "Visualization Application". A "Back" button and a "Generate Key" button are at the bottom. To the right, there is a "Browse API Keys" section with a search bar and a table header "1 Simulation running". The Windows taskbar at the bottom includes icons for Start, Search, Task View, File Explorer, Mail, Photos, OneDrive, Taskbar Help, and a system tray showing "Rain coming" and the date/time "04-11-2022 21:10".

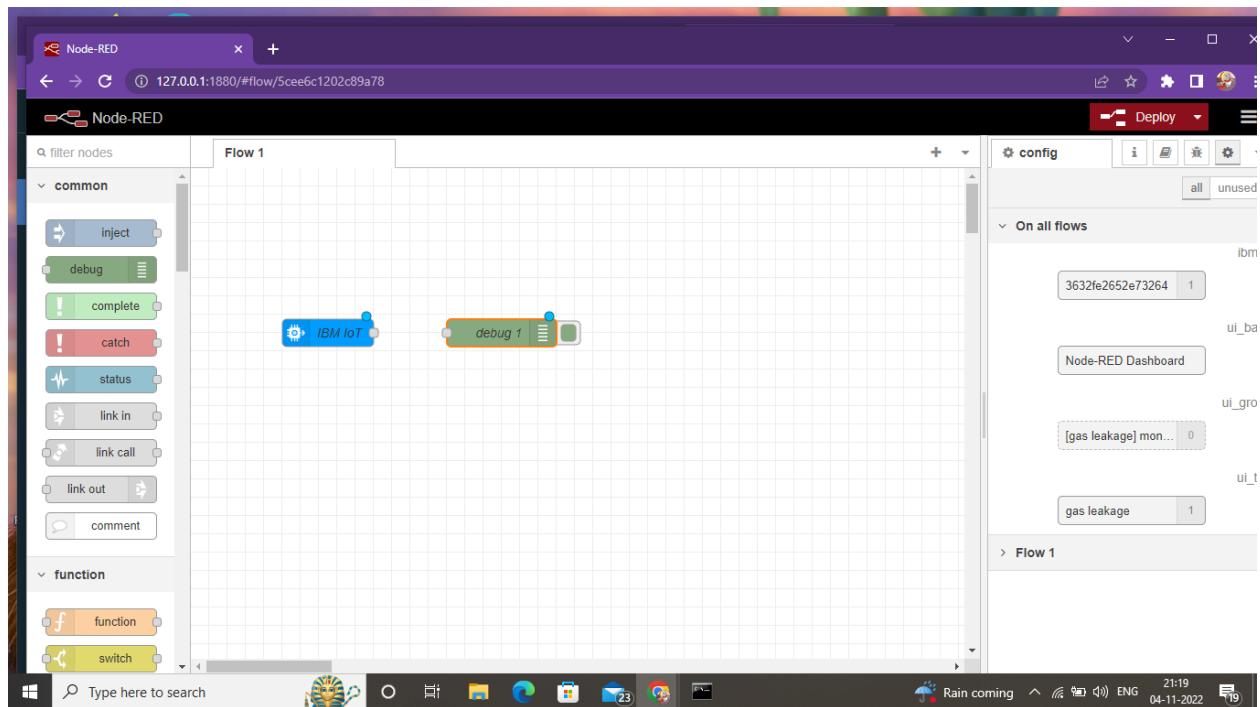
Step 5: Generated API key Details

The screenshot shows a Microsoft Edge browser window with the URL vq4nsy.internetofthings.ibmcloud.com/dashboard/apps/browse/add. The title bar says "IBM Watson IoT Platform". The main content area displays a success message: "The API key has been added." Below it, a note states: "Authentication tokens are non-recoverable. If you misplace this token, you will need to re-register the API key to generate a new authentication token." A warning icon with an exclamation mark is present next to the note. The "Generated Details" section lists the API Key as "a-vq4nsy-qivnl9pyfx" and the Authentication Token as "DhzyNDG9qwIg3OJ(77". The "API Key Information" section shows the Role as "Visualization Application" and Expires as "Never". At the bottom right are buttons for "View API Key", "Add Another", and "Close". The taskbar at the bottom shows the Windows Start button, a search bar with "Type here to search", and several pinned icons. A notification bubble in the top right corner says "1 Simulation running". The system tray shows the date and time as "04-11-2022 21:10".

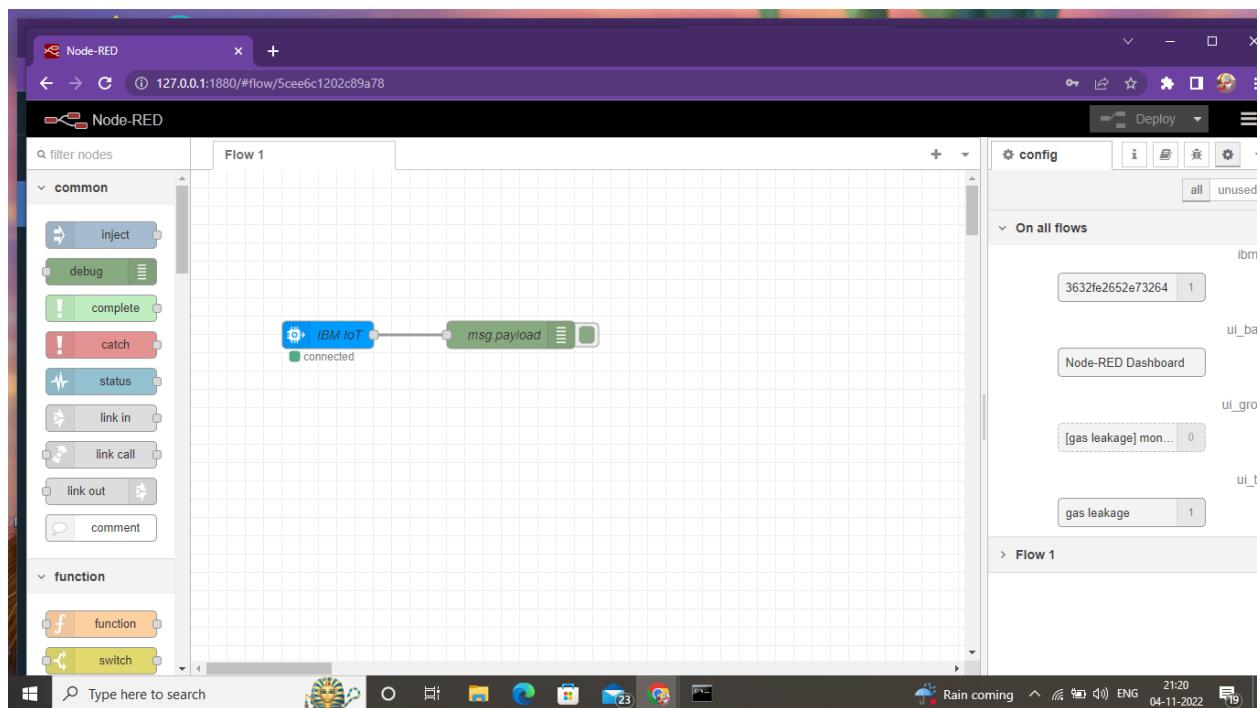
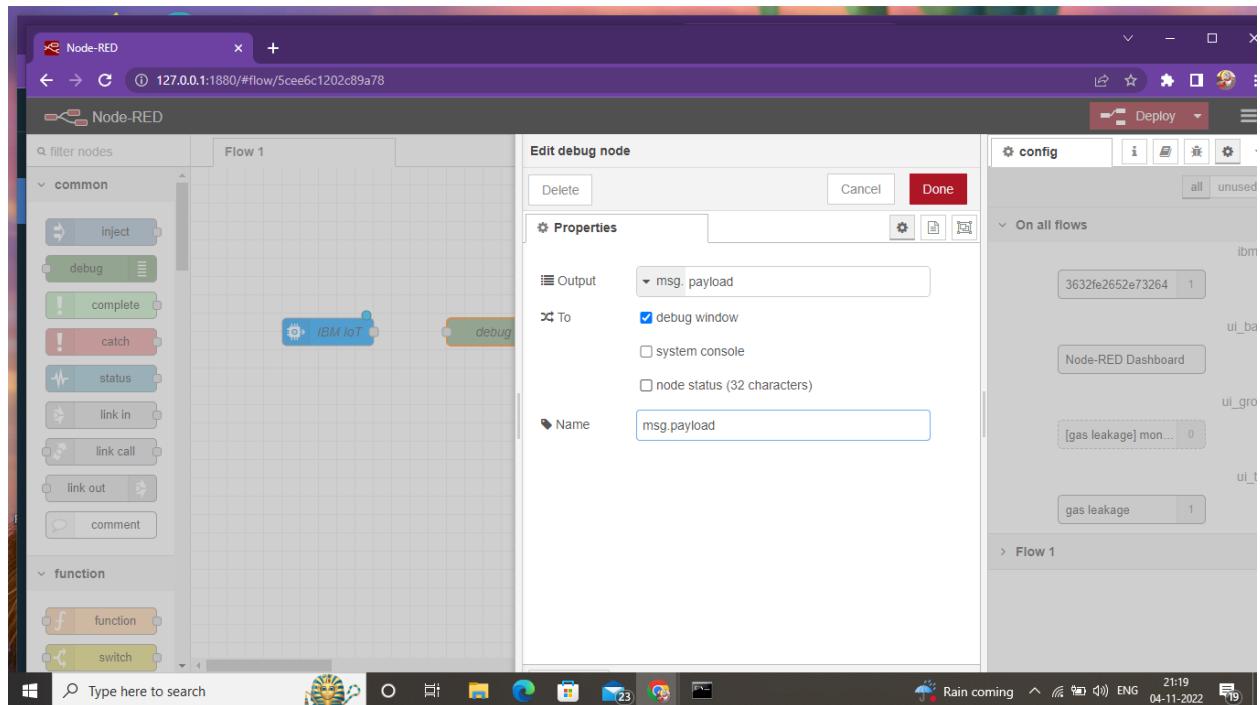
Step6: Copy and paste the generated API key in node red



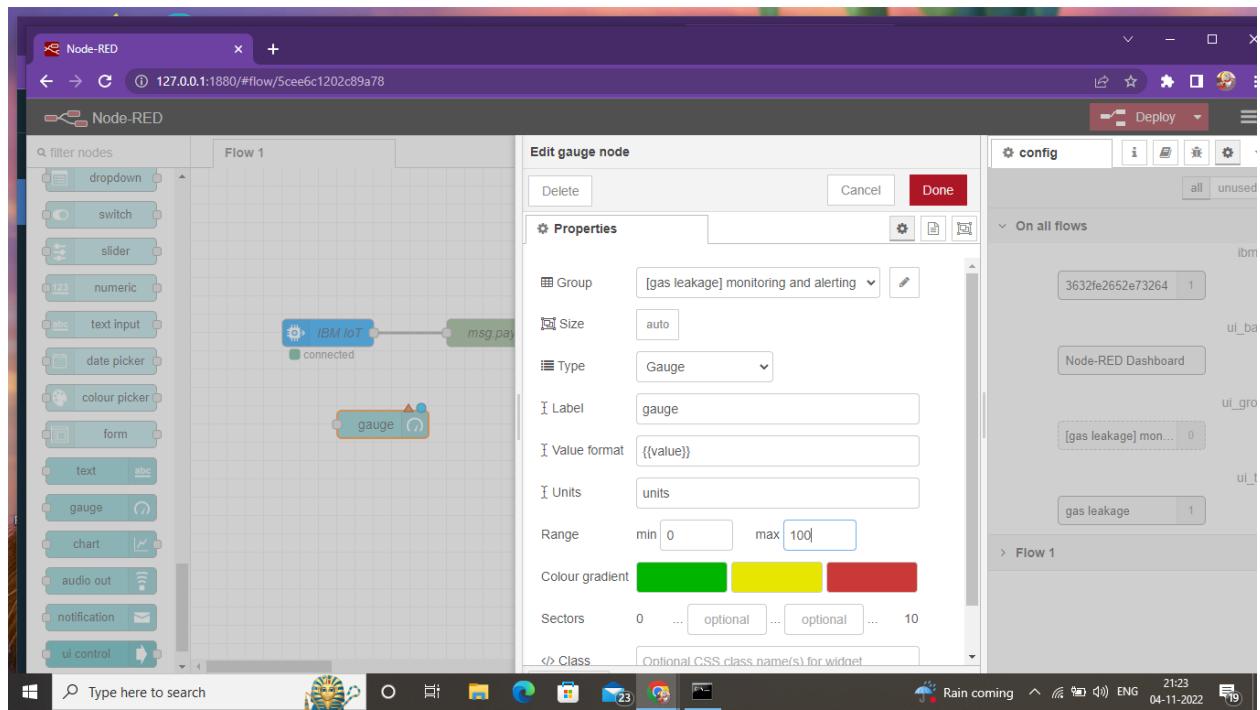
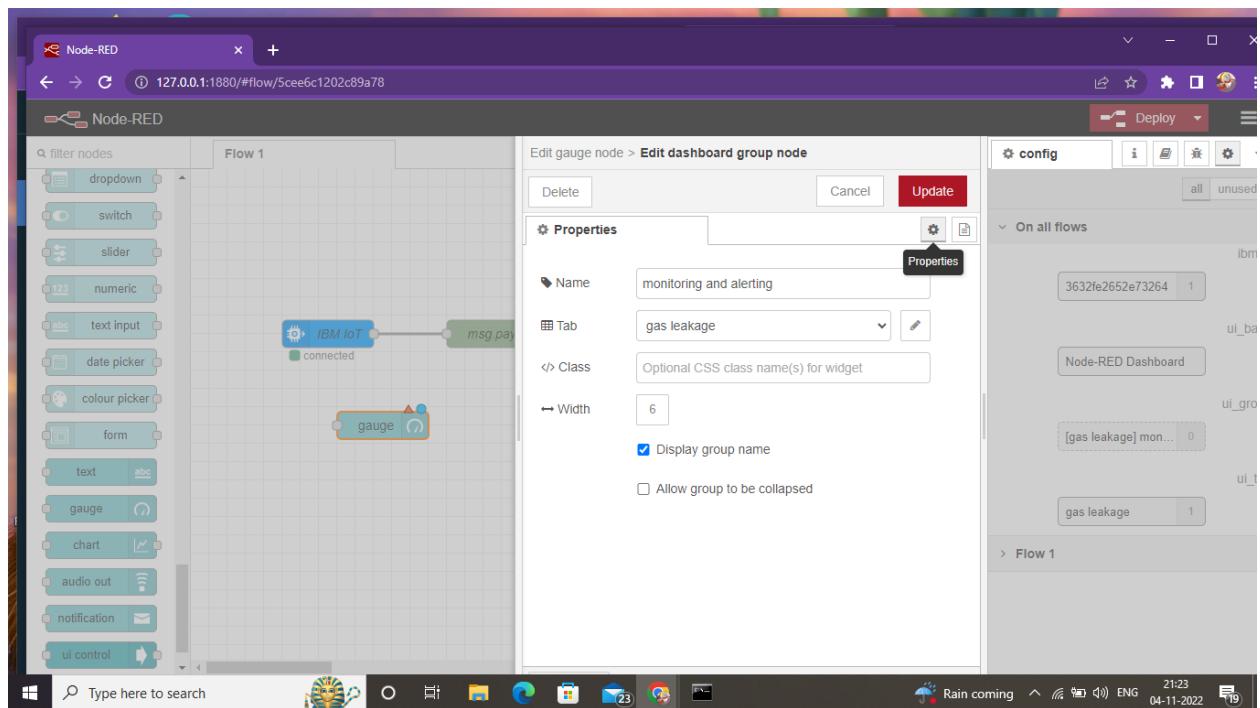
Step 7:after completing all the details click in done button



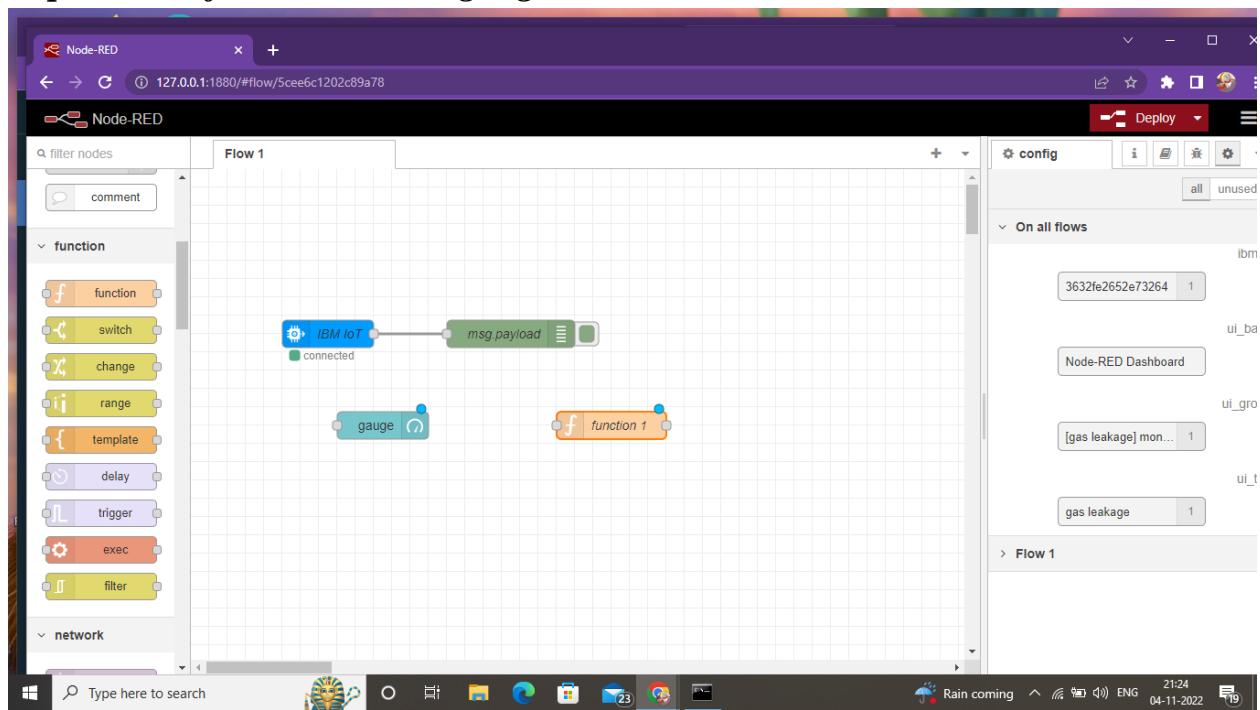
Step 8:add debug to the IBM iot and rename as msg.payload and click on done.



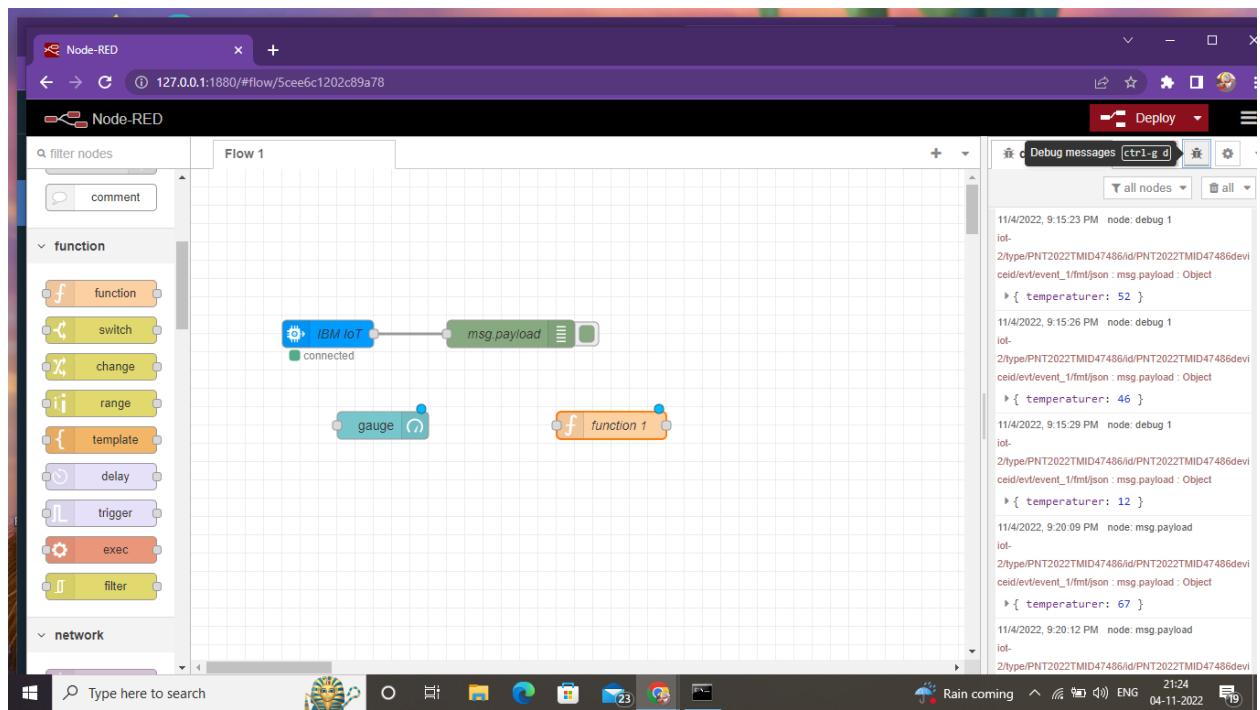
Step 9: Click gauge from the dashboard node and fill the details



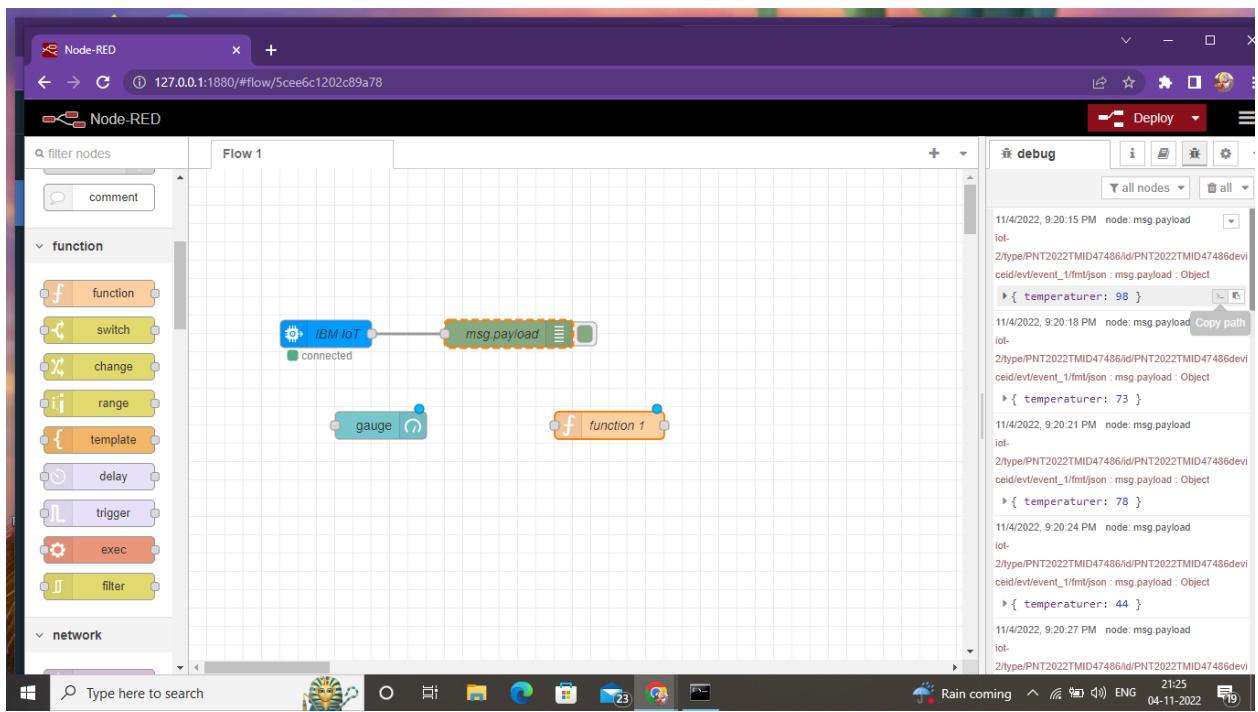
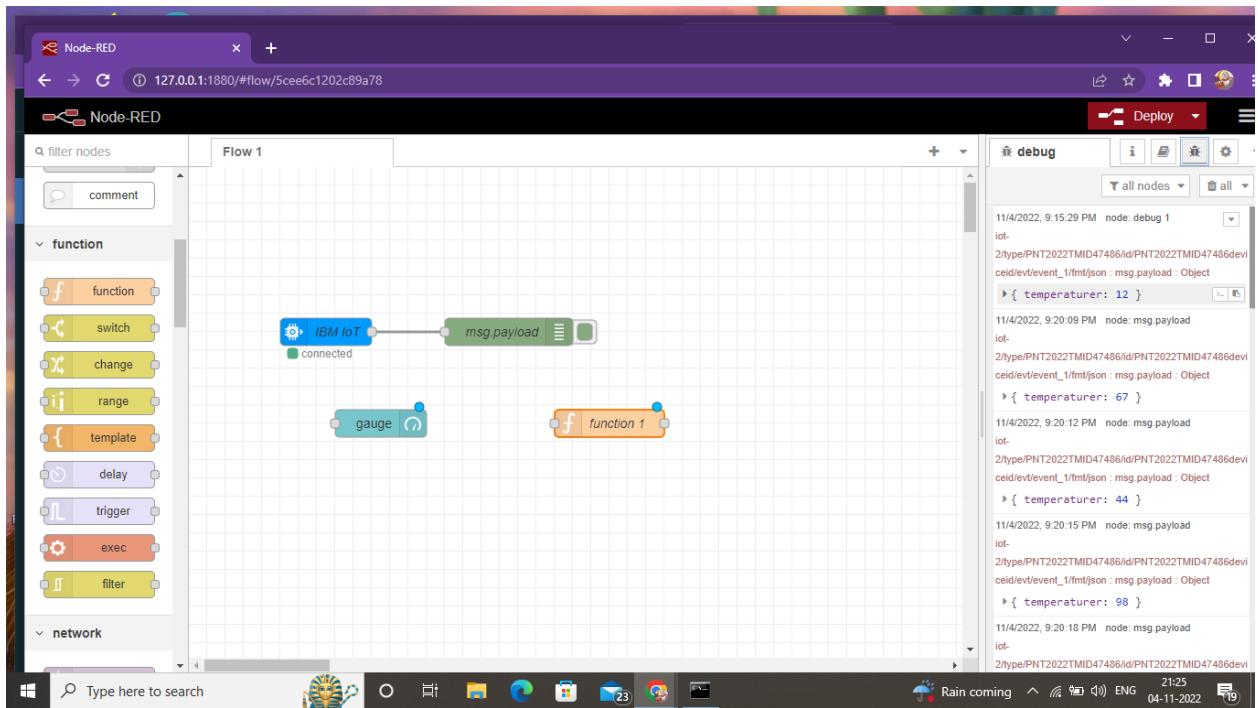
Step 10: Add functions to the gauge

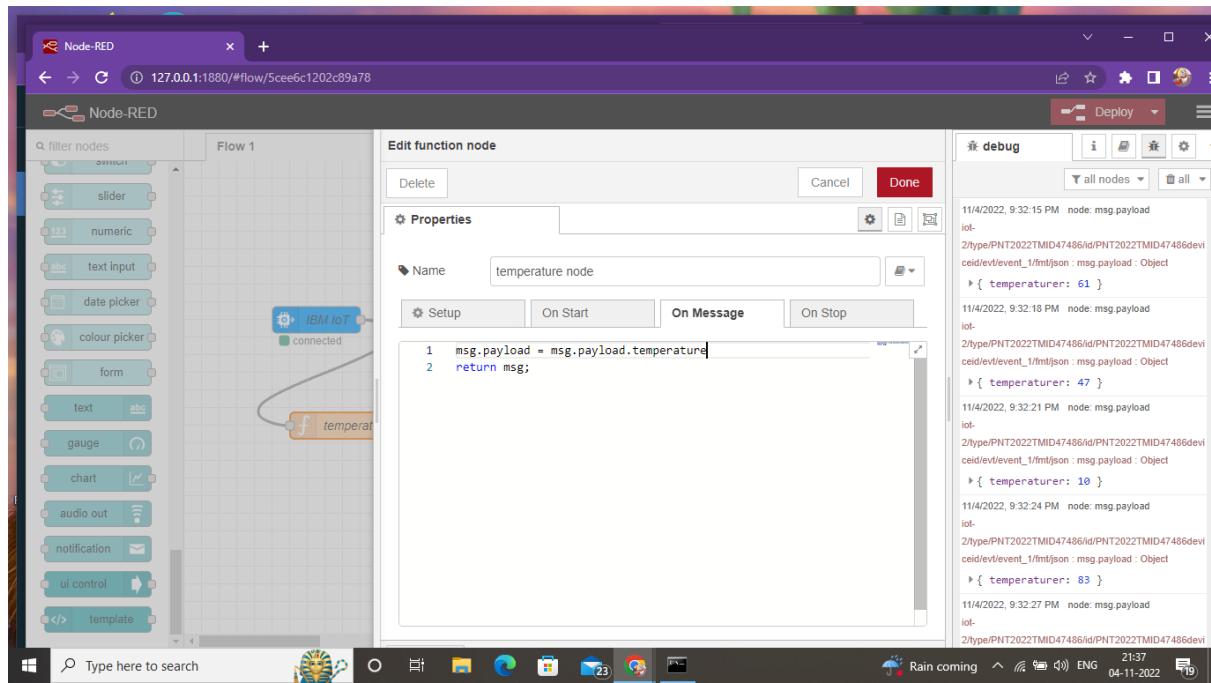


Step 11: Check the values from debug messages

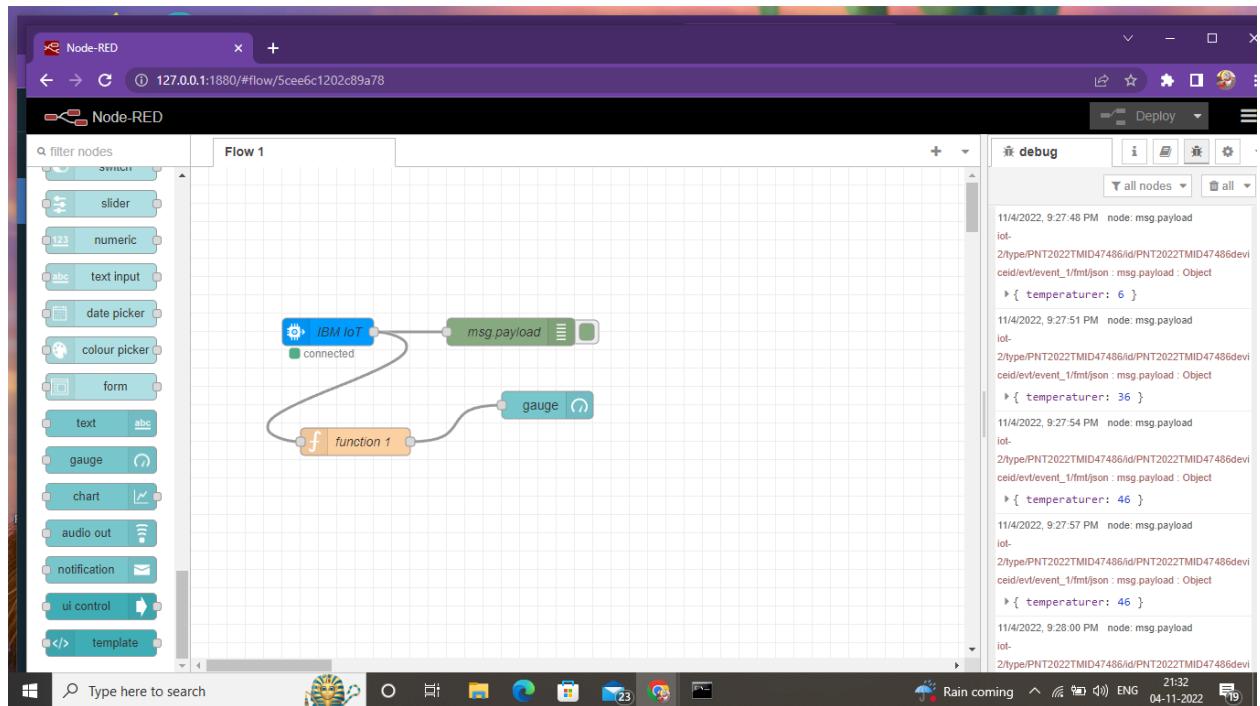


Step 12: Edit function node





Step 13: Connect them

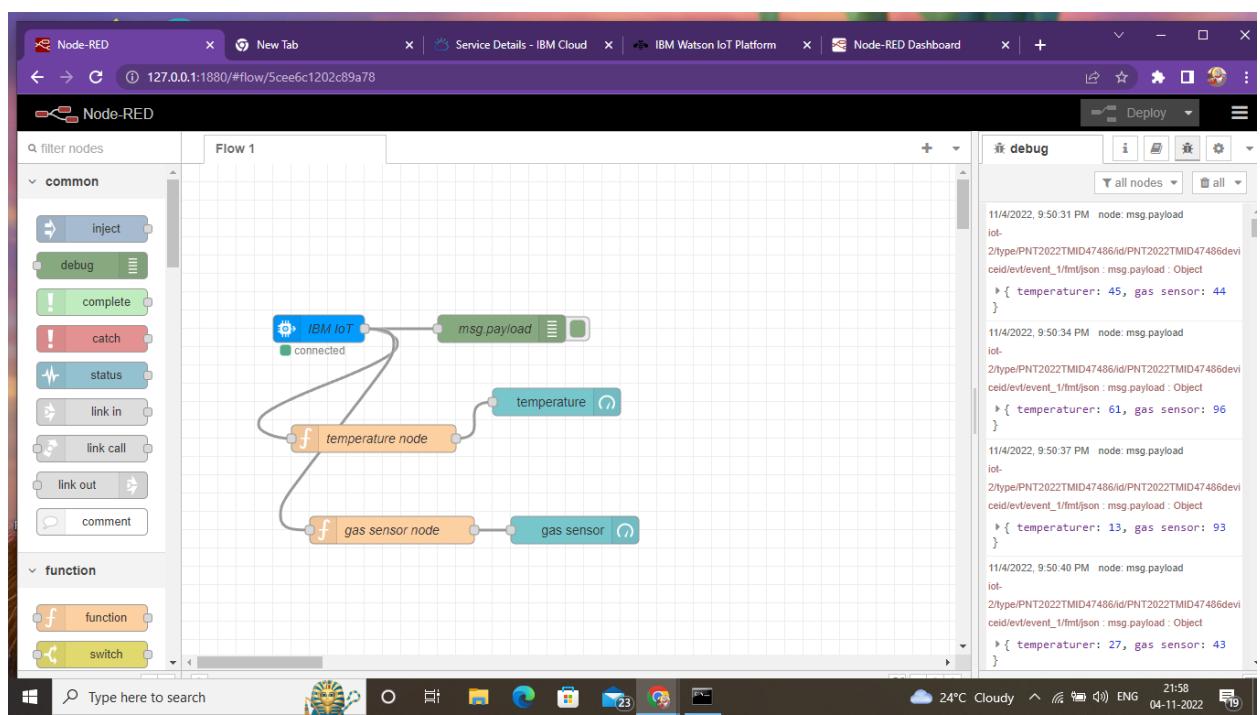
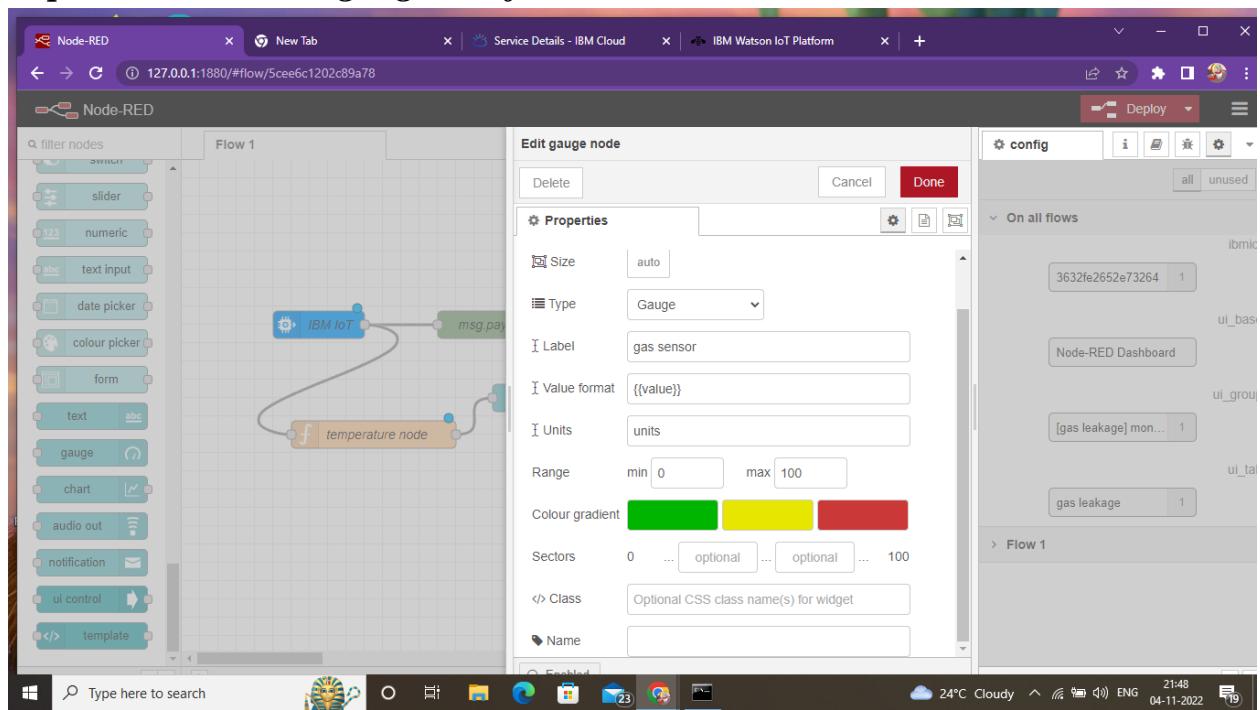


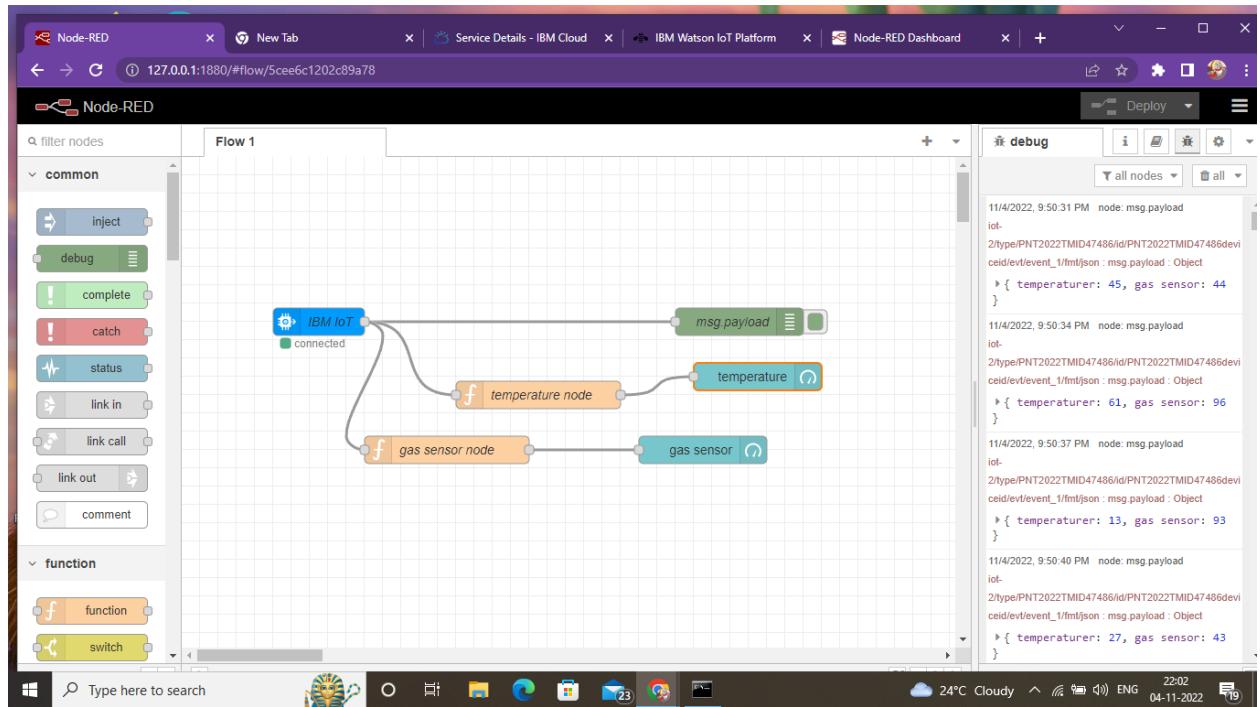
The screenshot shows the "Service Details - IBM Cloud" page for the URL "vq4nsy.internetofthings.ibmcloud.com/dashboard/devices/browse". The main area displays a table of devices. One device is selected, showing details such as Device ID (PNT2022TMID47486deviceid), Status (Disconnected), and Device Type (PNT2022TMID47486). The "Event type name" field is set to "event_1". The "Schedule" section shows a frequency of "Every Minute". The "Payload" section contains a JSON editor with the following code:

```
0 {
1   "temperature": random(0, 100),
2   "gas sensor": random(0, 100)
3 }
4
```

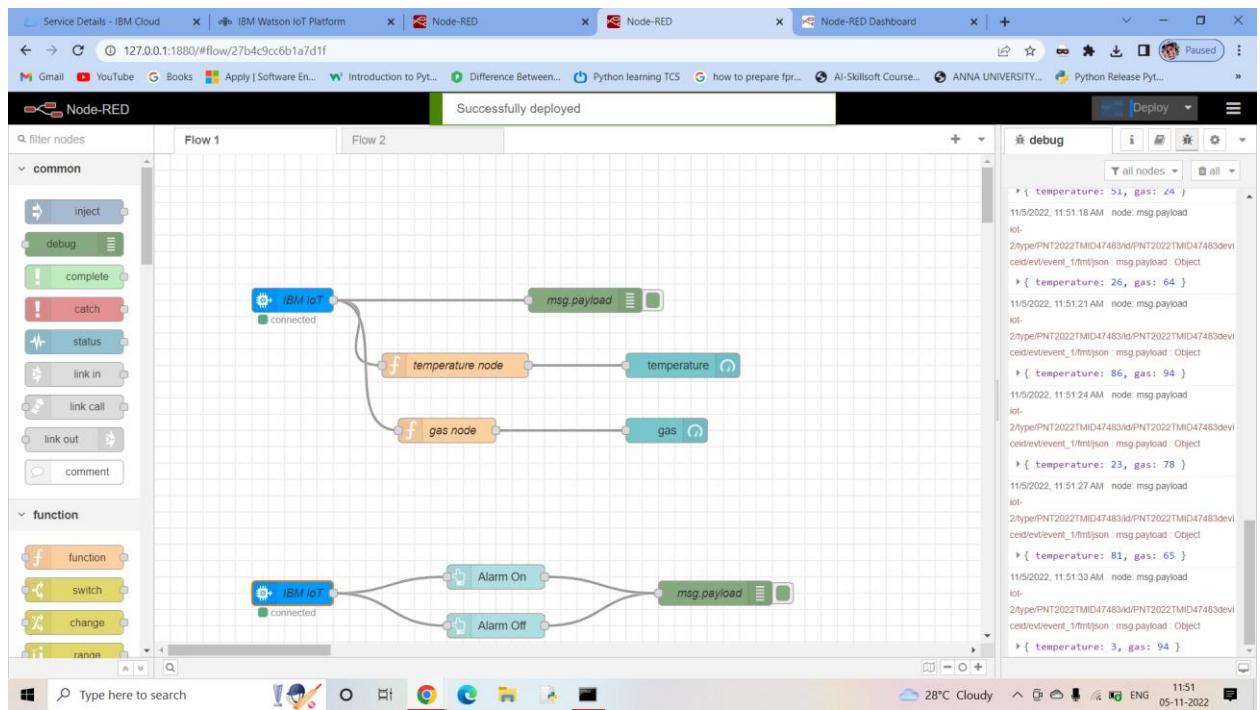
There is also a "Upload a CSV file" button and a link to "What functions can I apply?". The bottom status bar indicates the system is "Rain coming" and shows the date and time as 04-11-2022 21:46.

Step 14: Add another gauge and functions

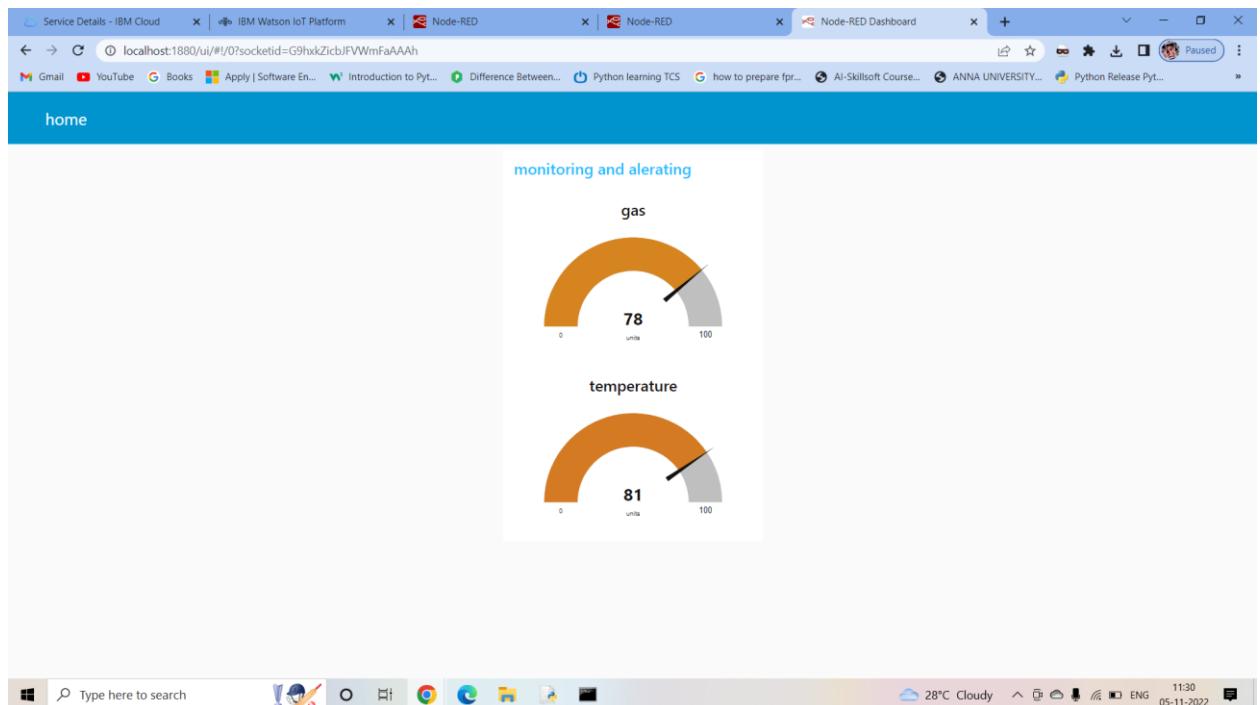




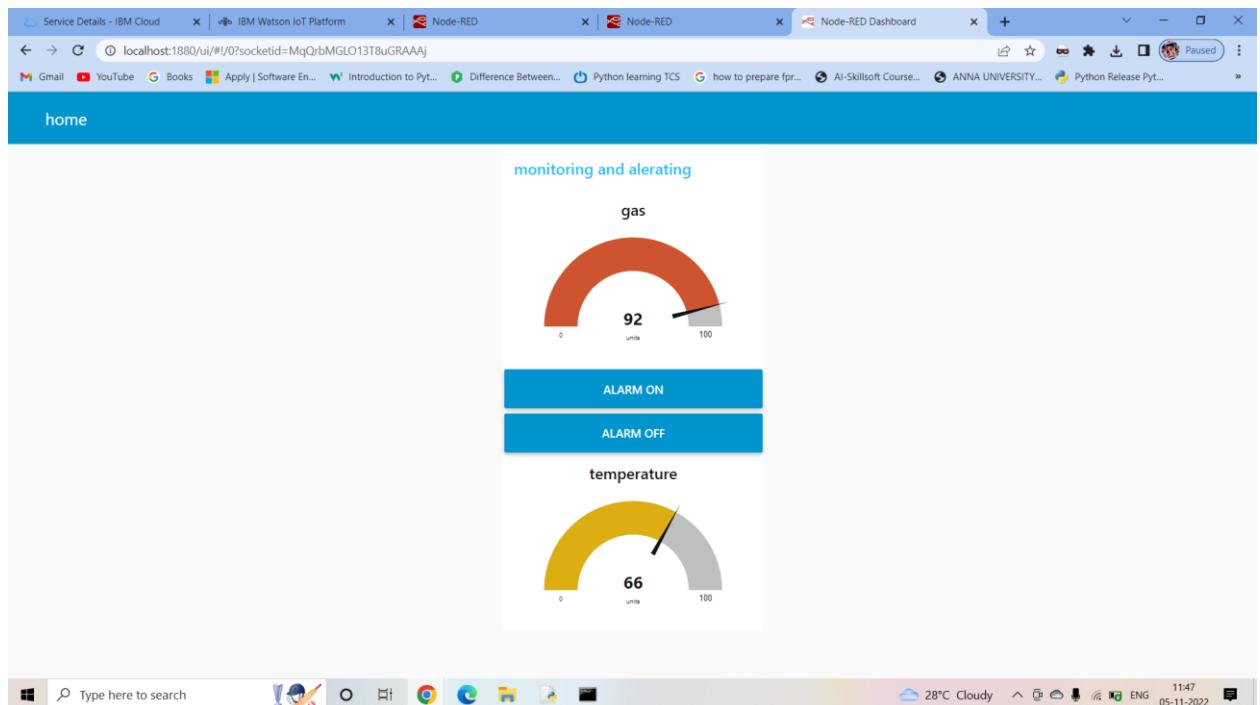
Step 15: finally add alarm on and off buttons to IBM iot and debug.step



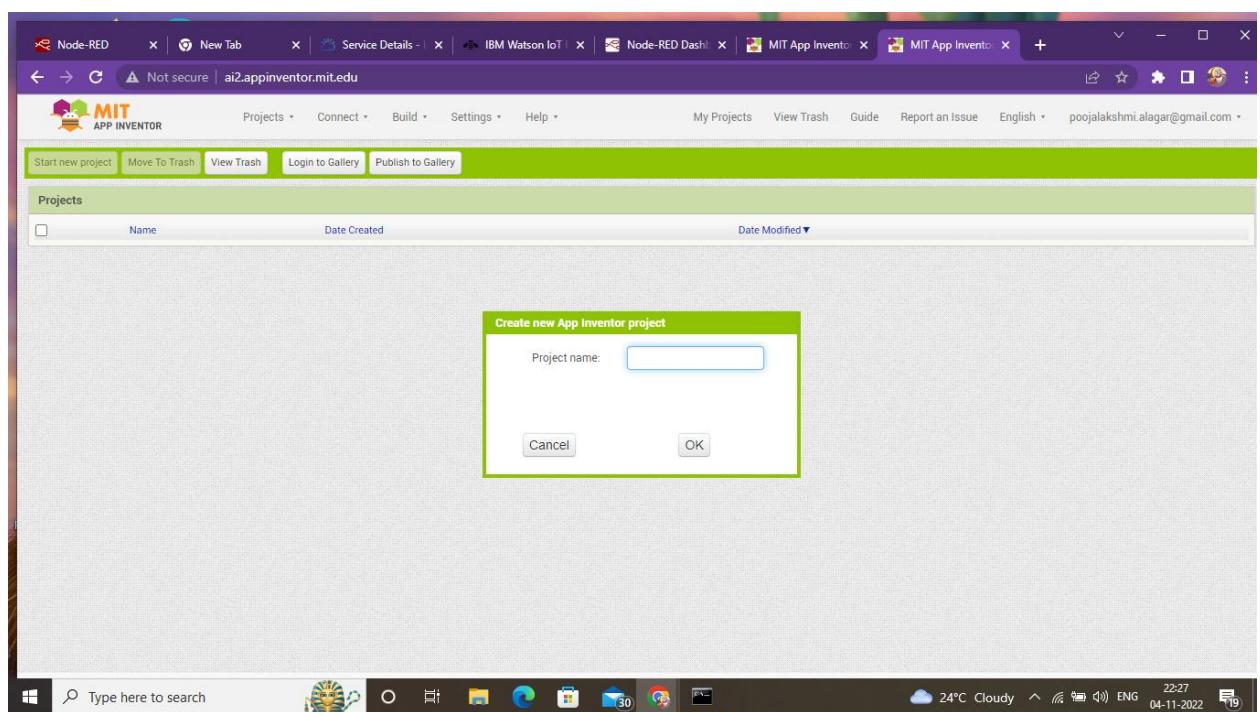
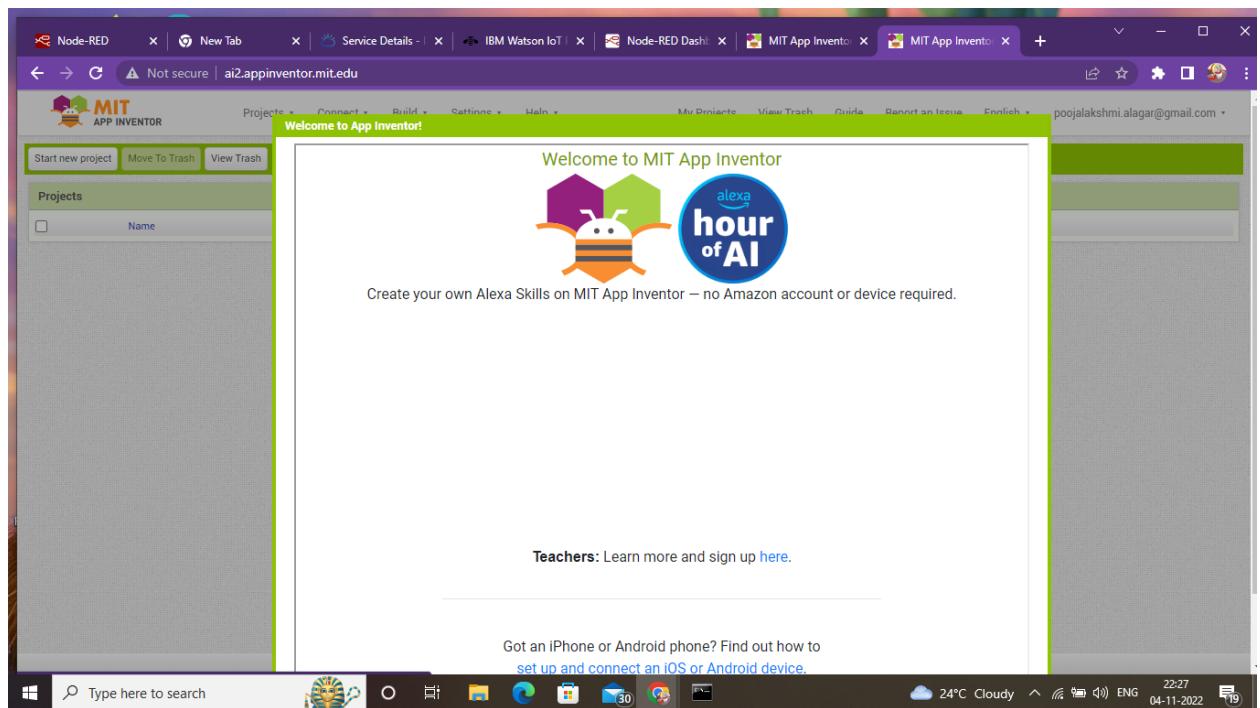
Step16: Output from node red

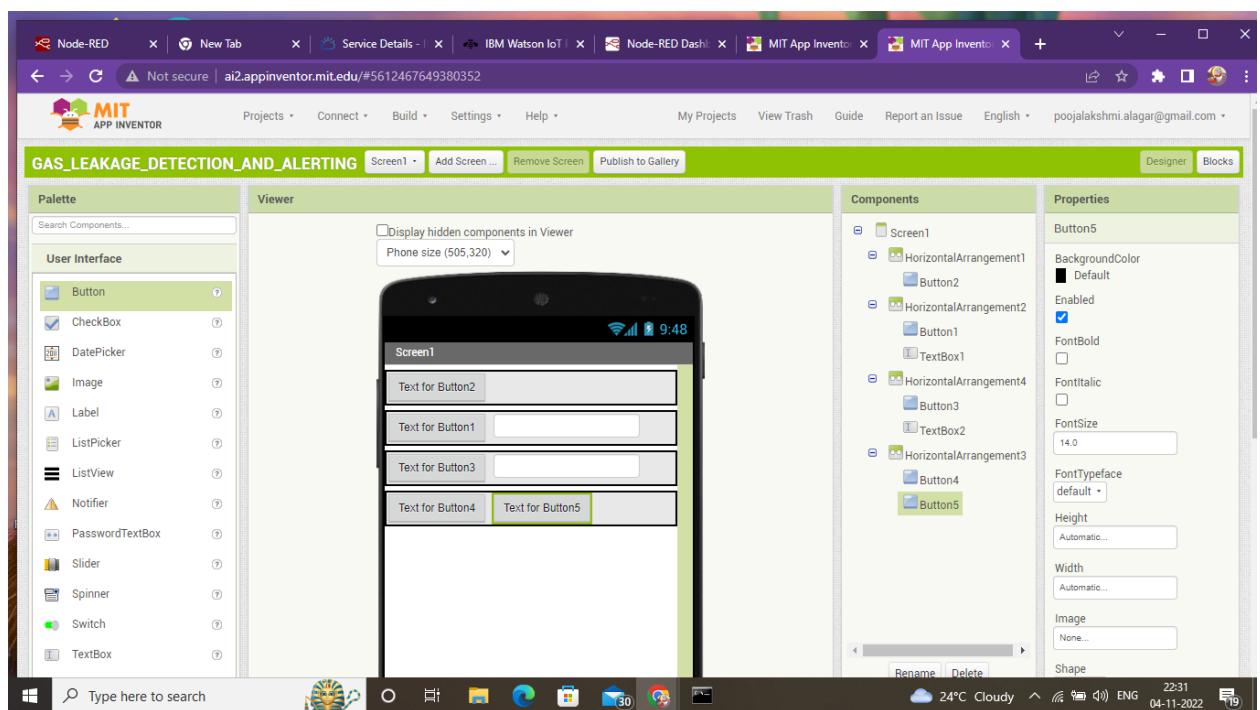
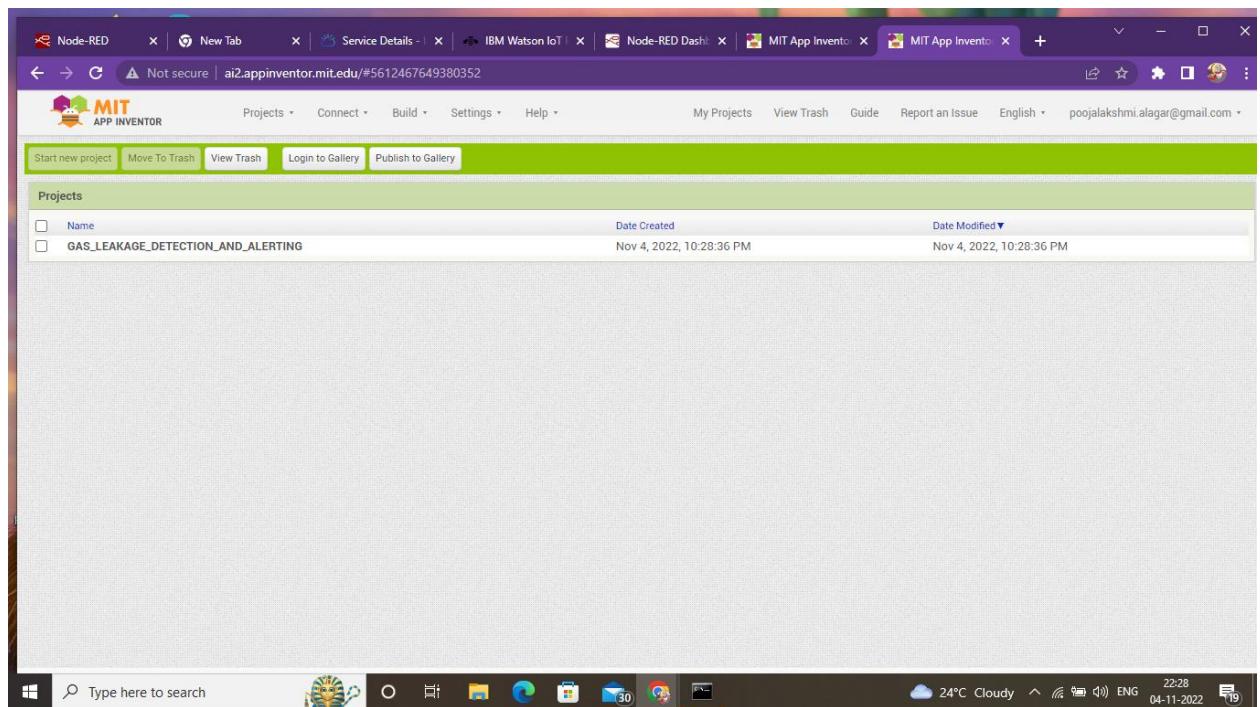


Step17: Output with light on and off button



Step 18: Login to MIT app inventor and design





Step 19: The Output

