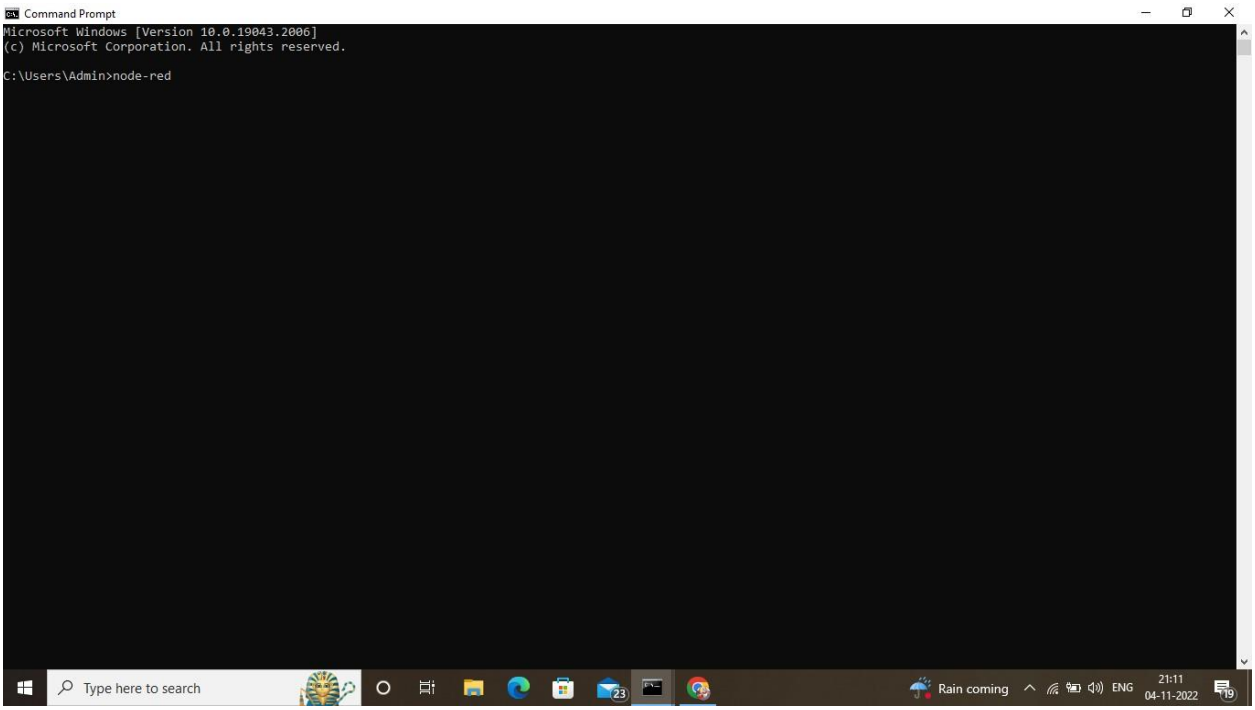
Project Development Phase

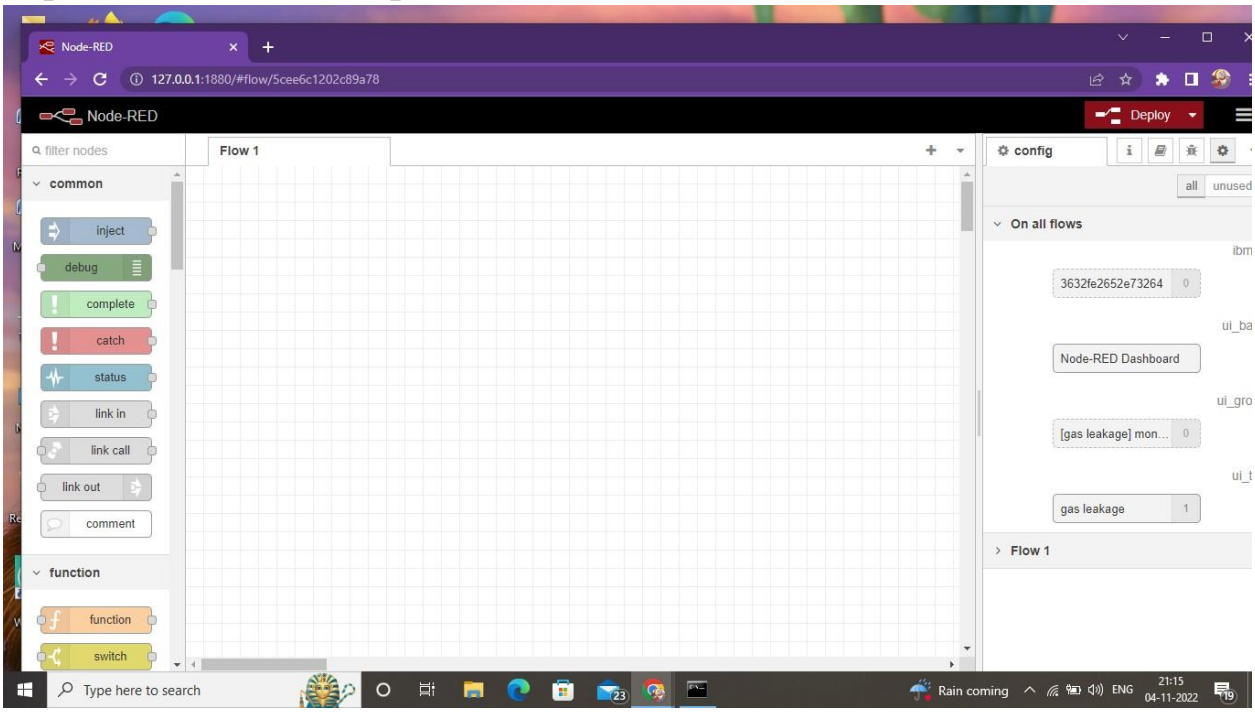
Delivery of Sprint 2

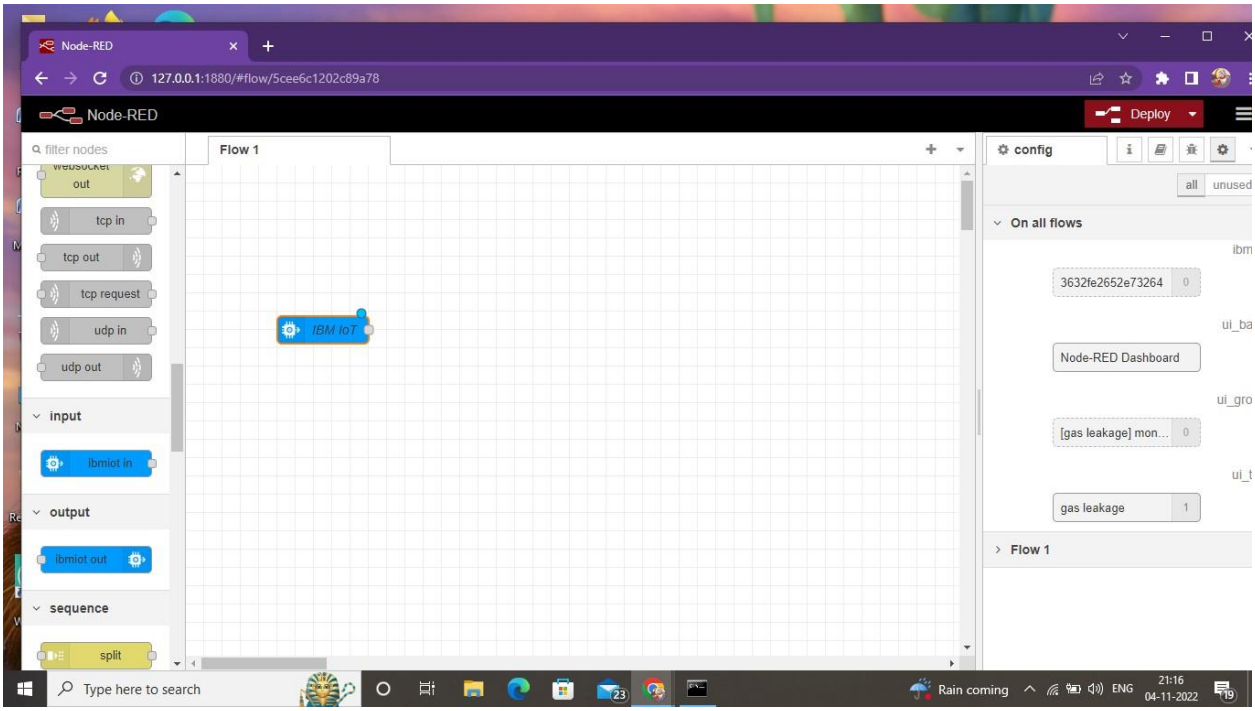
DATE	05 NOVEMBER 2022
TEAM ID	PNT2022TMID28798
PROJECT NAME	GAS LEAKAGE DETECTION AND ALERTING
MAXIMUM MARKS	20

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

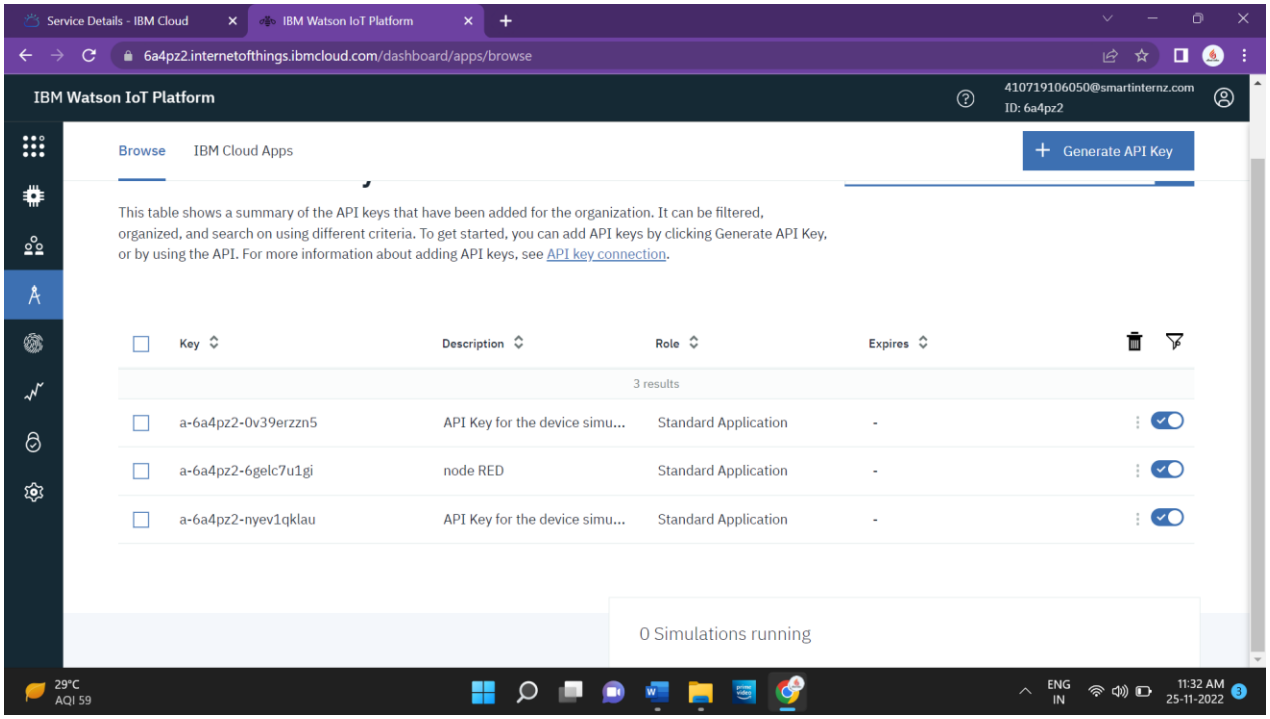


Step 2: Select IBM IoT input in node

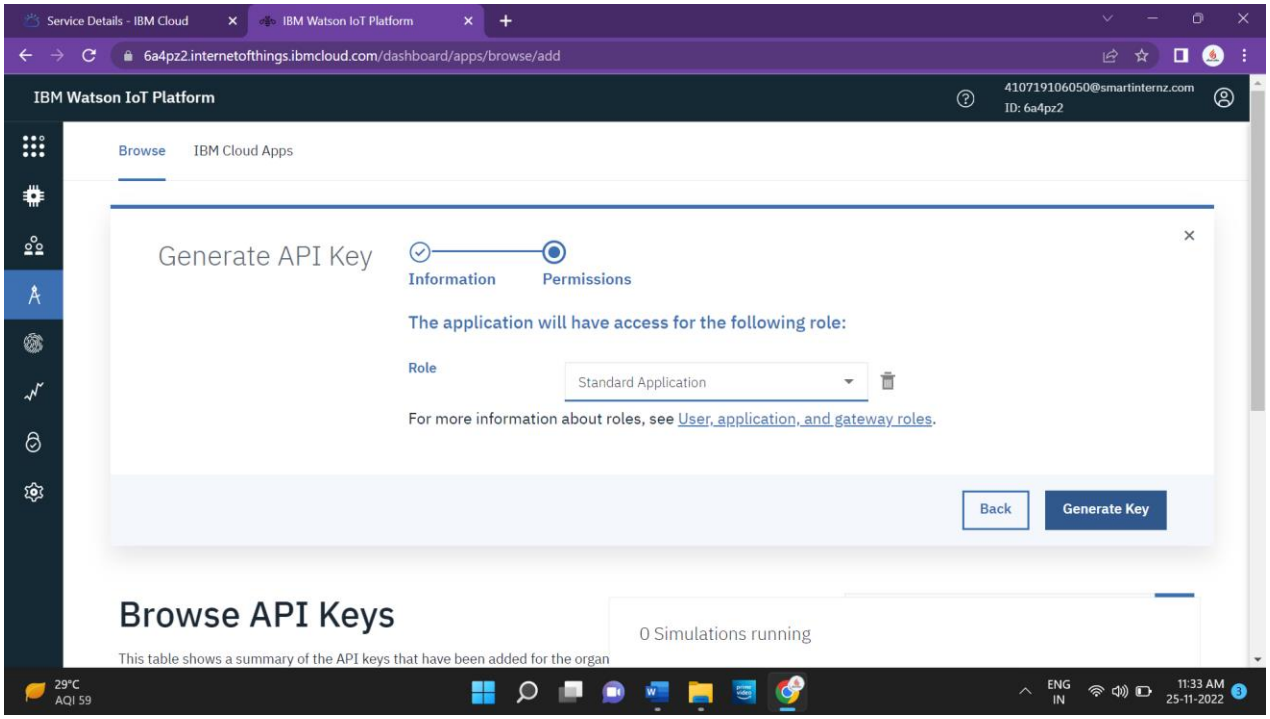




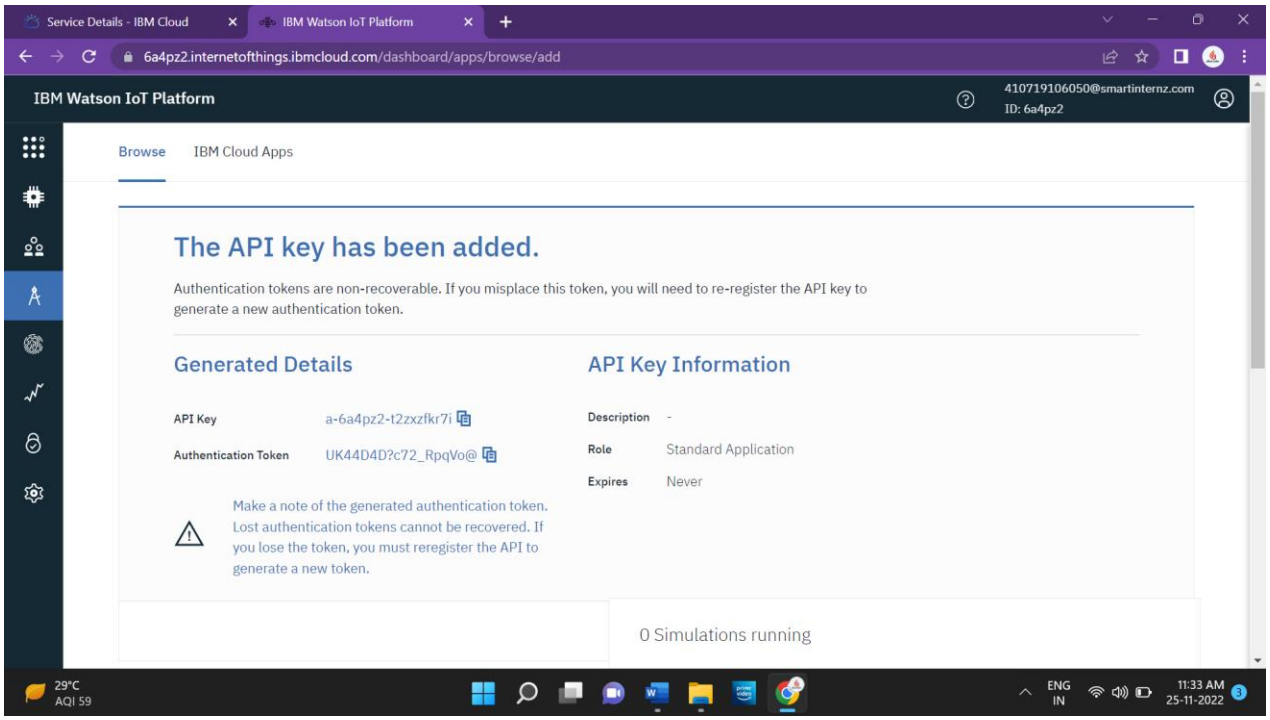
Step 3: In IBM Watson platform, go to apps



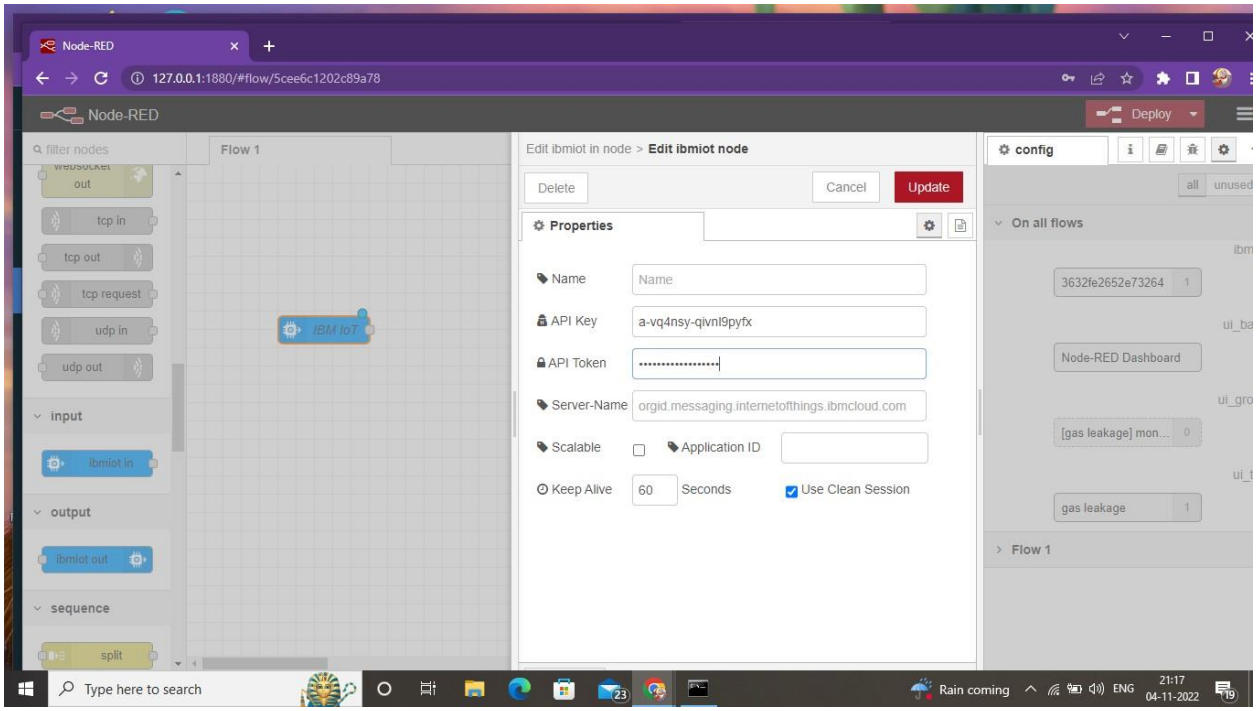
Step 4: Click on generate API keys

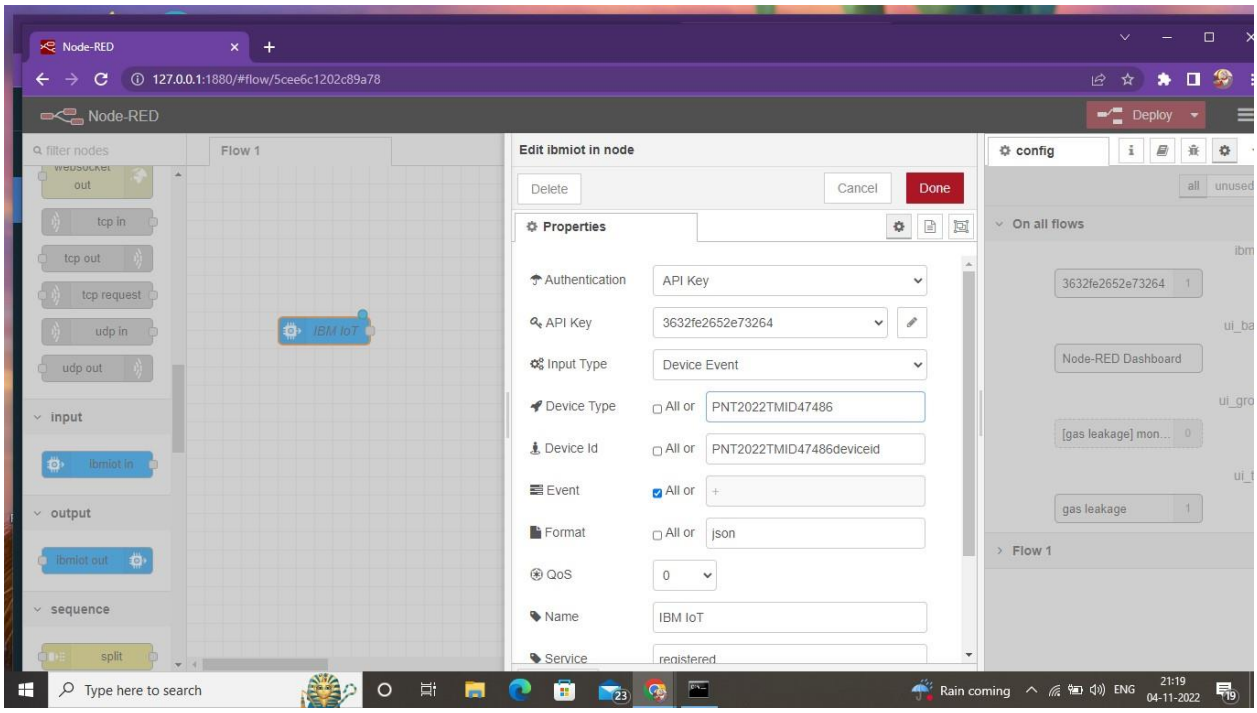


Step 5: Generated API key Details

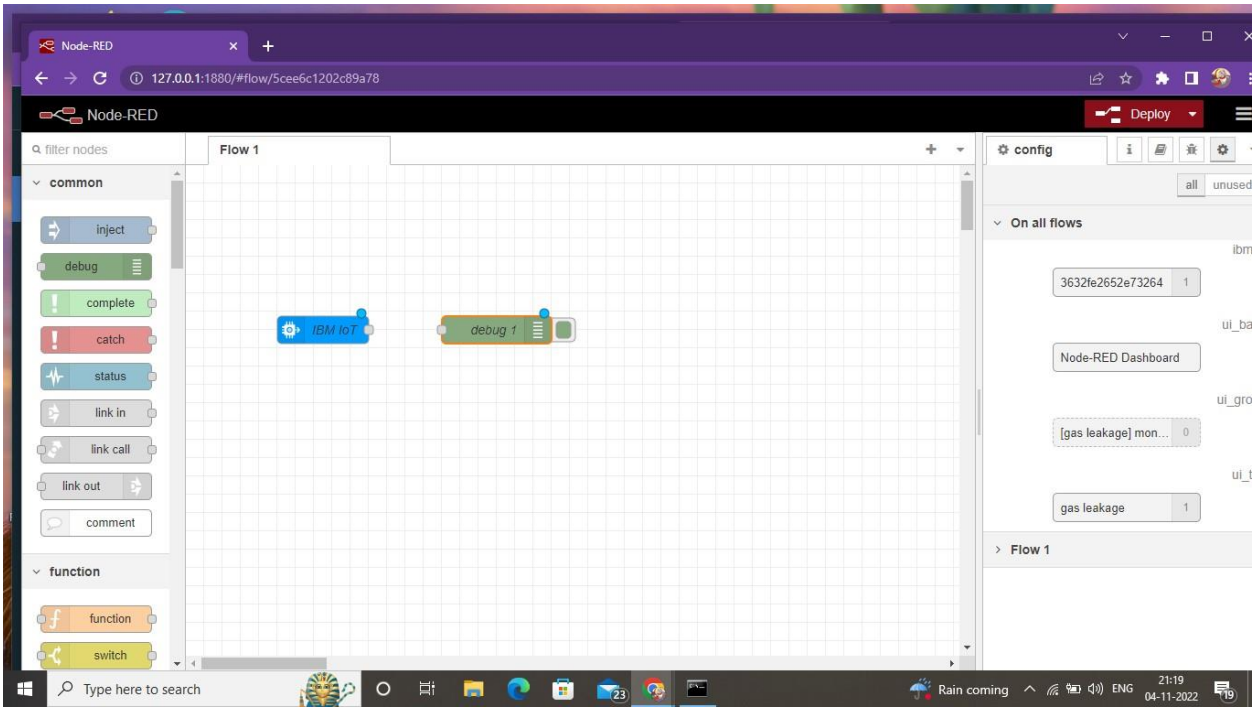


Step6: Copy and paste the generated API key in node red

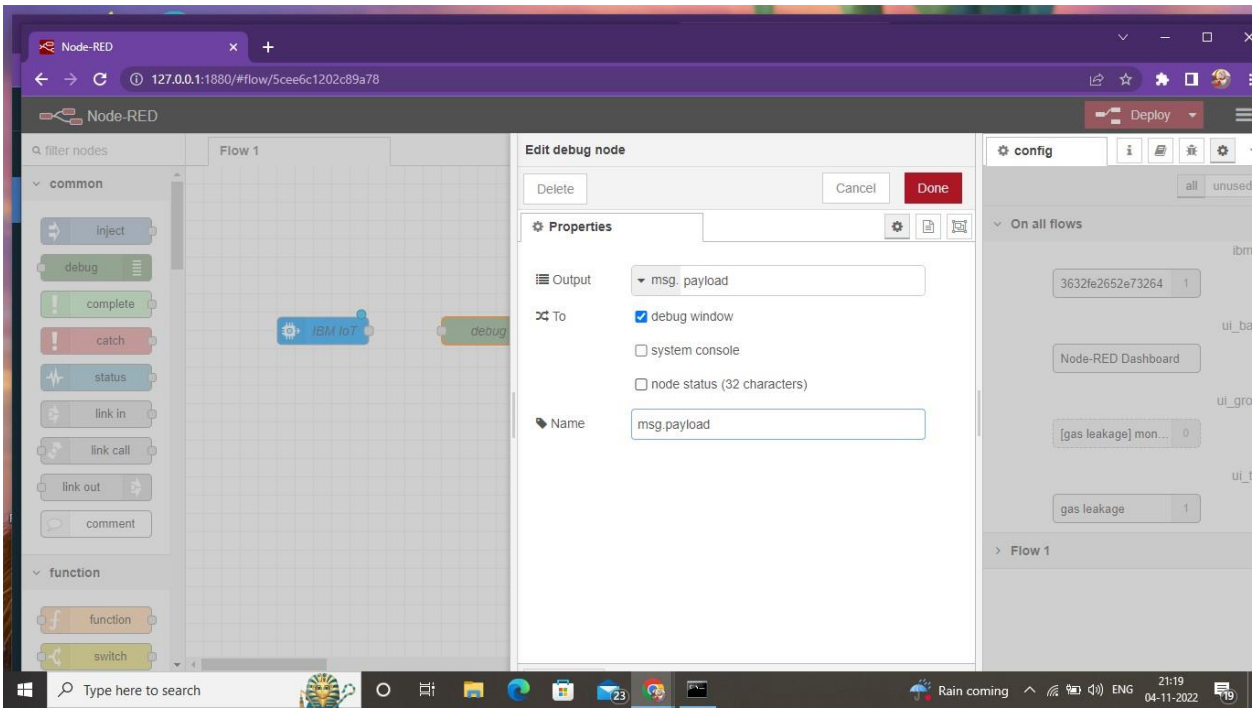


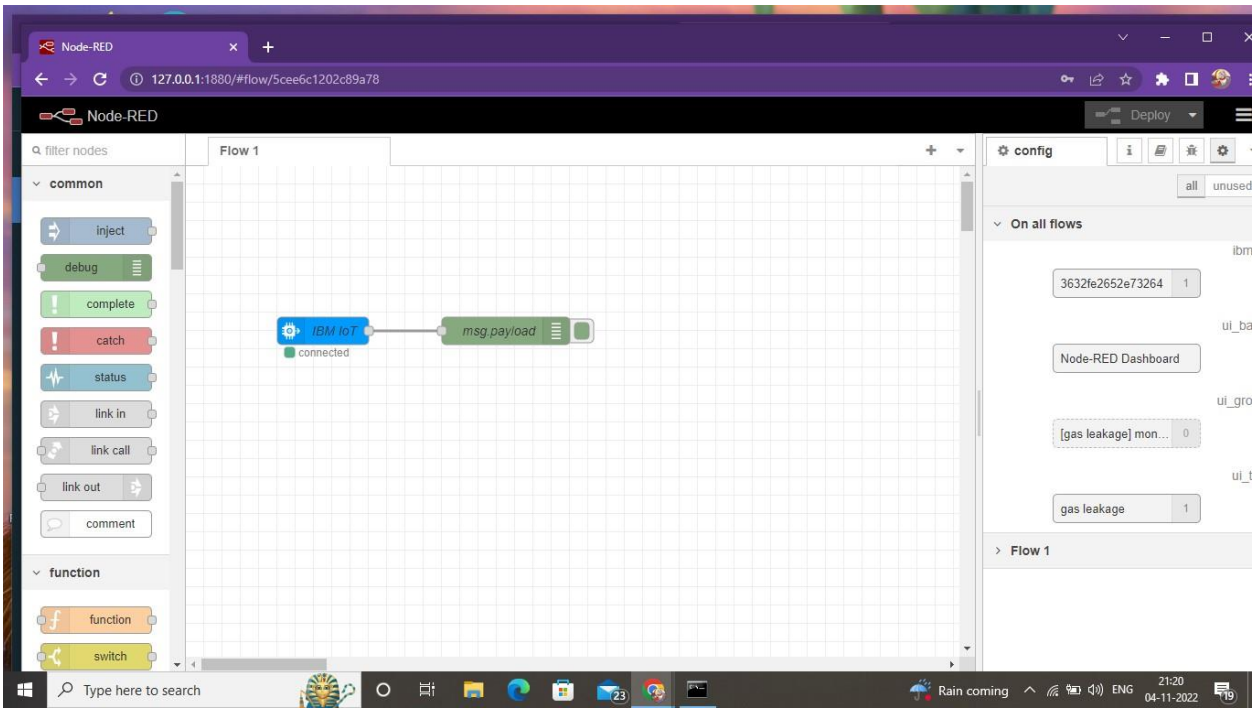


Step 7:after completing all the details click in done button



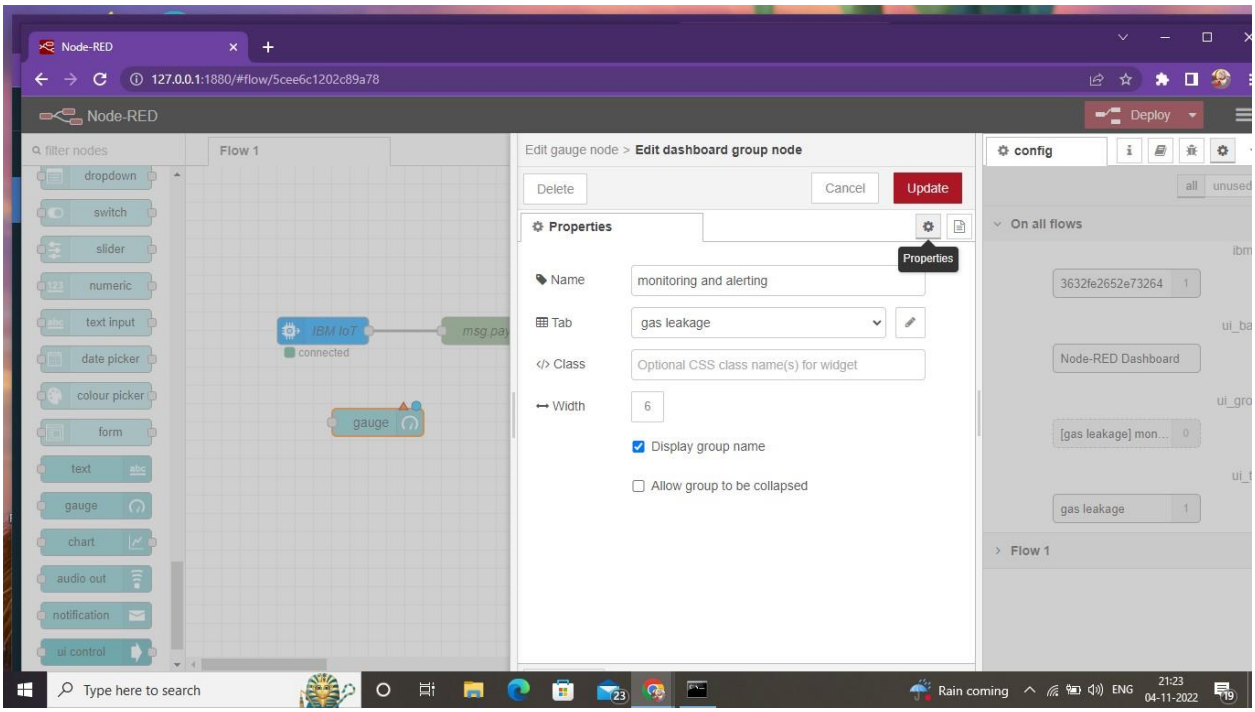
Step 8:add debug to the IBM iot and rename as msg.payload and click on done.

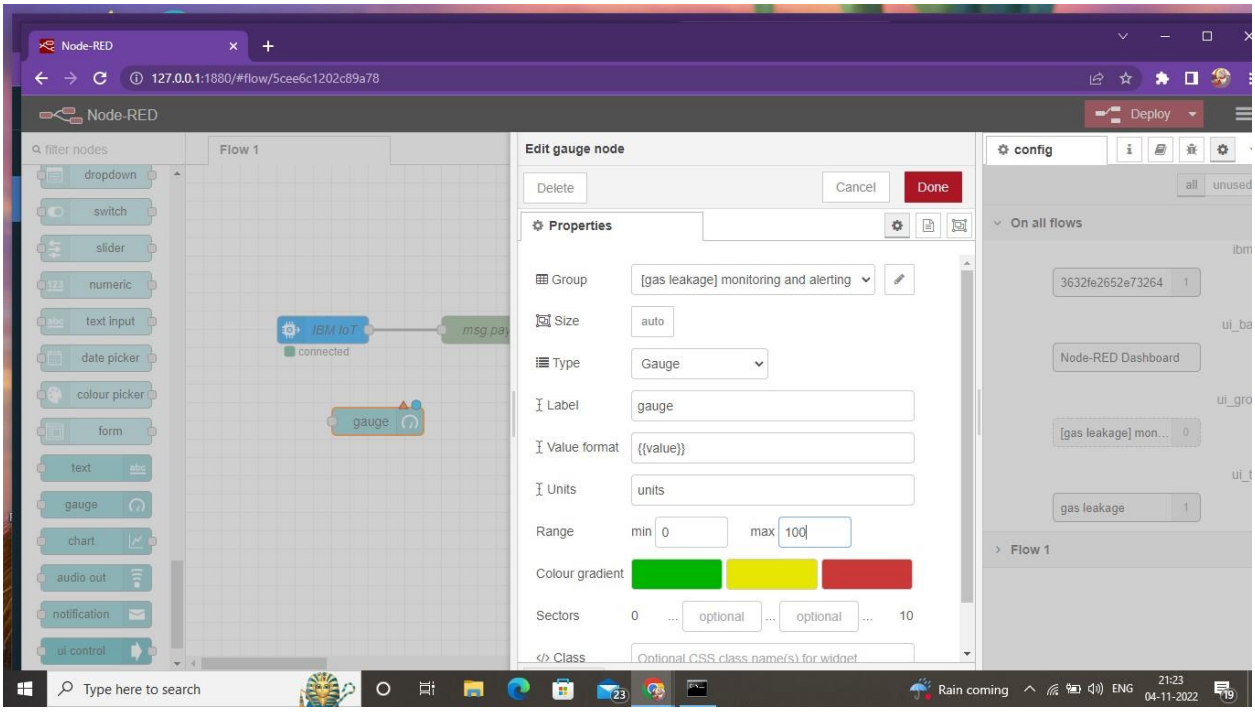

Node-RED
127.0.0.1:1880/#flow/5cee6c1202c89a78
Deploy
filter nodes
Flow 1
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
function
switch
IBM IoT
debug
Edit debug node
Delete
Cancel
Done
Properties
Output
msg. payload
To
debug window
system console
node status (32 characters)
Name
msg.payload
config
all
unused
On all flows
3632fe2652e73264
Node-RED Dashboard
[gas leakage] mon...
gas leakage
Flow 1
Type here to search
Rain coming
ENG
21:19
04-11-2022


Node-RED
127.0.0.1:1880/#flow/5cee6c1202c89a78
Deploy
filter nodes
Flow 1
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
function
switch
IBM IoT
connected
msg.payload
config
all
unused
On all flows
3632fe2652e73264
Node-RED Dashboard
[gas leakage] mon...
gas leakage
Flow 1
Type here to search
Rain coming
ENG
21:20
04-11-2022

Step 10:

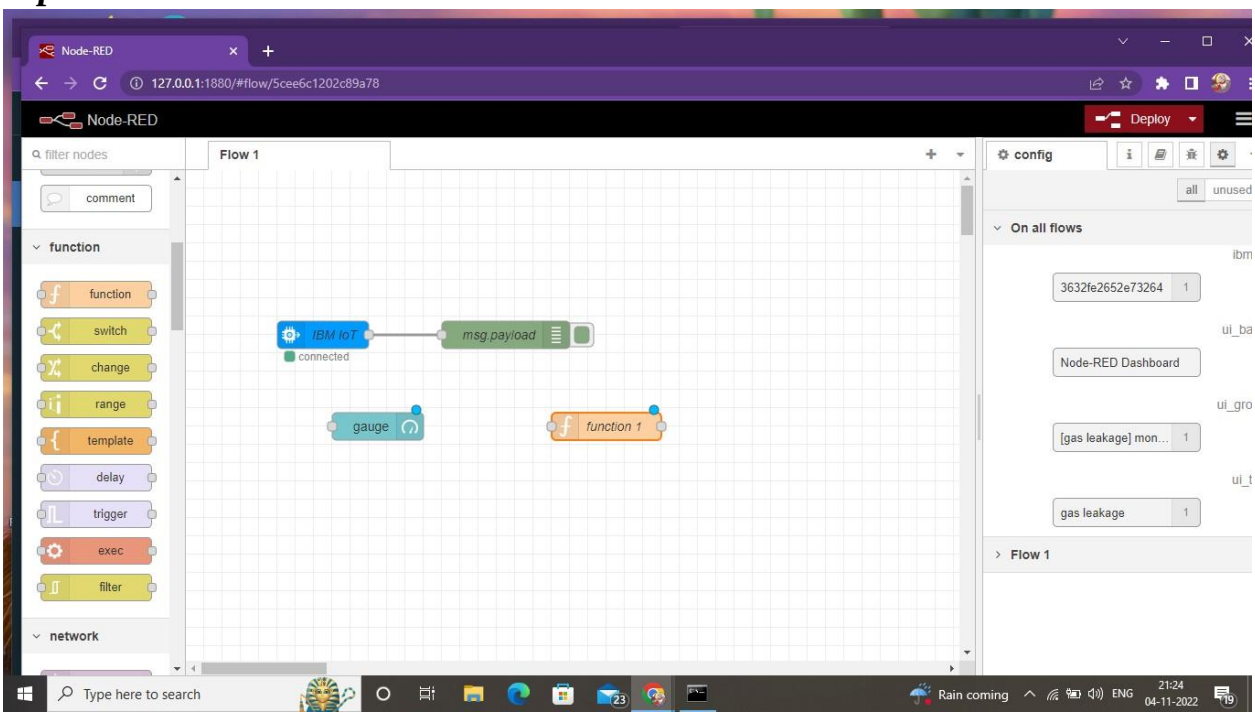
Click gauge from the dashboard node and fill the details





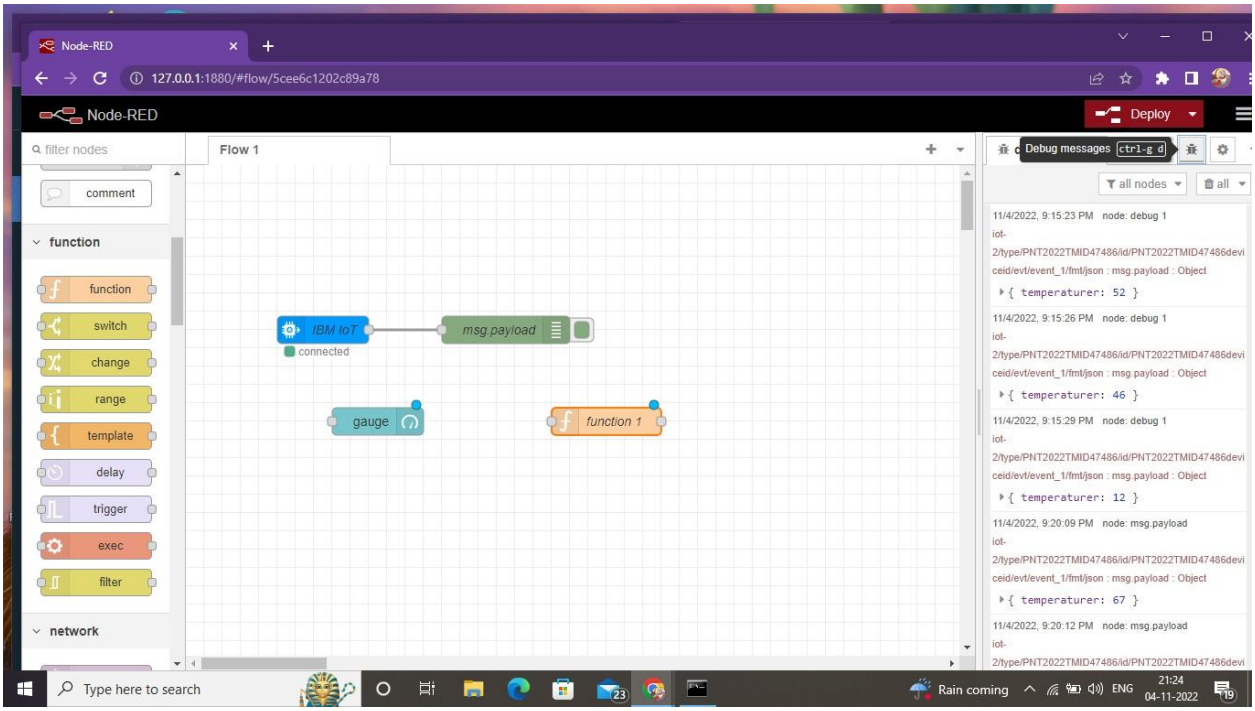
Add functions to the gauge

Step 11:

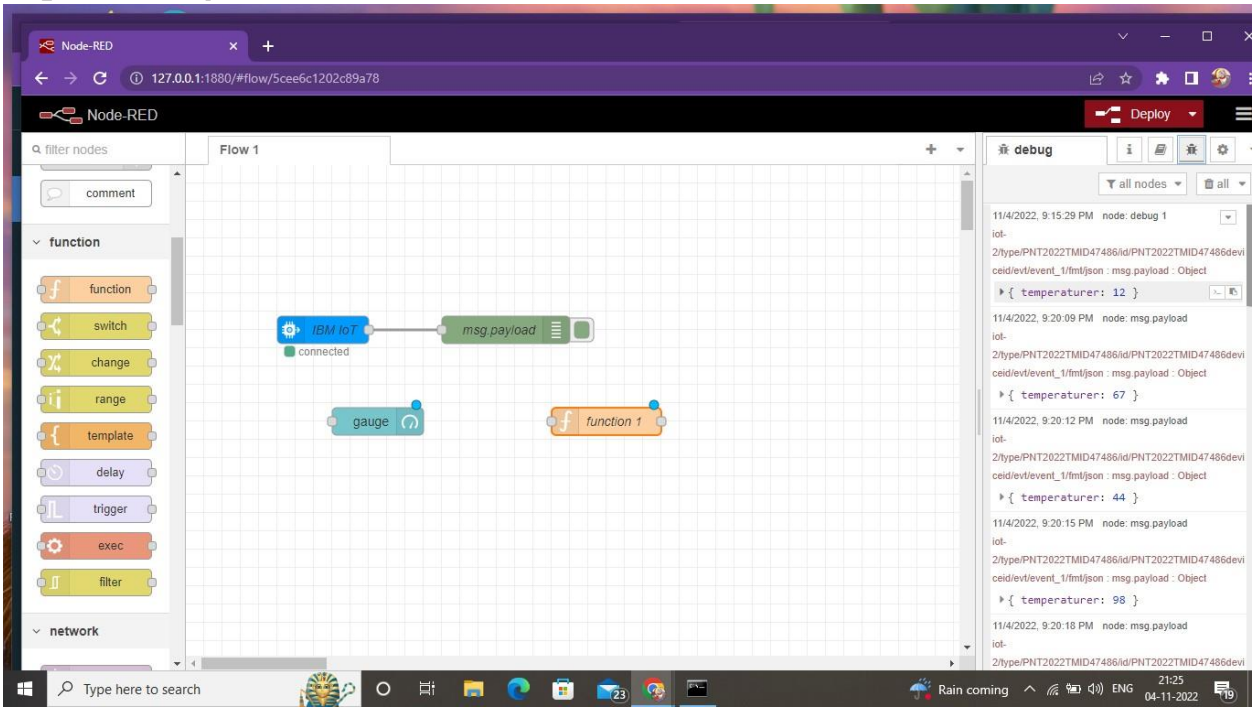

Node-RED
127.0.0.1:1880/#flow/5cee6c1202c89a78
Node-RED
Deploy
filter nodes
Flow 1
comment
function
function
switch
change
range
template
delay
trigger
exec
filter
network
IBM IoT
connected
msg.payload
gauge
function 1
config
all
unused
On all flows
3632fe2652e73264
Node-RED Dashboard
[gas leakage] mon...
gas leakage
Flow 1
Type here to search
Rain coming
ENG
21:24
04-11-2022

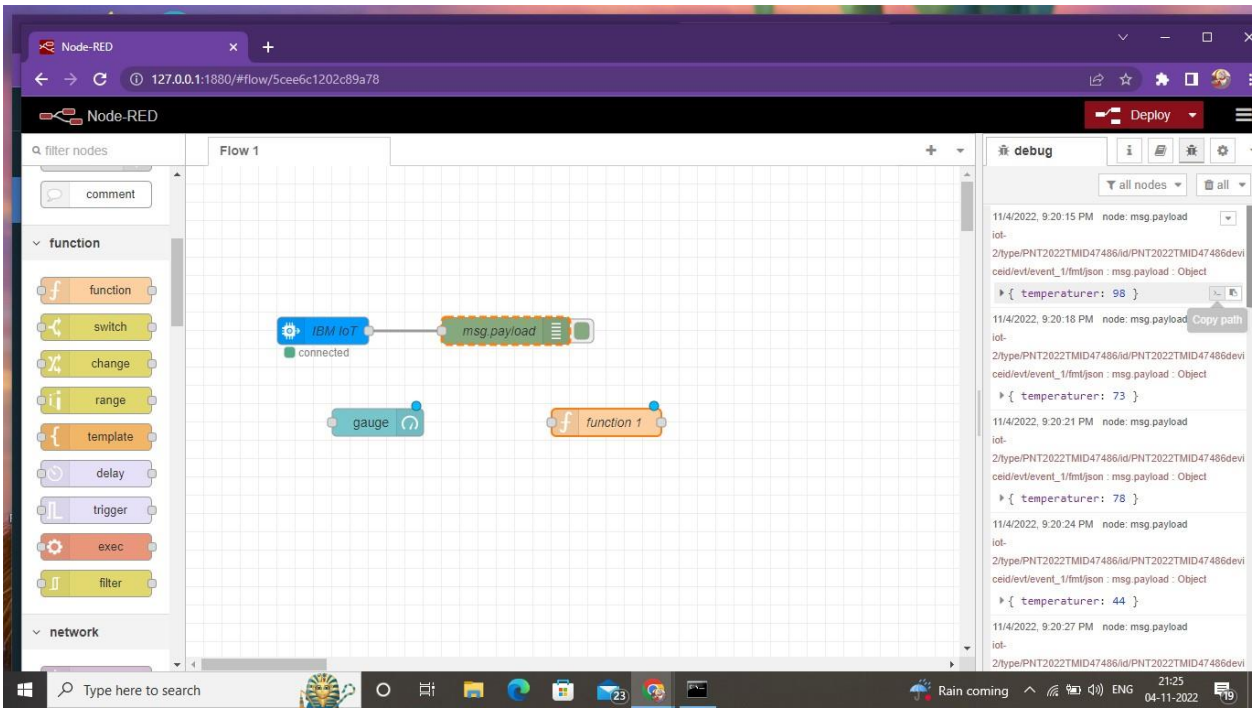
Step 12:

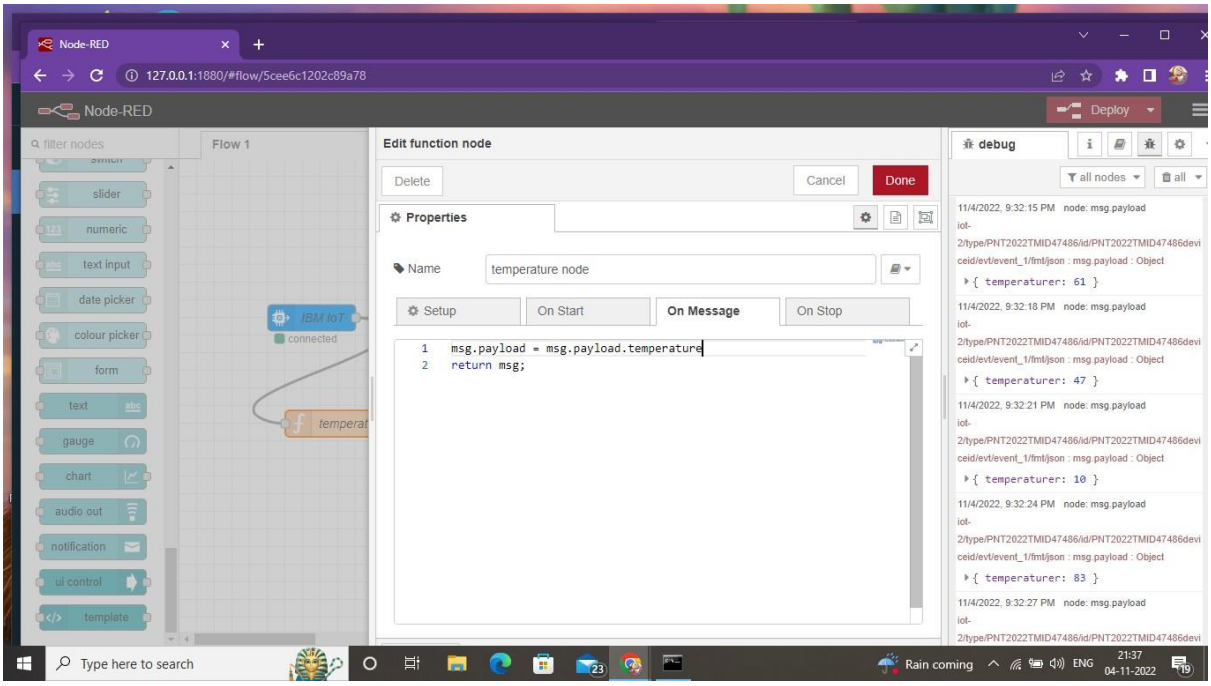
Check the values from debug messages



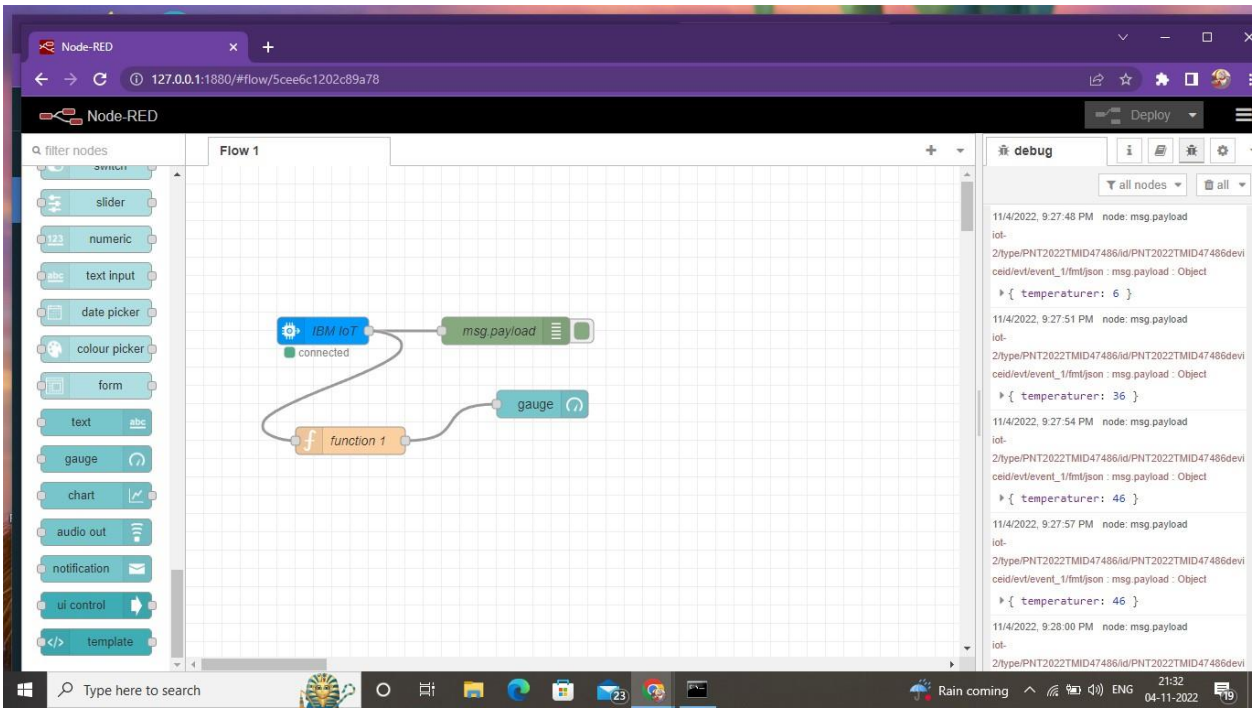
Step 12: Edit function node

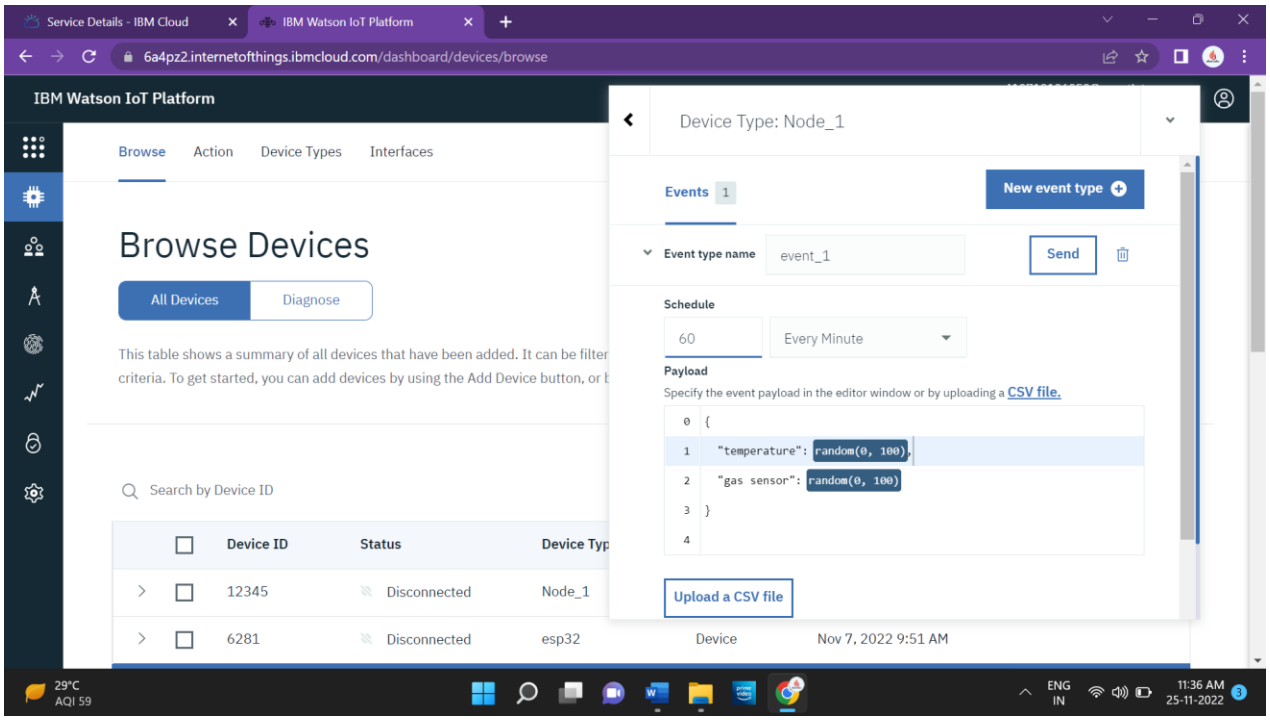




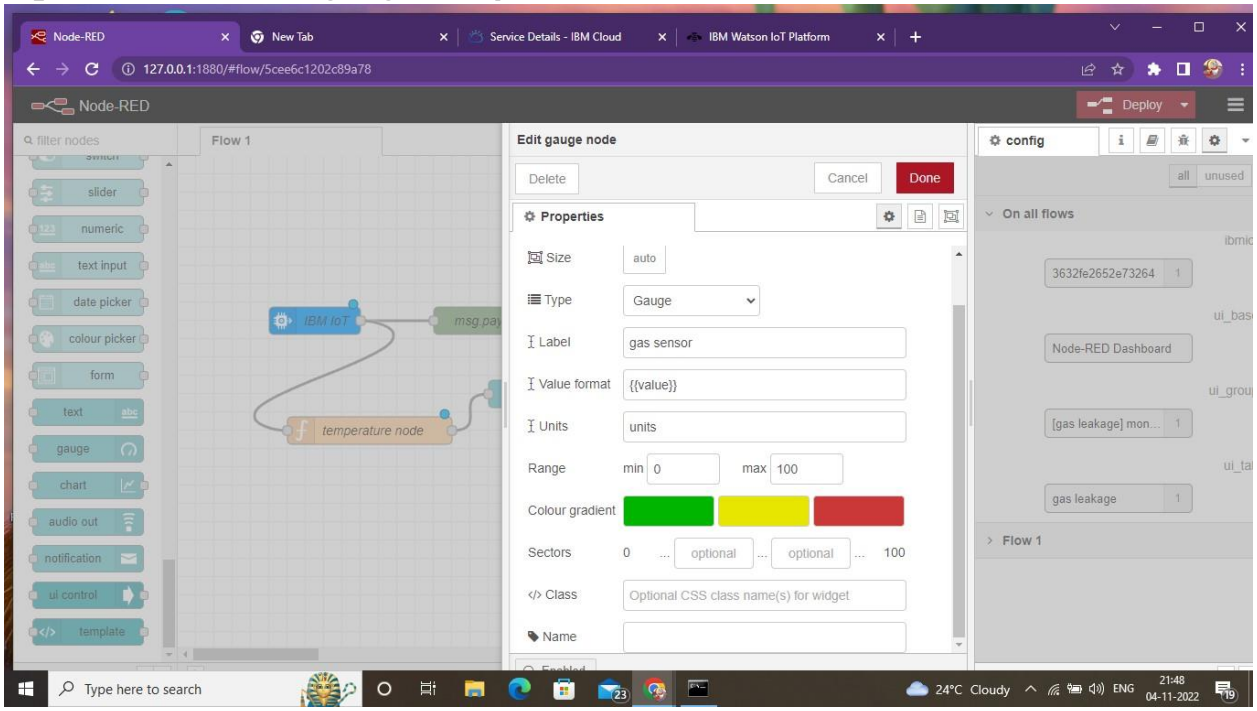

Node-RED
127.0.0.1:1880/#flow/5cee6c1202c89a78
Node-RED
Deploy
filter nodes
Flow 1
slider
numeric
text input
date picker
colour picker
form
text
gauge
chart
audio out
notification
ui control
template
IBM IoT
connected
Edit function node
Delete
Cancel
Done
Properties
Name
temperature node
Setup
On Start
On Message
On Stop
1 msg.payload = msg.payload.temperature
2 return msg;
debug
all nodes
all
11/4/2022, 9:32:15 PM node: msg.payload
iot-2/type/PNT2022TMID47486/id/PNT2022TMID47486devi ceid/evt/event_1/fmt/json : msg.payload : Object
{ temperaturer: 61 }
11/4/2022, 9:32:18 PM node: msg.payload
iot-2/type/PNT2022TMID47486/id/PNT2022TMID47486devi ceid/evt/event_1/fmt/json : msg.payload : Object
{ temperaturer: 47 }
11/4/2022, 9:32:21 PM node: msg.payload
iot-2/type/PNT2022TMID47486/id/PNT2022TMID47486devi ceid/evt/event_1/fmt/json : msg.payload : Object
{ temperaturer: 10 }
11/4/2022, 9:32:24 PM node: msg.payload
iot-2/type/PNT2022TMID47486/id/PNT2022TMID47486devi ceid/evt/event_1/fmt/json : msg.payload : Object
{ temperaturer: 83 }
11/4/2022, 9:32:27 PM node: msg.payload
iot-2/type/PNT2022TMID47486/id/PNT2022TMID47486devi
Type here to search
Rain coming
ENG
21:37
04-11-2022

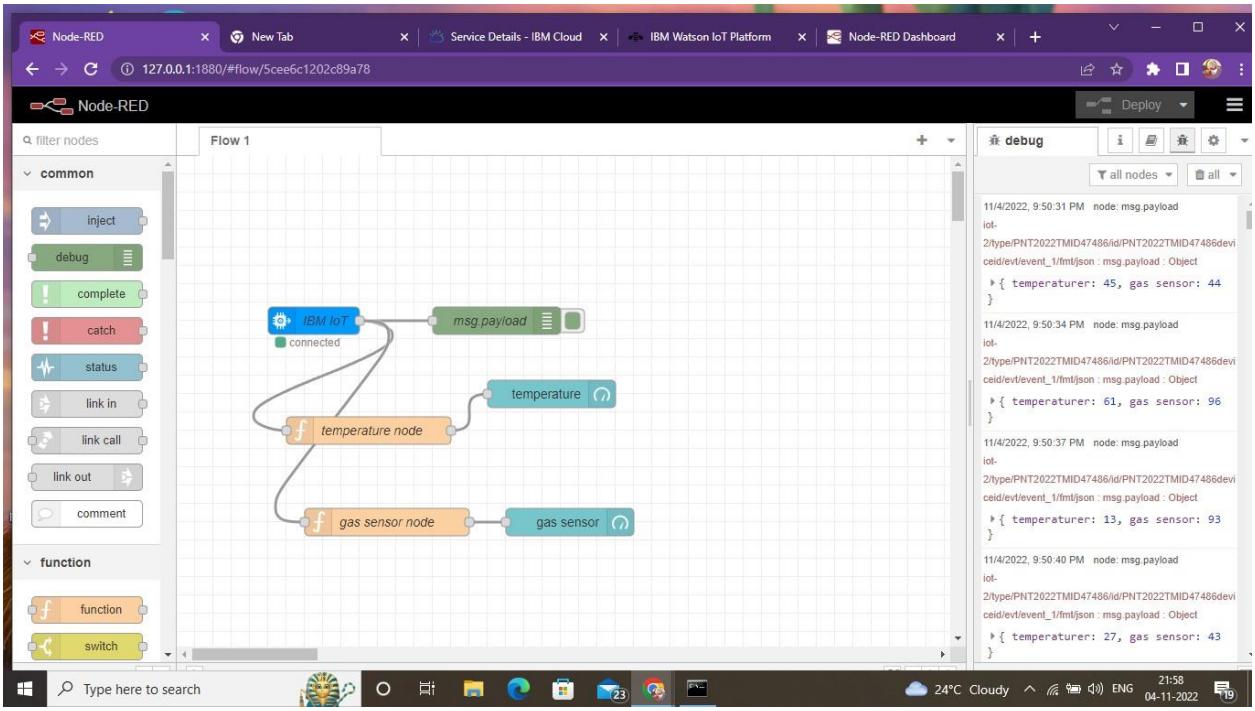
Step 13: Connect them

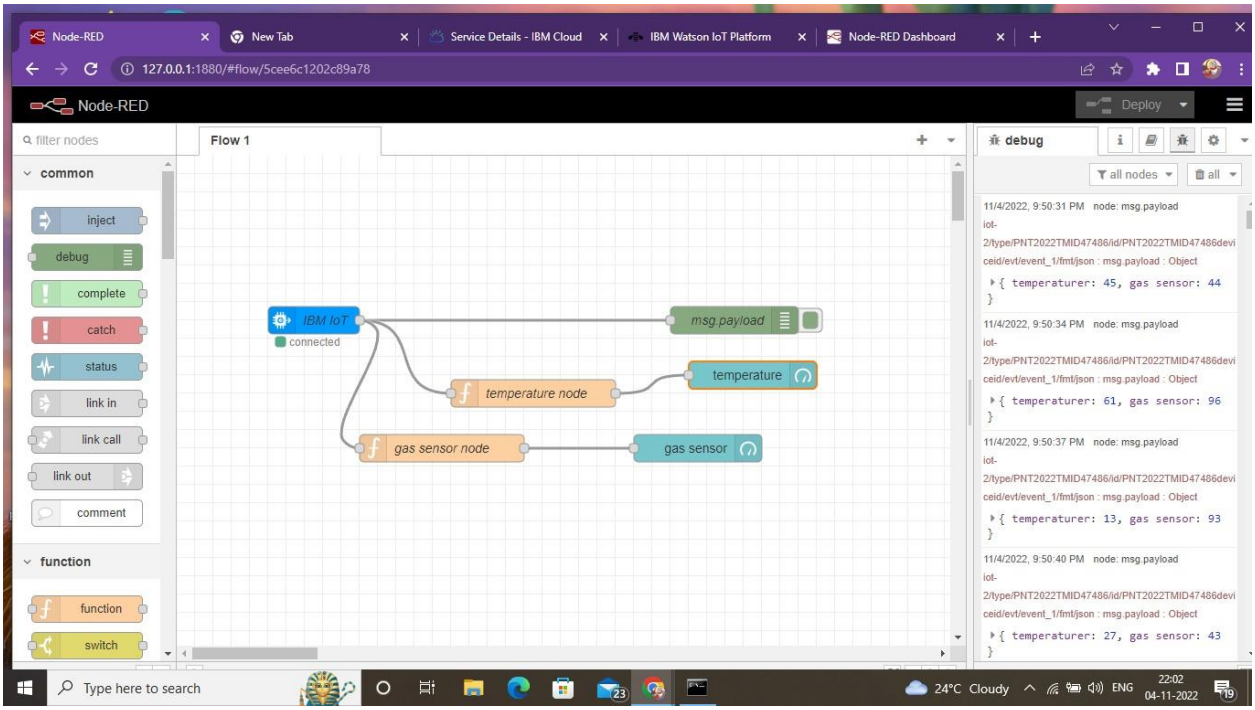




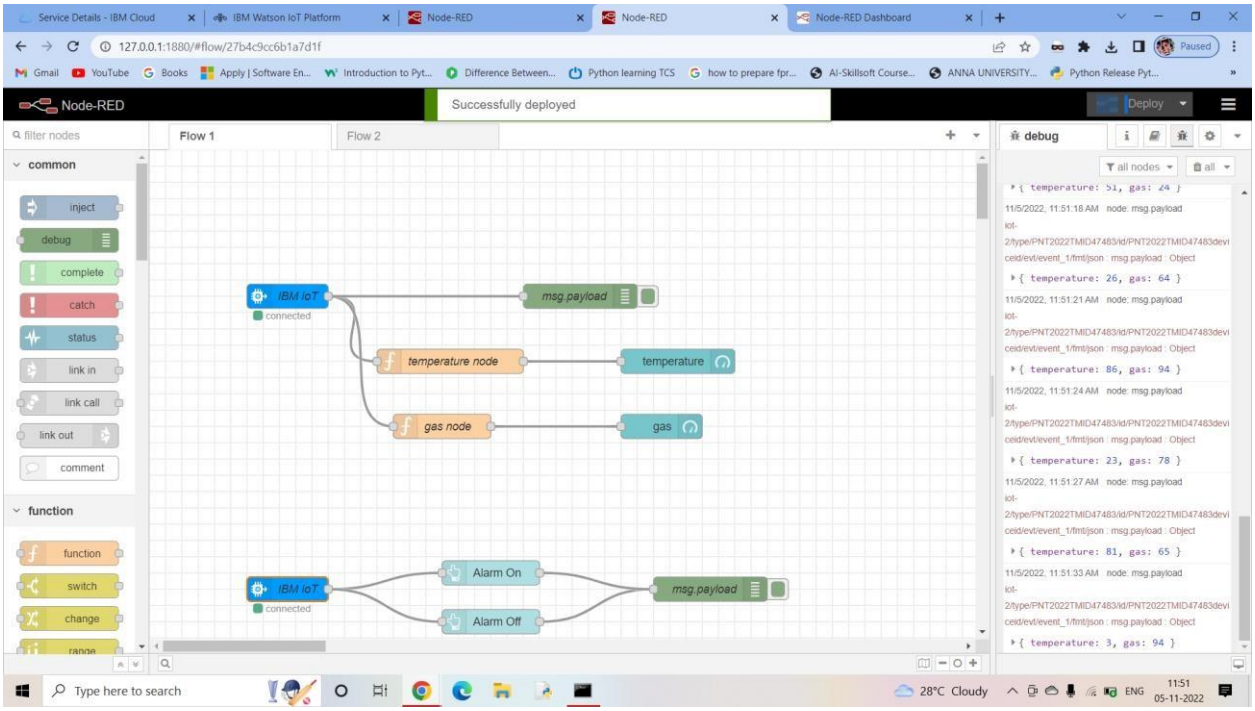
Step 14: Add another gauge and functions



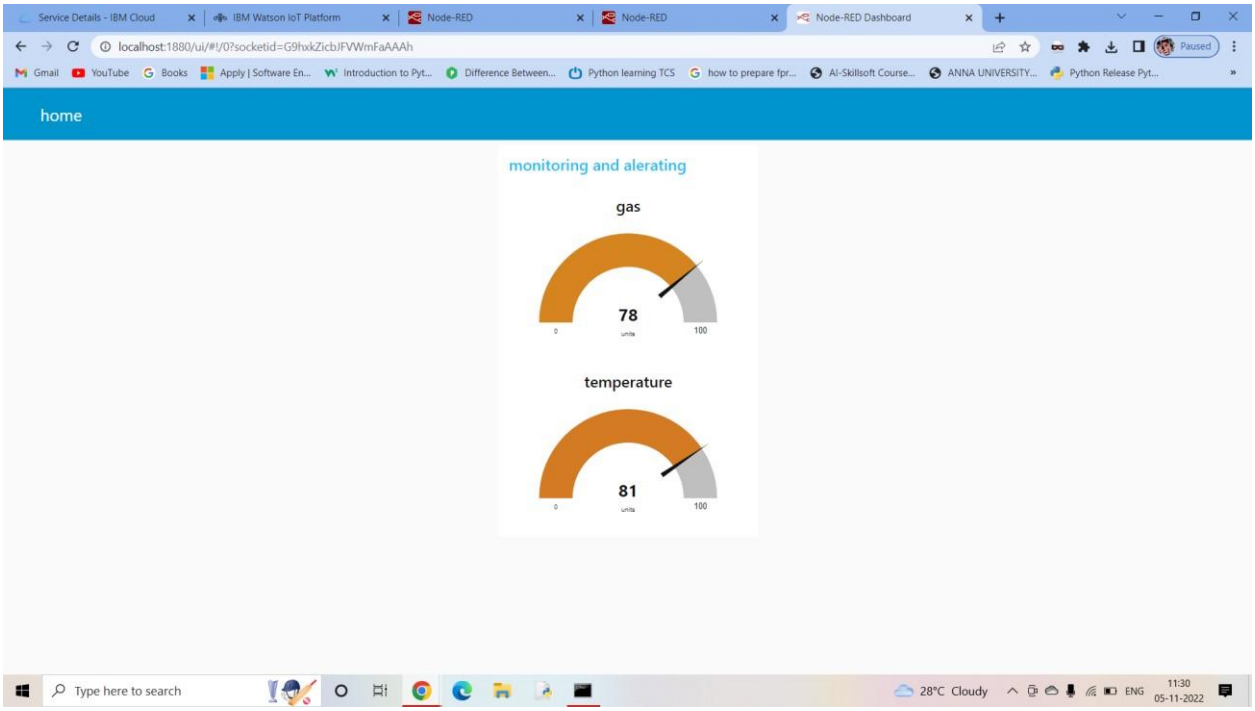



Node-RED
New Tab
Service Details - IBM Cloud
IBM Watson IoT Platform
Node-RED Dashboard
127.0.0.1:1880/#flow/5cee6c1202c89a78
Node-RED
Deploy
filter nodes
Flow 1
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
function
switch
IBM IoT
connected
msg.payload
temperature node
temperature
gas sensor node
gas sensor
debug
all nodes
all
11/4/2022, 9:50:31 PM node: msg.payload
iot-2/type/PNT2022TMID47486/id/PNT2022TMID47486devi ceid/evt/event_1/fmt/json : msg.payload : Object
{ temperaturer: 45, gas sensor: 44 }
11/4/2022, 9:50:34 PM node: msg.payload
iot-2/type/PNT2022TMID47486/id/PNT2022TMID47486devi ceid/evt/event_1/fmt/json : msg.payload : Object
{ temperaturer: 61, gas sensor: 96 }
11/4/2022, 9:50:37 PM node: msg.payload
iot-2/type/PNT2022TMID47486/id/PNT2022TMID47486devi ceid/evt/event_1/fmt/json : msg.payload : Object
{ temperaturer: 13, gas sensor: 93 }
11/4/2022, 9:50:40 PM node: msg.payload
iot-2/type/PNT2022TMID47486/id/PNT2022TMID47486devi ceid/evt/event_1/fmt/json : msg.payload : Object
{ temperaturer: 27, gas sensor: 43 }
Type here to search
24°C Cloudy
ENG
22:02
04-11-2022

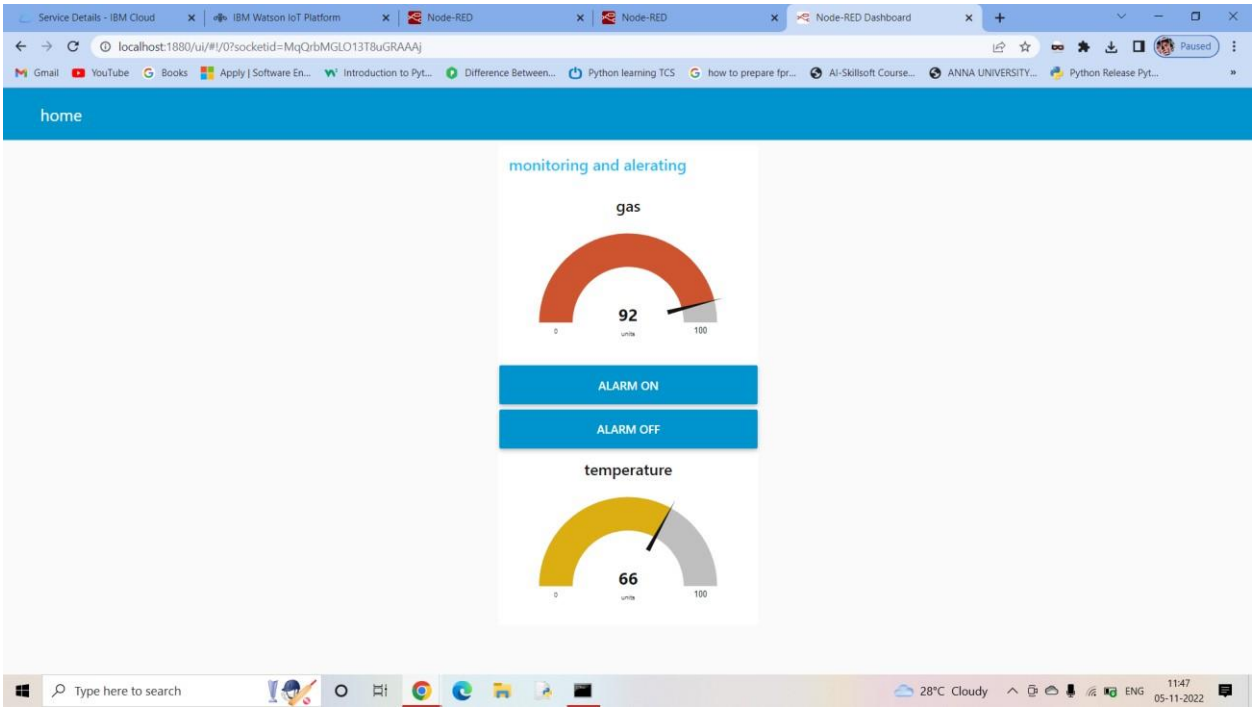
Step15: finally add alarm on and off buttons to IBM iot and debug.step



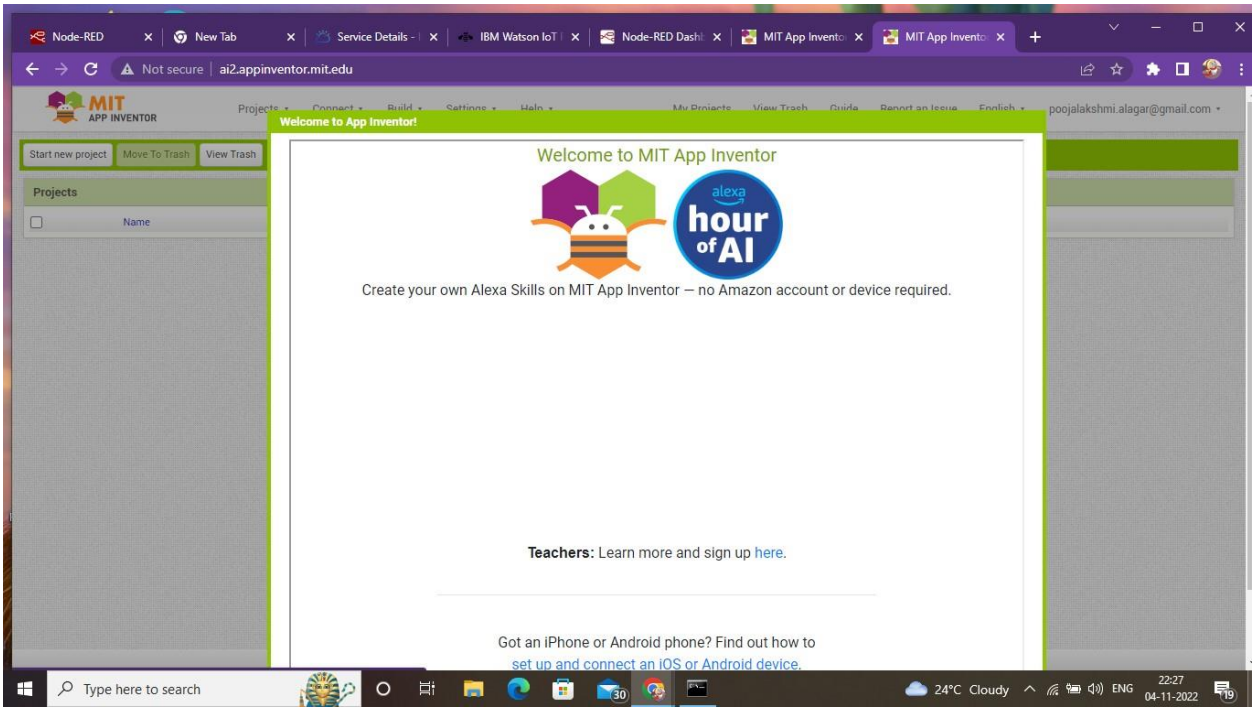
Step16: Output from node red

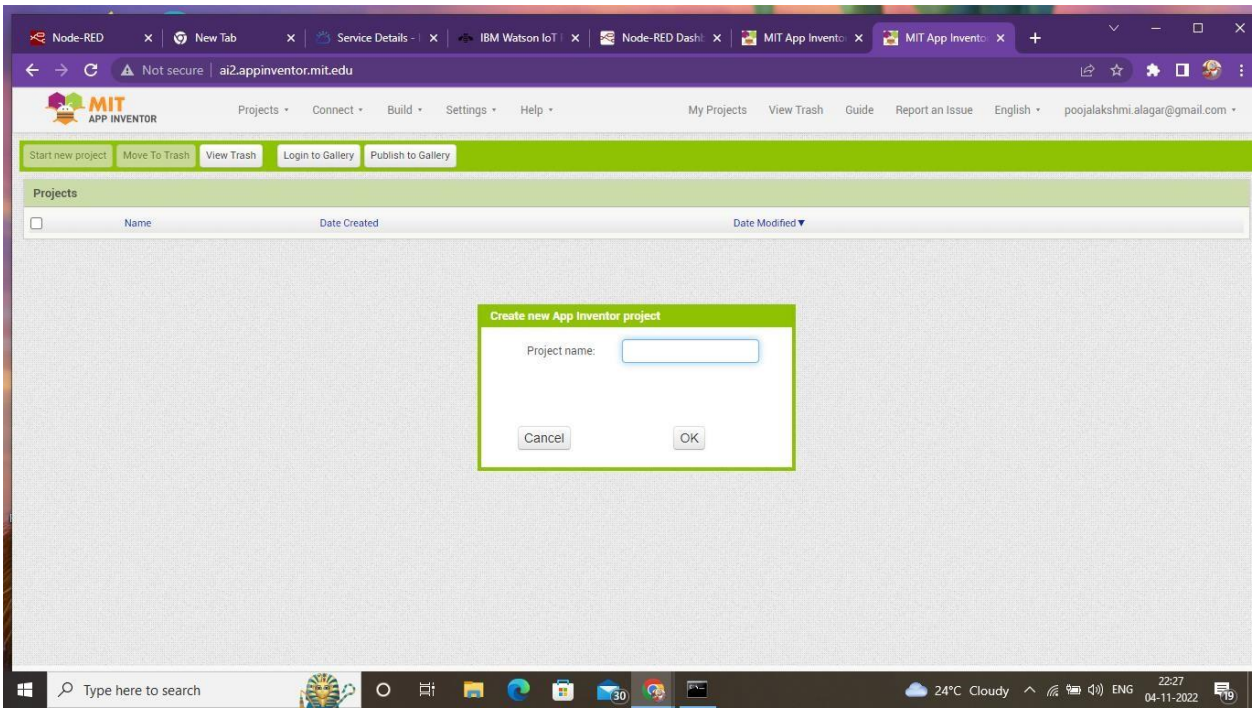


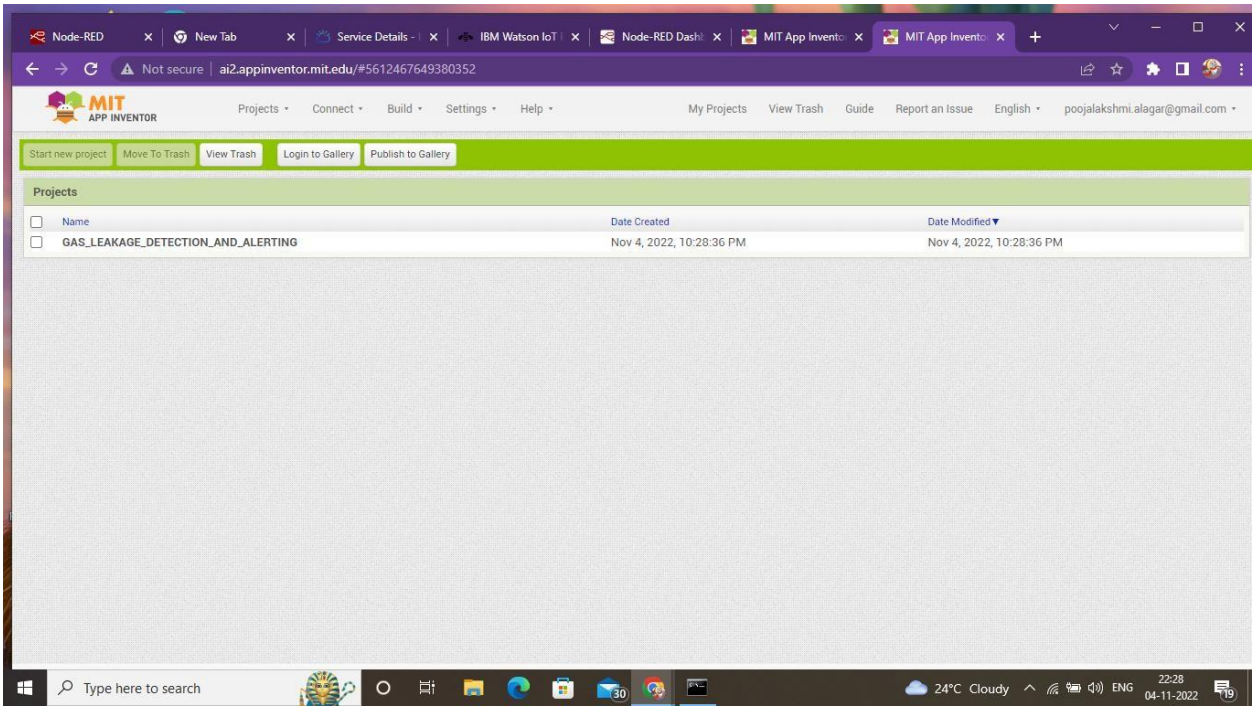
Step17: Output with light on and off button

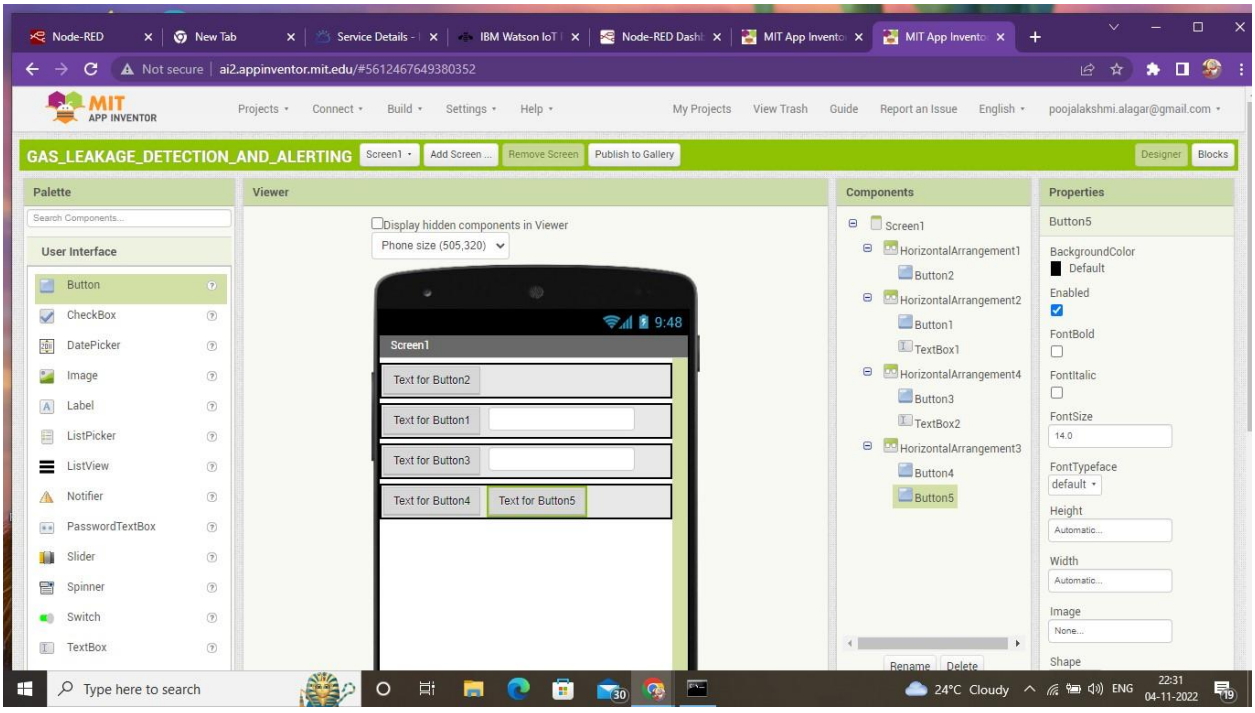


Step 18: Login to MIT app inventer and design






Node-RED
New Tab
Service Details -
IBM Watson IoT
Node-RED Dashb
MIT App Inventor
MIT App Inventor
Not secure | ai2.appinventor.mit.edu/#5612467649380352
MIT APP INVENTOR
Projects
Connect
Build
Settings
Help
My Projects
View Trash
Guide
Report an Issue
English
poojalakshmi.alagar@gmail.com
Start new project
Move To Trash
View Trash
Login to Gallery
Publish to Gallery
Projects
Name
Date Created
Date Modified
GAS_LEAKAGE_DETECTION_AND_ALERTING
Nov 4, 2022, 10:28:36 PM
Nov 4, 2022, 10:28:36 PM
Type here to search
24°C Cloudy
ENG
22:28
04-11-2022


Node-RED
New Tab
Service Details -
IBM Watson IoT
Node-RED Dashb
MIT App Inventor
MIT App Inventor
Not secure | ai2.appinventor.mit.edu/#5612467649380352
MIT APP INVENTOR
Projects
Connect
Build
Settings
Help
My Projects
View Trash
Guide
Report an Issue
English
poojalakshmi.alagar@gmail.com
GAS_LEAKAGE_DETECTION_AND_ALERTING
Screen1
Add Screen ...
Remove Screen
Publish to Gallery
Designer
Blocks
Palette
Search Components...
User Interface
Button
CheckBox
DatePicker
Image
Label
ListPicker
ListView
Notifier
PasswordTextBox
Slider
Spinner
Switch
TextBox
Viewer
Display hidden components in Viewer
Phone size (505,320)
9:48
Screen1
Text for Button2
Text for Button1
Text for Button3
Text for Button4
Text for Button5
Components
Screen1
HorizontalArrangement1
Button2
HorizontalArrangement2
Button1
TextBox1
HorizontalArrangement4
Button3
TextBox2
HorizontalArrangement3
Button4
Button5
Rename
Delete
Properties
Button5
BackgroundColor
Default
Enabled
FontBold
FontItalic
FontSize
14.0
FontTypeface
default
Height
Automatic...
Width
Automatic...
Image
None...
Shape
Type here to search
24°C Cloudy
ENG
22:31
04-11-2022

Step 19: The Output