PROJECT DEVELOPMENT PHASE

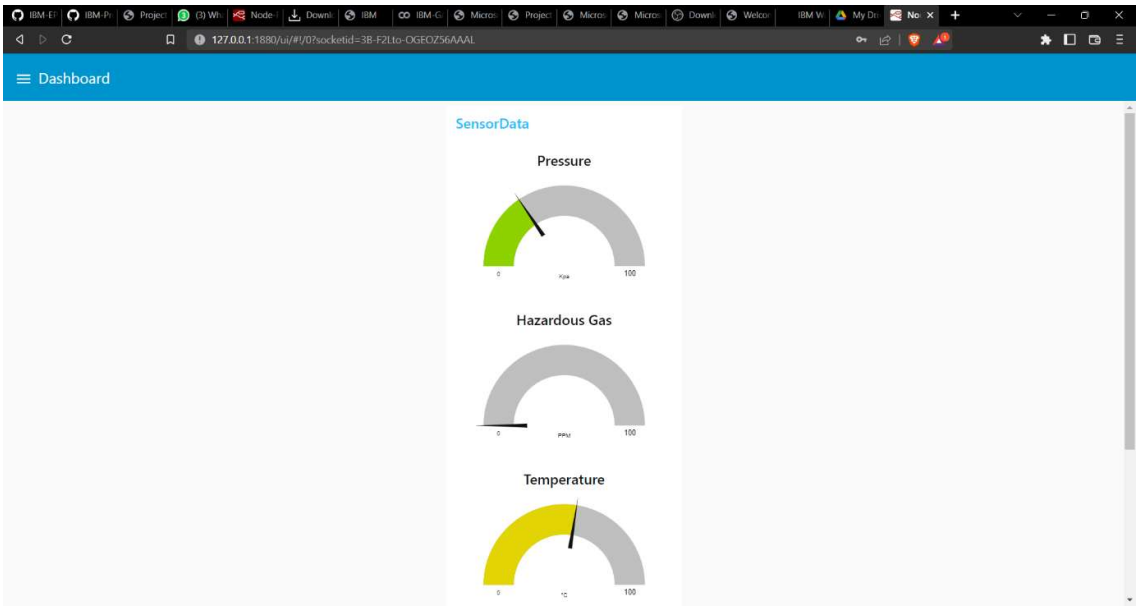
SPRINT – 2

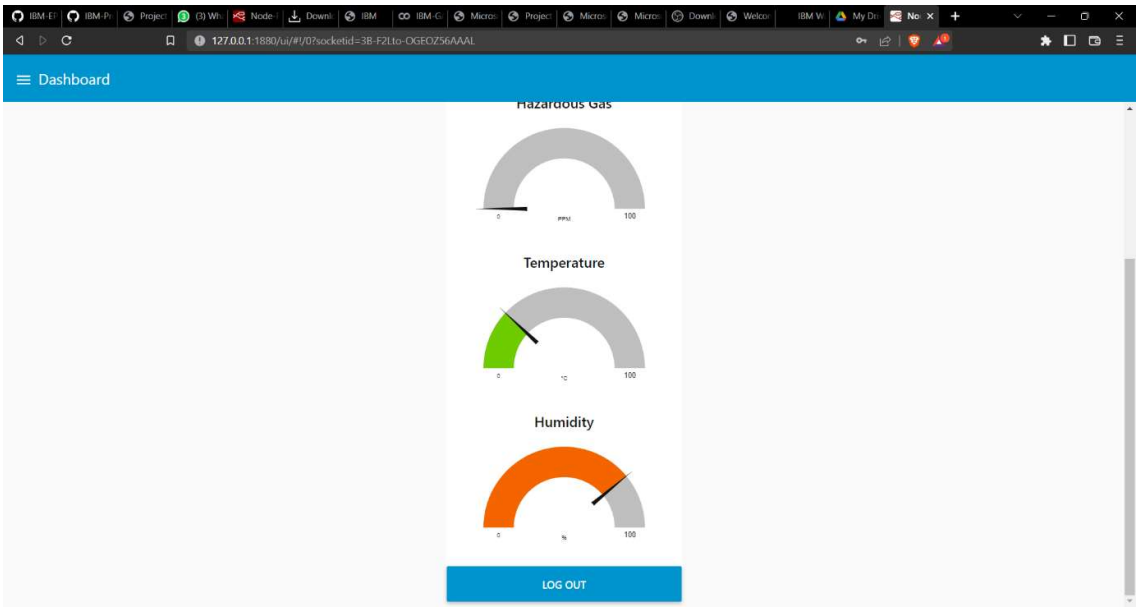
Date	07 November 2022
Team ID	PNT2022TMID21520
Project Name	Project - Gas Leakage monitoring & Alerting system for Industries
Maximum Marks	20 Marks

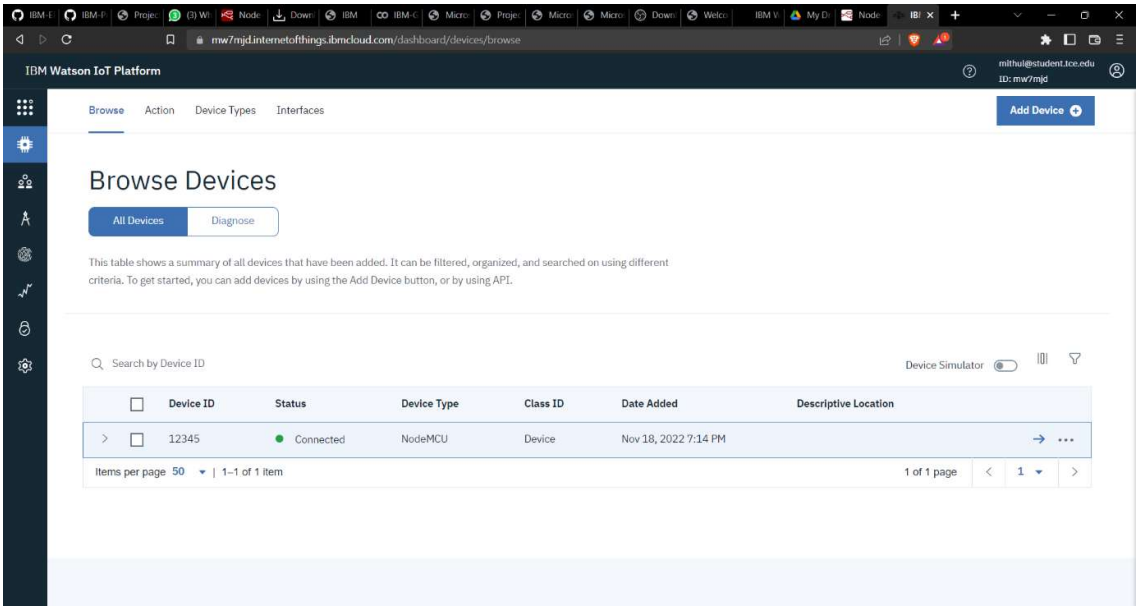
Functional Requirements to be completed :

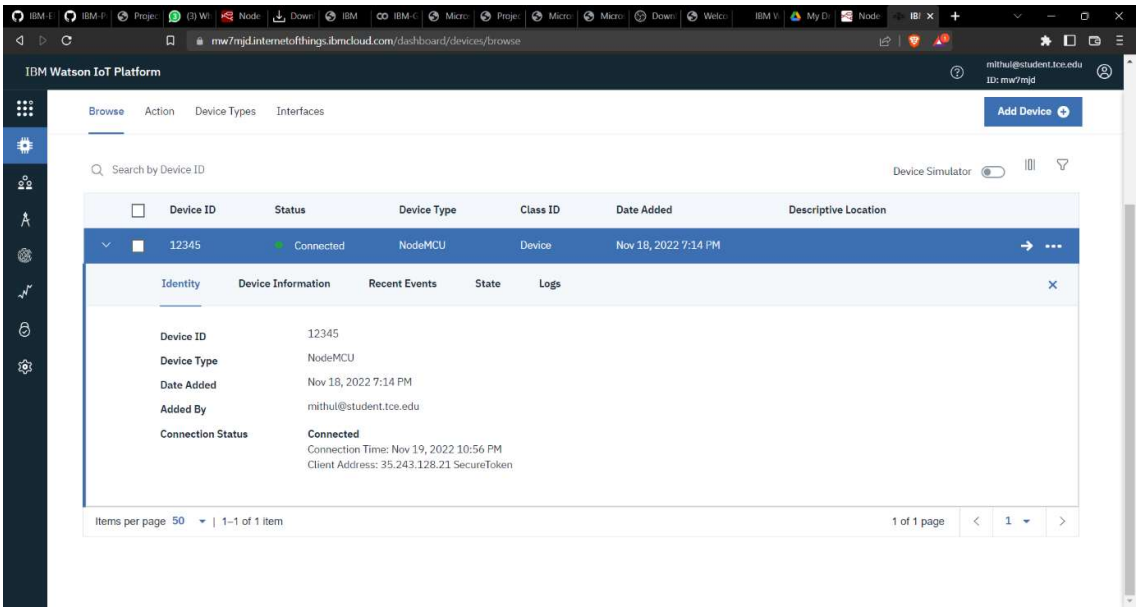
Sprint-2	Dashboard	USN-7	As a user, I can see the dashboard that contains the core features	1	Medium	ARAVINTH S SURYA KUMAR K
Sprint-2	Cloud configure	USN-8	Create and configure the IBM Cloud serviceswhich are being used in this project.	2	HIgh	MITHUL KANNAN K R

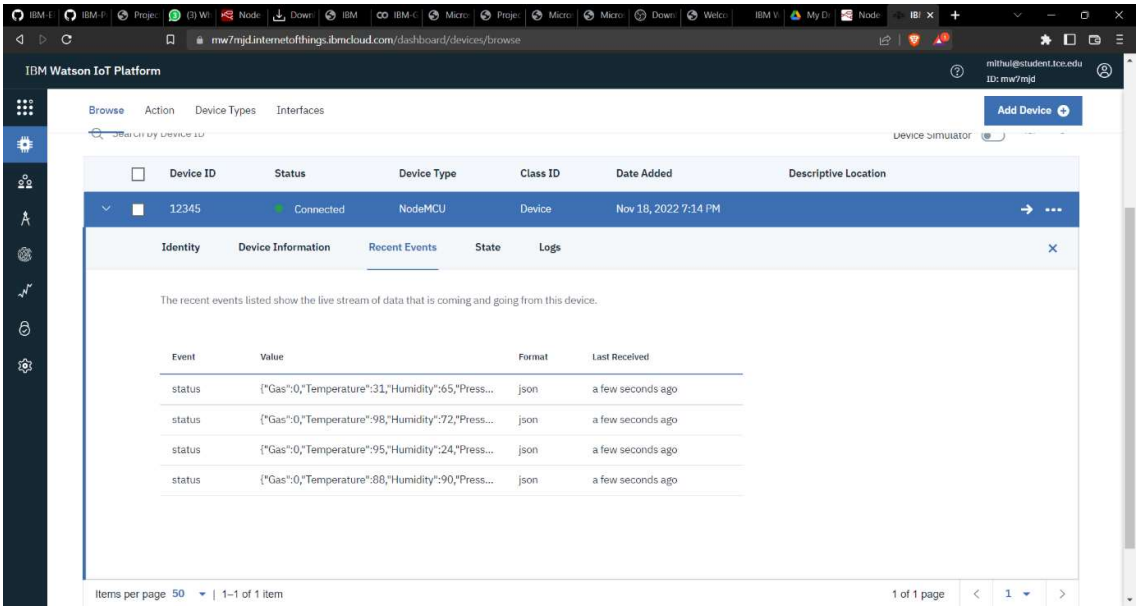
SCREENSHOTS :

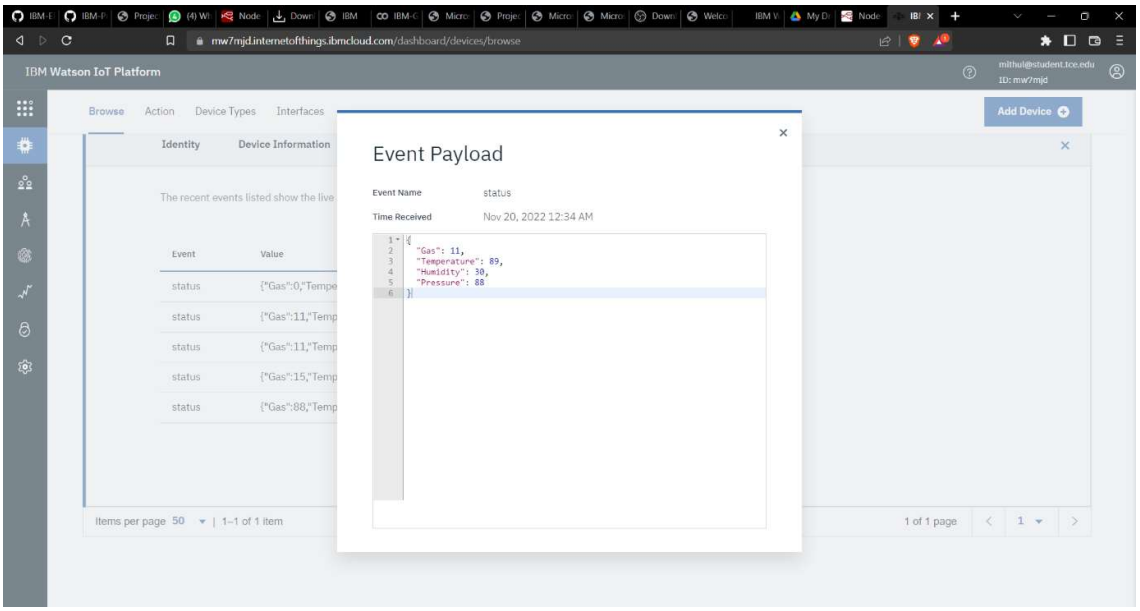


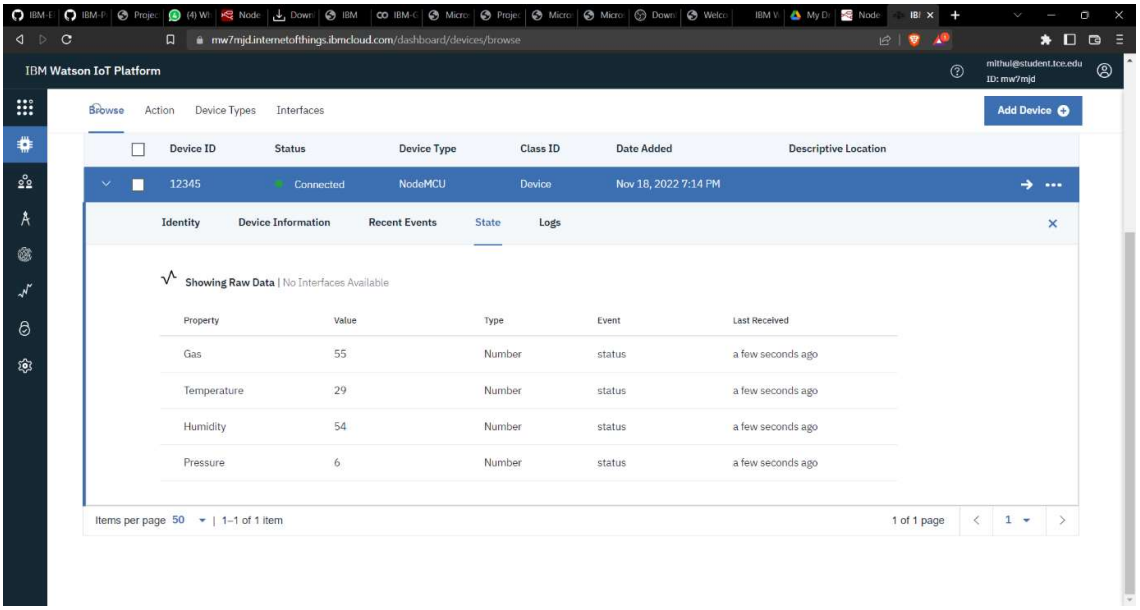

127.0.0.1:1880/ui/#!/0?socketid=3B-F2Lto-OGEOZ56AAAL
Dashboard
Hazardous Gas
PPM
0
100
Temperature
°C
0
100
Humidity
%
0
100
LOG OUT

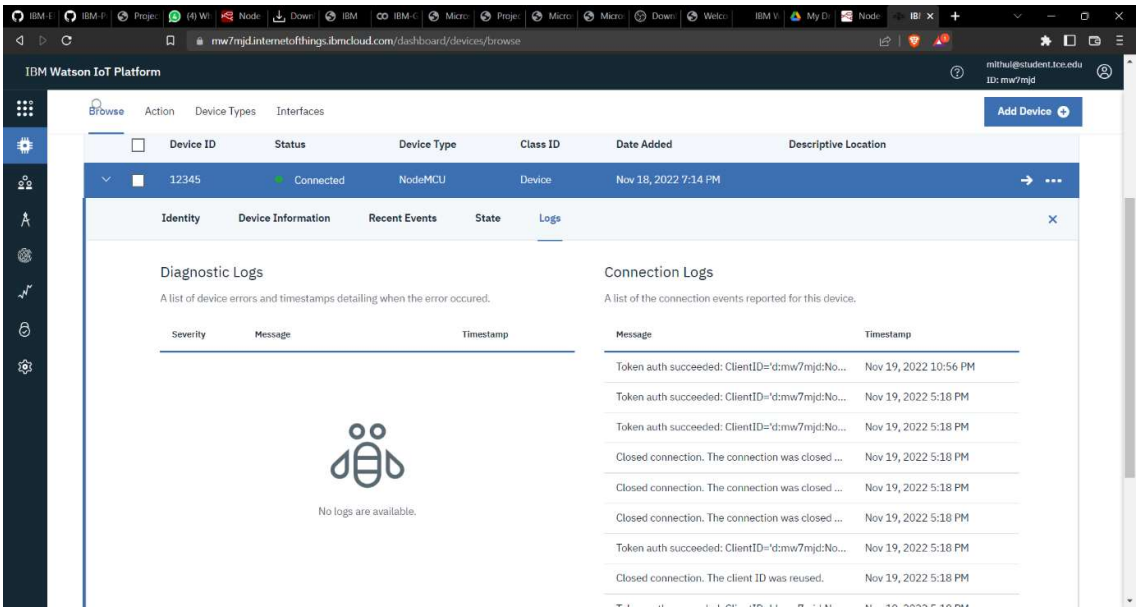

mw7mjd.internetofthings.ibmcloud.com/dashboard/devices/browse
IBM Watson IoT Platform
milhul@student.tce.edu
ID: mw7mjd
Browse
Action
Device Types
Interfaces
Add Device
Browse Devices
All Devices
Diagnose
This table shows a summary of all devices that have been added. It can be filtered, organized, and searched on using different criteria. To get started, you can add devices by using the Add Device button, or by using API.
Search by Device ID
Device Simulator
Device ID
Status
Device Type
Class ID
Date Added
Descriptive Location
12345
Connected
NodeMCU
Device
Nov 18, 2022 7:14 PM
Items per page 50
1–1 of 1 item
1 of 1 page
1

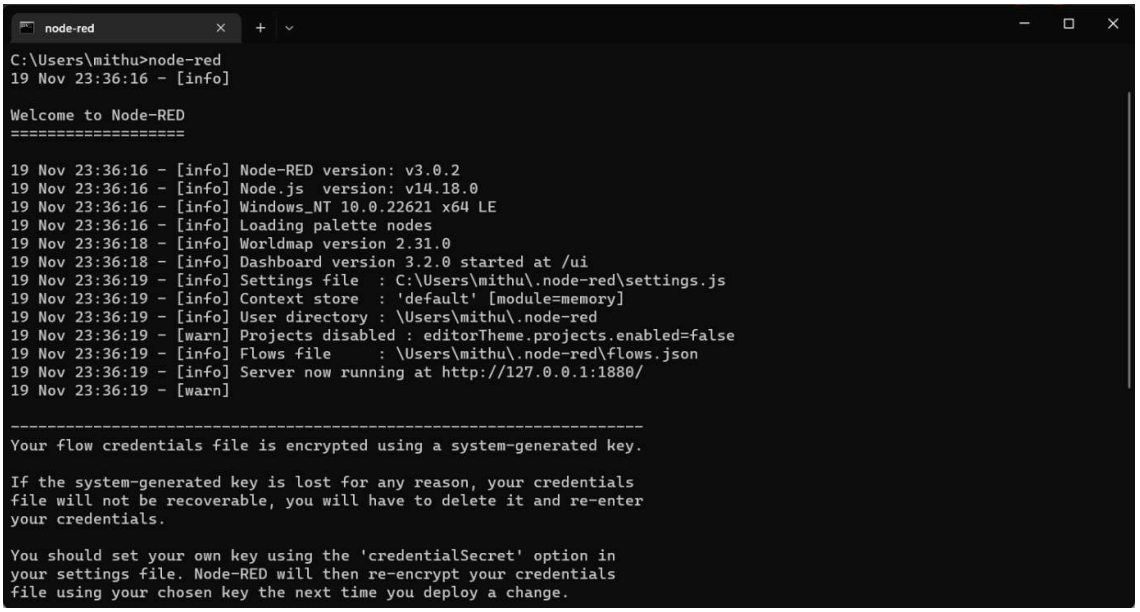

mw7mjd.internetofthings.ibmcloud.com/dashboard/devices/browse
IBM Watson IoT Platform
mithul@student.tce.edu
ID: mw7mjd
Browse
Action
Device Types
Interfaces
Add Device
Search by Device ID
Device Simulator
Device ID
Status
Device Type
Class ID
Date Added
Descriptive Location
12345
Connected
NodeMCU
Device
Nov 18, 2022 7:14 PM
Identity
Device Information
Recent Events
State
Logs
Device ID
12345
Device Type
NodeMCU
Date Added
Nov 18, 2022 7:14 PM
Added By
mithul@student.tce.edu
Connection Status
Connected
Connection Time: Nov 19, 2022 10:56 PM
Client Address: 35.243.128.21 SecureToken
Items per page 50
1–1 of 1 item
1 of 1 page
1

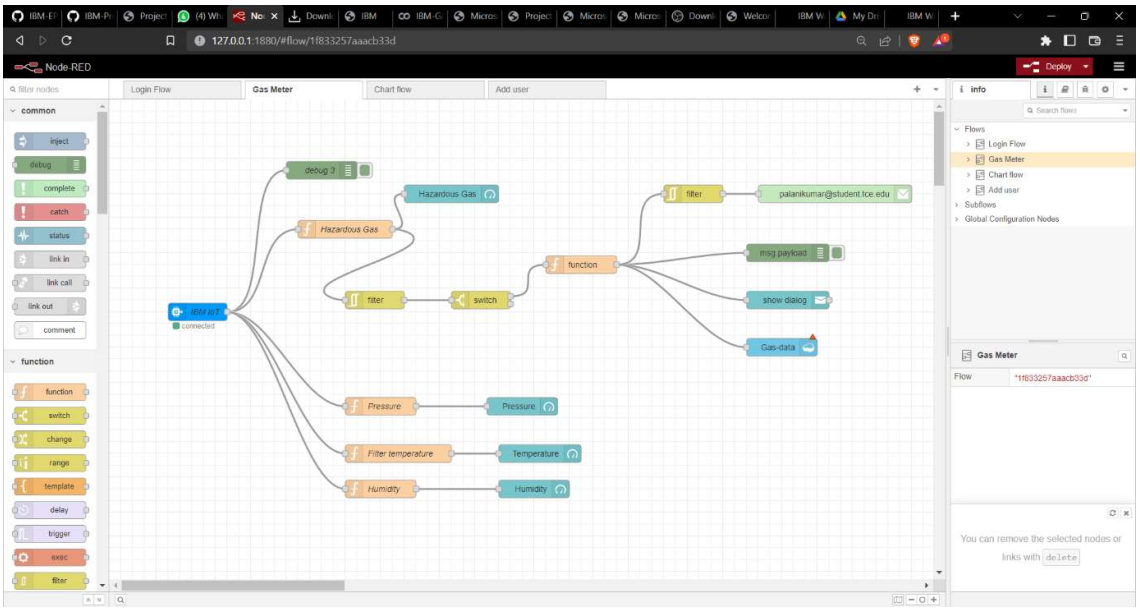

mw7mjd.internetofthings.ibmcloud.com/dashboard/devices/browse
IBM Watson IoT Platform
mithul@student.tce.edu
ID: mw7mjd
Browse
Action
Device Types
Interfaces
Add Device
Device Simulator
Device ID
Status
Device Type
Class ID
Date Added
Descriptive Location
12345
Connected
NodeMCU
Device
Nov 18, 2022 7:14 PM
Identity
Device Information
Recent Events
State
Logs
The recent events listed show the live stream of data that is coming and going from this device.
Event
Value
Format
Last Received
status
{"Gas":0,"Temperature":31,"Humidity":65,"Press...
json
a few seconds ago
status
{"Gas":0,"Temperature":98,"Humidity":72,"Press...
json
a few seconds ago
status
{"Gas":0,"Temperature":95,"Humidity":24,"Press...
json
a few seconds ago
status
{"Gas":0,"Temperature":88,"Humidity":90,"Press...
json
a few seconds ago
Items per page 50
1–1 of 1 item
1 of 1 page
1

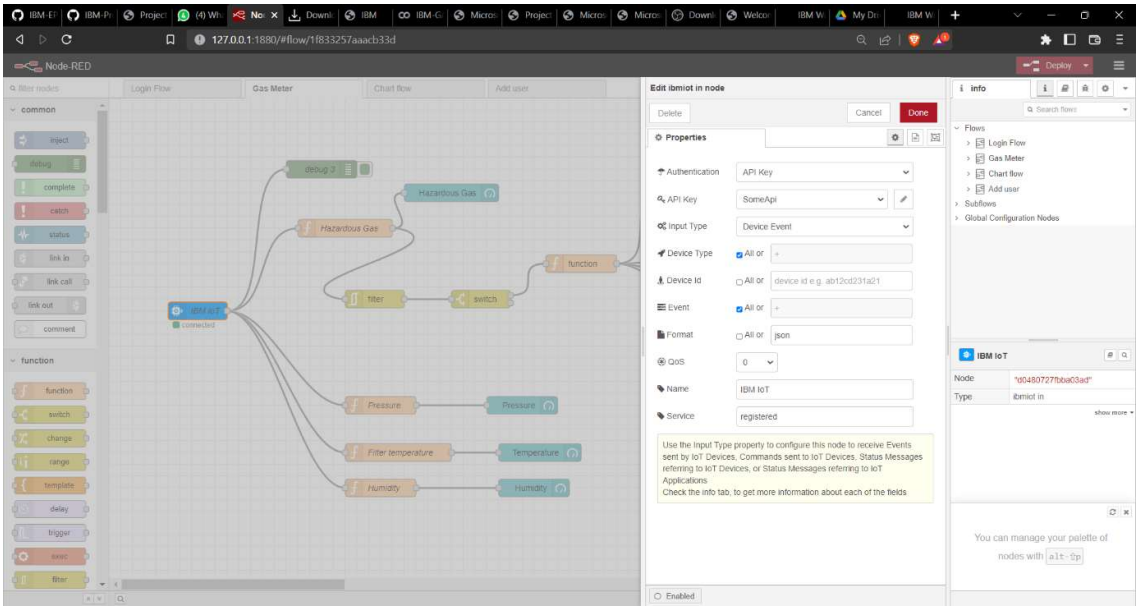

mw7mjd.internetofthings.ibmcloud.com/dashboard/devices/browse
IBM Watson IoT Platform
mithul@student.tce.edu
ID: mw7mjd
Browse
Action
Device Types
Interfaces
Add Device
Identity
Device Information
The recent events listed show the live
Event
Value
status
{"Gas":0,"Tempe
{"Gas":11,"Temp
{"Gas":11,"Temp
{"Gas":15,"Temp
{"Gas":88,"Temp
Items per page 50
1–1 of 1 item
1 of 1 page
1
Event Payload
Event Name
status
Time Received
Nov 20, 2022 12:34 AM
{
"Gas": 11,
"Temperature": 89,
"Humidity": 30,
"Pressure": 88
}

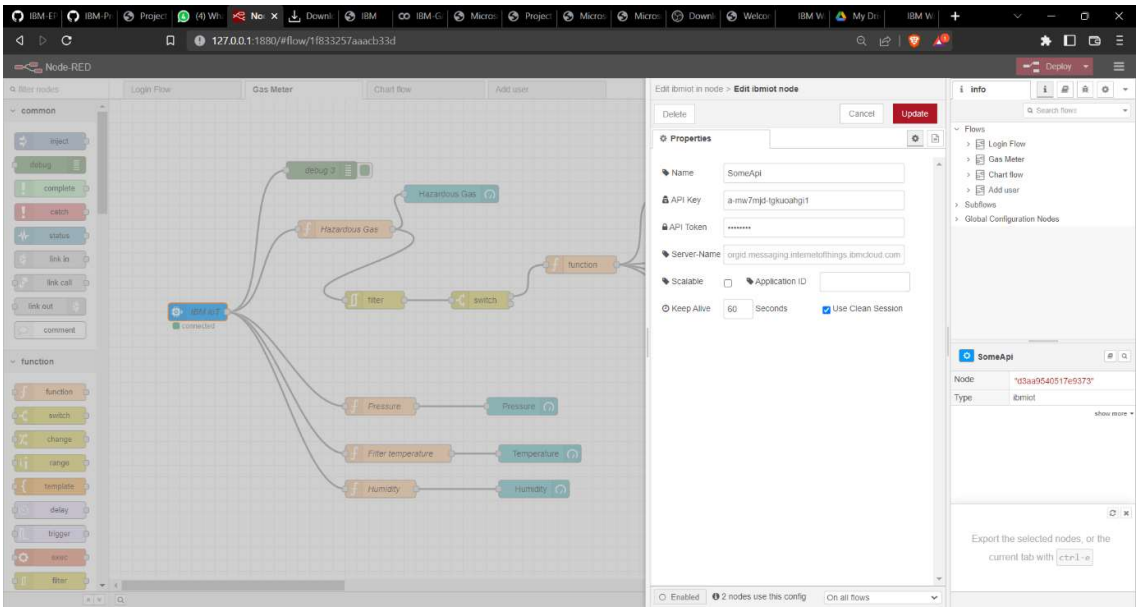

mw7mjd.internetofthings.ibmcloud.com/dashboard/devices/browse
IBM Watson IoT Platform
mithul@student.tce.edu
ID: mw7mjd
Browse
Action
Device Types
Interfaces
Add Device
Device ID
Status
Device Type
Class ID
Date Added
Descriptive Location
12345
Connected
NodeMCU
Device
Nov 18, 2022 7:14 PM
Identity
Device Information
Recent Events
State
Logs
Showing Raw Data | No Interfaces Available
Property
Value
Type
Event
Last Received
Gas
55
Number
status
a few seconds ago
Temperature
29
Number
status
a few seconds ago
Humidity
54
Number
status
a few seconds ago
Pressure
6
Number
status
a few seconds ago
Items per page 50
1–1 of 1 item
1 of 1 page
1

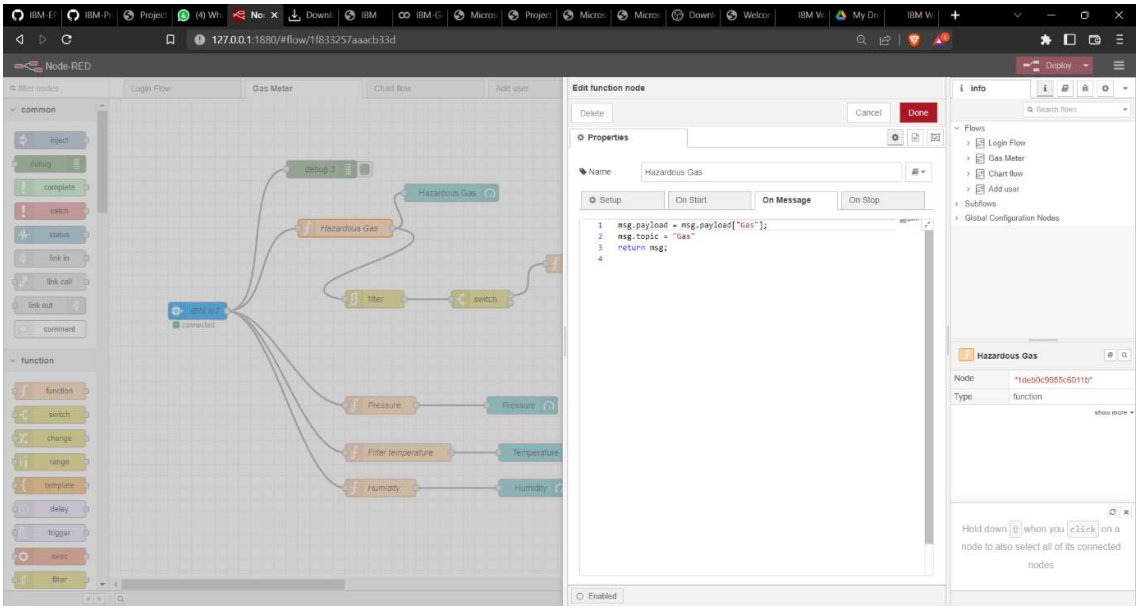

mw7mjd.internetofthings.ibmcloud.com/dashboard/devices/browse
IBM Watson IoT Platform
mithul@student.tce.edu
ID: mw7mjd
Browse
Action
Device Types
Interfaces
Add Device
Device ID
Status
Device Type
Class ID
Date Added
Descriptive Location
12345
Connected
NodeMCU
Device
Nov 18, 2022 7:14 PM
Identity
Device Information
Recent Events
State
Logs
Diagnostic Logs
A list of device errors and timestamps detailing when the error occured.
Severity
Message
Timestamp
No logs are available.
Connection Logs
A list of the connection events reported for this device.
Message
Timestamp
Token auth succeeded: ClientID='d:mw7mjd:No... Nov 19, 2022 10:56 PM
Token auth succeeded: ClientID='d:mw7mjd:No... Nov 19, 2022 5:18 PM
Token auth succeeded: ClientID='d:mw7mjd:No... Nov 19, 2022 5:18 PM
Closed connection. The connection was closed ... Nov 19, 2022 5:18 PM
Closed connection. The connection was closed ... Nov 19, 2022 5:18 PM
Closed connection. The connection was closed ... Nov 19, 2022 5:18 PM
Token auth succeeded: ClientID='d:mw7mjd:No... Nov 19, 2022 5:18 PM
Closed connection. The client ID was reused. Nov 19, 2022 5:18 PM

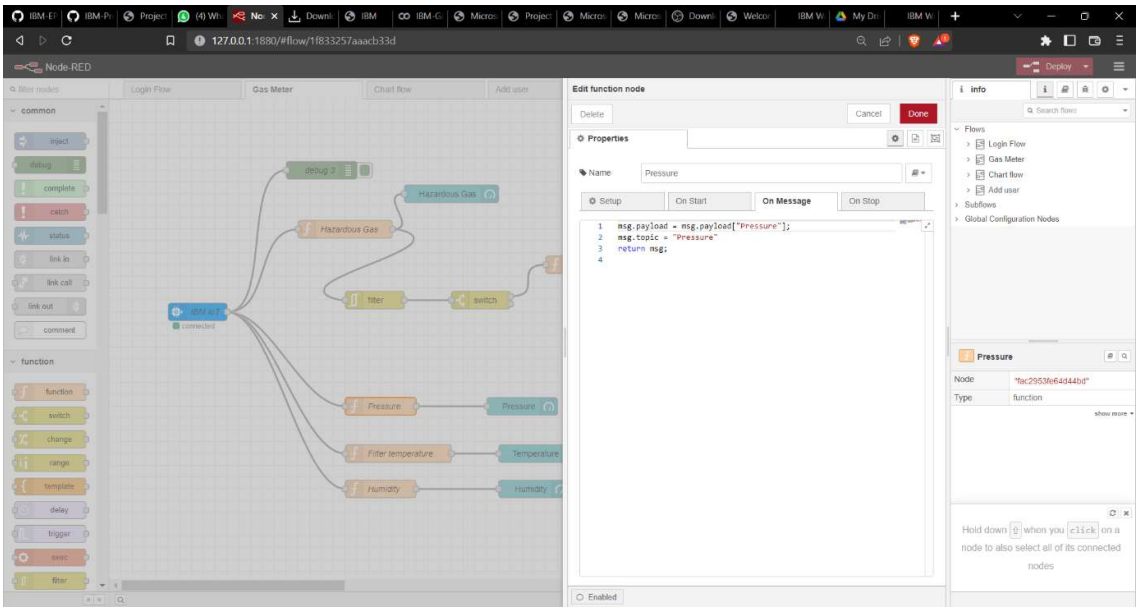

node-red
C:\Users\mithu>node-red
19 Nov 23:36:16 - [info]
Welcome to Node-RED
19 Nov 23:36:16 - [info] Node-RED version: v3.0.2
19 Nov 23:36:16 - [info] Node.js version: v14.18.0
19 Nov 23:36:16 - [info] Windows_NT 10.0.22621 x64 LE
19 Nov 23:36:16 - [info] Loading palette nodes
19 Nov 23:36:18 - [info] Worldmap version 2.31.0
19 Nov 23:36:18 - [info] Dashboard version 3.2.0 started at /ui
19 Nov 23:36:19 - [info] Settings file : C:\Users\mithu\.node-red\settings.js
19 Nov 23:36:19 - [info] Context store : 'default' [module=memory]
19 Nov 23:36:19 - [info] User directory : \Users\mithu\.node-red
19 Nov 23:36:19 - [warn] Projects disabled : editorTheme.projects.enabled=false
19 Nov 23:36:19 - [info] Flows file : \Users\mithu\.node-red\flows.json
19 Nov 23:36:19 - [info] Server now running at http://127.0.0.1:1880/
19 Nov 23:36:19 - [warn]
Your flow credentials file is encrypted using a system-generated key.
If the system-generated key is lost for any reason, your credentials
file will not be recoverable, you will have to delete it and re-enter
your credentials.
You should set your own key using the 'credentialSecret' option in
your settings file. Node-RED will then re-encrypt your credentials
file using your chosen key the next time you deploy a change.

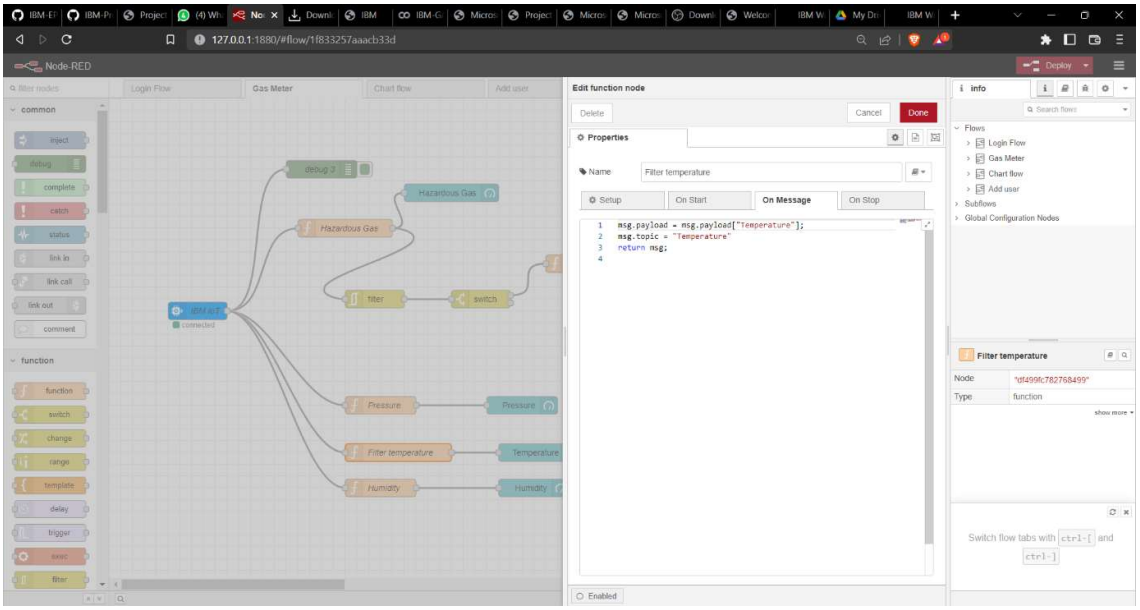

127.0.0.1:1880/#flow/1f833257aaacb33d
Node-RED
Deploy
Login Flow
Gas Meter
Chart flow
Add user
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
function
switch
change
range
template
delay
trigger
exec
filter
debug 3
Hazardous Gas
Hazardous Gas
filter
switch
function
filter
palanikumar@student.tce.edu
msg.payload
show dialog
Gas-data
IBM IoT
connected
Pressure
Pressure
Filter temperature
Temperature
Humidity
Humidity
info
Flows
Login Flow
Gas Meter
Chart flow
Add user
Subflows
Global Configuration Nodes
Gas Meter
Flow
"1f833257aaacb33d"
You can remove the selected nodes or links with delete

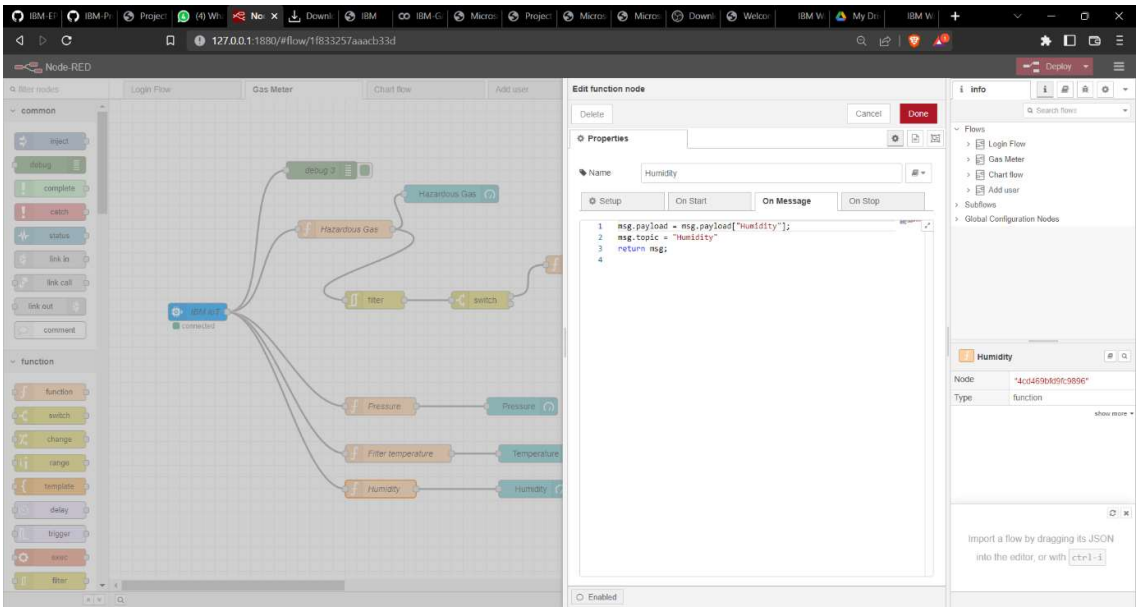

127.0.0.1:1880/#flow/1f833257aaacb33d
Node-RED
Deploy
Edit ibmiot in node
Delete
Cancel
Done
Properties
Authentication
API Key
API Key
SomeApi
Input Type
Device Event
Device Type
All or
Device Id
All or
device id e.g. ab12cd231a21
Event
All or
Format
All or
json
QoS
0
Name
IBM IoT
Service
registered
Use the Input Type property to configure this node to receive Events sent by IoT Devices, Commands sent to IoT Devices, Status Messages referring to IoT Devices, or Status Messages referring to IoT Applications
Check the info tab, to get more information about each of the fields
Enabled
IBM IoT
Node
"d0480727fbba03ad"
Type
ibmiot in
show more
You can manage your palette of nodes with alt-tp


Node-RED
Edit ibmiot in node > Edit ibmiot node
Delete
Cancel
Update
Properties
Name
SomeApi
API Key
a-mw7mjd-tgkuoahgi1
API Token
Server-Name
orgid.messaging.internetofthings.ibmcloud.com
Scalable
Application ID
Keep Alive
60
Seconds
Use Clean Session
Enabled
2 nodes use this config
On all flows
info
Flows
Login Flow
Gas Meter
Chart flow
Add user
Subflows
Global Configuration Nodes
SomeApi
Node
"d3aa9540517e9373"
Type
ibmiot
Export the selected nodes, or the current tab with ctrl-e
Hazardous Gas
filter
switch
Pressure
Filter temperature
Temperature
Humidity


Node-RED
Edit function node
Delete
Cancel
Done
Properties
Name
Hazardous Gas
Setup
On Start
On Message
On Stop
1 msg.payload = msg.payload["Gas"];
2 msg.topic = "Gas"
3 return msg;
4
Enabled
info
Flows
Login Flow
Gas Meter
Chart flow
Add user
Subflows
Global Configuration Nodes
Hazardous Gas
Node
"1deb0c9955c6011b"
Type
function
Hold down ⇧ when you click on a node to also select all of its connected nodes
filter
switch
Pressure
Filter temperature
Temperature
Humidity


127.0.0.1:1880/#flow/1f833257aaacb33d
Node-RED
Deploy
Login Flow
Gas Meter
Chart flow
Add user
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
function
switch
change
range
template
delay
trigger
exec
filter
debug 3
Hazardous Gas
Hazardous Gas
filter
switch
IBM acc
connected
Pressure
Pressure
Filter temperature
Temperature
Humidity
Humidity
Edit function node
Delete
Cancel
Done
Properties
Name
Pressure
Setup
On Start
On Message
On Stop
1 msg.payload = msg.payload["Pressure"];
2 msg.topic = "Pressure"
3 return msg;
4
Enabled
info
Search flows
Flows
Login Flow
Gas Meter
Chart flow
Add user
Subflows
Global Configuration Nodes
Pressure
Node
"fac2953fe64d44bd"
Type
function
show more
Hold down ⇧ when you click on a node to also select all of its connected nodes


127.0.0.1:1880/#flow/1f833257aaacb33d
Node-RED
Deploy
Login Flow
Gas Meter
Chart flow
Add user
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
function
switch
change
range
template
delay
trigger
exec
filter
debug 3
Hazardous Gas
Hazardous Gas
filter
switch
IBM acc
connected
Pressure
Pressure
Filter temperature
Temperature
Humidity
Humidity
Edit function node
Delete
Cancel
Done
Properties
Name
Filter temperature
Setup
On Start
On Message
On Stop
1 msg.payload = msg.payload["Temperature"];
2 msg.topic = "Temperature"
3 return msg;
4
Enabled
info
Search flows
Flows
Login Flow
Gas Meter
Chart flow
Add user
Subflows
Global Configuration Nodes
Filter temperature
Node
"df499fc782768499"
Type
function
show more
Switch flow tabs with ctrl-[and ctrl-]


127.0.0.1:1880/#flow/1f833257aaacb33d
Node-RED
Deploy
Login Flow
Gas Meter
Chart flow
Add user
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complete
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status
link in
link call
link out
comment
function
function
switch
change
range
template
delay
trigger
exec
filter
debug 3
Hazardous Gas
Hazardous Gas
filter
switch
IBM IoT
connected
Pressure
Pressure
Filter temperature
Temperature
Humidity
Humidity
Edit function node
Delete
Cancel
Done
Properties
Name
Humidity
Setup
On Start
On Message
On Stop
1 msg.payload = msg.payload["Humidity"];
2 msg.topic = "Humidity"
3 return msg;
4
Enabled
info
Flows
Login Flow
Gas Meter
Chart flow
Add user
Subflows
Global Configuration Nodes
Humidity
Node
Type
function
show more
Import a flow by dragging its JSON into the editor, or with ctrl-i