Sprint-3

Node-Red Service

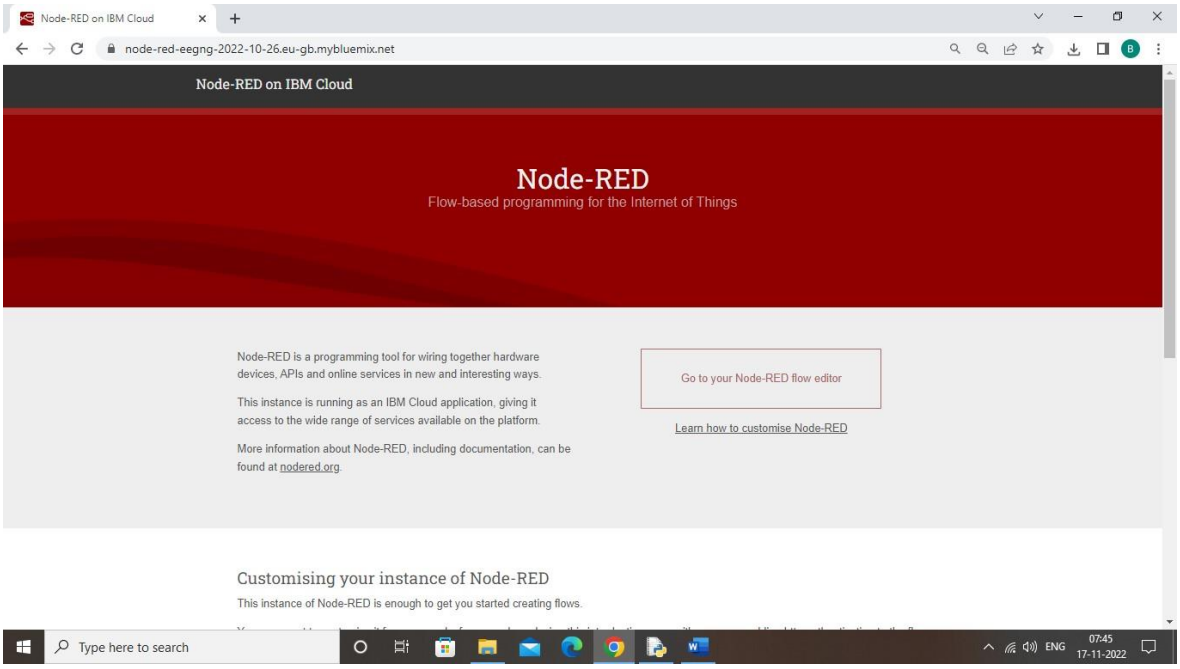
Team ID	PNT2022TMID37069
Project Name	IOT BASED CROP PROTECTION SYSTEM FOR AGRICULTURE

Description:

The sensor data's (generated by python scripts) which are send to IBM IOT platform which is received through the node red service to create an user interface to visualize the sensor data and alerts given and also to control the motors or sprinklers in the cropland (python code). The user can view this dashboard from any browser at anywhere. Through this node red service creating an http URL to access sensor data's and control motors or sprinklers through external mobile application.

1.Created an node red application to start node red service :

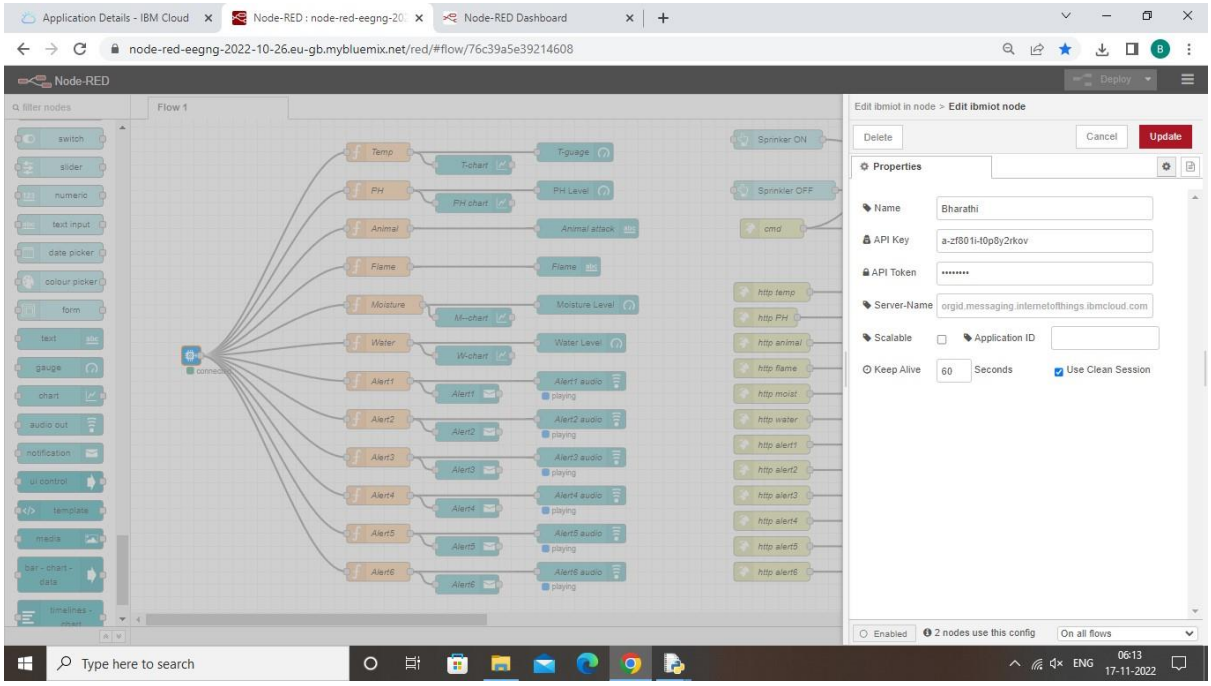
Node red service has been created through IBM cloud service.



2. Adding IBM IOT node to get device event datas from ibm iot platform:

IBM IOT node is added then API key and Authenticataion node is given.

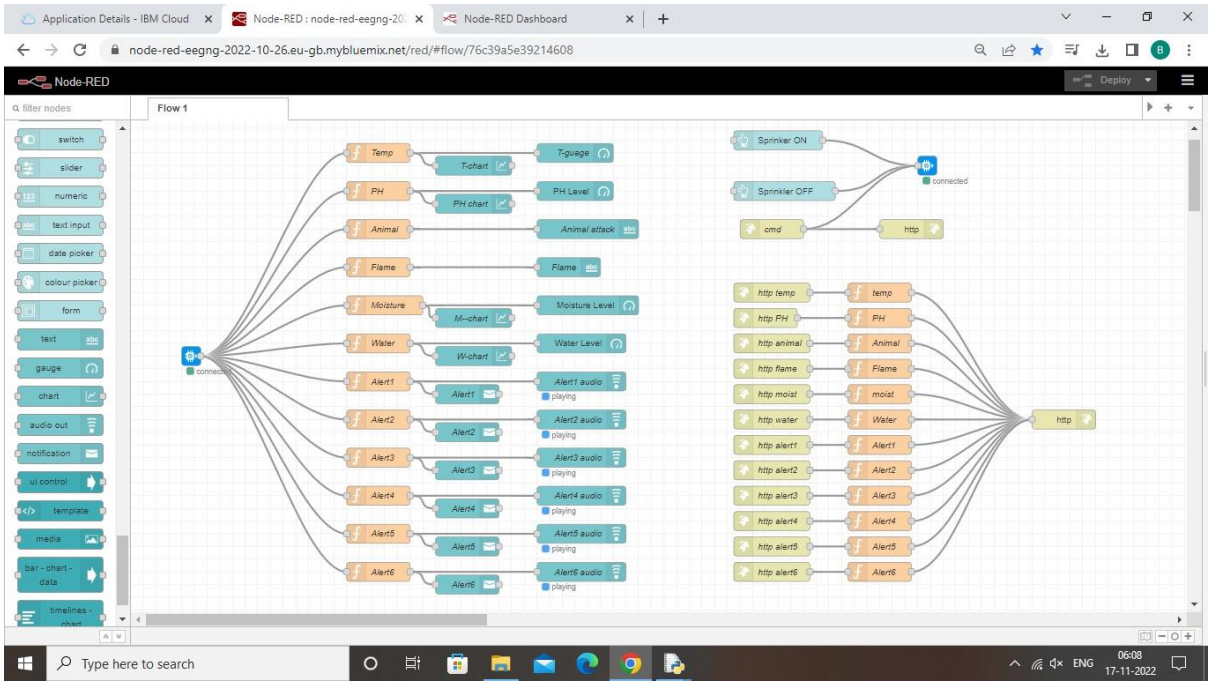
Api key : a-zf801i-t0p8y2rkov ， Authentication token : yF-U_jKEuiB@xLuh1e



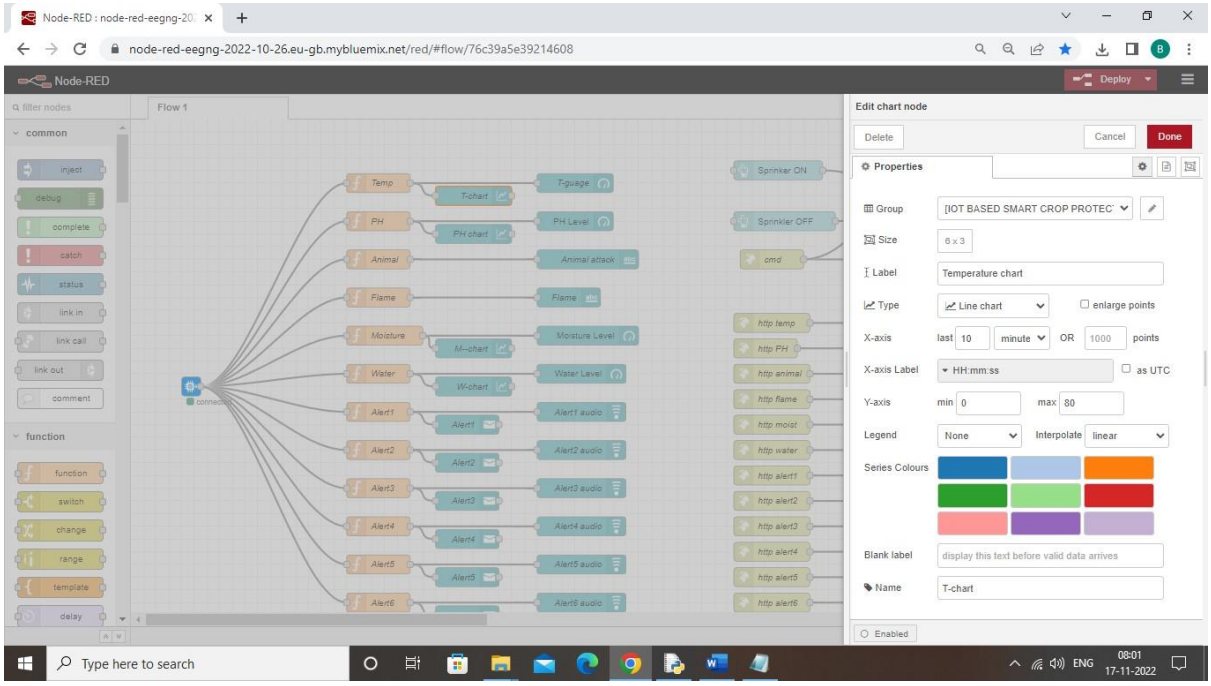
3. Nodes are added to show the sensor data’s in the node red UI or dashboard.

Link for flow editor:

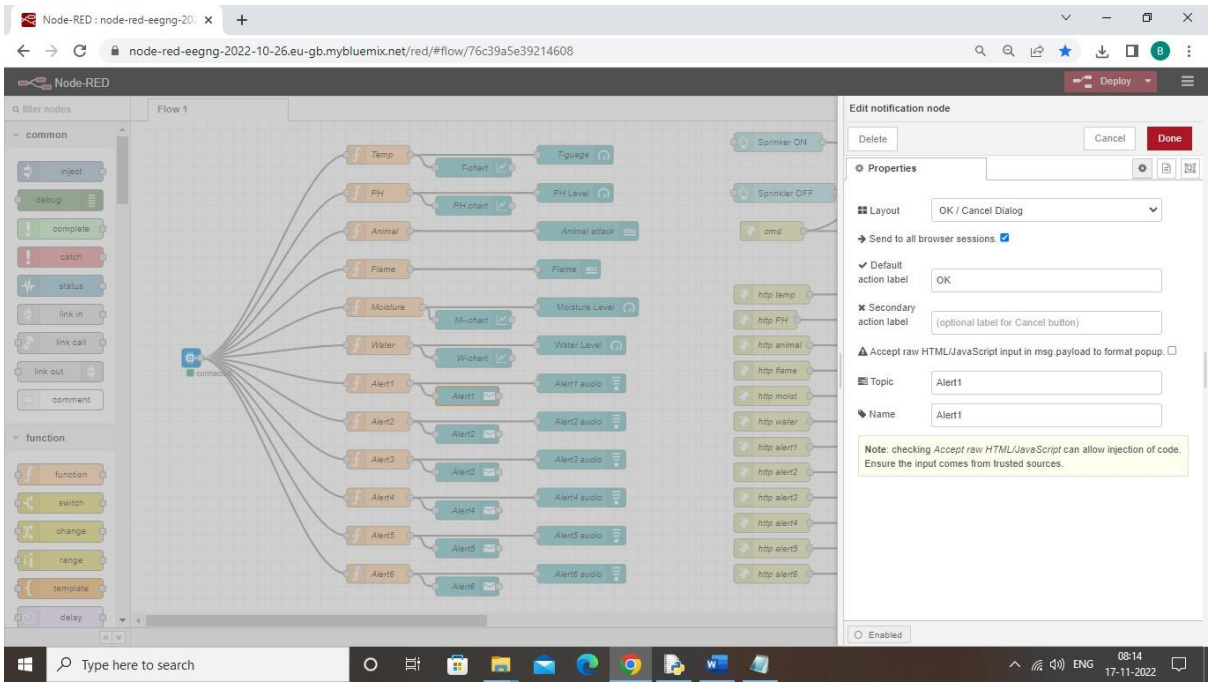
https://node-red-eegng-2022-10-26.eu-gb.mybluemix.net/red/#flow/76c39a5e39214608



4. charts and guage node are used to visualize the data:

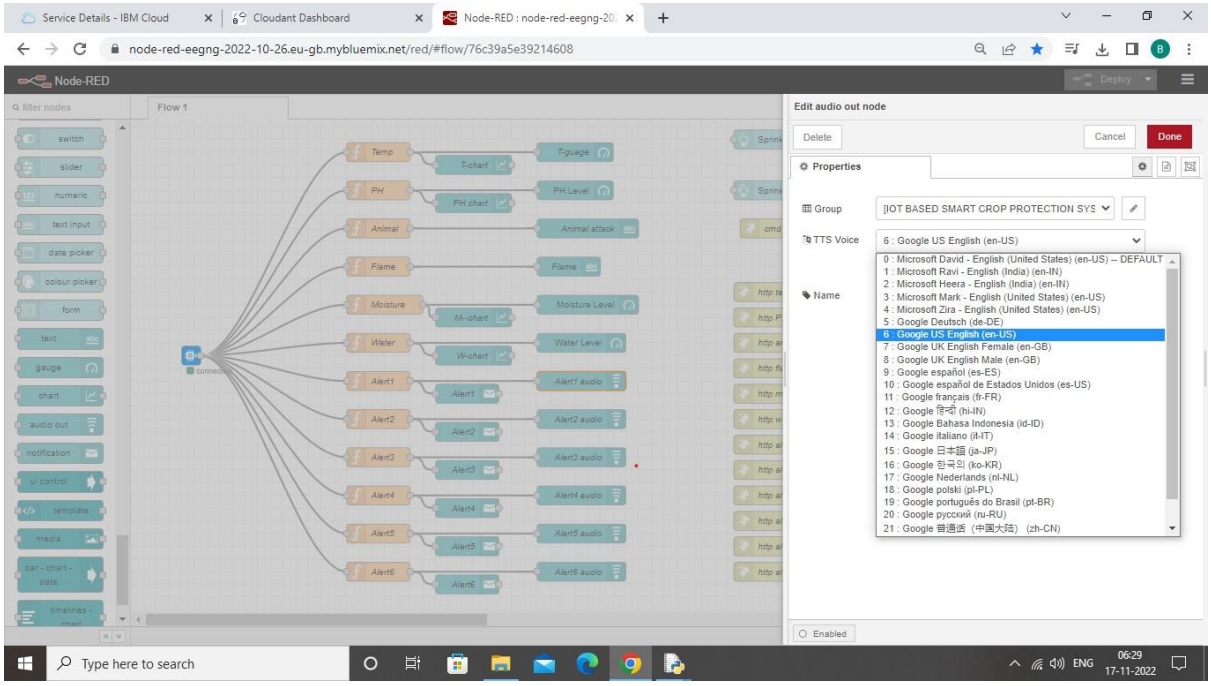


5. Notification node are added to show the alert notification:



6. Audio output node is added to give voice alert.

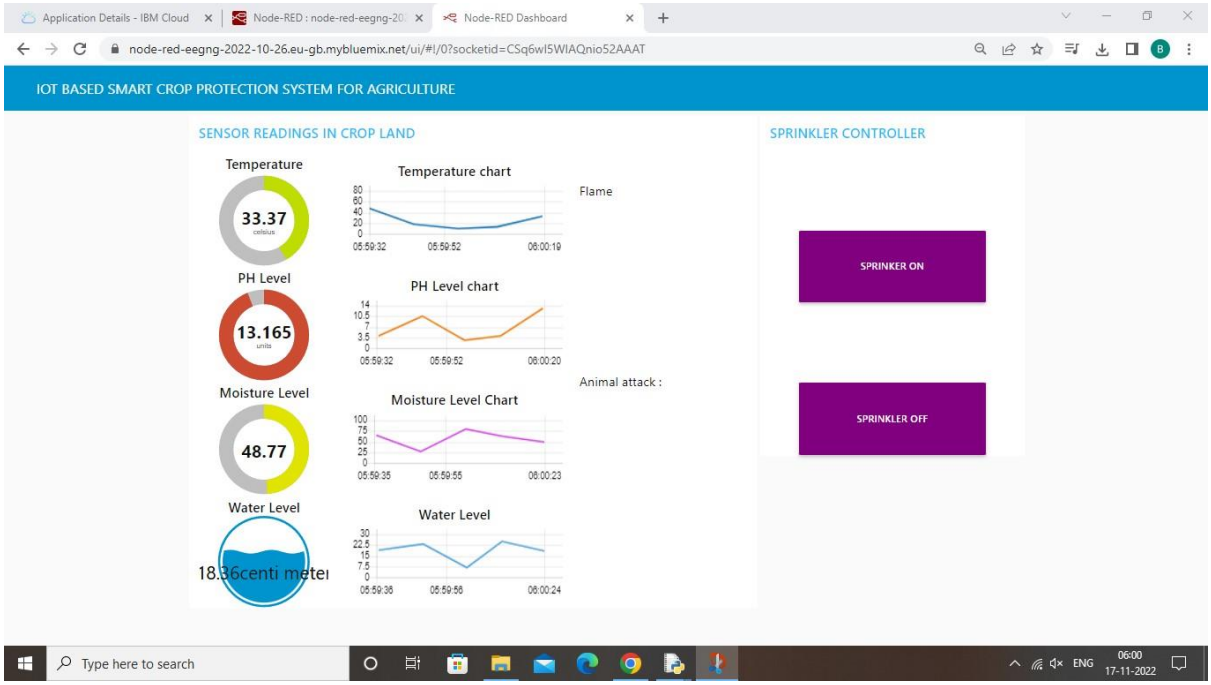
Google US english voice is used to give alert.

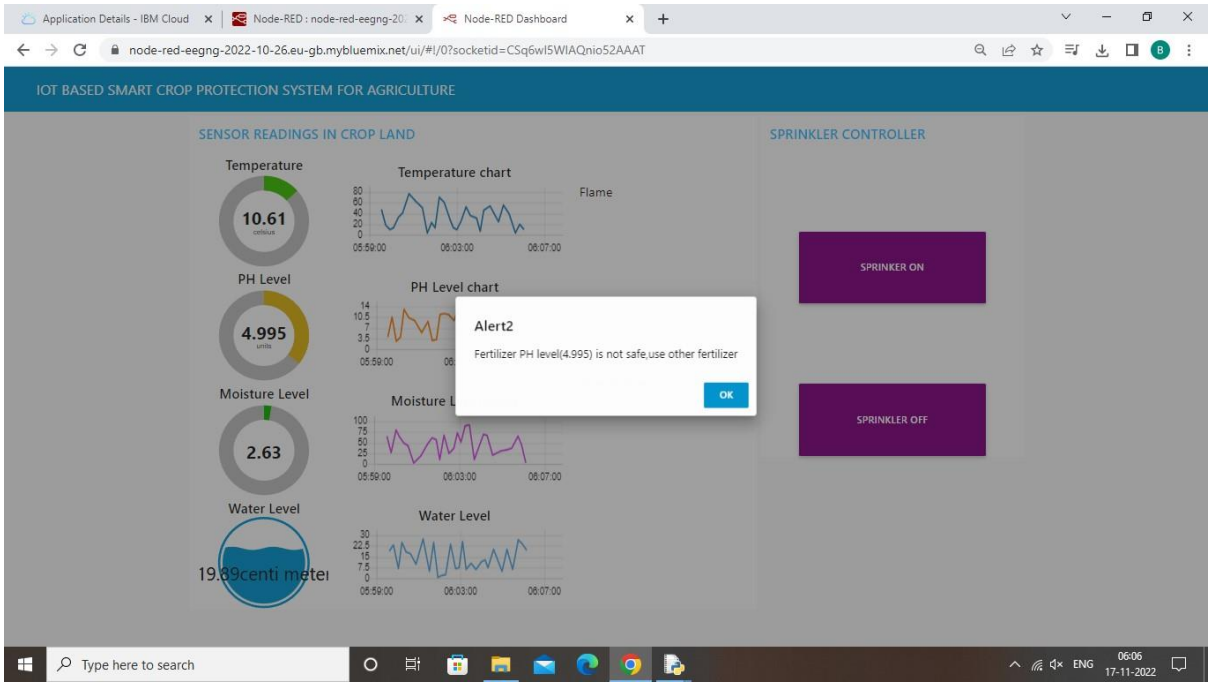


7. Node red dashboard or User Interface:

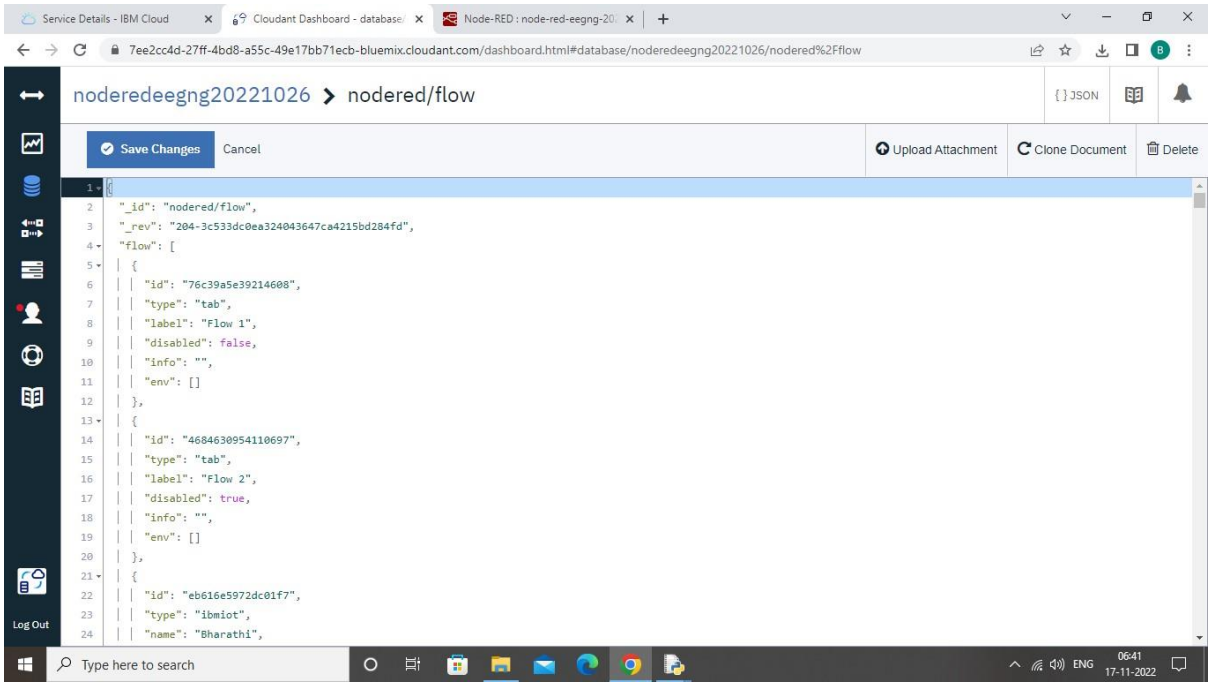
Dashboard Link:

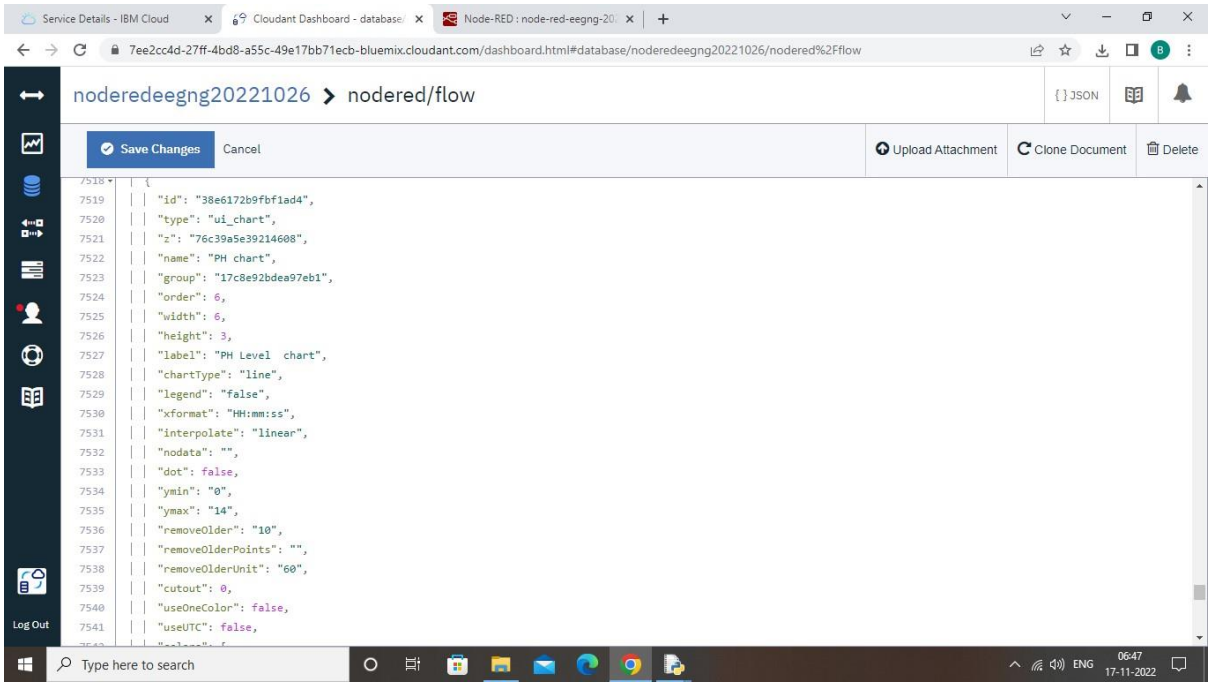
https://node-red-eegng-2022-10-26.eu-gb.mybluemix.net/ui/#!/0?socketid=Me5yY1WWlBVyvegjAAAA





8. Data of all flows are stored in cloudant :




Service Details - IBM Cloud
Cloudant Dashboard - database
Node-RED : node-red-eegng-20
7ee2cc4d-27ff-4bd8-a55c-49e17bb71ecb-bluemix.cloudant.com/dashboard.html#database/noderedeegng20221026/nodered%2Fflow
noderedeegng20221026 > nodered/flow
{ } JSON
Save Changes
Cancel
Upload Attachment
Clone Document
Delete
{
"id": "38e6172b9fbf1ad4",
"type": "ui_chart",
"z": "76c39a5e39214608",
"name": "PH chart",
"group": "17c8e92bdea97eb1",
"order": 6,
"width": 6,
"height": 3,
"label": "PH Level chart",
"chartType": "line",
"legend": "false",
"xformat": "HH:mm:ss",
"interpolate": "linear",
"nodata": "",
"dot": false,
"ymin": "0",
"ymax": "14",
"removeOlder": "10",
"removeOlderPoints": "",
"removeOlderUnit": "60",
"cutout": 0,
"useOneColor": false,
"useUTC": false,
Log Out
Type here to search
ENG
06:47
17-11-2022