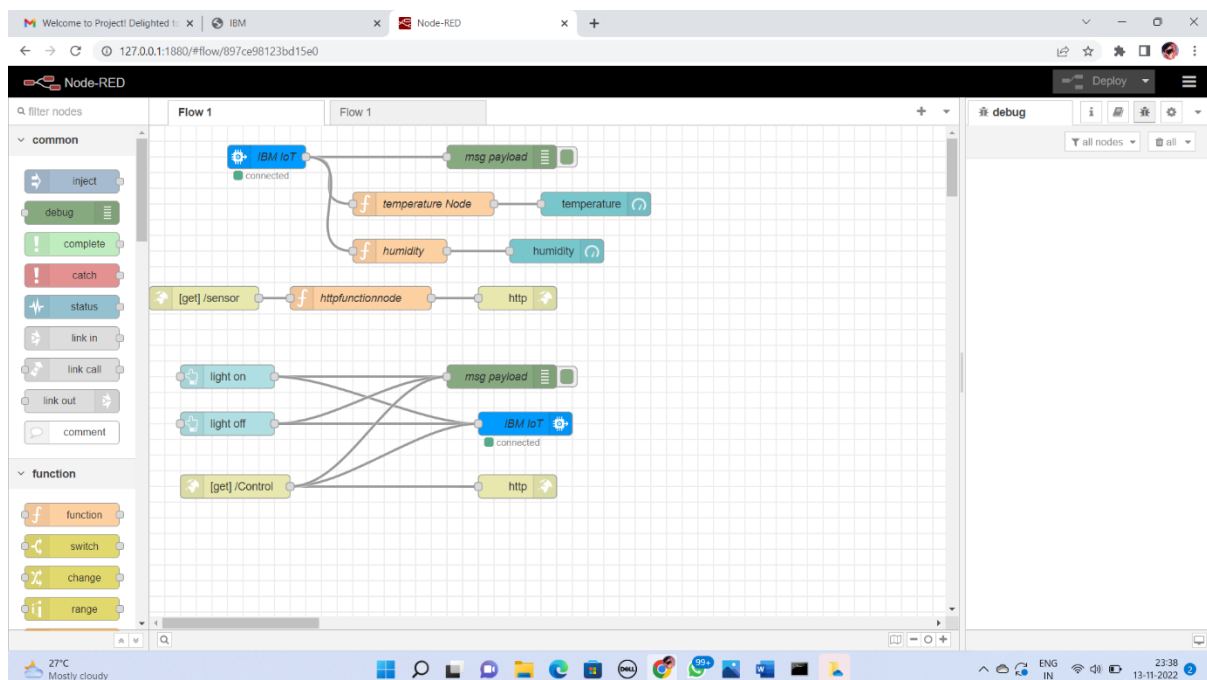


# Build A Web Application Using Node-Red

|              |   |
|--------------|---|
| Date         | 14 Nov 2022   |
| Team ID      | PNT2022TMID34110  |
| Project Name | SmartFarmer-IoT<br>Enabled Smart Farming<br>Application |

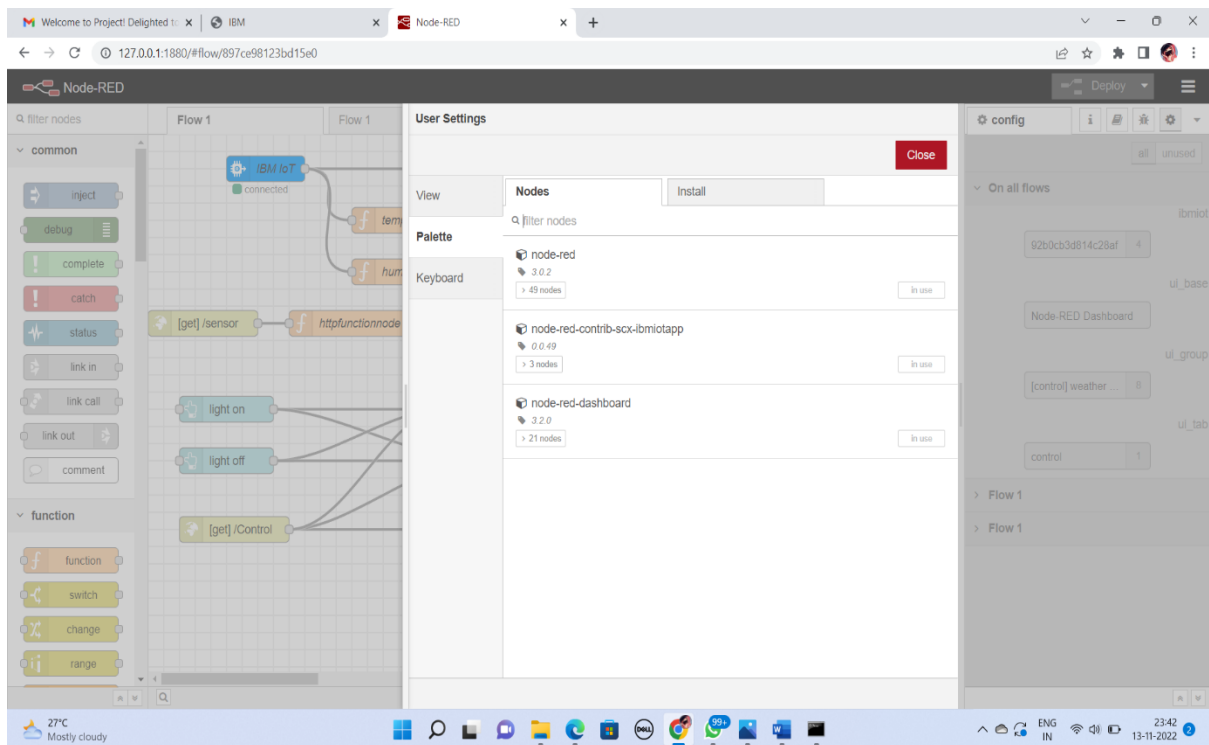
## Step-1:

Login into IBM Cloud and open your Node-Red app.



## Step-2:

For IBM Cloud connection you need certain nodes which can be installed by going to Manage Palette and then install required nodes.



## Step-3:

Now you can connect your cloud by entering API Credentials and enter device details.

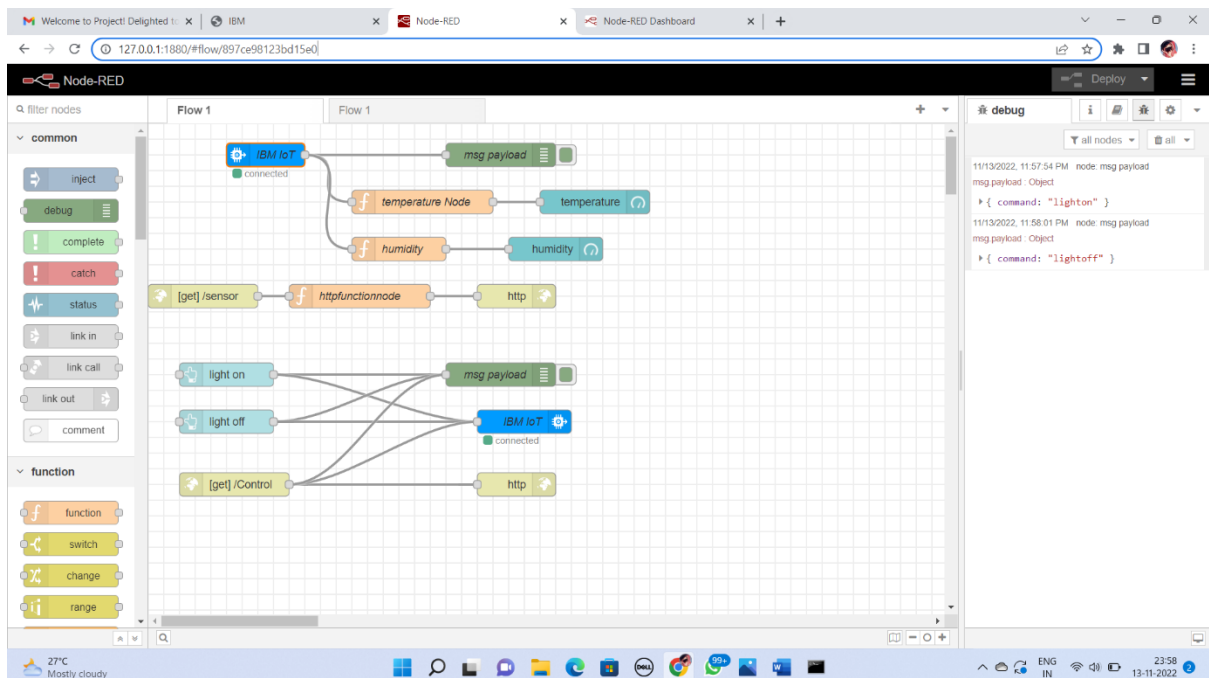
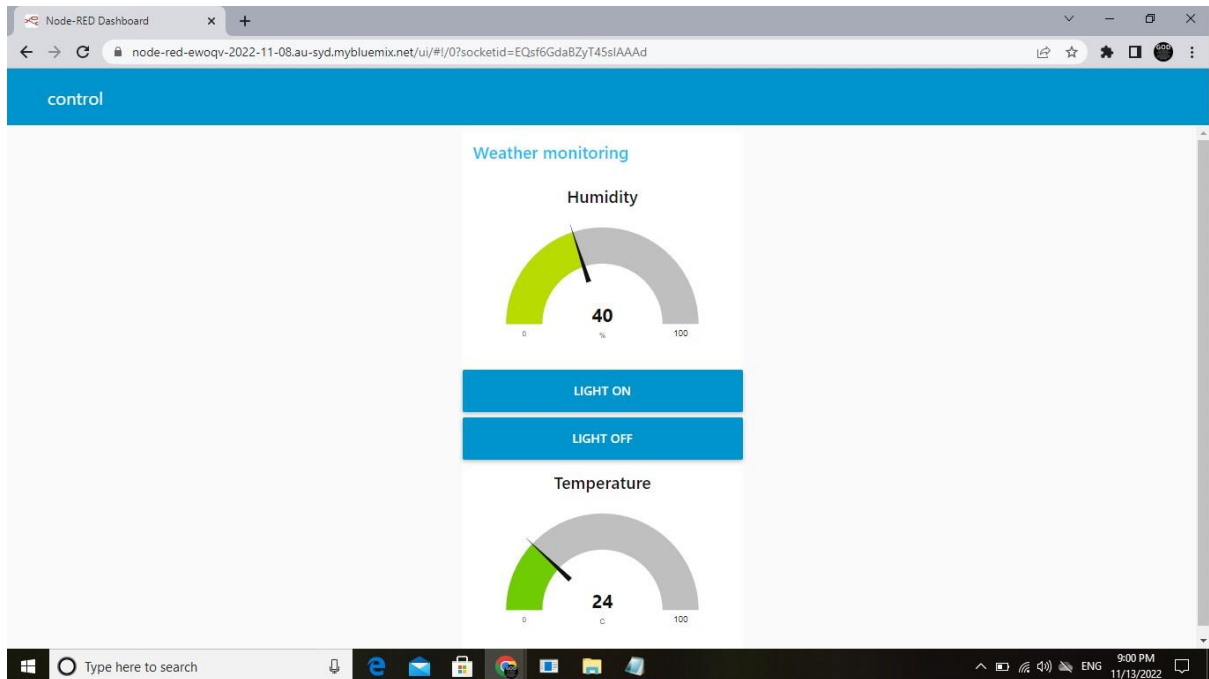
The screenshot displays the Node-RED web interface in a browser window. The main workspace shows a flow named 'Flow 1' with several nodes: an 'IBM IoT' node (connected), a 'msg payload' node, a 'temperature Node' function node, a 'humidity' function node, a '[get]/sensor' node, an 'httpfunctionnode' function node, an 'http' node, 'light on' and 'light off' nodes, and a '[get]/Control' node. The left sidebar contains 'common' and 'function' node categories. The right sidebar shows the 'config' tab with a list of nodes on all flows. The 'Edit ibmiot in node' dialog is open, showing the following configuration:

- Authentication:** API Key
- API Key:** 92b0cb3d814c28af
- Input Type:** Device Event
- Device Type:** All or janisha
- Device Id:** All or janishald
- Event:** All or +
- Format:** All or json
- QoS:** 0
- Name:** IBM IoT
- Service:** registered

A yellow note at the bottom of the dialog states: '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'. The bottom status bar shows the system clock as 23:46 on 13-11-2022.

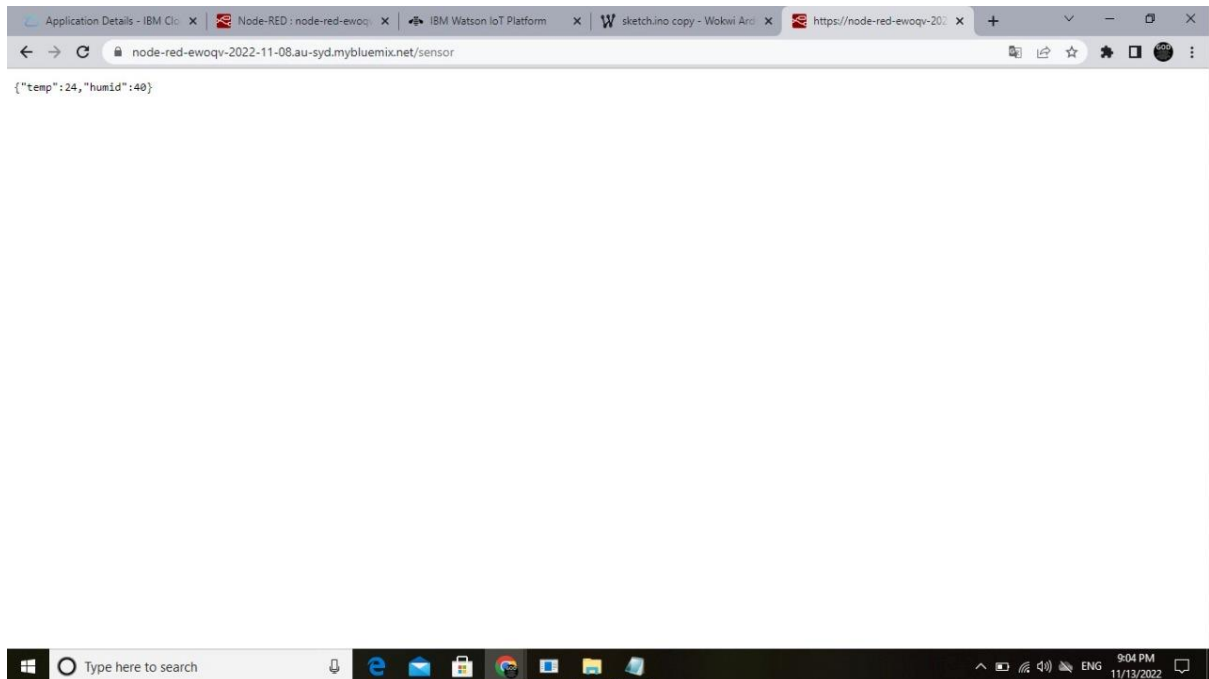
## Step-4:

You can see web ui by adding ui after your url.



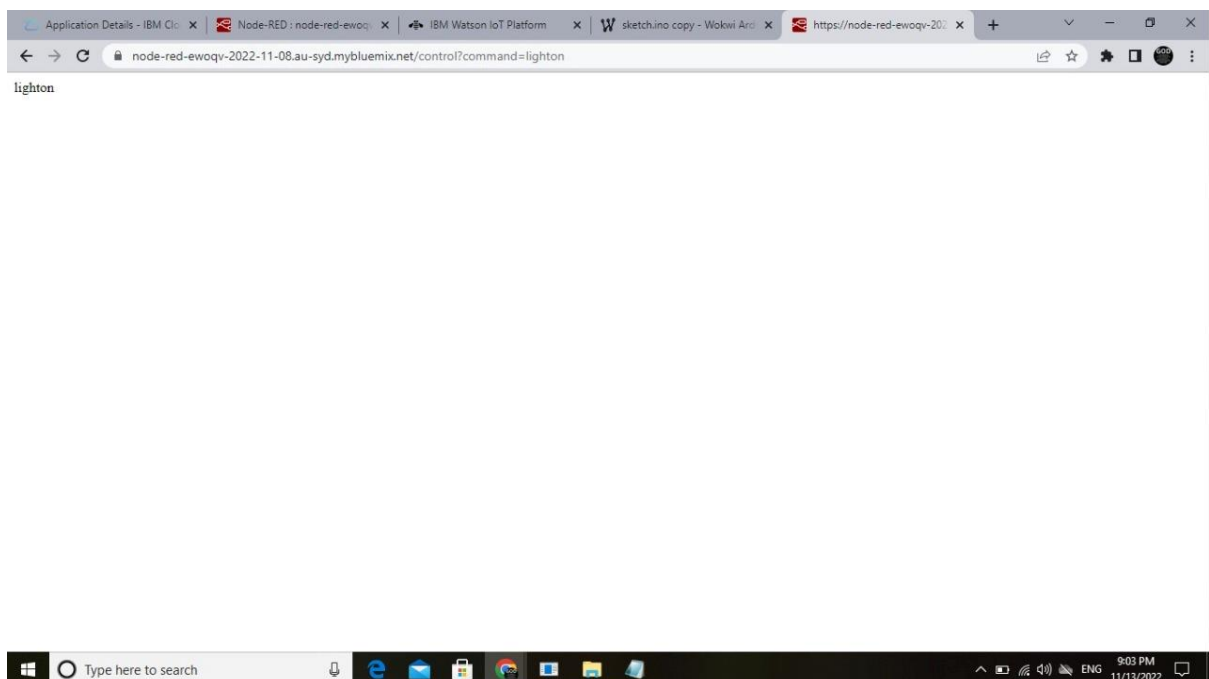
## Step-5:

Sending data through http url.



## Step-6:

Sending command through http url.



Service Details | IBM Watson IoT | IBM Cloud Account | Application Details | Node-RED: node | Node-RED Dashboard | MIT App Inventor |

node-red-ewoqv-2022-11-08.au-syd.mybluemix.net/red/#flow/878b2ab5a27aec23

### Node-RED

Deploy

filter nodes

link out

comment

function

- function
- switch
- change
- range
- template
- delay
- trigger
- filter
- OpenWhisk

Flow 1

msg.payload

temperature node

Temperature

Humidity

[get] /sensor

httpfunctionnode

http

Light on

Light off

msg payload

IBM IoT

[get] /control

http

debug

all nodes

all

11/8/2022, 4:56:17 PM node: 8cc0b8ac70557098  
msg.payload: string[8]  
"lightoff"

11/8/2022, 4:58:18 PM node: 8cc0b8ac70557098  
msg.payload: Object  
{ command: "lightoff" }

11/8/2022, 4:58:18 PM node: 8cc0b8ac70557098  
msg.payload: string[8]  
"lightoff"

11/8/2022, 4:58:19 PM node: 8cc0b8ac70557098  
msg.payload: Object  
{ command: "lighton" }

11/8/2022, 4:58:19 PM node: 8cc0b8ac70557098  
msg.payload: string[7]  
"lighton"

11/8/2022, 4:58:20 PM node: 8cc0b8ac70557098  
msg.payload: Object  
{ command: "lighton" }

11/8/2022, 4:58:20 PM node: 8cc0b8ac70557098  
msg.payload: string[7]  
"lighton"