

SPRINT - 3

Date	15 November 2022
Team ID	PNT2022TMID04642
Project Name	Smart Farmer-IoT Enabled Smart Farming Application

Configuring Node-Red

Ibm iot out node I used to send data from Node-Red to IBM Watson device. So, after adding it to the flow we need to configure it with credentials of our Watson device. Here we add two buttons in UI

1 -> for motor on

2 -> for motor off

We used a function node to analyses the data received and assign command to each number.

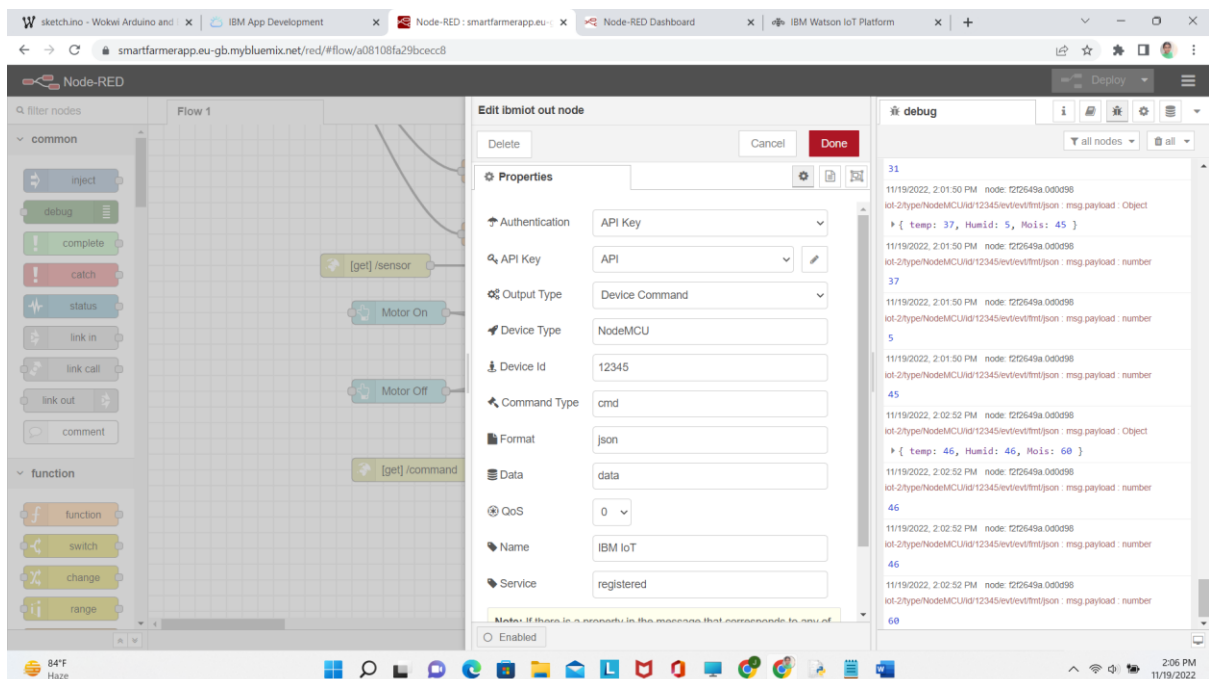
The Java script code for the analyses is:

```
if(msg.payload=="motoron")
```

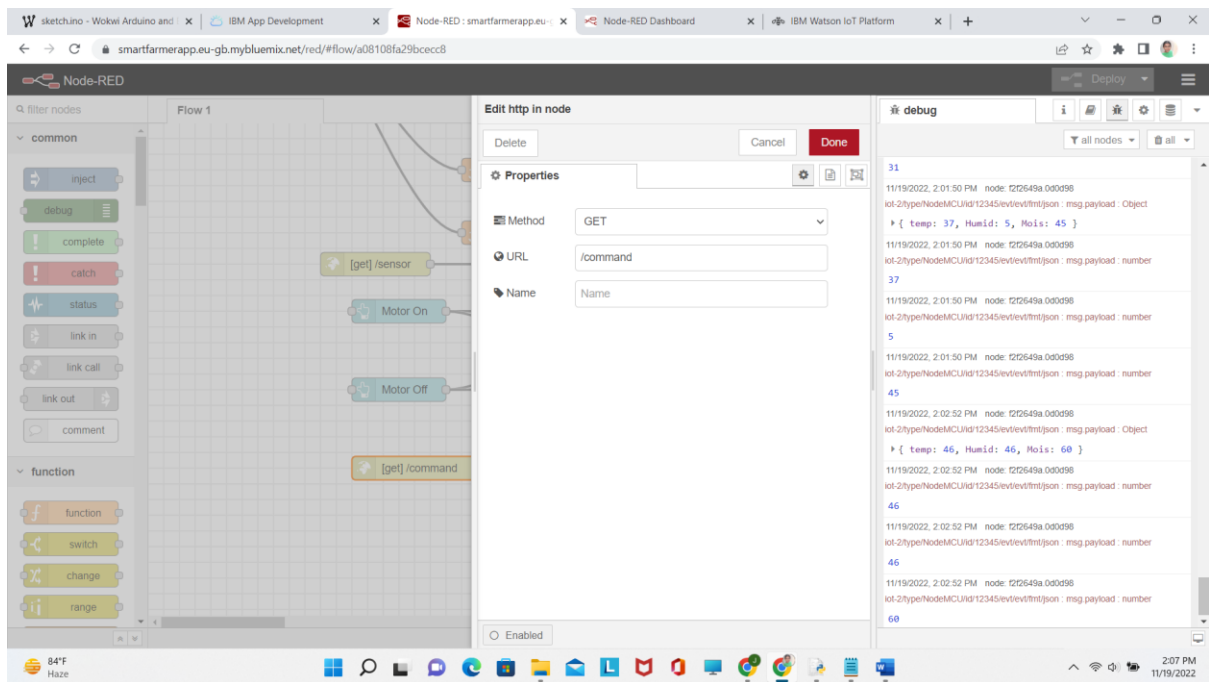
```
msg.payload={"command": "motoron"};
```

```
else if(msg.payload=="motoroff")
```

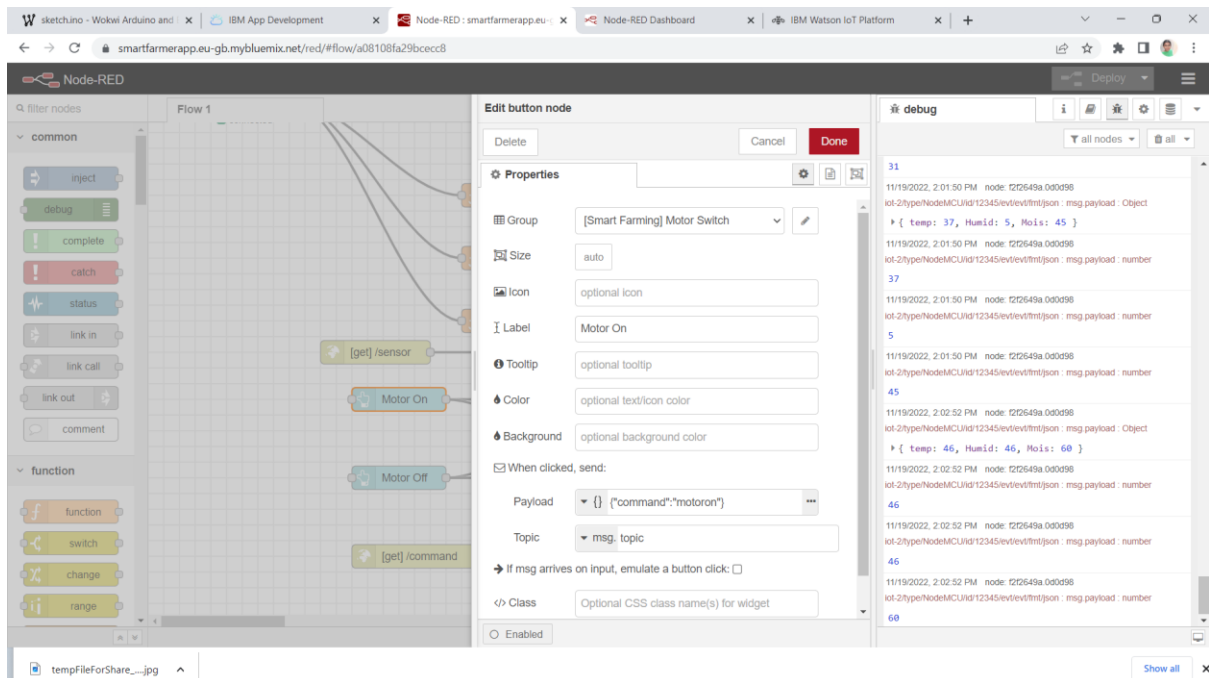
```
msg.payload={"command": "motoroff"};
```

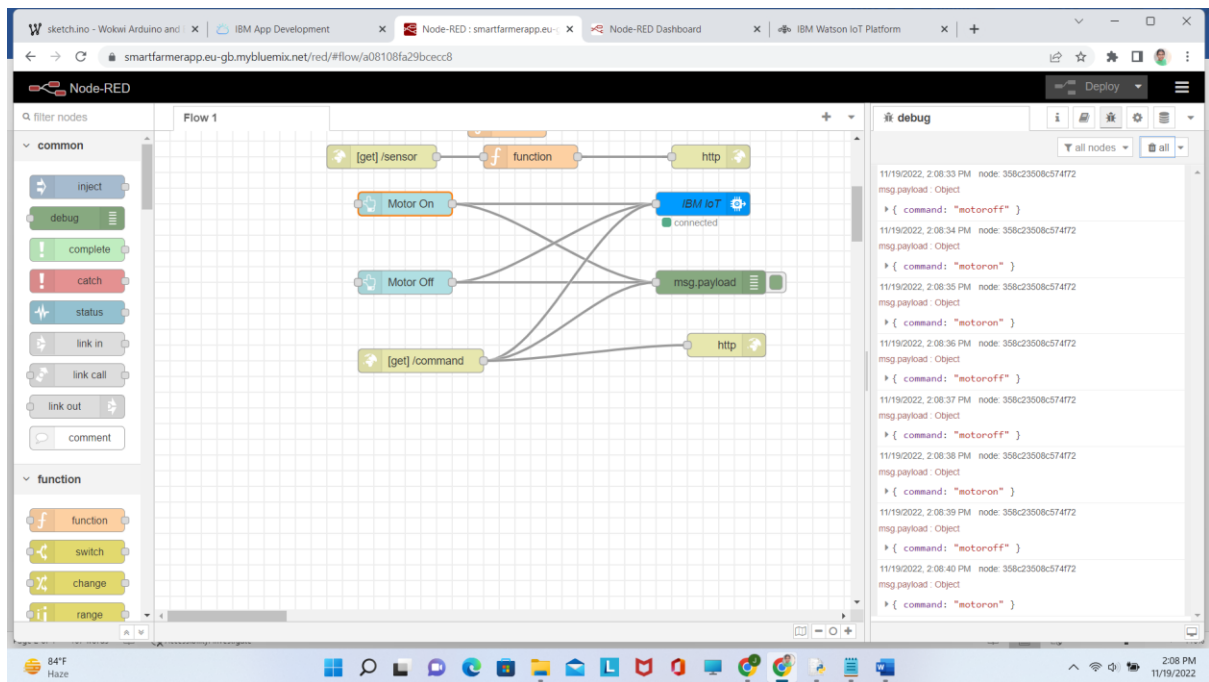


Node-RED interface showing a flow with nodes: inject, debug, complete, catch, status, link in, link call, link out, comment, function, switch, change, range. The flow is titled "Flow 1". The "Edit http in node" dialog is open, showing properties: Method (GET), URL (/command), and Name (Name). The debug console shows messages from the IoT-2 type NodeMCU, including temperature, humidity, and moisture data.



Node-RED interface showing a flow with nodes: inject, debug, complete, catch, status, link in, link call, link out, comment, function, switch, change, range. The flow is titled "Flow 1". The "Edit button node" dialog is open, showing properties: Group ([Smart Farming] Motor Switch), Size (auto), Icon (optional icon), Label (Motor On), Tooltip (optional tooltip), Color (optional text/icon color), Background (optional background color), and When clicked, send: Payload (*command:"motoron"), Topic msg.topic. The debug console shows messages from the IoT-2 type NodeMCU, including temperature, humidity, and moisture data.



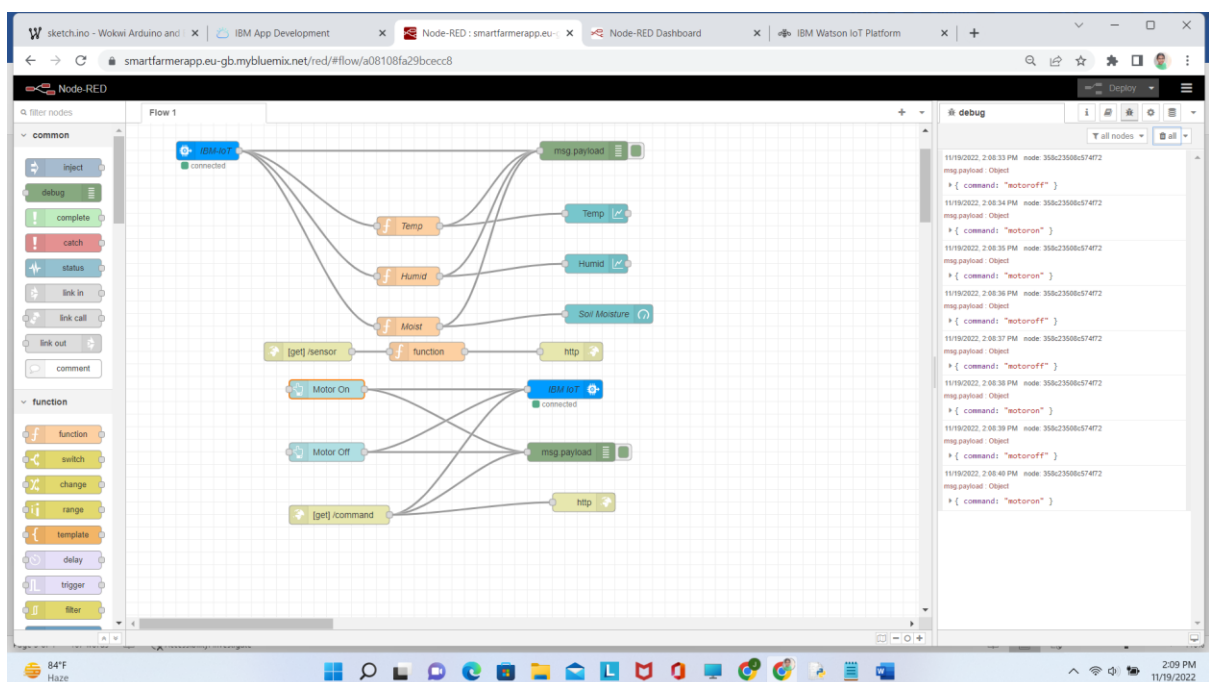


Adjusting User Interface

In order to display the parsed JSON data a Node-Red dashboard is created

Here we are using Gauges, text and button nodes to display in the UI and helps to monitor the parameters and control the farm equipment. Below images are the Gauge, text and button node configuration.

Program Flow



Mobile App

