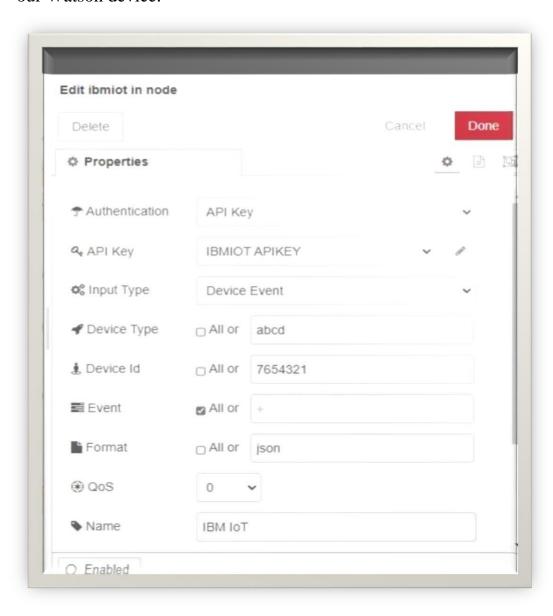# IOT ENABLED SMART FARMING APPLICATION

SPRINT DELIVERY – 3

TEAM ID:PNT2022TMID12813

Configuration of Node-Red to send commands to IBM cloud

ibmiot 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 the 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 analyse the data received and assign commands to each number.
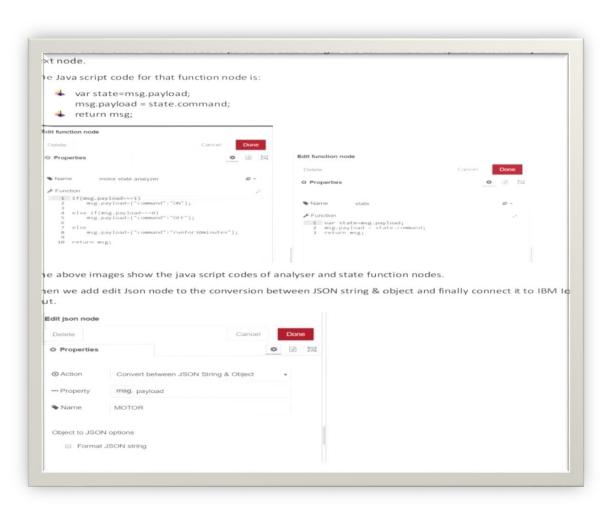
The Javascript code for the analyses is:
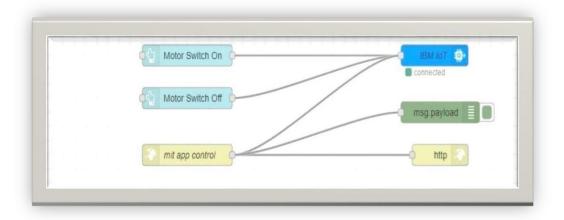
if(msg.payload===1)

msg.payload={"command":

"ON"};else

        if(msg.payload===0
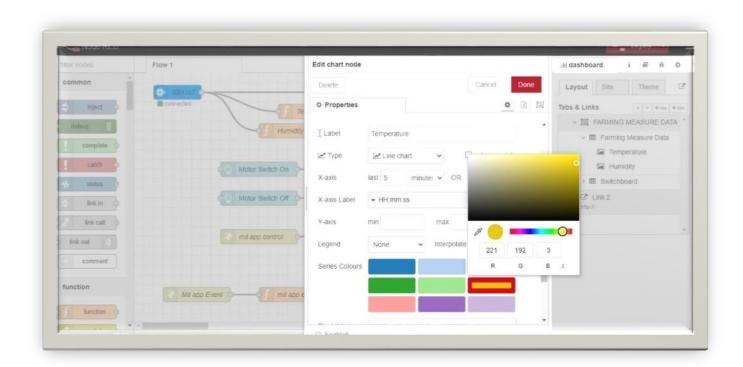
)msg.payload={"command":

The above images show the java script codes of analyser and state function nodes.

Then we add edit Json node to the conversion between JSON string & object and finally connect it to IBM I out.

"OFF"};

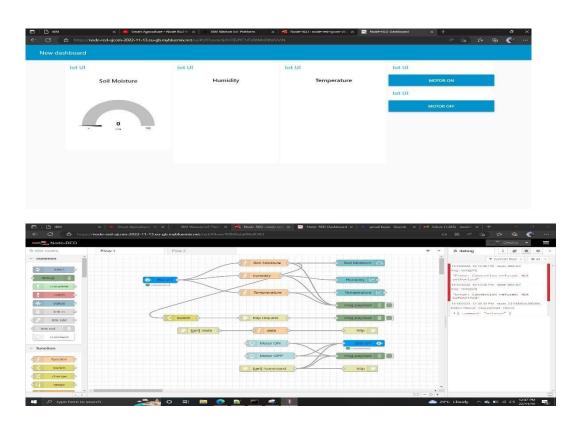This is the program flow for sending commands to IBM the cloud.

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 help to monitor the parameters and control the farm equipment.
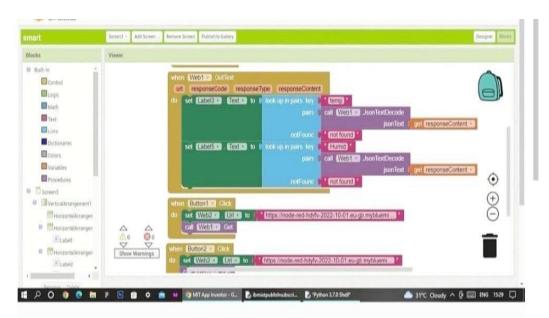
Below images are the Gauge, text and button node configurations.

COMPLETE PROGRAM FLOW

MOBILE APP WEB :

APPLICATION PAGE:

SMART AGRICULTURE

TEMPERATURE
45

HUMIDITY
92

MOISTURE
97

MOTOR OFF

MOTOR ON