

SPRINT 3

TEAM ID	PNT2022TMID018038
PROJECT NAME	Smart Farmer - IoT Enabled Smart Farming Application
Date	12 November 2022

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 credentials of our Watson device.

The screenshot shows the configuration window for the 'ibmiot' node in Node-Red. The window title is 'Edit ibmiot in node > Edit ibmiot node'. At the top, there are three buttons: 'Delete', 'Cancel', and 'Update' (highlighted in red). Below the buttons is a 'Properties' tab with a gear icon and a document icon. The configuration fields are as follows:

- Name:** API
- API Key:** a-3Inltf-mwywupc9w1
- API Token:**
- Server-Name:** orgid.messaging.internetofthings.ibmcloud.com
- Scalable:** ☐
- Application ID:** (empty field)
- Keep Alive:** 60 Seconds
- Use Clean Session:** ☒

1 -> for motor on

2 -> for motor off

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

The Java script code for the analyses is:

```
if(msg.payload===1) msg.payload={"command": "ON"};
```

```
else if(msg.payload===0) msg.payload={"command": "OFF"};
```

Then we use another function node to parse the data and get the command and represent it visually with text node.

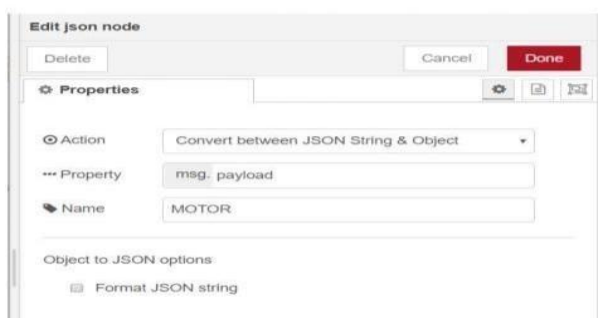
The Java script code for that function node is:

```
var state=msg.payload;  
msg.payload = state.command;  
return msg;
```

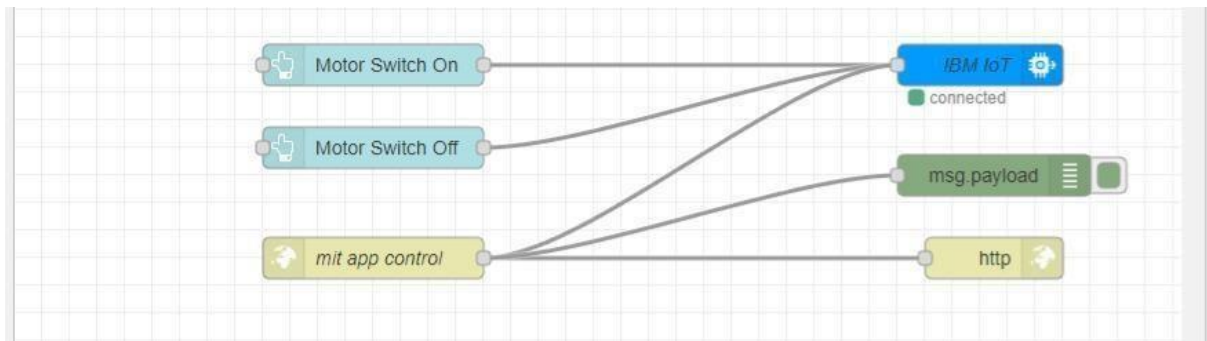


The above images show the java script codes of analyser and state function nodes.

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

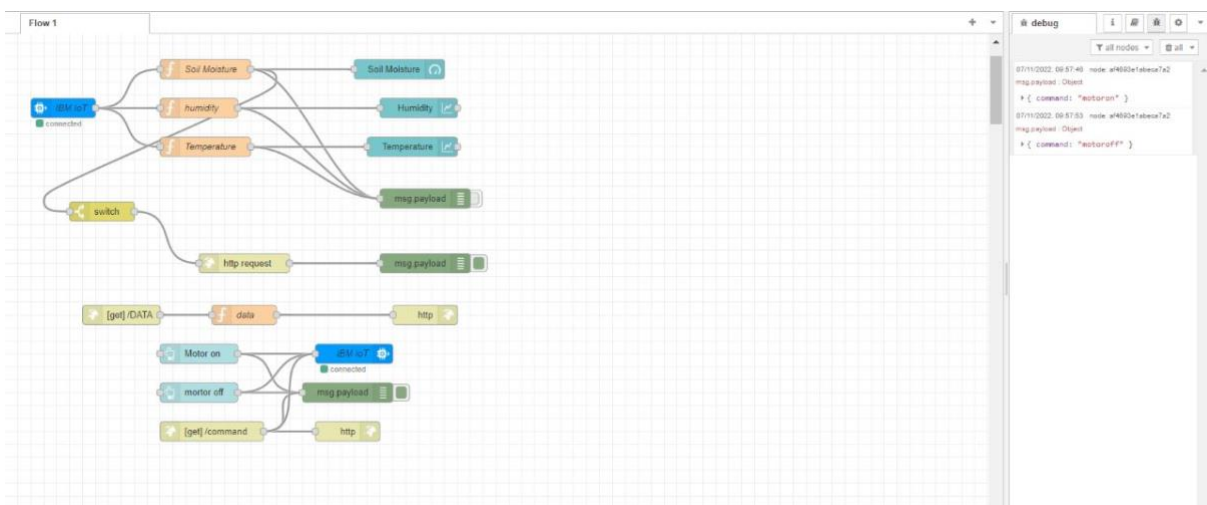


Edit JSON node needs to be configured like this

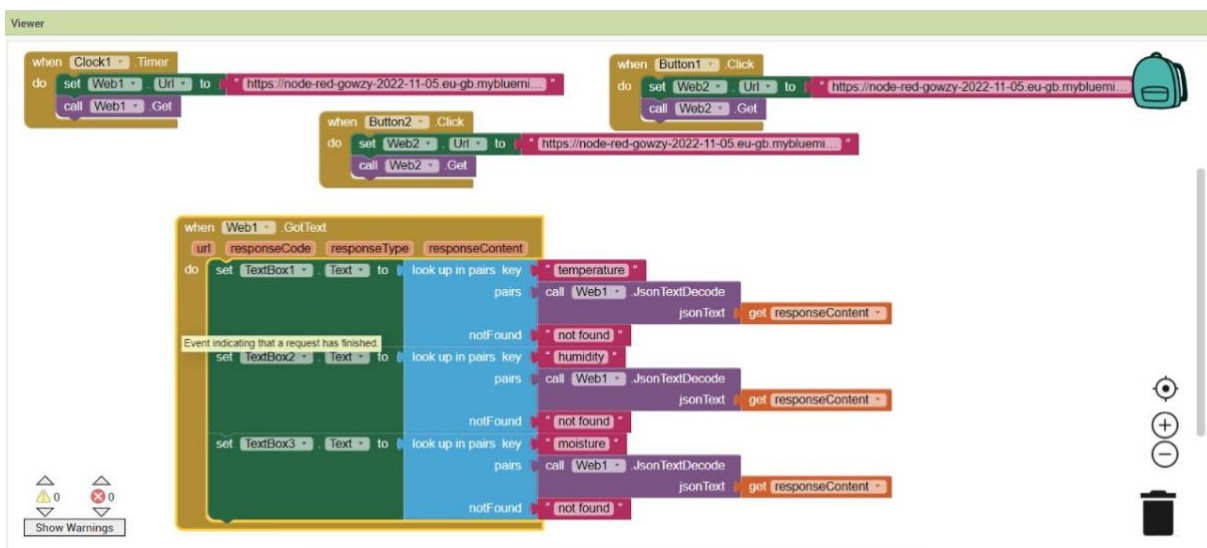


This is the program flow for sending commands to IBM cloud.

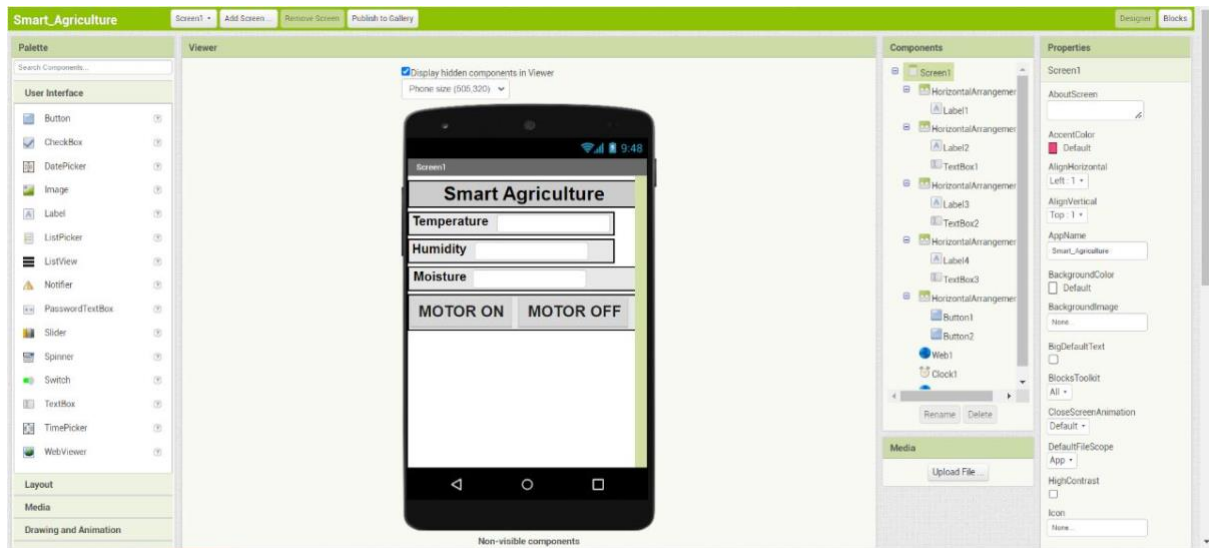
Complete Program Flow



MOBILE APP WEB:



SCREEN :



Web APP UI Home Tab:

