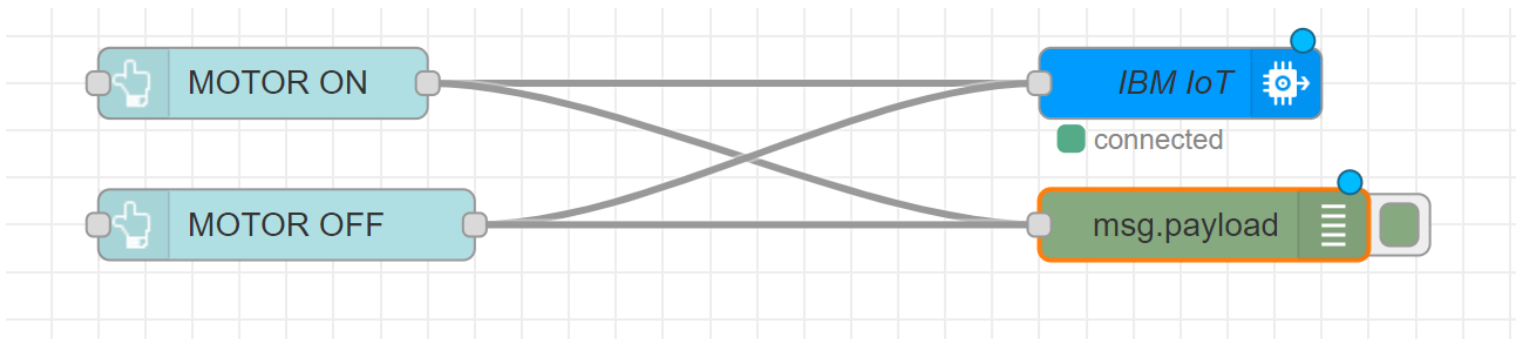


SPRINT– 3

Date	12 NOVEMBER 2022
Team ID	PNT2022TMID04665
Project Name	Smart Farmer-IoT Enabled smartFarming Application

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.
- Here we add two buttons in UI



- Edit the properties of ibmiot out node

SMART FARMER

Edit ibmiot out node

Delete Cancel Done

Properties

- Authentication: API Key
- API Key: fa2f1240609e4267
- Output Type: Device Command
- Device Type: SMART
- Device Id: 15
- Command Type: cmd
- Format: json
- Data: data
- QoS: 0
- Name: IBM IoT
- Service: registered

☐ Enabled

- Edit the properties of Motor ON Button node

Edit button node

Delete Cancel Done

Properties

- Group: [SMART FARMER] MOTOR CONTR(
- Size: auto
- Icon: optional icon
- Label: MOTOR ON
- Tooltip: optional tooltip
- Color: optional text/icon color
- Background: optional background color
- When clicked, send:
 - Payload: {"command":"motoron"}
 - Topic: msg. topic
- If msg arrives on input, emulate a button click: ☐

☐ Enabled

- Edit the properties of Motor OFF Button node

Delete
Cancel
Done

⚙️ Properties

⚙️
📄
🔍

Group
[SMART FARMER] MOTOR CONTR

Size
auto

Icon
optional icon

Label
MOTOR OFF

Tooltip
optional tooltip

Color
optional text/icon color

Background
optional background color

☒ When clicked, send:

Payload
{"command":"motoroff"}

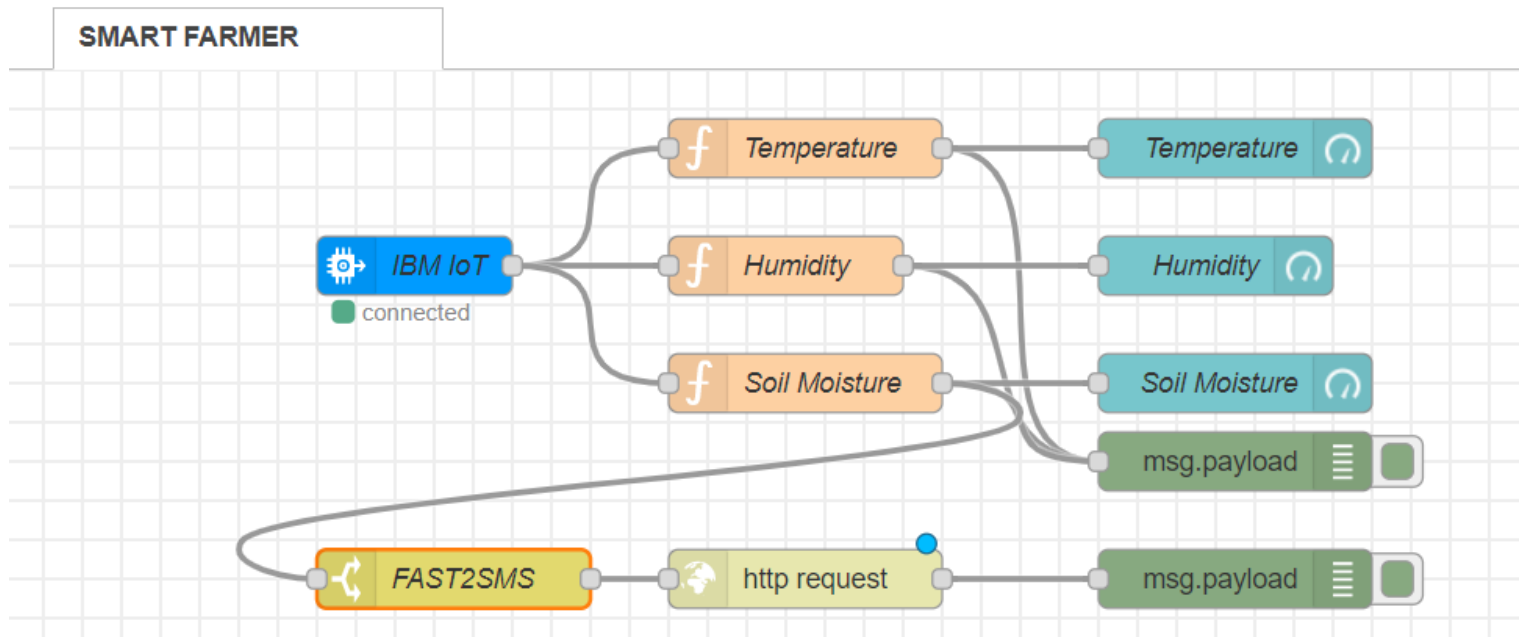
Topic
msg. topic

➔ If msg arrives on input, emulate a button click:
☐

☐ Enabled

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

Configuration of Node – Red with FAST2SMS :



- Edit the properties of FAST2SMS Switch node
 - If Soil Moisture is Less than 50, it will send the message to the particular number.

Edit switch node

Delete Cancel Done

Properties

Name FAST2SMS

Property msg. payload

☐ <= ☐ 50 → 1

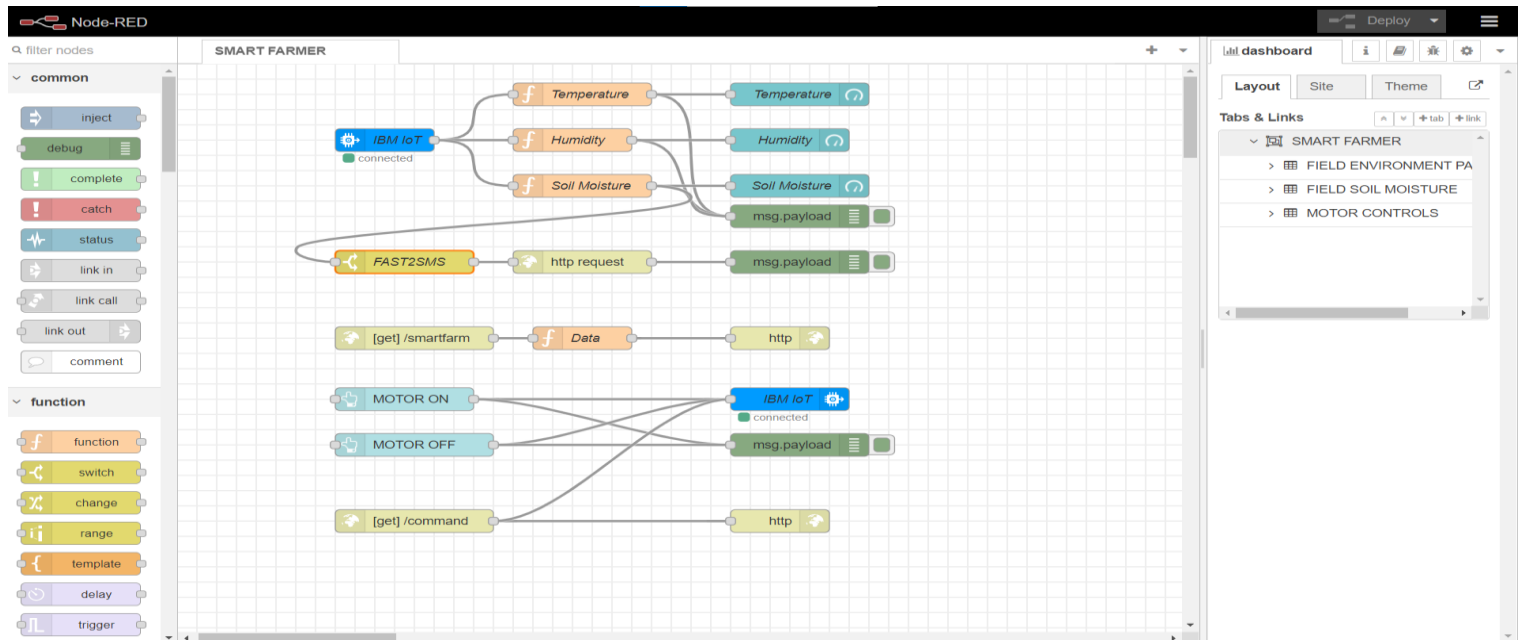
+ add

checking all rules

☐ recreate message sequences

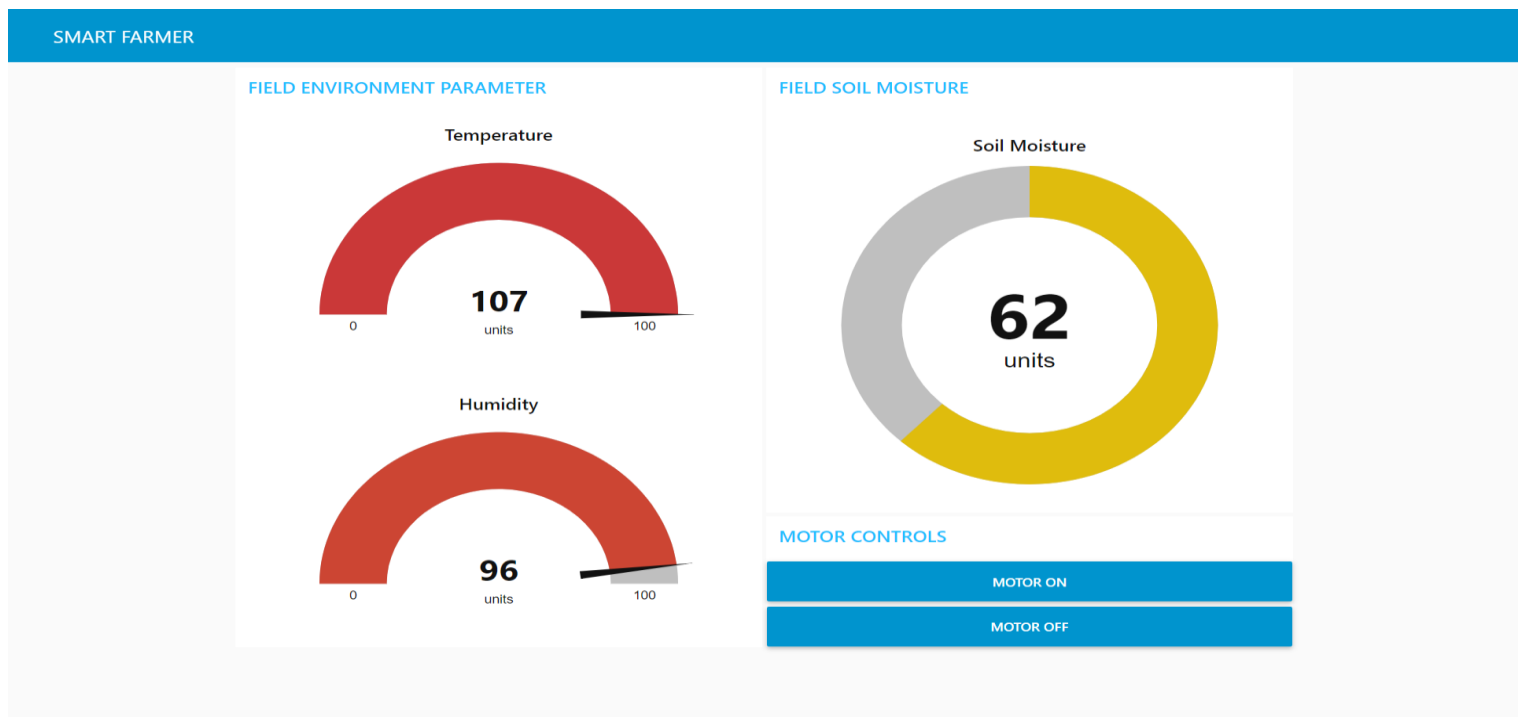
Enabled

Node – Red Complete Program Flow:



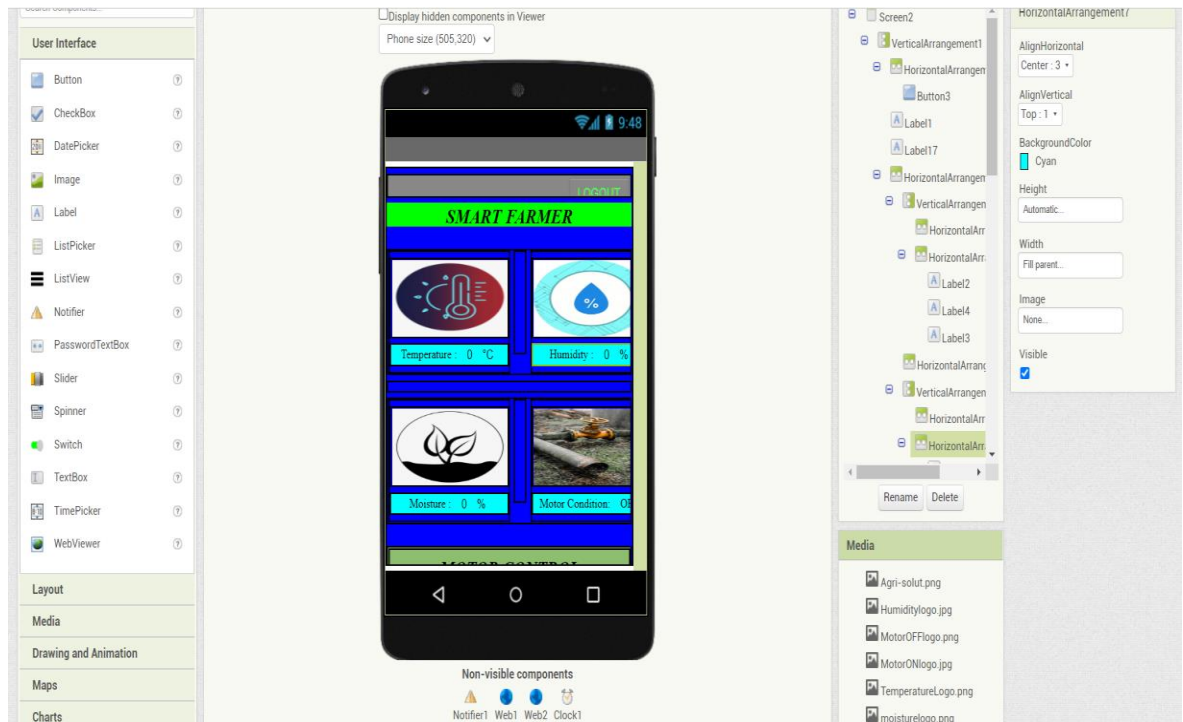
Node – Red Dashboard (WEB APP UI):

- In order to display the parsed JSON data a Node-Red dashboard is created.
- Below images are the Gauge, text and button node configurations.

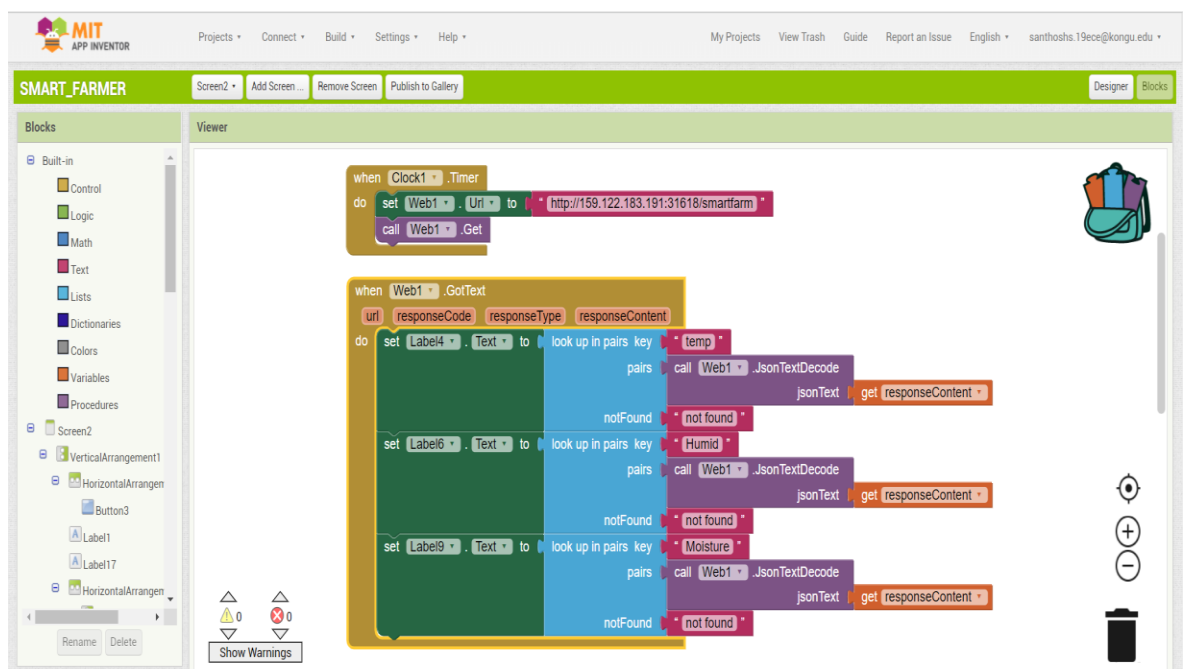


MOBILE APP :

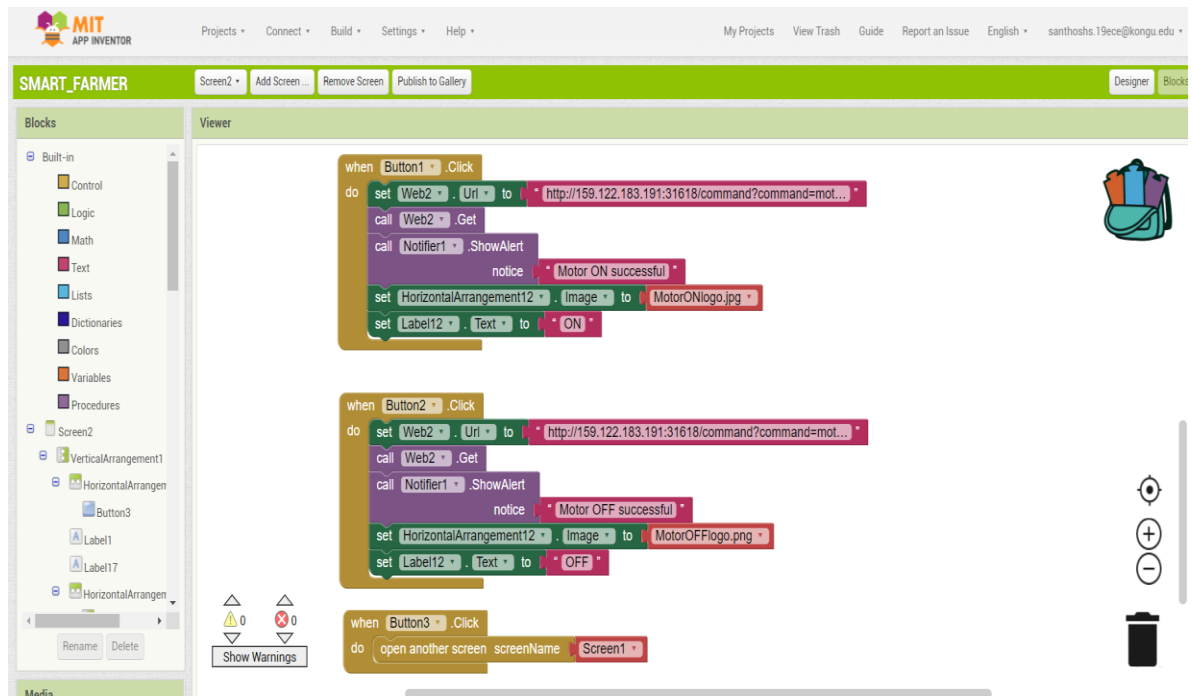
- MIT APP INVENTOR
 - Designer part



- Blocks Part



○ Button function Blocks



○ Mobile App



