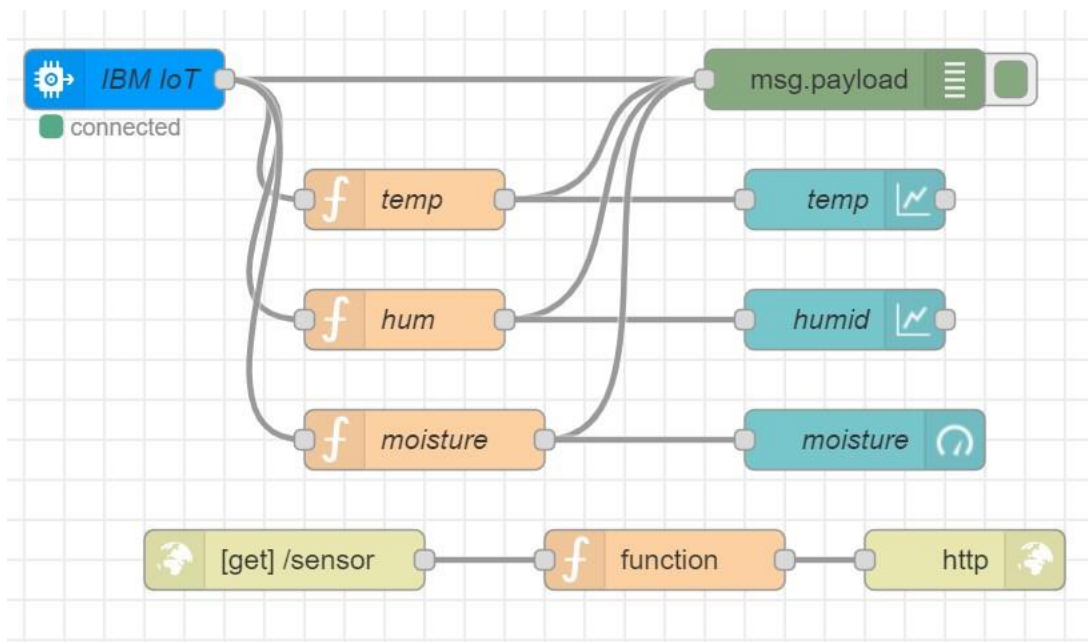


SPRINT – 4

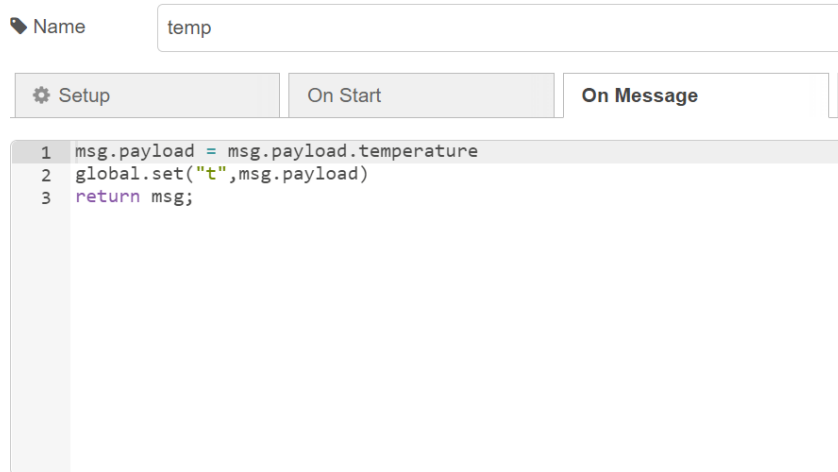
SMART FARMER – IOT ENABLED SMART FARMING APPLICATION

Date	19 NOVEMBER 2022
Team ID	PNT2022TMID04701
Project Name	Smart Farmer-IoT Enabled smart Farming Application

CONNECTION OF MIT WITH IBM WATSON:



1.The temperature function is set as global variable as



2.Same as temperature humidity and moisture also set as global variable for easy access.

```
msg.payload = msg.payload.humidity
global.set ("h", msg.payload)
```

```
msg.payload = msg.payload.moisture
global.set ("m", msg.payload)
```

3.HTTP request and HTTP response also attached in order to obtain input data from the MIT application.

4.URL from Node-red is analyzed and whether it access the data locally is checked.

Cannot GET /sensor

5. When the URL is connected to the Node-red.



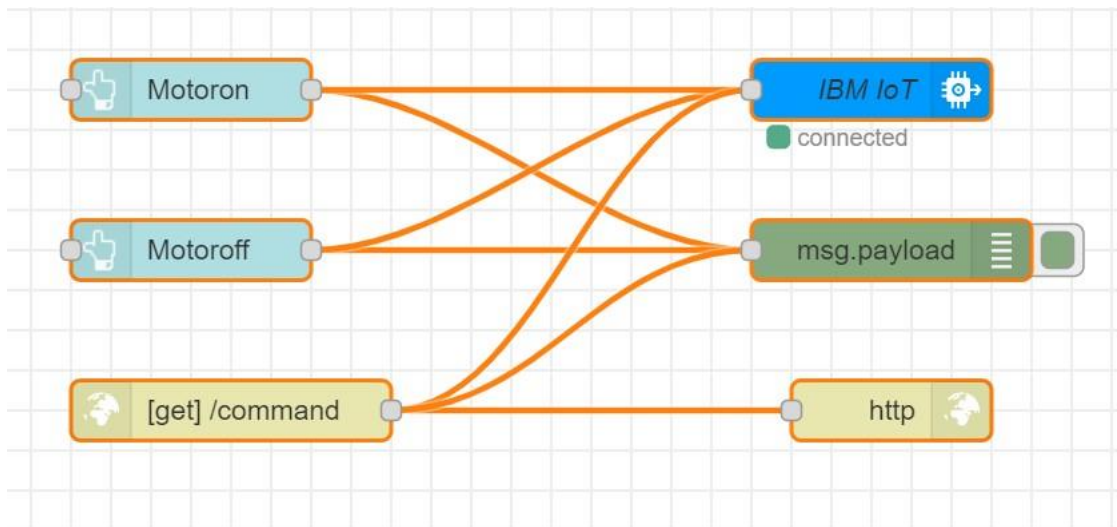
6. While connecting the URL and deploying the following data is displayed

URL: <https://node-red-mhovah-2022-11-18.eu-gb.mybluemix.net/command?command=Motoroff>

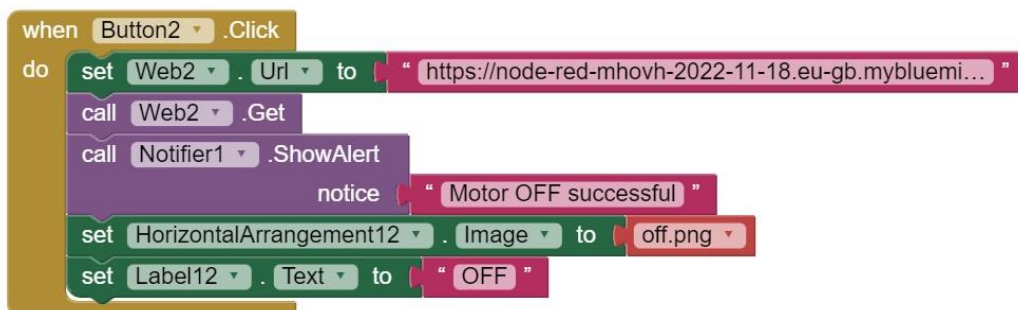
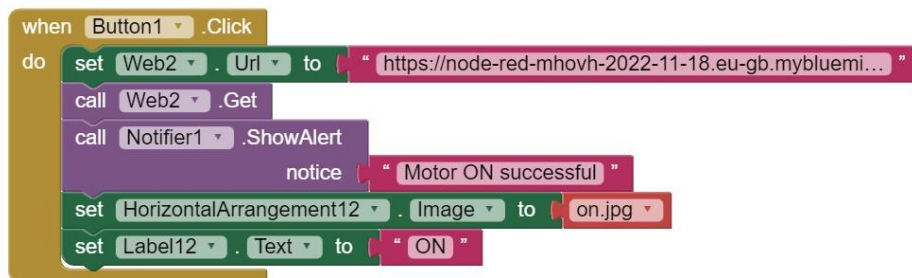
{"command": "Motoroff"}

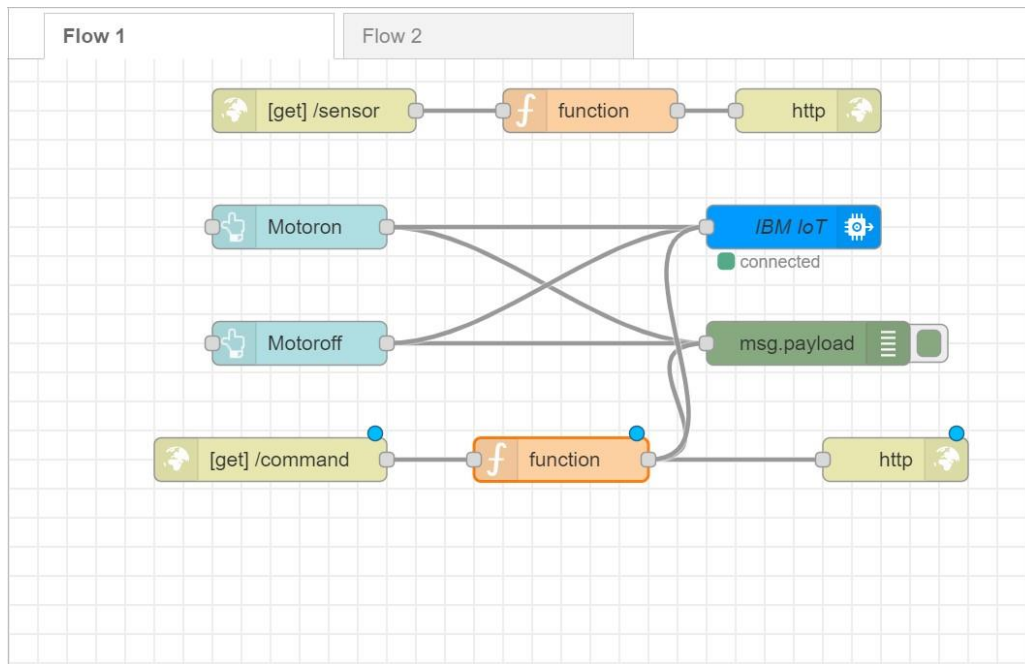
URL: <https://node-red-mhovah-2022-11-18.eu-gb.mybluemix.net/command?command=Motoron>





7.Copy the link and paste it in the button 1 and 2 of screen 2





PYTHON CODE RUNNING:

1. After when the Application connection is completed and the integration successful, the application is connected to mobile phone.

2. When the “Motoron” switch is touched in the mobile phone it shows “motor is on” in the python code.

3. When the “Motoroff” switch is touched in the mobile phone it shows “motor is off” in the python code.

RESULTS:

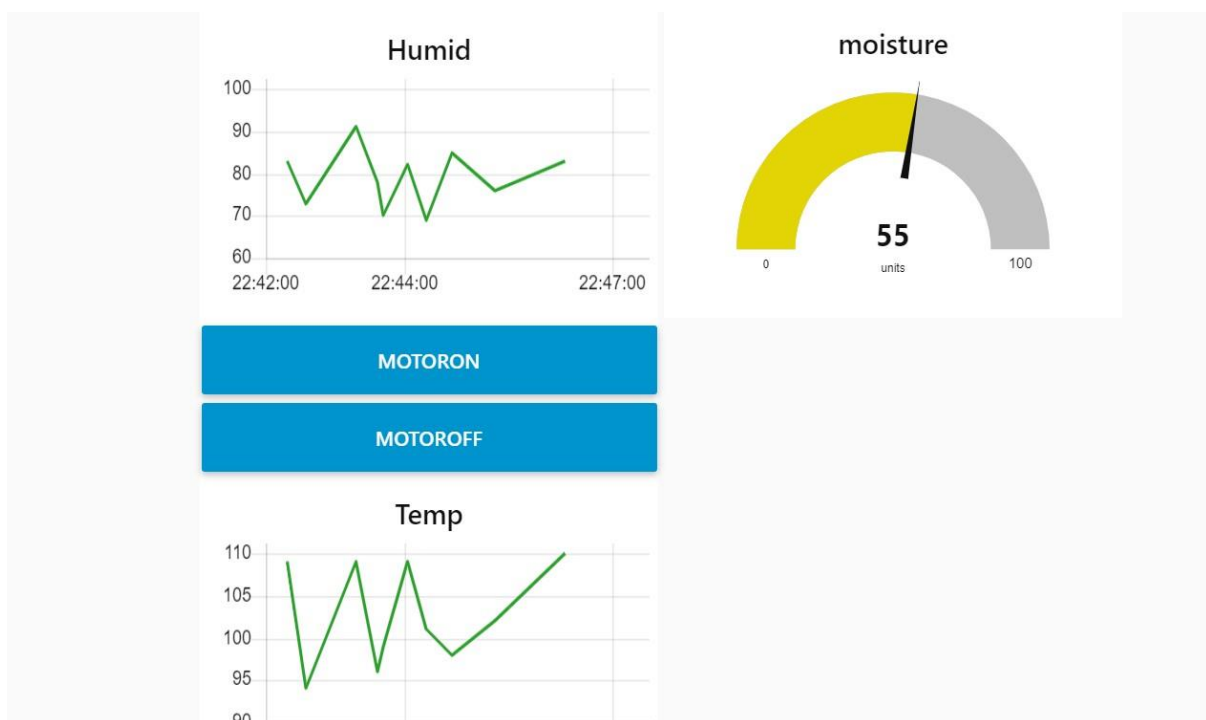
```

Command received: Motoron
Motor is on
Published Temperature = 84 C Humid
Command received: Motoroff
Motor is off
Published Temperature = 35 C Humid
Command received: Motoron
Motor is on
Command received: Motoroff
Motor is off
Command received: Motoron
Motor is on
Command received: Motoroff
Motor is off
Published Temperature = 9 C Humid
Command received: Motoron
Motor is on
Command received: Motoroff
Motor is off
Command received: Motoron
Motor is on
Published Temperature = 6 C Humid
Command received: Motoroff
Motor is off
Command received: Motoroff
Motor is off

```

DATA RECEIVED:

Event	Value	Format	Last Received
event_1	{"moisture":55,"temperature":110,"humidity":83}	json	a few seconds ago



ADVANTAGES:

- 1.Field can be monitored easily in the absence of farmers
- 2.Less labour cost
- 3.Soil moisture can be easily measured
- 4.Better standards of living

DISADVANTAGES:

- 1.Network connection is mandatory
- 2.Farmers must have awareness about use of smart phones and mobile application

