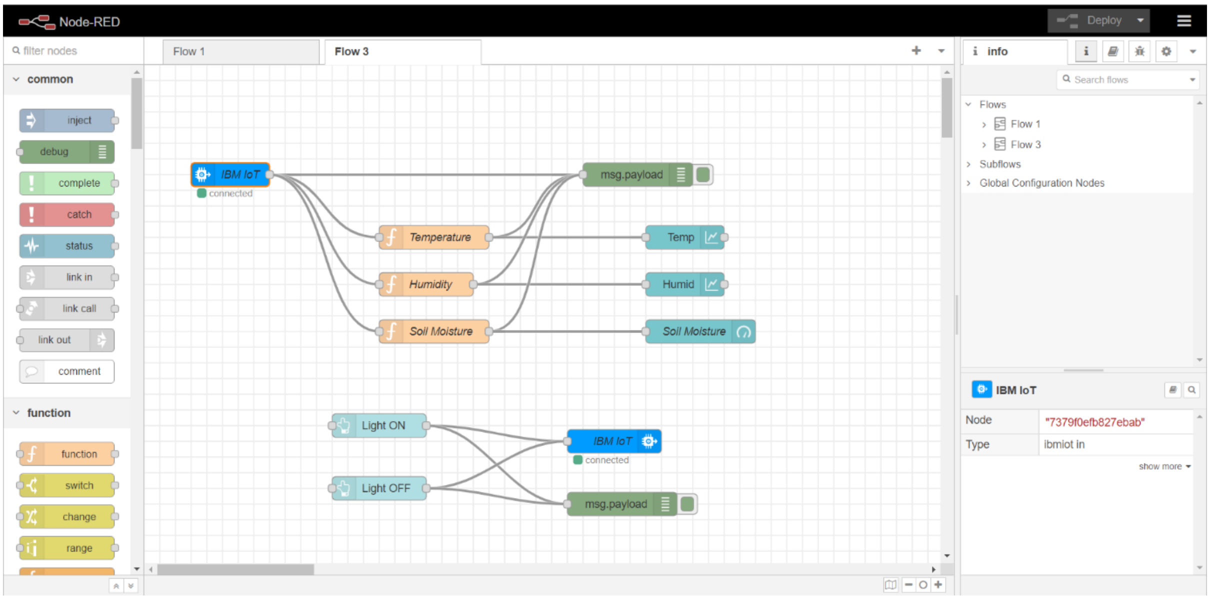
SPRINT 3

DATE	**14 November 2022**
TEAM ID	**PNT2022TMID04713**
PROJECT NAME	**IOT BASED SMART CROP PROTECTION FOR AGRICULTURE**
MAXIMUM MARK	**20 MARKS**

STEP 1: Simulated program to get the random values.



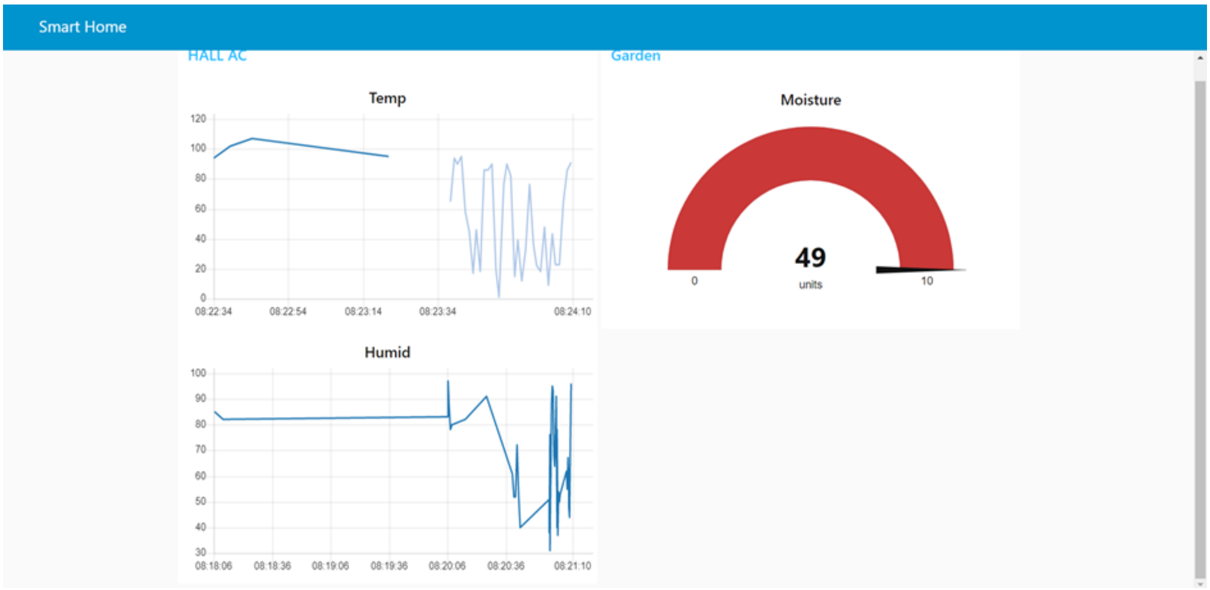
Node	"7379f0efb827ebab"
Type	ibmiot in

STEP 2: Code for the program to get values.

```
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random

#Provide your IBM Watson Device Credentials
organization = "628kfx"
deviceType = "Abcsaran"
deviceId = "12"
authMethod = "token"
authToken = "12345678"

# Initialize GPIO
```

```
def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
    status=cmd.data['command']
    if status=="lighton":
        print ("led is on")
    else :
        print ("led is off")
   #print(cmd)

try:
deviceOptions = {"org": organization, "type": deviceType, "id": deviceId, "auth-
method": authMethod, "auth-token": authToken}
deviceCli = ibmiotf.device.Client(deviceOptions)
#..............................................

except Exception as e:
print("Caught exception connecting device: %s" % str(e))
sys.exit()

# Connect and send a datapoint "hello" with value "world" into the cloud as an event
of type "greeting" 10 times
deviceCli.connect()
while True:
        #Get Sensor Data from DHT11

        temp=random.randint(0,100)
        Humid=random.randint(0,100)

        data = { 'temp' : temp, 'Humid': Humid }
        #print data
        def myOnPublishCallback():
            print ("Published Temperature = %s C" % temp, "Humidity = %s %%" %
Humid, "to IBM Watson")

        success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0,
on_publish=myOnPublishCallback)
        if not success:
            print("Not connected to IoTF")
        time.sleep(1)

        deviceCli.commandCallback = myCommandCallback

# Disconnect the device and application from the cloud
deviceCli.disconnect()
```

STEP 3: Generate some output from recent events


Smart Home
HALL AC
Temp
120
100
80
60
40
20
0
08:22:34
08:22:54
08:23:14
08:23:34
08:24:10
Humid
100
90
80
70
60
50
40
30
08:18:06
08:18:36
08:19:06
08:19:36
08:20:06
08:20:36
08:21:10
Garden
Moisture
49
units
0
10