DEVELOP A PYTHON SCRIPT TO PUBLISH AND SUBSCRIBE IBM IOT PLATFORM

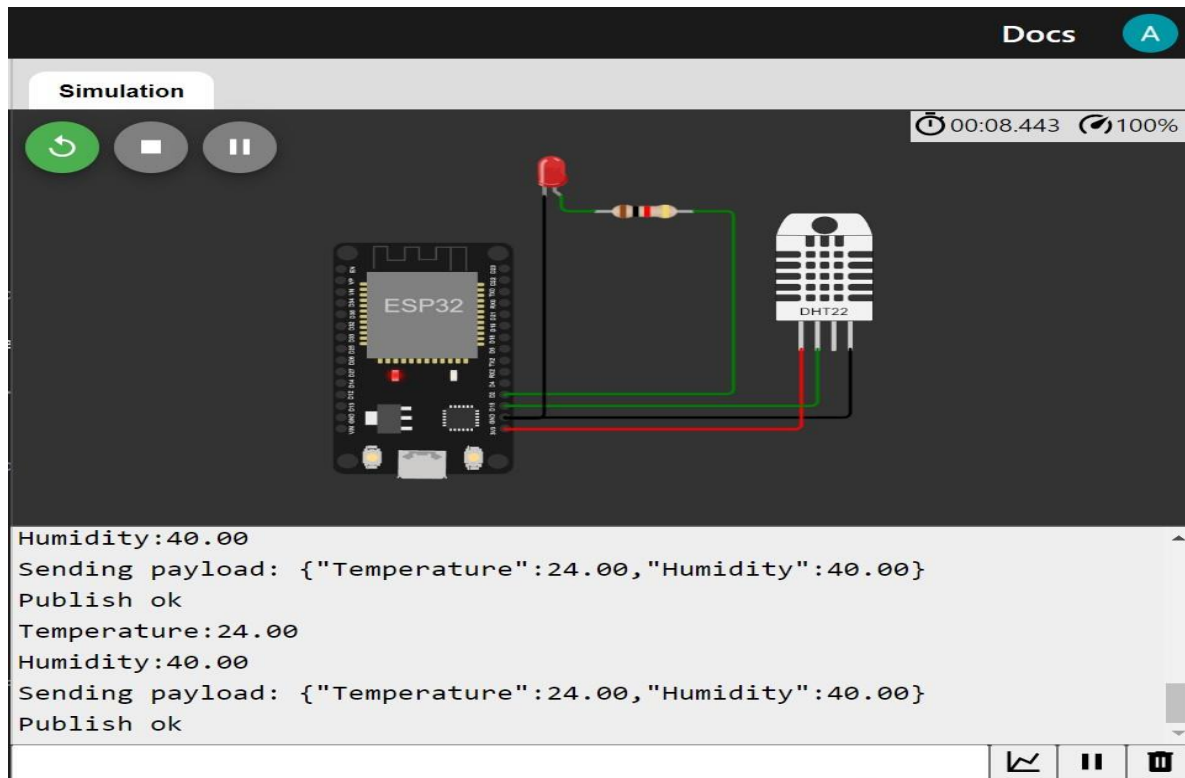| DATE	18 November 2022
TEAM ID	PNT2022TMID04755
PROJECT NAME	SmartFarmer – IOT Enabled Smart Farming Application

PYTHON SCRIPT TO PUBLISH RANDOM SENSOR DATA:

```python
import wiotp.sdk.device
import time
import OS
import datatime
import random
myConfig = {
    "identity": {
        "orgId": "flippr",
        "typeId": "ESP32_Controller",
        "deviceId" : "BME280_Sensor"
    },
    "auth": {
        "token": "C-4ZDzZOLNhQ11Ckzr"
    }
}
client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()

def myCommandCallback(cmd):
        Print("Message received from IBM IoT platform: %s" % cmd.data['command'])
        m=cmd.data['command']
        if(m=="motoron"):
                Print("Motor is switched on")
        elif(m=="motoroff"):
         Print(" ")
while True:
    soil=random.randint(0,100)
    temp=random.randint(-20,125)
    hum=random.randint(0,100)
    myData= {'soil_moisture':soil, 'temperature':temp, 'humidity':hum}
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,
onPublish=None)
     Print("Published data Successfully: %s", myData)
     time.sleep(2)
     client.commandCallback = myCommandcallback
client.disconnect()
```

CONNECT SENSOR AND ESP32:

SIMULATION RESULT IN IBM CLOUD: