SPRINT DELIVERY – IV

Project Name: SmartFarmer-Iot Enabled SmartFarming Application.
Team ID: PNT2022TMID32489

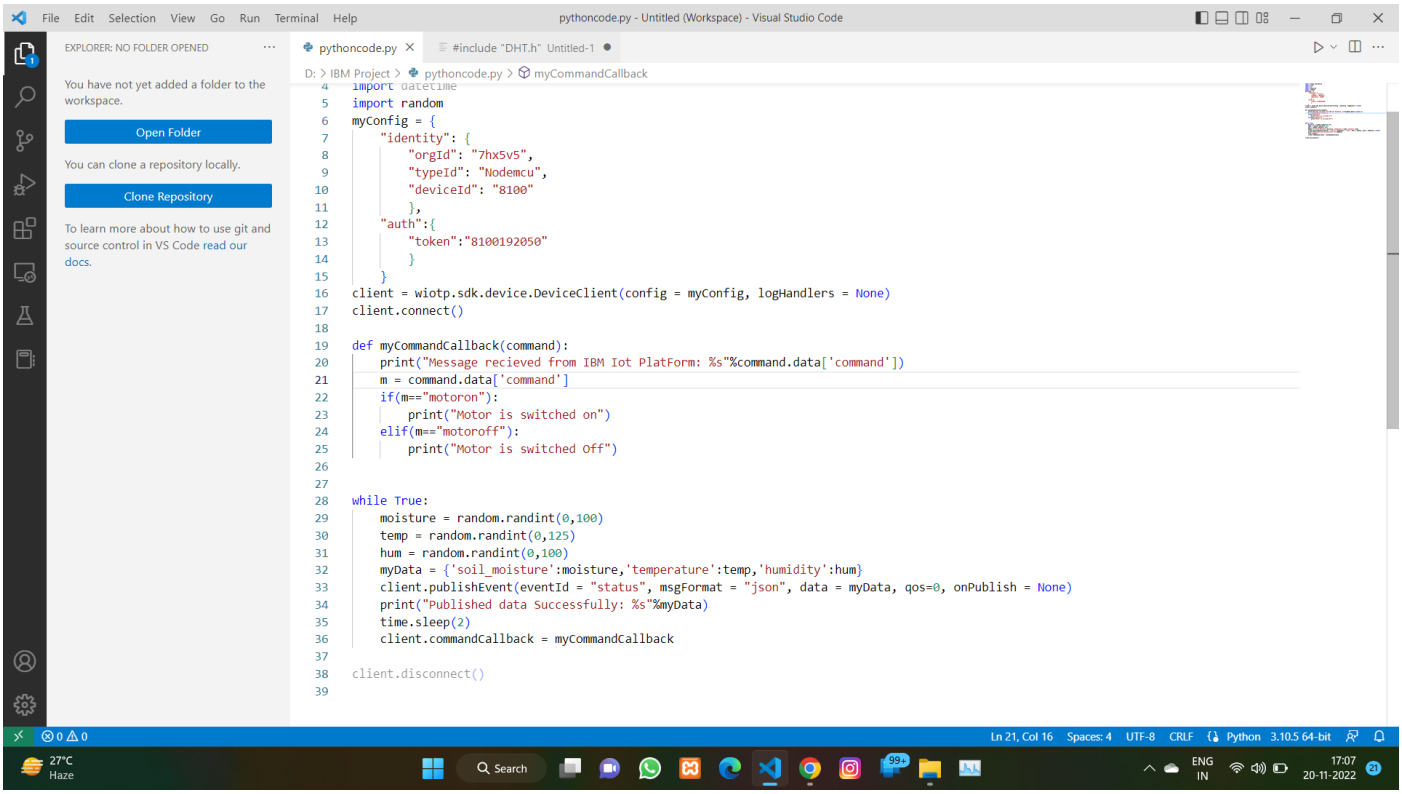
Develop A Mobile Application

- ✓ Node-Red Contains /Data and /Command Requests
- ✓ /Data command is used to access the MIT App Inventor
- ✓ /Command is used to send and receive the Motor Control response and request(on/off)
- ✓ Every one second the parameter is update
- ✓ App inventor contains blocks, with these help of these blocks we can build our application

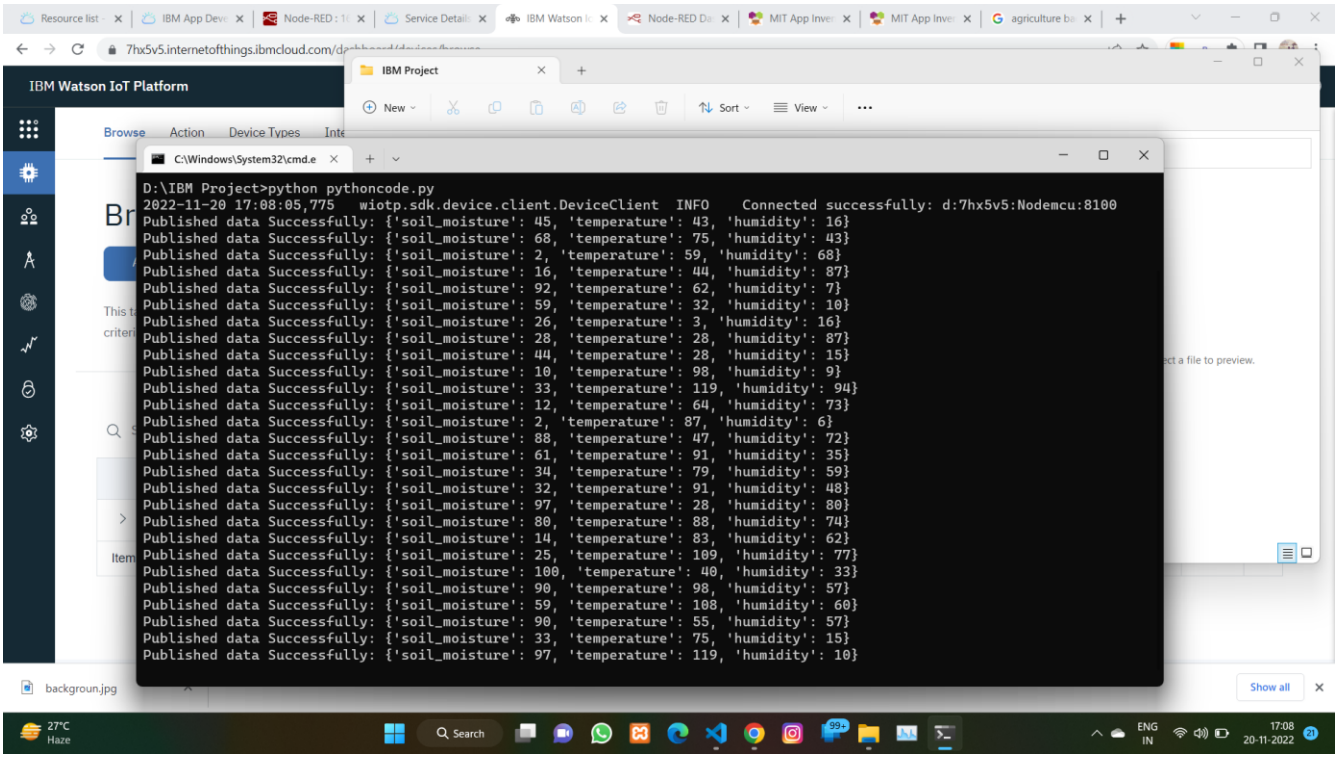
Source Code

```
import wiotp.sdk.device
import time
import os
import datetime
import random
myConfig = {
"identity": {
"orgId": "7hx5v5",
"typeId": "Nodemcu",
"deviceId": "8100"
},
"auth":{
"token":"8100192050"
}
}
client = wiotp.sdk.device.DeviceClient(config = myConfig, logHandlers = None)
client.connect()
def myCommandCallback(command):
print("Message recieved from IBM Iot PlatForm:
%s"%command.data['command'])
m = command.data['command']
if(m=="motoron"):
print("Motor is switched on")
elif(m=="motoroff"):
print("Motor is switched Off")
while True:
moisture = random.randint(0,100)
temp = random.randint(0,125)
hum = random.randint(0,100)
```

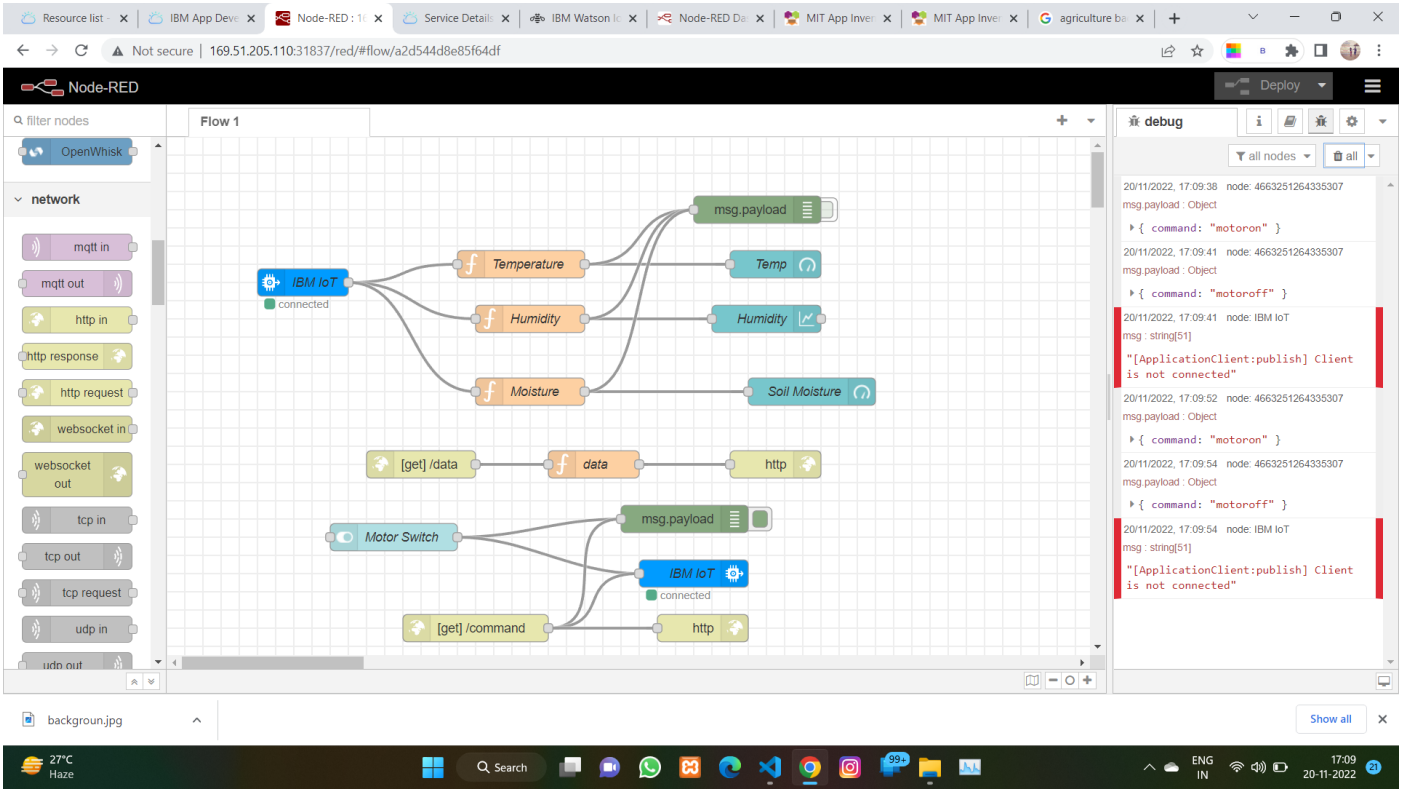
```
myData = {'soil_moisture':moisture,'temperature':temp,'humidity':hum}
client.publishEvent(eventId = "status", msgFormat = "json", data = myData,
qos=0, onPublish = None)
print("Published data Successfully: %s"%myData)
time.sleep(2)
client.commandCallback = myCommandCallback
client.disconnect()
```



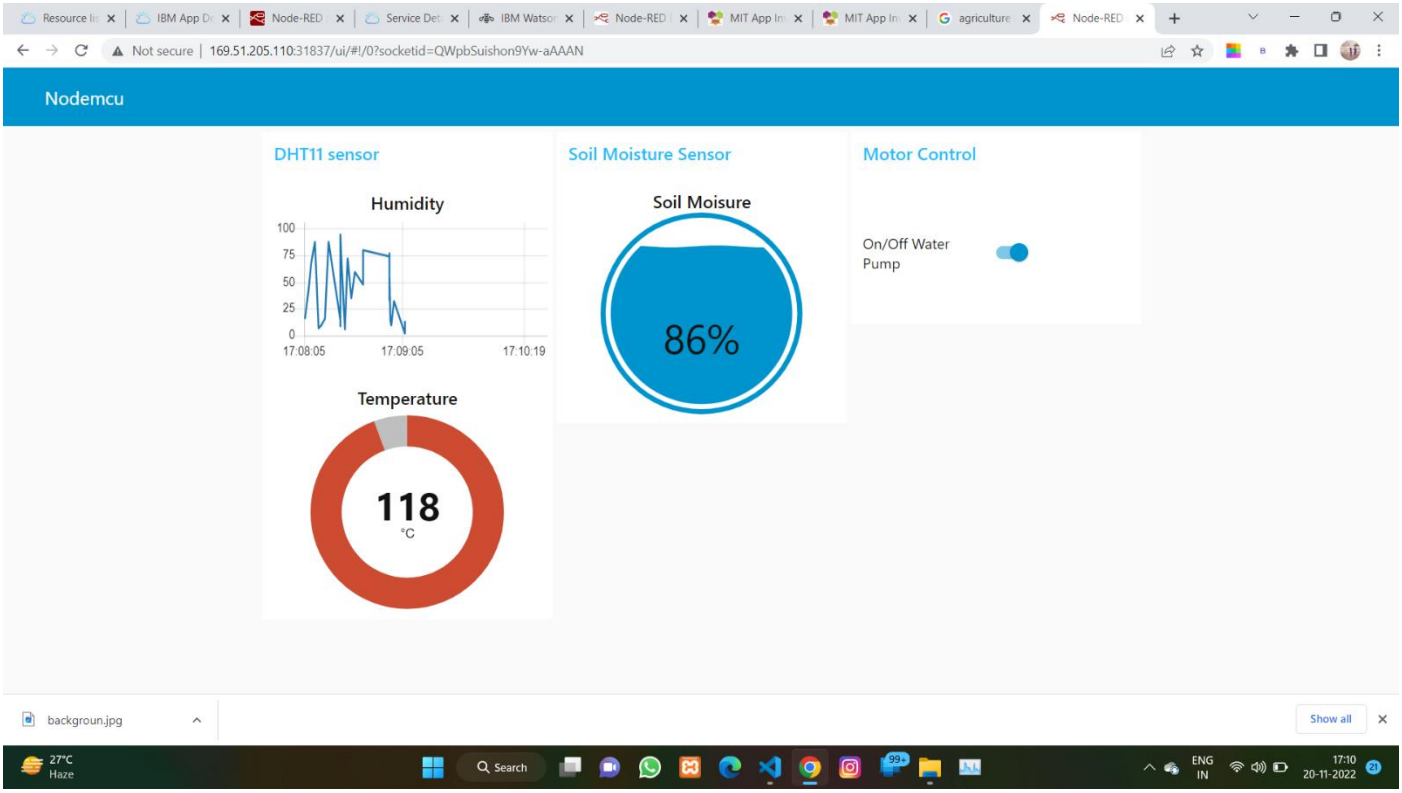
Command Line

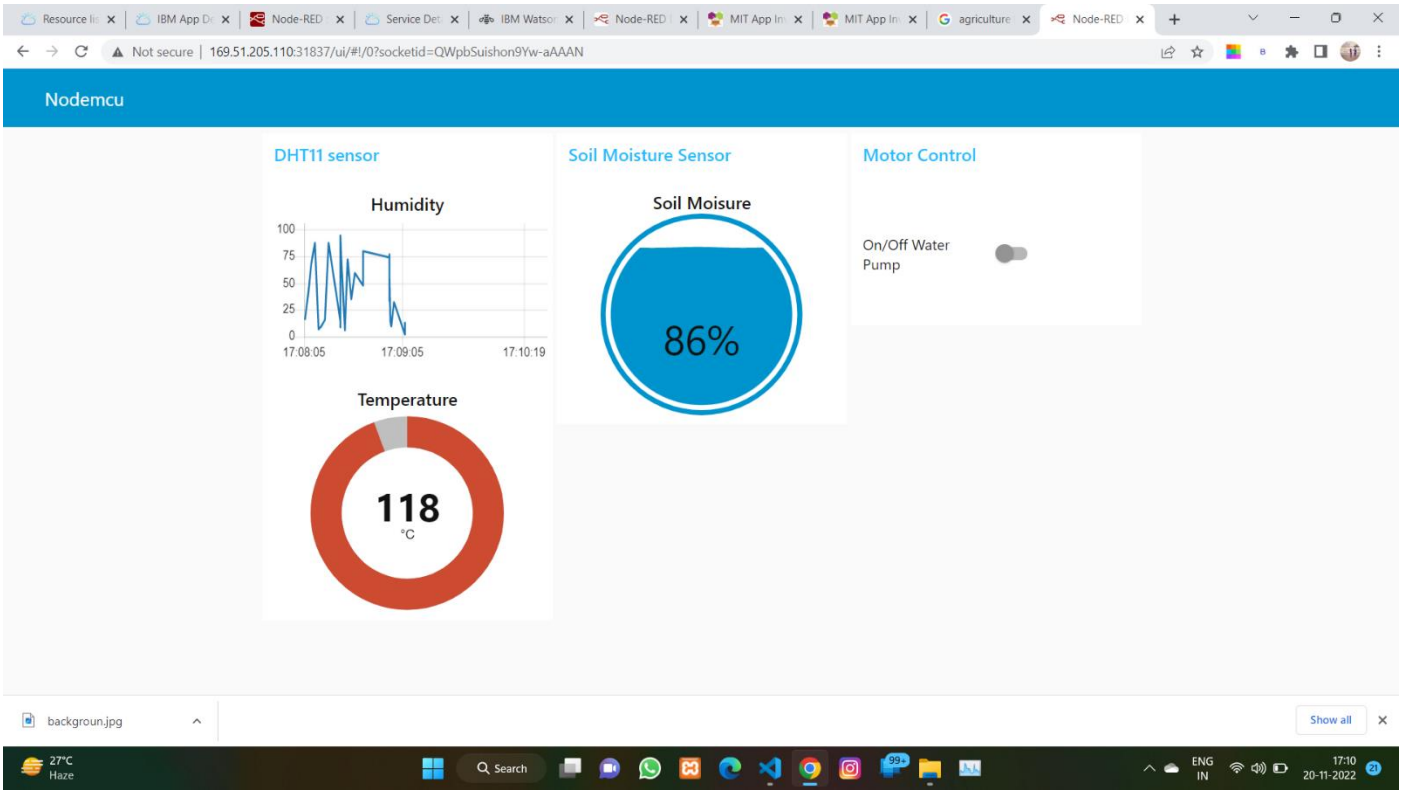


Node-Red Config



Application Output




Nodemcu
DHT11 sensor
Humidity
100
75
50
25
0
17:08:05
17:09:05
17:10:19
Temperature
118
°C
Soil Moisture Sensor
Soil Moisure
86%
Motor Control
On/Off Water Pump