SPRINT 1

Sensors and Wi-Fi module with python code

Date	01 November 2022
Team ID	PNT2022TMID43020
Project Name	Smart Farmer IoT enabled smart farming

```
#IBM Watson IOT Platform
#pip install wiotp-sdk
import wiotp.sdk.device
import time import
random myConfig = {
    "identity": {
        "orgId": "jjbd71",
        "typeId": "Maadhu",
        "deviceId":"9500569875"
    },
    "auth": {
        "token": "9361475232"
    }
}


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("Motor is switched OFF")
print(" ")

client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()

while True:
    temp=random.randint(0,100)
hum=random.randint(0,100)
soil=random.randint(0,100)
myData={'Temperature':temp,
            'Humidity':hum,
'SoilMoisture':soil}
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,
onPublish=None)
    print("Published data Successfully: %s", myData)
if(soil<20):
        print("Less moisture is detected")
else:
        print("Moisture is sufficient")
time.sleep(2)
    client.commandCallback = myCommandCallback client.disconnect()
```

ibm new coding.py - C:\Users\ELCOT\Documents\Downloads\ibm new coding.py (3.7.0)

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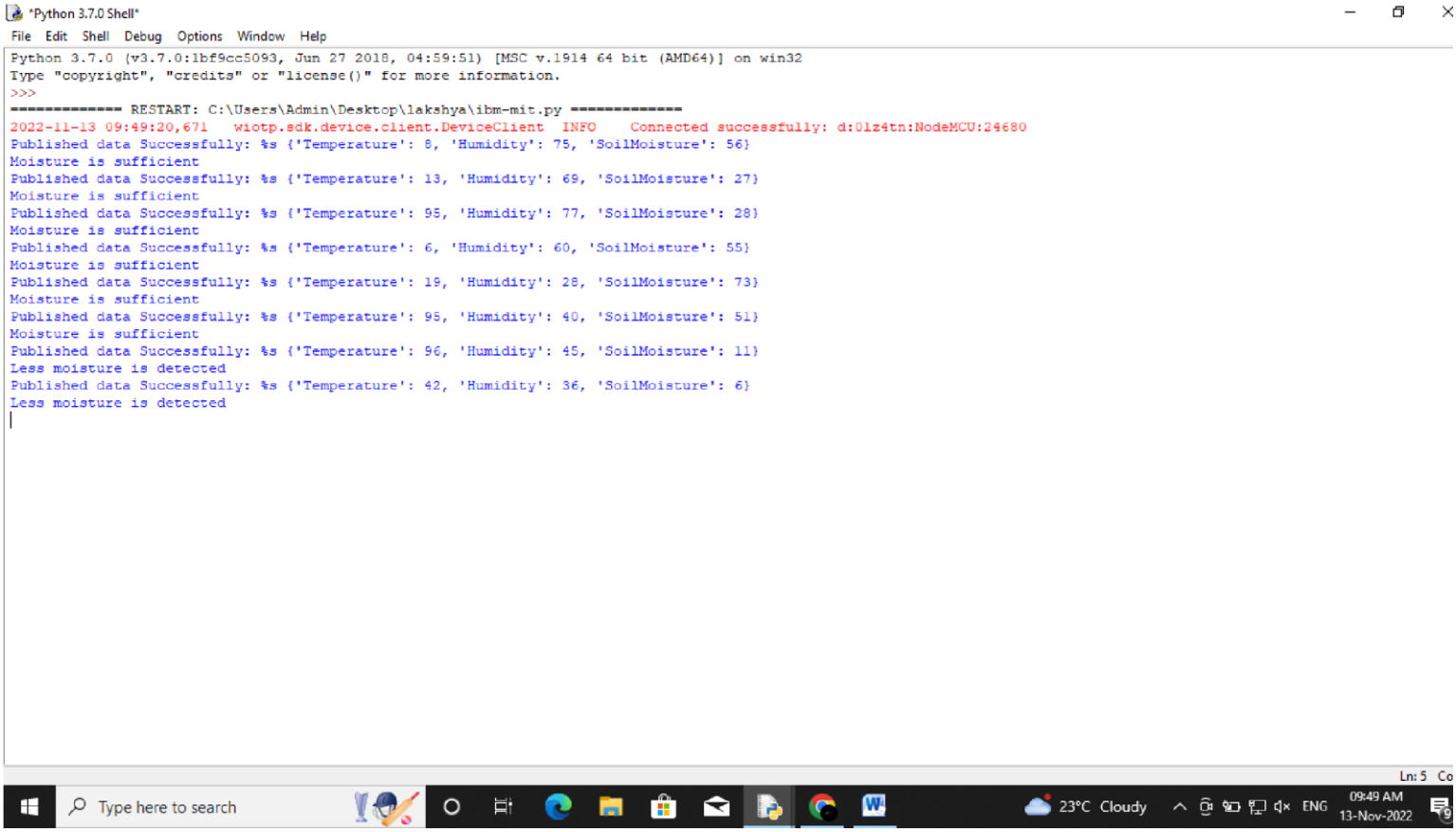
    hum=random.randint(0,100)
    soil=random.randint(0,100)
    myData={'Temperature':temp,
            'Humidity':hum,
            'SoilMoisture':soil}
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
    print("Published data Successfully: %s", myData)
    if(soil<25):
        print("Motor is ON")
    else:
        print("Motor is OFF")
    client.commandCallback = myCommandCallback
    time.sleep(2)
client.disconnect()
```


Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: C:\Users\Admin\Desktop\lakshya\ibm-mit.py ==========
2022-11-13 09:49:20,671 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:01z4tn:NodeMCU:24680
Published data Successfully: %s {'Temperature': 8, 'Humidity': 75, 'SoilMoisture': 56}
Moisture is sufficient
Published data Successfully: %s {'Temperature': 13, 'Humidity': 69, 'SoilMoisture': 27}
Moisture is sufficient
Published data Successfully: %s {'Temperature': 95, 'Humidity': 77, 'SoilMoisture': 28}
Moisture is sufficient
Published data Successfully: %s {'Temperature': 6, 'Humidity': 60, 'SoilMoisture': 55}
Moisture is sufficient
Published data Successfully: %s {'Temperature': 19, 'Humidity': 28, 'SoilMoisture': 73}
Moisture is sufficient
Published data Successfully: %s {'Temperature': 95, 'Humidity': 40, 'SoilMoisture': 51}
Moisture is sufficient
Published data Successfully: %s {'Temperature': 96, 'Humidity': 45, 'SoilMoisture': 11}
Less moisture is detected
Published data Successfully: %s {'Temperature': 42, 'Humidity': 36, 'SoilMoisture': 6}
Less moisture is detected
Ln: 5 Co
Type here to search
23°C Cloudy
ENG
09:49 AM
13-Nov-2022