SPRINT-3

Date	18 November 2022
Team Id	PNT2022TMID22894
Project name	Smart Farmer-IoT Enabled Smart Farming Application

Python code:

Python code:

```
#IBM Watson IOT Platform
#pip install wiotp-sdk
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "ih2ifs",
        "typeId": "NodeMCU",
        "deviceId":"12345"
    },
    "auth": {
        "token": "12345678"
    }
}

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(-20,125)
    hum=random.randint(0,100)
    moist=random.randint(0,14)
    myData={'temperature':temp, 'humidity':hum, 'Moisture':moist}
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
    print("Published data Successfully: %s", myData)
    client.commandCallback = myCommandCallback
    time.sleep(2)
client.disconnect()
```

Output:


IDLE Shell 3.9.6
File Edit Shell Debug Options Window Help
Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: C:\Users\BUBU\Desktop\source code.py ==========
2022-11-18 03:07:36,289 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:ih2ifs:NodeMCU:12345
Published data Successfully: %s {'temperature': 27, 'humidity': 9, 'Moisture': 5}
Published data Successfully: %s {'temperature': 44, 'humidity': 85, 'Moisture': 7}
Published data Successfully: %s {'temperature': 88, 'humidity': 54, 'Moisture': 2}
Published data Successfully: %s {'temperature': 98, 'humidity': 38, 'Moisture': 12}
Published data Successfully: %s {'temperature': 73, 'humidity': 23, 'Moisture': 4}
Published data Successfully: %s {'temperature': 98, 'humidity': 69, 'Moisture': 12}
Published data Successfully: %s {'temperature': 39, 'humidity': 70, 'Moisture': 14}
Published data Successfully: %s {'temperature': -7, 'humidity': 2, 'Moisture': 10}
Published data Successfully: %s {'temperature': -3, 'humidity': 50, 'Moisture': 3}
Published data Successfully: %s {'temperature': -2, 'humidity': 21, 'Moisture': 3}
Published data Successfully: %s {'temperature': 125, 'humidity': 95, 'Moisture': 10}
Published data Successfully: %s {'temperature': 83, 'humidity': 85, 'Moisture': 10}
Published data Successfully: %s {'temperature': 117, 'humidity': 35, 'Moisture': 11}
Published data Successfully: %s {'temperature': 84, 'humidity': 12, 'Moisture': 14}
Published data Successfully: %s {'temperature': 28, 'humidity': 100, 'Moisture': 10}
Published data Successfully: %s {'temperature': 8, 'humidity': 21, 'Moisture': 6}
Ln: 5 Col: 0
03:08
18-11-2022