

PROJECT DEVELOPMENT PHASE

SPRINT- 3

TEAM ID	PNT2022TMID26521
PROJECT NAME	IoT Based smart crop Protection system for agriculture
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PYTHON CODE:

```
import wiotp.sdk.device
import time
import os
import datetime
import random
myconfig = {
    "identity": {
        "orgId": "eop5qk",
        "typeId": "NodeMCU",
        "deviceId": "12345"
    },
    "auth": {
        "token": "ei0i7Fp@6V!LE5PWdN"
    }
}
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 & sprinkler is switched on")
    elif(m=="motoroff"):
        print("motor & sprinkler is switched OFF")
```

```

print(" ")
while True:
    soil=random.randint(0,100)
    temp=random.randint(-20,125)
    hum=random.randint(0,100)
    myData={'soilmoisture':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.myCommandCallback = myCommandCallback
client.disconnect ()

```

OUTPUT:



```

Python 3.7.4 Shell
File Edit Shell Debug Options Window Help
Published data Successfully: %s {'soilmoisture': 87, 'temperature': -10, 'humidity': 67}
Published data Successfully: %s {'soilmoisture': 12, 'temperature': 82, 'humidity': 39}
Published data Successfully: %s {'soilmoisture': 26, 'temperature': 74, 'humidity': 15}
Published data Successfully: %s {'soilmoisture': 67, 'temperature': 109, 'humidity': 99}
Published data Successfully: %s {'soilmoisture': 29, 'temperature': 20, 'humidity': 53}
Published data Successfully: %s {'soilmoisture': 31, 'temperature': -16, 'humidity': 49}
Published data Successfully: %s {'soilmoisture': 45, 'temperature': 23, 'humidity': 80}
Published data Successfully: %s {'soilmoisture': 1, 'temperature': 50, 'humidity': 26}
Published data Successfully: %s {'soilmoisture': 3, 'temperature': 113, 'humidity': 26}
Published data Successfully: %s {'soilmoisture': 87, 'temperature': 30, 'humidity': 51}
Published data Successfully: %s {'soilmoisture': 22, 'temperature': 51, 'humidity': 4}
Published data Successfully: %s {'soilmoisture': 35, 'temperature': 32, 'humidity': 3}
Published data Successfully: %s {'soilmoisture': 48, 'temperature': 20, 'humidity': 45}
Published data Successfully: %s {'soilmoisture': 96, 'temperature': 42, 'humidity': 58}
Published data Successfully: %s {'soilmoisture': 47, 'temperature': 67, 'humidity': 9}
Published data Successfully: %s {'soilmoisture': 6, 'temperature': 59, 'humidity': 49}
Published data Successfully: %s {'soilmoisture': 49, 'temperature': 20, 'humidity': 65}
Published data Successfully: %s {'soilmoisture': 99, 'temperature': 105, 'humidity': 19}
Published data Successfully: %s {'soilmoisture': 6, 'temperature': 44, 'humidity': 91}
Published data Successfully: %s {'soilmoisture': 56, 'temperature': 60, 'humidity': 60}
Published data Successfully: %s {'soilmoisture': 11, 'temperature': 17, 'humidity': 16}
Published data Successfully: %s {'soilmoisture': 15, 'temperature': 38, 'humidity': 83}
Published data Successfully: %s {'soilmoisture': 58, 'temperature': 86, 'humidity': 70}
Published data Successfully: %s {'soilmoisture': 43, 'temperature': 125, 'humidity': 94}
Published data Successfully: %s {'soilmoisture': 77, 'temperature': 73, 'humidity': 60}
Published data Successfully: %s {'soilmoisture': 84, 'temperature': 110, 'humidity': 36}
Published data Successfully: %s {'soilmoisture': 42, 'temperature': 47, 'humidity': 43}
Published data Successfully: %s {'soilmoisture': 3, 'temperature': 116, 'humidity': 88}
Published data Successfully: %s {'soilmoisture': 42, 'temperature': -18, 'humidity': 95}
Published data Successfully: %s {'soilmoisture': 22, 'temperature': -12, 'humidity': 63}
Published data Successfully: %s {'soilmoisture': 87, 'temperature': 74, 'humidity': 79}
Published data Successfully: %s {'soilmoisture': 60, 'temperature': 113, 'humidity': 54}
Published data Successfully: %s {'soilmoisture': 54, 'temperature': -15, 'humidity': 25}
Published data Successfully: %s {'soilmoisture': 92, 'temperature': 55, 'humidity': 9}
Published data Successfully: %s {'soilmoisture': 100, 'temperature': 28, 'humidity': 93}
Published data Successfully: %s {'soilmoisture': 48, 'temperature': -13, 'humidity': 42}
Published data Successfully: %s {'soilmoisture': 44, 'temperature': 115, 'humidity': 62}
Published data Successfully: %s {'soilmoisture': 49, 'temperature': 101, 'humidity': 62}
Published data Successfully: %s {'soilmoisture': 22, 'temperature': 34, 'humidity': 13}
Published data Successfully: %s {'soilmoisture': 67, 'temperature': 103, 'humidity': 87}
Ln: 5 Col: 0

```