

Date	18 November 2022
Team ID	PNT2022TMID04540
Project Name	Project – Smart Farmer-IoT Enabled smart Farming Application

PYTHON PROGRAM TO GET CONNECTED WITH IBM IOT WATSON PLATFORM:

Python code:

```

import wiotp.sdk.device
import time
import datetime
import random
myConfig = {
    "identity": {
        "orgId": "c6x83q",
        "typeId": "TestDeviceType",
        "deviceId": "12345"
    },
    "auth": {
        "token": "QZvsZ3UmMlicuzf0Gt"
    }
}

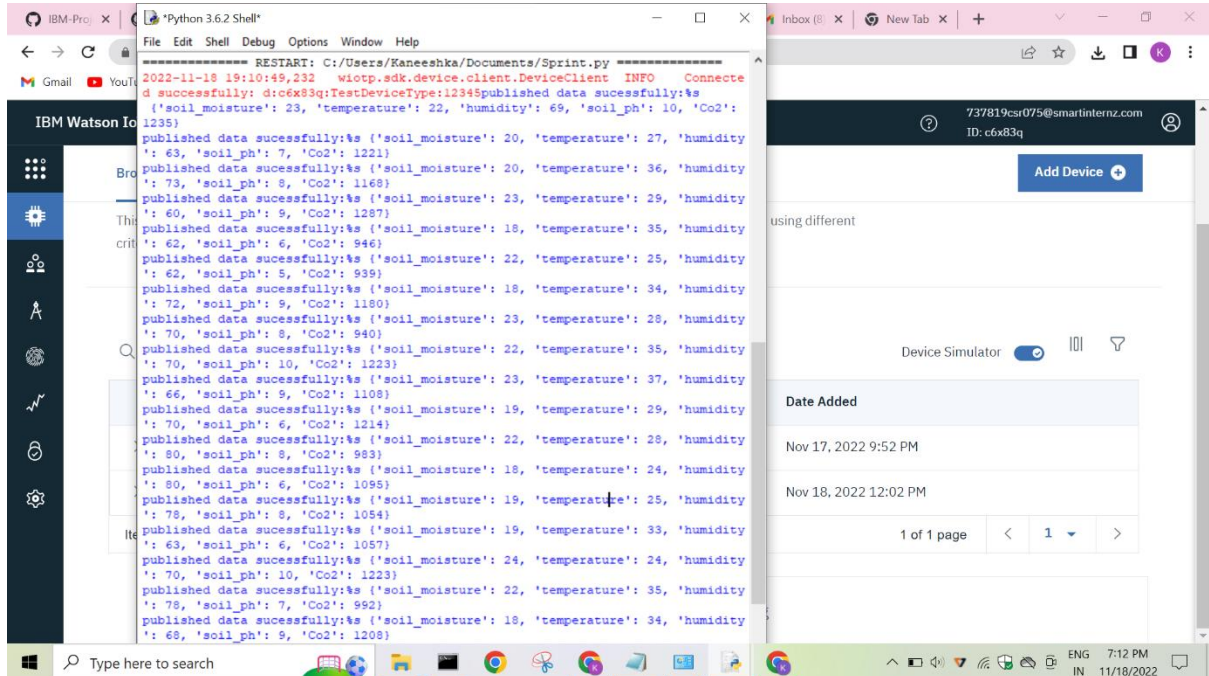
client=wiotp.sdk.device.DeviceClient(config=myConfig,logHandlers=None)
client.connect()

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("Motor is switched off")
    print(" ")
while True:
    soil=random.randint(18,24)
    temp=random.randint(21,37)
    hum=random.randint(60,80)
    soil_ph=random.randint(5,10)
    Co2=random.randint(900,1300)
    myData={'soil_moisture':soil,'temperature':temp,'humidity':hum,'soil_ph':soil_ph,'Co2':Co
2}
    client.publishEvent(eventId="status",msgFormat="json",data=myData,qos=0,onPublish=N
one)
    print("published data sucessfully:%s",myData)
    time.sleep(5)

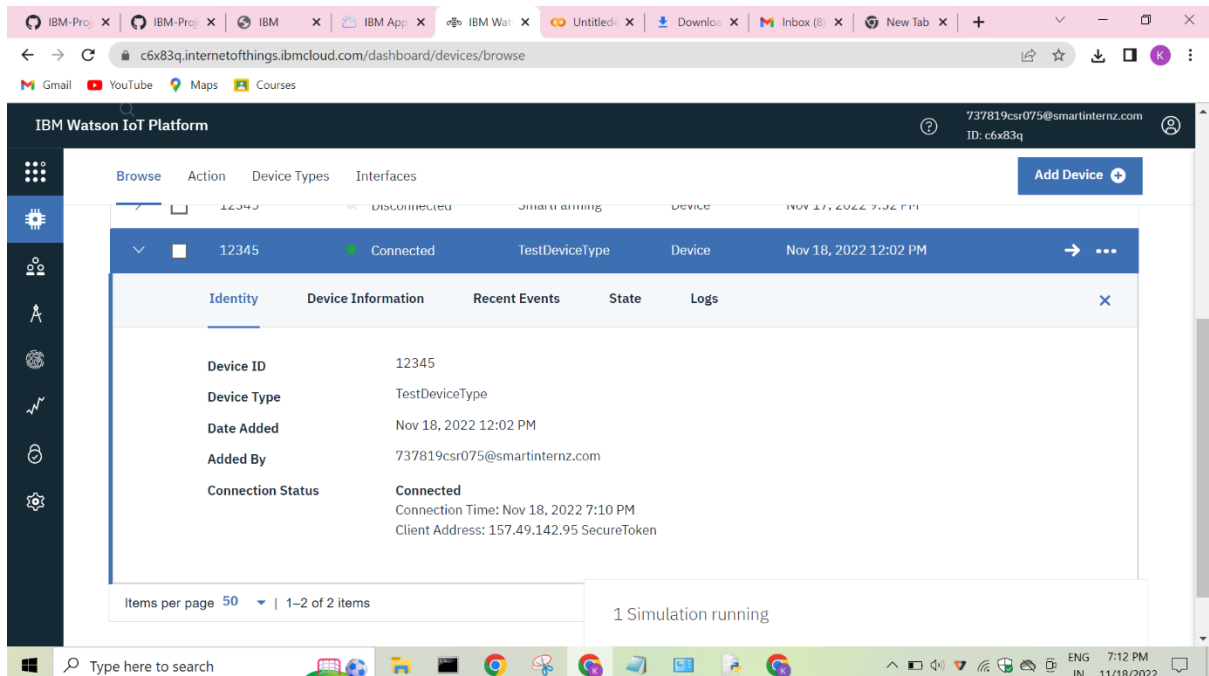
```

```
client.commandCallback=myCommandCallback  
client.disconnect()
```

OUTPUT:



```
Python 3.6.2 Shell  
File Edit Shell Debug Options Window Help  
Gmail YouTube  
IBM Watson IoT Platform  
Restart: C:/Users/Kaneeshka/Documents/Sprint.py  
2022-11-18 19:10:49,232 wiotp.sdk.device.client.DeviceClient INFO Connecte  
d successfully: d:c6x83q:TestDeviceType:12345published data successfully:ts  
{ 'soil_moisture': 23, 'temperature': 22, 'humidity': 69, 'soil_ph': 10, 'Co2':  
1235}  
published data successfully:ts { 'soil_moisture': 20, 'temperature': 27, 'humidity  
' : 63, 'soil_ph': 7, 'Co2': 1221}  
published data successfully:ts { 'soil_moisture': 20, 'temperature': 36, 'humidity  
' : 73, 'soil_ph': 8, 'Co2': 1168}  
published data successfully:ts { 'soil_moisture': 23, 'temperature': 29, 'humidity  
' : 60, 'soil_ph': 9, 'Co2': 1287}  
published data successfully:ts { 'soil_moisture': 18, 'temperature': 35, 'humidity  
' : 62, 'soil_ph': 6, 'Co2': 946}  
published data successfully:ts { 'soil_moisture': 22, 'temperature': 25, 'humidity  
' : 62, 'soil_ph': 5, 'Co2': 939}  
published data successfully:ts { 'soil_moisture': 18, 'temperature': 34, 'humidity  
' : 72, 'soil_ph': 9, 'Co2': 1180}  
published data successfully:ts { 'soil_moisture': 23, 'temperature': 28, 'humidity  
' : 70, 'soil_ph': 8, 'Co2': 940}  
published data successfully:ts { 'soil_moisture': 22, 'temperature': 35, 'humidity  
' : 70, 'soil_ph': 10, 'Co2': 1223}  
published data successfully:ts { 'soil_moisture': 23, 'temperature': 37, 'humidity  
' : 66, 'soil_ph': 9, 'Co2': 1108}  
published data successfully:ts { 'soil_moisture': 19, 'temperature': 29, 'humidity  
' : 70, 'soil_ph': 6, 'Co2': 1214}  
published data successfully:ts { 'soil_moisture': 22, 'temperature': 28, 'humidity  
' : 80, 'soil_ph': 8, 'Co2': 983}  
published data successfully:ts { 'soil_moisture': 18, 'temperature': 24, 'humidity  
' : 80, 'soil_ph': 6, 'Co2': 1095}  
published data successfully:ts { 'soil_moisture': 19, 'temperature': 25, 'humidity  
' : 78, 'soil_ph': 8, 'Co2': 1054}  
published data successfully:ts { 'soil_moisture': 19, 'temperature': 33, 'humidity  
' : 63, 'soil_ph': 6, 'Co2': 1057}  
published data successfully:ts { 'soil_moisture': 24, 'temperature': 24, 'humidity  
' : 70, 'soil_ph': 10, 'Co2': 1223}  
published data successfully:ts { 'soil_moisture': 22, 'temperature': 35, 'humidity  
' : 78, 'soil_ph': 7, 'Co2': 992}  
published data successfully:ts { 'soil_moisture': 18, 'temperature': 34, 'humidity  
' : 68, 'soil_ph': 9, 'Co2': 1208}
```



IBM Watson IoT Platform

737819csr075@smartinternz.com
ID: c6x83q

Browse Action Device Types Interfaces

12345 Disconnected Smart Farming Device Nov 17, 2022 9:36 PM

12345 Connected TestDeviceType Device Nov 18, 2022 12:02 PM

Identity	Device Information	Recent Events	State	Logs
Device ID	12345			
Device Type	TestDeviceType			
Date Added	Nov 18, 2022 12:02 PM			
Added By	737819csr075@smartinternz.com			
Connection Status	Connected			
	Connection Time: Nov 18, 2022 7:10 PM			
	Client Address: 157.49.142.95 SecureToken			

Items per page 50 | 1-2 of 2 items

1 Simulation running