

## PYTHON SCRIPT TO PUBLISH DATA TO IBM CLOUD

Date	12 NOVEMBER 2022
Team ID	PNT2022TMID43127
Project Name	SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITAN CITIES
Maximum marks	8 Marks

### PYTHON CODE:

```
#IBM Watson IOT Platform
```

```
#pip install wiotp-sdk
```

```
import wiotp.sdk.device
```

```
import time
```

```
import random
```

```
myConfig = {
```

```
    "identity": {
```

```
        "orgId": "hj5fmy",
```

```
        "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']  
  
client = wiotp.sdk.device.DeviceClient(config=myConfig,  
logHandlers=None)  
client.connect()  
  
while True:  
    temp=random.randint(-20,125)  
    hum=random.randint(0,100)  
    myData={'temperature':temp, 'humidity':hum}  
    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()
```

# PYTHON CODE:

```
logs.py - C:/Users/ELCOT/OneDrive/Desktop/logs.py (3.7.4)
File Edit Format Run Options Window Help

#IBM Watson IoT Platform
#pip install wiotp-sdk
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "x31ifo",
        "typeId": "b1lm3edevicetype",
        "deviceId": "43127device"
    },
    "auth": {
        "token": "8np0Zu8NIubF9n7xud"
    }
}

def myCommandCallback(cmd):
    print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
    m=cmd.data['command']

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

while True:
    temp=random.randint(-20,125)
    hum=random.randint(0,100)
    myData={'temperature':temp, 'humidity':hum}
    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()
```

Ln: 13 Col: 36

## PYTHON OUTPUT:

```
*Python 3.7.4 Shell*
File Edit Shell Debug Options Window Help
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/ELCOT/OneDrive/Desktop/loga.py =====
2022-11-12 16:03:37,102 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:x3lifo:b11m3edevicetype:43127device
Published data Successfully: %s {'temperature': 54, 'humidity': 94}
Published data Successfully: %s {'temperature': 80, 'humidity': 27}
Published data Successfully: %s {'temperature': 90, 'humidity': 23}
Published data Successfully: %s {'temperature': 36, 'humidity': 6}
Published data Successfully: %s {'temperature': 121, 'humidity': 24}
Published data Successfully: %s {'temperature': 1, 'humidity': 16}
Published data Successfully: %s {'temperature': 20, 'humidity': 84}
|
```

Ln: 12 Col: 0

loga.py - C:/Users/ELCOT/OneDrive/Desktop/loga.py (3.7.4)

File Edit Format Run Options Window Help

```
#IBM Watson IoT Platform
#pip install wiotp-sdk
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "x3lifo",
        "typeId": "b1lm3edevicetype",
        "deviceId": "43127device"
    },
    "auth": {
        "token": "8np82u8NiubF9n7xuz"
    }
}

def myCommandCallback(cmd):
    print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
    m=cmd.data['command']

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

while True:
    temp=random.randint(-20,125)
    hum=random.randint(0,100)
    myData={'temperature':temp, 'humidity':hum}
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,
        print("Published data Successfully: %s", myData)
    client.commandCallback = myCommandCallback
    time.sleep(2)
client.disconnect()
```

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\*Python 3.7.4 Shell\*

File Edit Shell Debug Options Window Help

```
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit
(AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/ELCOT/OneDrive/Desktop/loga.py =====
2022-11-12 15:57:08,624 wiotp.sdk.device.client.DeviceClient INFO Connecte
d successfully: d:x3lifo:b1lm3edevicetype:43127device
Published data Successfully: %s ('temperature': 111, 'humidity': 23)
Published data Successfully: %s ('temperature': -4, 'humidity': 44)
Published data Successfully: %s ('temperature': 29, 'humidity': 58)
Published data Successfully: %s ('temperature': 1, 'humidity': 18)
Published data Successfully: %s ('temperature': 57, 'humidity': 41)
Published data Successfully: %s ('temperature': 11, 'humidity': 38)
Published data Successfully: %s ('temperature': 87, 'humidity': 36)
Published data Successfully: %s ('temperature': 104, 'humidity': 51)
Published data Successfully: %s ('temperature': 18, 'humidity': 69)
Published data Successfully: %s ('temperature': 37, 'humidity': 66)
Published data Successfully: %s ('temperature': 106, 'humidity': 100)
Published data Successfully: %s ('temperature': 80, 'humidity': 14)
Published data Successfully: %s ('temperature': -19, 'humidity': 40)
Published data Successfully: %s ('temperature': 118, 'humidity': 53)
Published data Successfully: %s ('temperature': 6, 'humidity': 79)
```

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status

["temperature":106,"humidity":100]

json

a few se

0 Simulations running

# IBM WATSON OUTPUT:

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← → ↻ x3lifo.internetofthings.ibmcloud.com/dashboard/devices/browse

Gmail YouTube Maps

IBM Watson IoT Platform

senhamisalvir.cs20@sriat.ac.in ID: x3lifo

?

+

Browse Action Device Types Interfaces

Add Device +

43127device Disconnected b11m3edevicetype Device Nov 2, 2022 9:04 PM

→ ...

Identity Device Information Recent Events State Logs

×

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
status	{"temperature":92,"humidity":22}	json	a few seconds ago
status	{"temperature":-1,"humidity":73}	json	a few seconds ago
status	{"temperature":6,"humidity":79}	json	a few seconds ago
status	{"temperature":118,"humidity":53}	json	a few seconds ago
status	{"temperature":-19,"humidity":40}	json	a few seconds ago

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0 Simulations running