

**Develop a python script**  
**Publish Data to the IBM Cloud**

Date	12 September 2022
Team ID	PNT2022TMID48721
Project Name	Project - Signs with smart connectivity for Better road safety
Maximum Marks	4 Marks

**Program :**

```
#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()
```

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```
publish.py - E:/IBM/Others/Develop a python script/publish.py (3.6.5)
File Edit Format Run Options Window Help

#Through python coding we are going to access the subscriber
import paho.mqtt.client as paho
import time
import random

def on_publish(client, userdata, mid):
    print("Publish the data ")

client = paho.Client()
client.on_publish = on_publish
client.connect("broker.mqttdashboard.com", 1883)
client.loop_start()
while True:
    temp = random.randint(1,30)
    (re,mid) = client.publish('iottopic',str(temp),qos=1)
    print(temp)
    time.sleep(10)
```

```
Python 3.6.5 Shell
File Edit Shell Debug Options Window Help

Python 3.6.5 (v3.6.5:f59c0932b4, Mar 28 2018, 17:00:18) [MS
C v.1900 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more informati
n.
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===== RESTART: E:/IBM/Others/Develop a python script/
publish.py =====
7
Publish the data
19
Publish the data
10
Publish the data
```

Ln: 5 Col: 0

Ln: 17 Col: 18

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```
subscribe.py - E:/IBM/Others/Develop a python script/subscribe.py (3.6.5)
File Edit Format Run Options Window Help

import paho.mqtt.client as paho
def on_subscribe(client,userdata,mid,grated_qos):
    print("subscriber:" + str(mid)+str(granted_qos))

def on_message(client,userdata,msg):
    print(msg.topic + " " + str(msg.qos) + " " + str(msg.payload))

client = paho.Client()
client.on_subscribe = on_subscribe
client.on_message = on_message
client.connect("broker.mqttdashboard.com", 1883)
client.subscribe("iottopic",qos=1)
client.loop_forever()
```

```
Python 3.6.5 Shell
File Edit Shell Debug Options Window Help

Publish the data
13
Publish the data
3
Publish the data
25
Publish the data
19
Publish the data
2
Publish the data
7
Publish the data
9
Publish the data
```

Ln: 5 Col: 0

Ln: 2 Col: 15

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