

Develop a python script Publish Data to the IBM Cloud

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SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITAN CITIES

The image displays two screenshots of a Python IDE (likely VS Code) showing the development of an MQTT client script. The first screenshot shows the publishing code, and the second screenshot shows the subscribing code. Both scripts connect to the IBM Cloud MQTT broker at broker.mqttdashboard.com.

First Screenshot: Publishing Code

```
#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)
```

Second Screenshot: Subscribing Code

```
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()
```

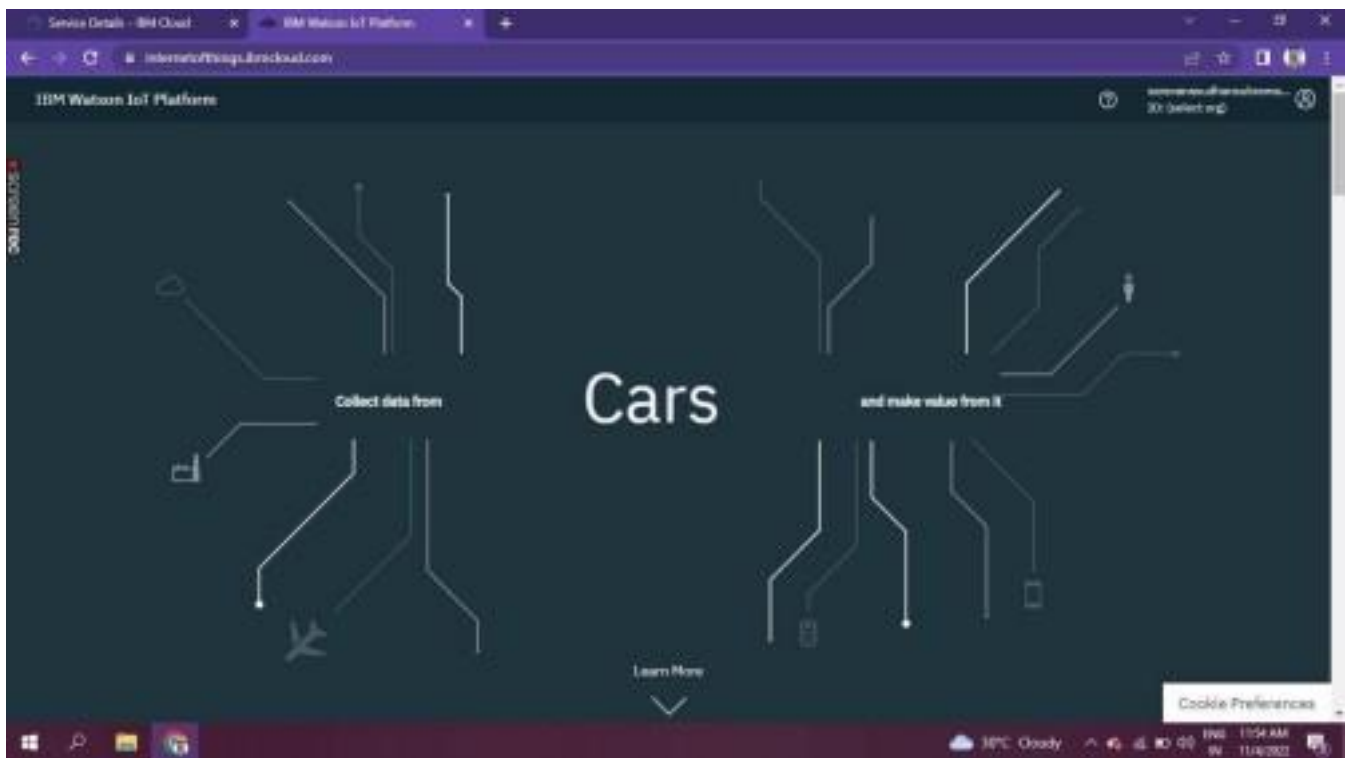
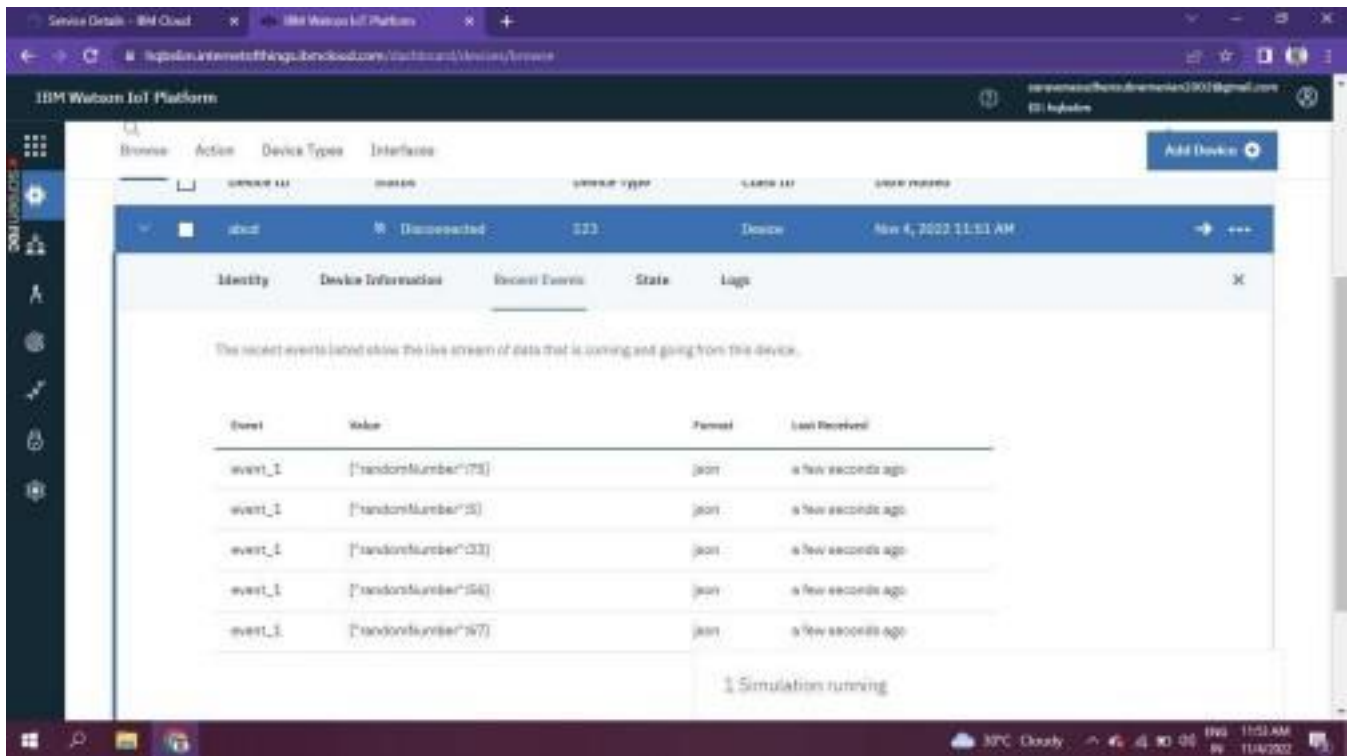
Terminal Output (First Screenshot):

```
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 informatio
n.
>>>
===== RESTART: E:\IBM\Others\Develop a python script/
publish.py =====
7
Publish the data
19
Publish the data
10
Publish the data
```

Terminal Output (Second Screenshot):

```

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
```



Program :

#IBM Watson IOT Platform

#pip install wiotp-sdk

import wiotp.sdk.device

import time import

```

random myConfig = {
"identity":
{
    "orgId": "dxjch6 ",
    "typeId": "python ",
    "deviceId": "0987 " },
    "auth": { "token": "olqX0blqLLtK01uz65 " }
}
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()

```