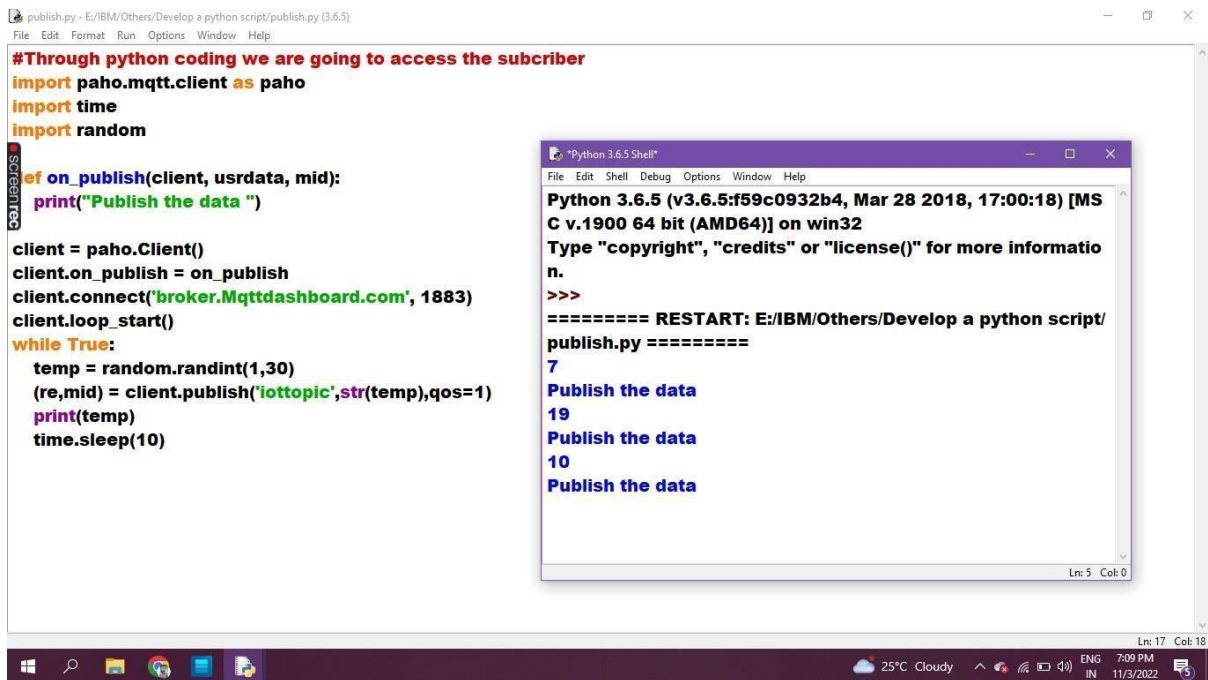


**Develop a python script
Publish Data to the IBM Cloud**

**SMART WASTE MANAGEMENT SYSTEM
FOR METROPOLITAN CITIES**

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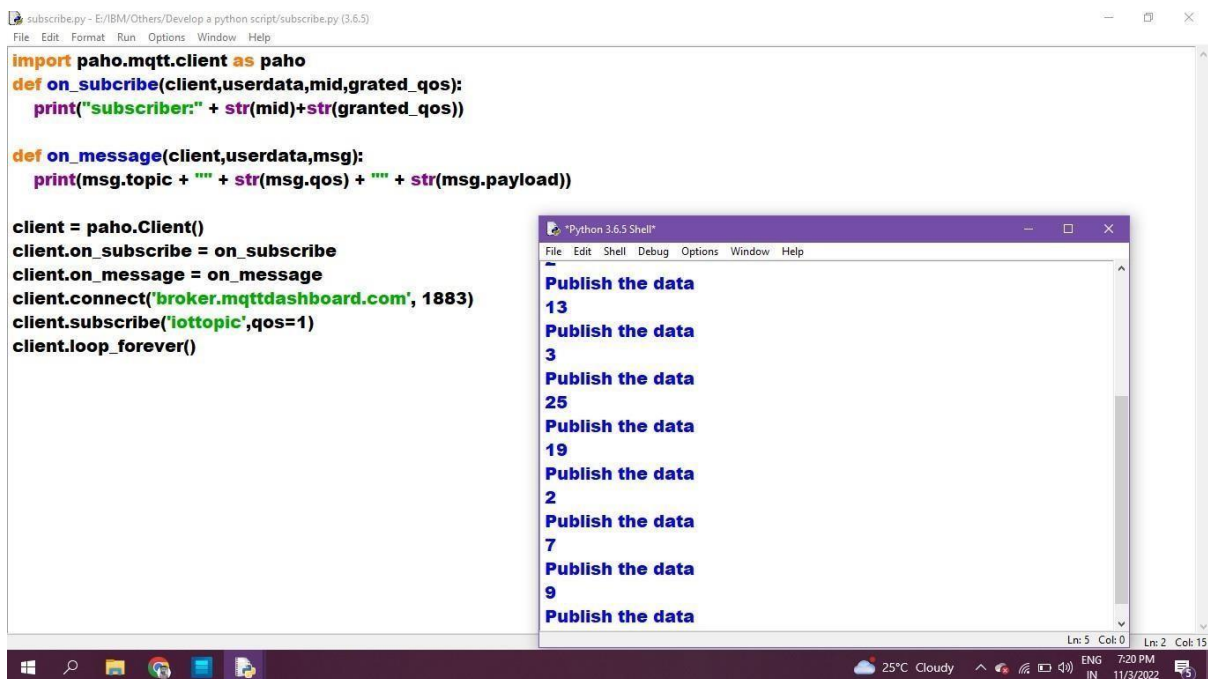


```
#Through python coding we are going to access the subscriber
import paho.mqtt.client as paho
import time
import random

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 (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 information.
>>>
===== RESTART: E:/IBM/Others/Develop a python script/publish.py =====
7
Publish the data
19
Publish the data
10
Publish the data



```
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
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

The screenshot shows the IBM Watson IoT Platform dashboard. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. The main content area displays details for a device named 'abod', which is 'Disconnected' and has a 'Device ID' of '123'. The 'Recent Events' tab is selected, showing a table of events. Below the table, it indicates '1 Simulation running'.

Event	Value	Format	Last Received
event_1	{"randomNumber":75}	json	a few seconds ago
event_1	{"randomNumber":5}	json	a few seconds ago
event_1	{"randomNumber":33}	json	a few seconds ago
event_1	{"randomNumber":56}	json	a few seconds ago
event_1	{"randomNumber":67}	json	a few seconds ago

The screenshot shows the IBM Watson IoT Platform landing page. The main heading is 'Cars'. The page features a dark background with white lines and icons representing data collection and processing. The text 'Collect data from' and 'and make value from it' is visible. A 'Learn More' button is located at the bottom center. A 'Cookie Preferences' button is in the bottom right corner.

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()

```