

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

Date	13 November 2022
Team ID	PNT2022TMID47361
Project Name	Project - Signs with smart connectivity for Better road safety
Maximum Marks	4 Marks

**Signs with smart connectivity for Better road safety**

The image shows a screenshot of a Windows desktop environment. In the foreground, a code editor window titled 'publish.py - E:/IBM/Others/Develop a python script/publish.py (3.6.5)' is open. It contains the following Python 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)
```

Overlaid on the code editor is a terminal window titled 'Python 3.6.5 Shell'. It displays the output of running the script, showing the Python version and environment information, followed by a restart message and the output of the script:

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

The taskbar at the bottom of the screen shows the Windows Start button, search icon, and several application icons. The system tray on the right indicates the temperature is 25°C, it's cloudy, and the time is 7:09 PM on 11/3/2022.

```
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))

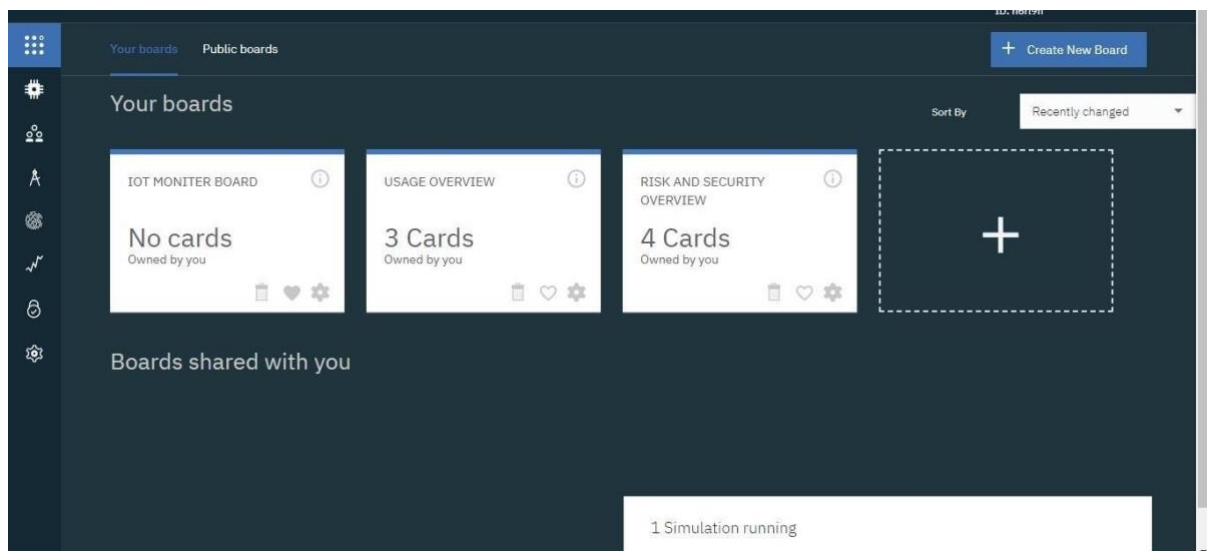
client = paho.Client()
client.on_subscribe = on_subscribe
client.on_message = on_message
client.connect('broker.mqttdashboard.com', 1883)
client.subscribe('iottopic',qos=1)
client.loop_forever()
```

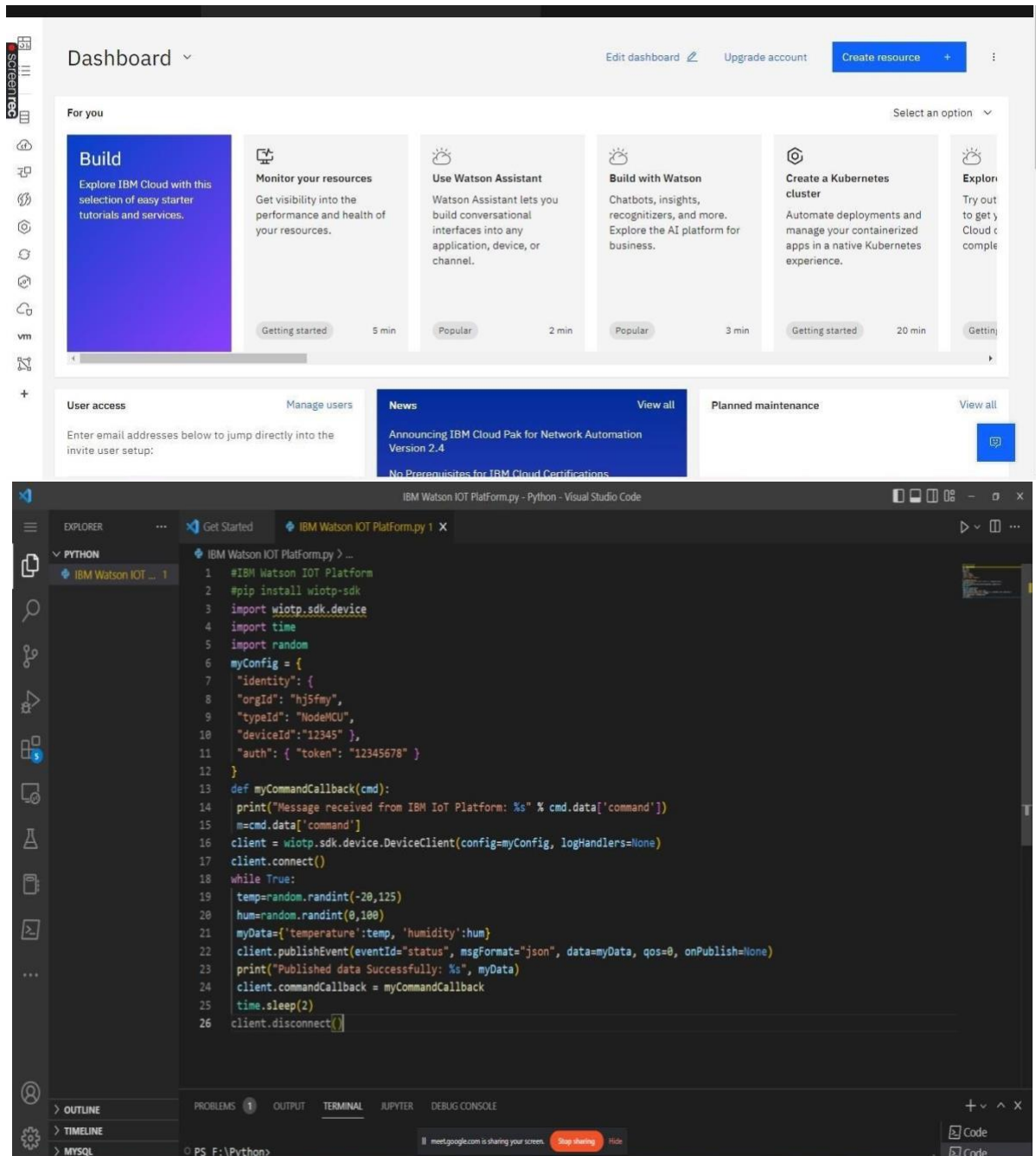
```
Python 3.6.5 Shell
File Edit Shell Debug Options Window Help

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

25°C Cloudy 7:20 PM 11/3/2022





## 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(con

fig=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

```