

Siwar chebbi

Publisher.py :

```
import random
import time
import paho.mqtt.client as mqtt_client

broker = 'broker.hivemq.com'
port = 1883
topic = "security/gaz"

# generate client ID with pub prefix randomly
client_id = f'python-mqtt-{random.randint(0, 1000)}'
username = ''
password = ''

def connect_mqtt():
    def on_connect(client, userdata, flags, rc):
        if rc == 0:
            print("Connected to MQTT Broker!")
        else:
            print("Failed to connect, return code %d\n", rc)

    client = mqtt_client.Client(client_id)
    client.username_pw_set(username, password)
    client.on_connect = on_connect
    client.connect(broker, port)
    return client

def publish(client):
    while True:
        time.sleep(3)
        msg = f'{random.randint(0, 10000)}'
        client.publish(topic, msg)
        print(f"Send `{msg}`ppm to topic `{topic}`")

#===Main===
client = connect_mqtt()
client.loop_start()
```

```
publish(client)
```

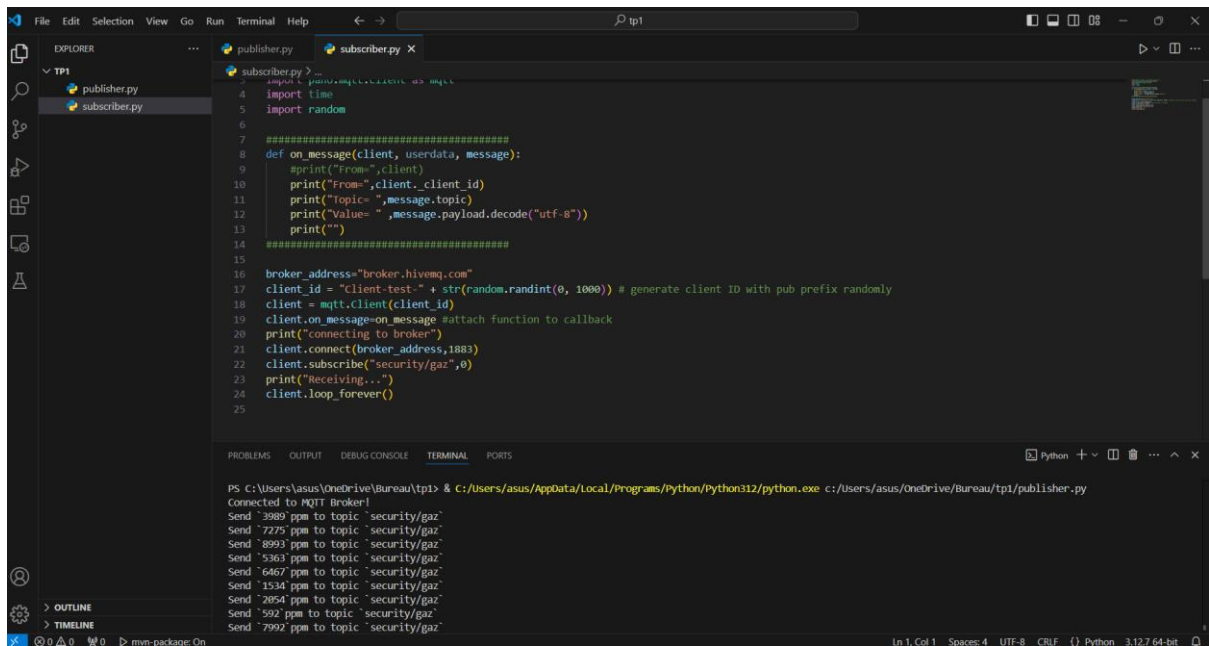
Subscriber.py :

```
#Sami MELKI (c) 2023 : Subscriber (Version 2)
#####
import paho.mqtt.client as mqtt
import time
import random

#####
def on_message(client, userdata, message):
    #print("From=",client)
    print("From=",client._client_id)
    print("Topic= ",message.topic)
    print("Value= " ,message.payload.decode("utf-8"))
    print("")
#####

broker_address="broker.hivemq.com"
client_id = "Client-test-" + str(random.randint(0, 1000)) # generate client ID
with pub prefix randomly
client = mqtt.Client(client_id)
client.on_message=on_message #attach function to callback
print("connecting to broker")
client.connect(broker_address,1883)
client.subscribe("security/gaz",0)
print("Receiving...")
client.loop_forever()
```

Résultat :



The image shows a Visual Studio Code editor window with a Python file named `subscriber.py` open. The script is an MQTT subscriber that connects to a broker at `broker.hivemq.com`, subscribes to the `security/gaz` topic, and prints incoming messages. The terminal output shows the script running successfully, connecting to the broker, and receiving several messages.

```
subscriber.py
4 import time
5 import random
6
7 #####
8 def on_message(client, userdata, message):
9     #print("From:",client)
10     print("From=",client.client_id)
11     print("Topic= ",message.topic)
12     print("Value= ",message.payload.decode("utf-8"))
13     print("")
14 #####
15
16 broker_address="broker.hivemq.com"
17 client_id = "client-test-" + str(random.randint(0, 1000)) # generate client ID with pub prefix randomly
18 client = mqtt.Client(client_id)
19 client.on_message=on_message #attach function to callback
20 print("connecting to broker")
21 client.connect(broker_address,1883)
22 client.subscribe("security/gaz",0)
23 print("Receiving...")
24 client.loop_forever()
25
```

Terminal Output:

```
PS C:\Users\asus\OneDrive\Bureau\tp1> & C:/Users/asus/AppData/Local/Programs/Python/Python312/python.exe c:/Users/asus/OneDrive/Bureau/tp1/publisher.py
Connected to MQTT Broker!
Send '3989' ppm to topic 'security/gaz'
Send '7275' ppm to topic 'security/gaz'
Send '8993' ppm to topic 'security/gaz'
Send '5363' ppm to topic 'security/gaz'
Send '6467' ppm to topic 'security/gaz'
Send '1534' ppm to topic 'security/gaz'
Send '2054' ppm to topic 'security/gaz'
Send '592' ppm to topic 'security/gaz'
Send '7992' ppm to topic 'security/gaz'
```