

DEVELOP THE PYTHON SCRIPT

Publish data to the IBM Cloud

Team ID : PNT2022TMID31413

Project Title : SIGNS WITH SMART CONNECTIVITY FOR BETTER ROAD SAFETY

TO Make a publisher and subscriber in the process of python and IBM cloud

```
publish.py - /usr/python/python3.10/publish.py (3,10.6)
File Edit Format Run Options Window Help
#Through python coding We are going to access the Subscriber and p
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)
    (rc,mid)= client.publish('iottopic',str(temp),qos=1)
    print(temp)
    time.sleep(10)
```

```
*untitled*
File Edit Format Run Options Window Help
import paho.mqtt.client as paho
def on_subscribe(client,userdata,mid,granted_qos):
    print("subscribe:" + 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
```

publish.py - D:/Python/Python310/publish.py (3.10.8)

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)
    (rc,mid)= client.publish('iottopic',str(temp),qos=1)
    print(temp)
    time.sleep(10)
```

Sales

Search videos, people

Log in

Join

New video

Command Prompt - python publish.py

```
C:\Users\USER>python publish.py
15
Publish the data
4
Publish the data
```

vimeo

Solutions

Features

Resources

Watch

Command Prompt - python subscriber.py

```
C:\Users\USER>python subscriber.py
15
Subscribe the data
4
Subscribe the data
9
Subscribe the data
1
Subscribe the data
9
Subscribe the data
24
Subscribe the data
16
Subscribe the data
11
Subscribe the data
13
Subscribe the data
26
Subscribe the data
17
Subscribe the data
```

Command Prompt - python publish.py

```
C:\Users\USER>python publish.py
15
Publish the data
4
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24
Publish the data
16
Publish the data
11
Publish the data
13
Publish the data
26
Publish the data
17
Publish the data
```

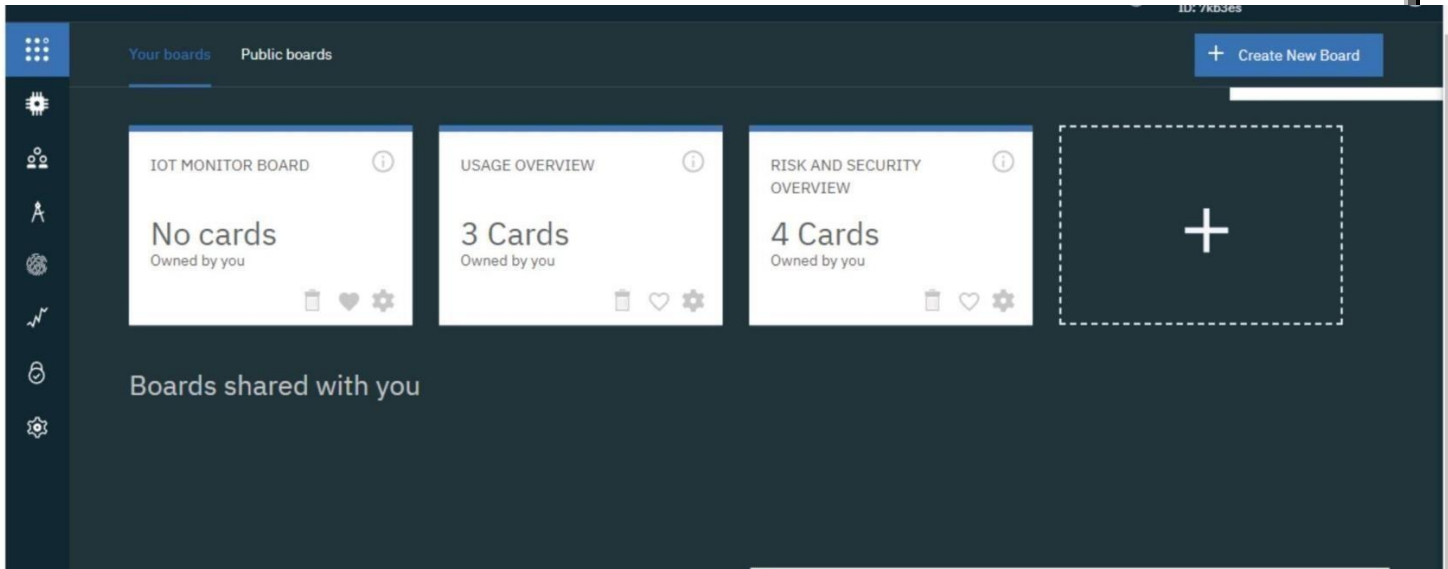
subscribe.py - D:/Python/Python310/subscribe.py (3.10.8)

File Edit Format Run Options Window Help

```
import paho.mqtt.client as paho
def on_subscribe(client,userdata,mid,granted_qos):
    print("subscribe:" + 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()
```





The screenshot shows the IBM Cloud dashboard. At the top, there's a search bar and navigation links for 'Catalog', 'Manage', and 'Arun Kumar K's Account'. Below the search bar is a 'Dashboard' section with a dropdown arrow. To the right of the dashboard are links for 'Edit dashboard', 'Upgrade account', and a blue 'Create resource' button. The main content area is titled 'For you' and contains several service cards: 'Build' (Explore IBM Cloud with this selection of easy starter tutorials and services.), 'Explore IBM Cloud Shell' (Try a command-driven approach for creating, developing, and deploying a web project.), 'Use Cloud Foundry' (Deploy and run your applications without managing servers or clusters with IBM Cloud Foundry.), 'Create and deploy an application' (Browse our starter kits, and then select one to jump start the process to create and deploy your app.), 'Build a web app with Watson Speech to Text' (Deploy a conversational interface compatible with any application, device, or channel.), and 'Get Started with Studio' (Get started and learn more in 15 min). Each card has a 'Getting started' button and a time estimate (2 min, 10 min, 5 min, 15 min). At the bottom, there's a 'News' section with a 'View all' button and a 'Planned maintenance' section with a 'View' button. The footer shows the system tray with weather (82°F Cloudy), search, and system icons.

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()
```