Develop The Python Script

Date	15 September 2022
Team ID	PNT2022TMID22104
Project Name	Signs with Smart Connectivity for Better Road Safety
Team Leader	C. Rujesh Kumar
Team Members	Pokala Rohith Praveen.G Yokesh.G

Publish Data To The IBM Cloud

publish.py - C:\Users\Sri\AppData\Local\Programs\Python\Python39\publish.py (3.9.8)

File Edit Format Run Options Window Help

```
import paho.mqtt.client as paho
import time
import random
def on_publish(client,usrdata,mid):
    print("Publish the data")
client=paho.Client()
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)
```

Ln: 1 Col: 0

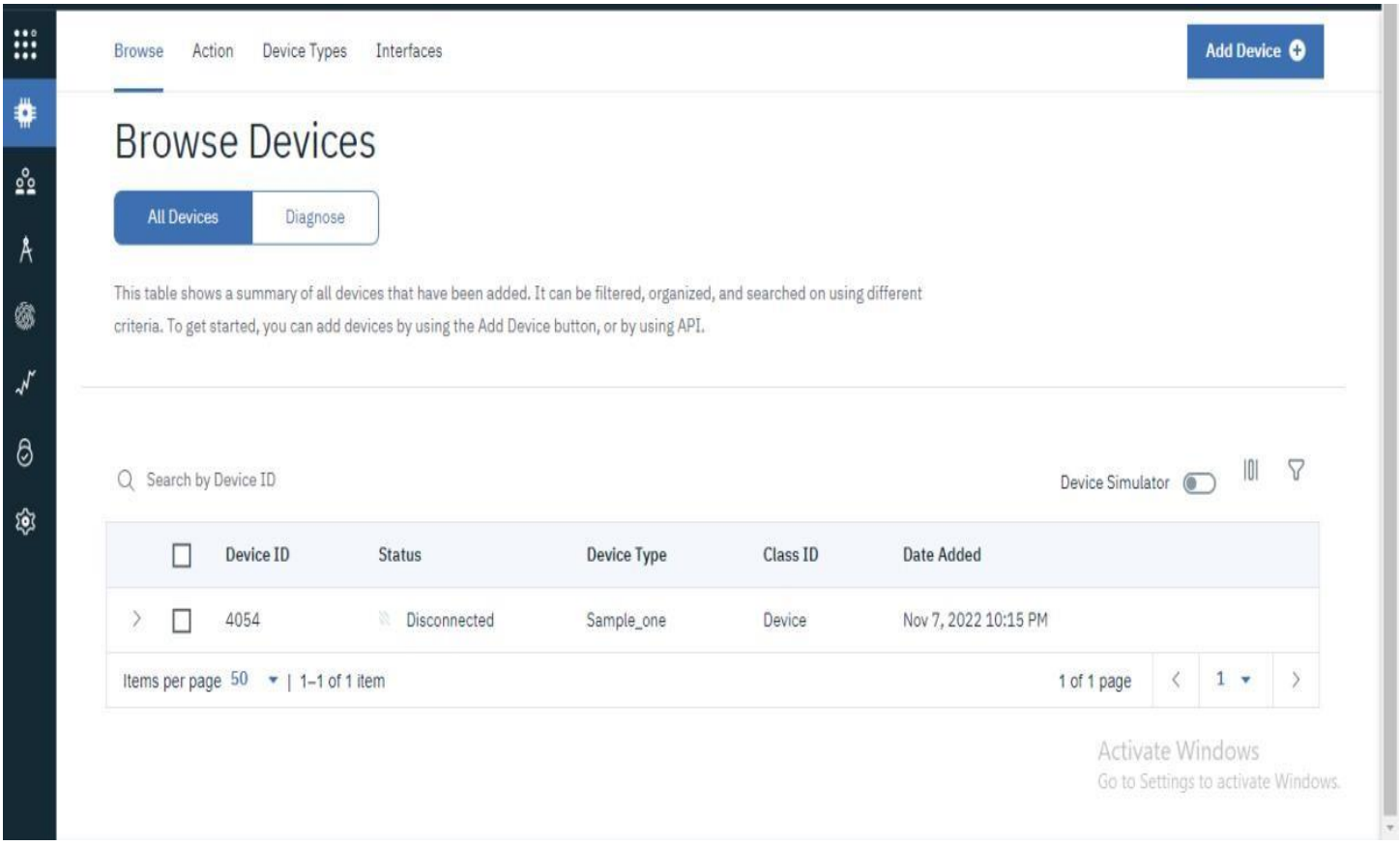
subscribe.py - C:/Users/Sri/AppData/Local/Programs/Python/Python39/subscribe.py (3.9.8)

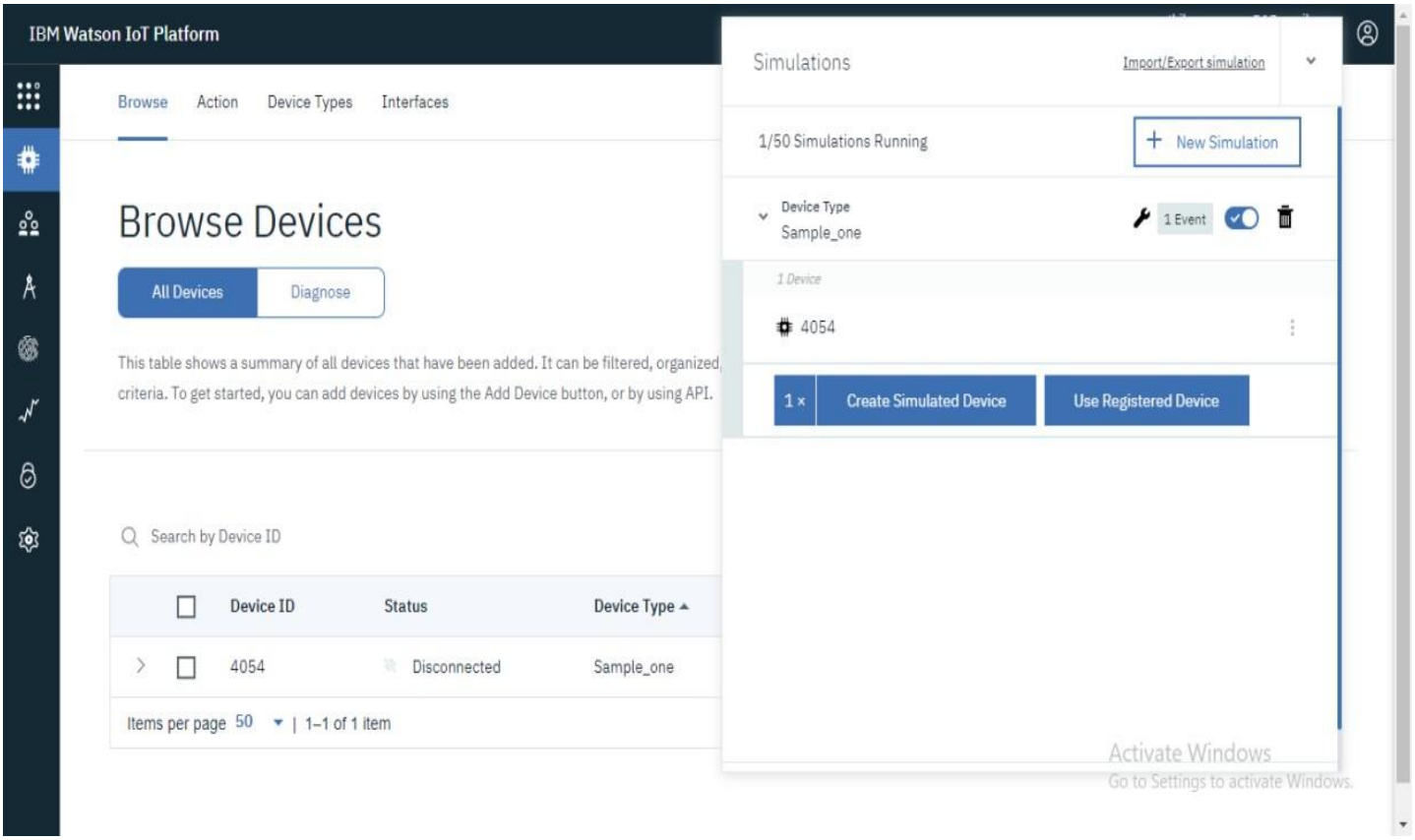
File Edit Format Run Options Window Help

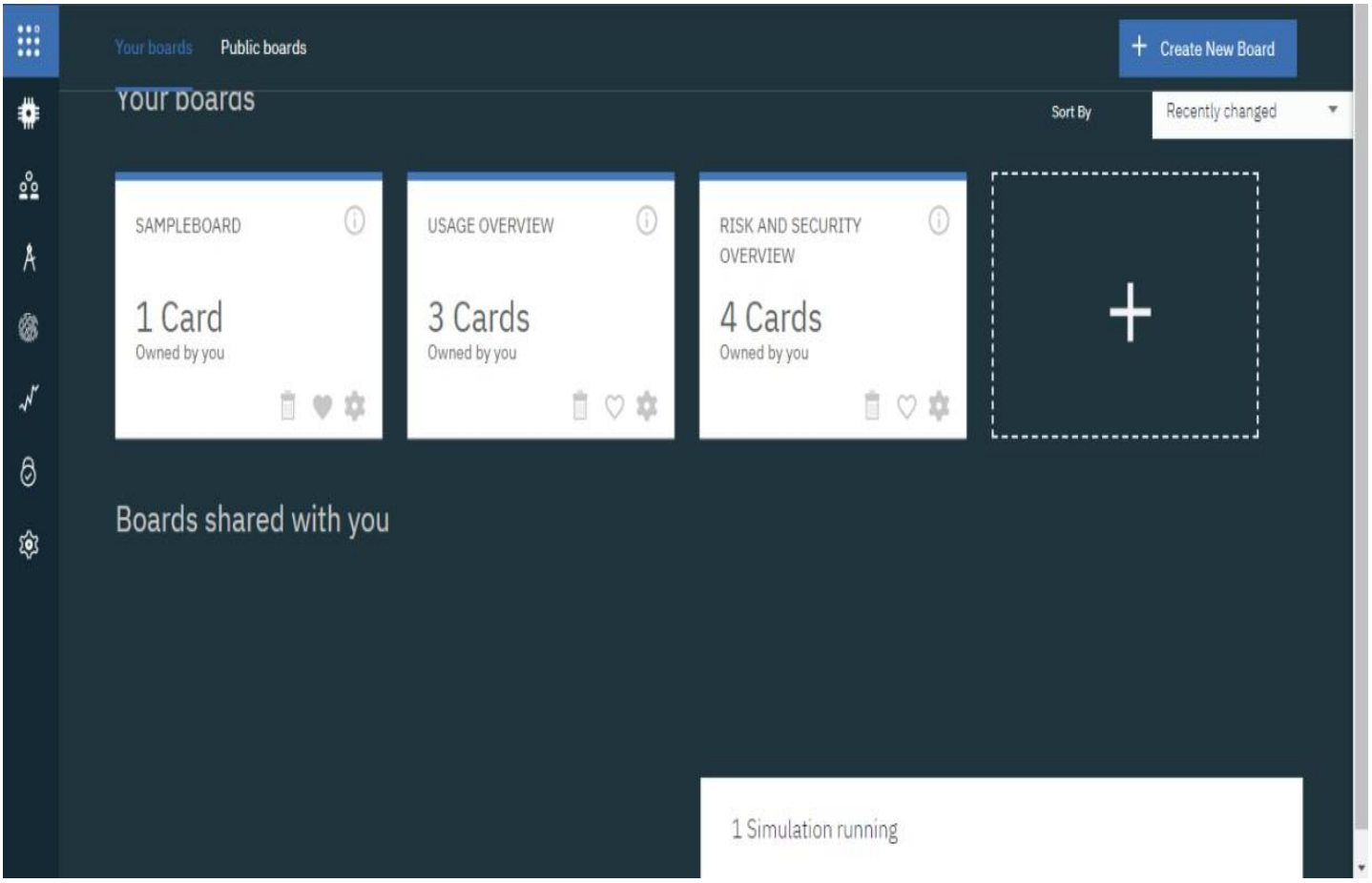
```
import paho.mqrtt.client as paho
def on_subscribe(client,usrdata,mid,grated_qos):
    print("subscribe:",+str(mid)+str(granted_qos))
def on_message(client,usrdata,msg):
    print(msg.topic+" "+str(msg.qos)+" "+str(msg.payload))

client= paho.Client()
client.on_subsribe = on_subscribe
client.on_message = on_message
client.connect('broker.mqrttdashboard.com',1883)
client.subscribe('iot',qos=1)
client.loo_forever()
```

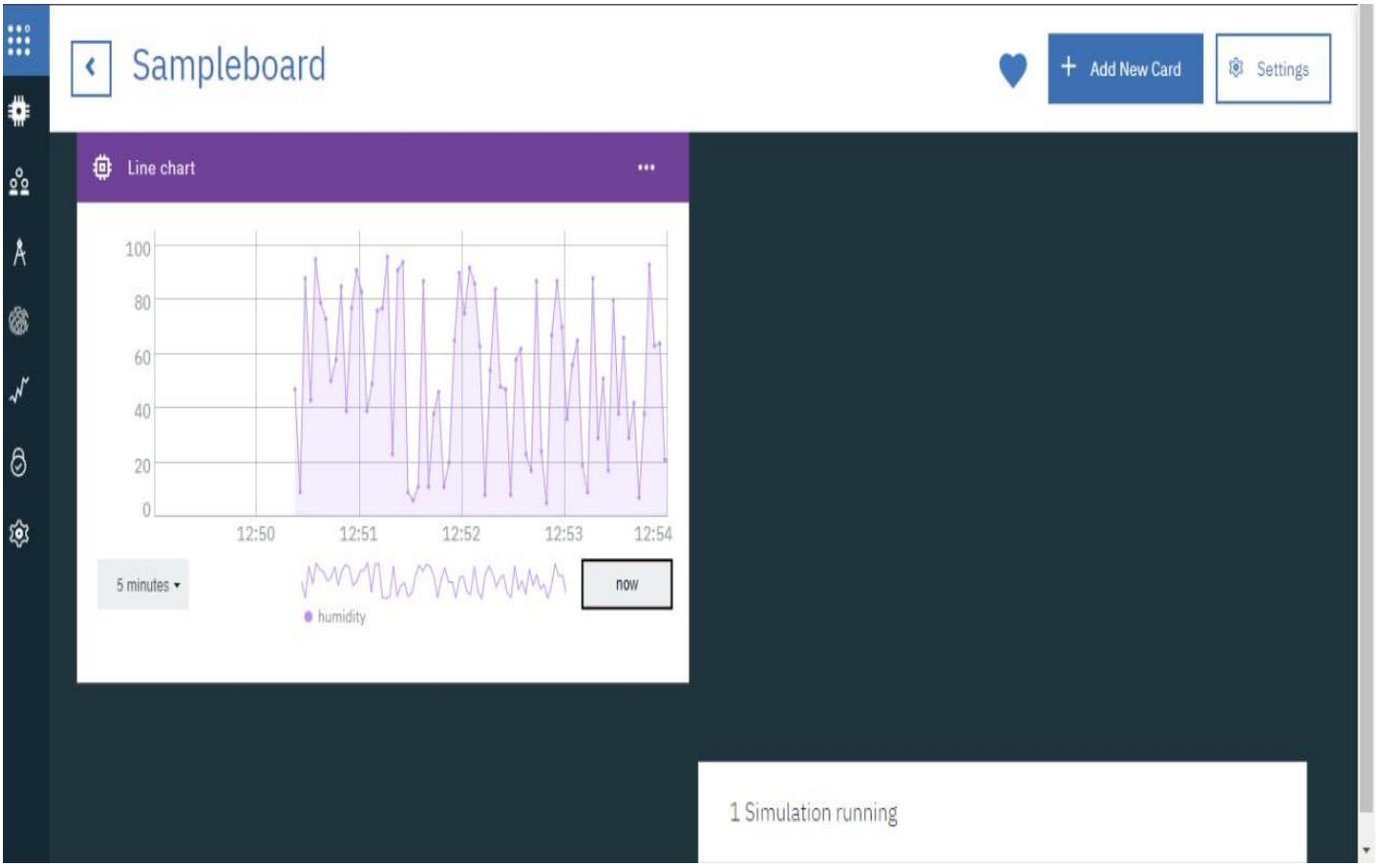
Ln: 1 Col: 0

Publishing Data In IBM Cloud




IBM Watson IoT Platform
Browse
Action
Device Types
Interfaces
Browse Devices
All Devices
Diagnose
This table shows a summary of all devices that have been added. It can be filtered, organized,
criteria. To get started, you can add devices by using the Add Device button, or by using API.
Search by Device ID
Device ID
Status
Device Type
4054
Disconnected
Sample_one
Items per page 50
1–1 of 1 item
Simulations
Import/Export simulation
1/50 Simulations Running
New Simulation
Device Type
Sample_one
1 Event
1 Device
4054
1 ×
Create Simulated Device
Use Registered Device
Activate Windows
Go to Settings to activate Windows.


Your boards
Public boards
Create New Board
Your boards
Sort By
Recently changed
SAMPLEBOARD
1 Card
Owned by you
USAGE OVERVIEW
3 Cards
Owned by you
RISK AND SECURITY OVERVIEW
4 Cards
Owned by you
Boards shared with you
1 Simulation running


Sampleboard
Add New Card
Settings
Line chart
100
80
60
40
20
0
12:50
12:51
12:52
12:53
12:54
5 minutes
now
humidity
1 Simulation running

Coding

```
#IBM WatsonIoT Platform
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()
```