

# DEVELOP A PYTHON SCRIPT

## (PUBLISH DATA TO IBM CLOUD)

DATE	17 NOVEMBER 2022
TEAM ID	PNT2022TMID00837
PROJECT NAME	INDUSTRY-SPECIFIC INTELLIGENT FIRE MANAGEMENT SYSTEM
MAXIMUM MARKS	4 MARKS

### PROGRAM:

```
#IBM Watson IOT Platform
```

```
#pip install wiotp-sdk
```

```
import wiotp.sdk.device
```

```
import time import
```

```
random
```

```
myConfig = {
```

```
    "identity": {
```

```
        "orgId": "kojkab",
```

```
        "typeId": "1234",
```

```
        "deviceId": "lee123"
```

```
    },
```

```
    "auth": {
```

```
        "token": "987456321"
```

```
    }
```

```
}
```

```
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)
```

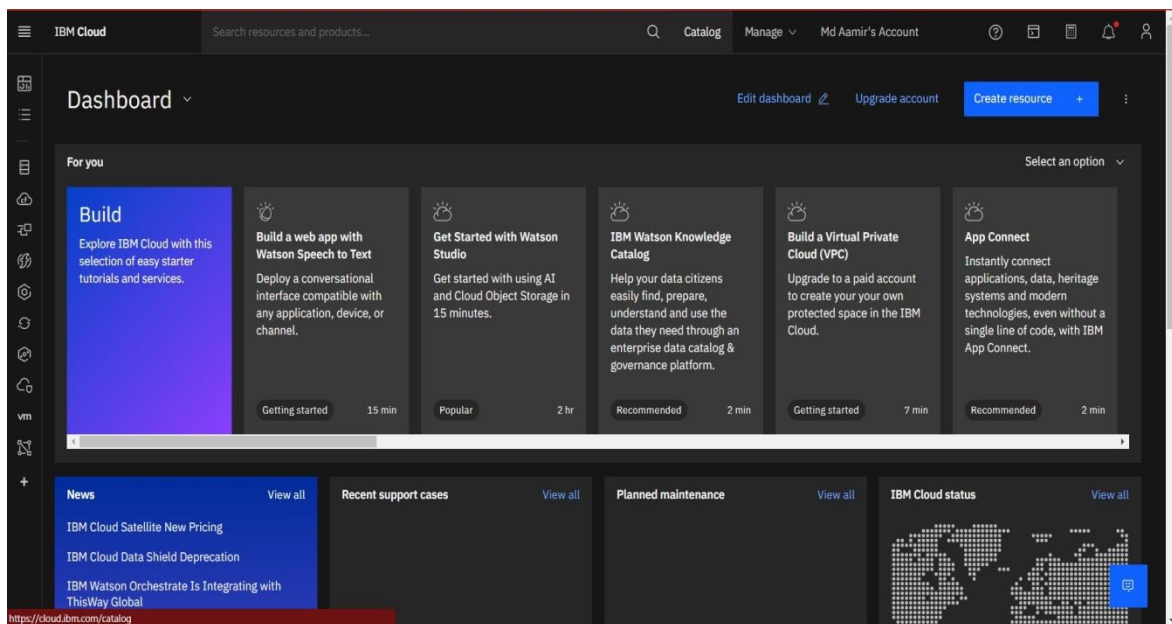
```
    hum=random.randint(0,100)    myData={'temperature':temp,
    'humidity':hum}
```

```
    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()
```



IBM Watson IoT Platform

211419104165@smartinternz.com  
ID: b4ct2l

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Device Drilldown - 12345

Connection Information

Recent Events

State

Device Information

Metadata

Diagnostics

Connection Logs

Device Actions

Connection Information

Basic connection information about this device.

Device ID

12345

Device Type

NodeMCU

Date Added

18 Nov 2022 17:04

Added By

211419104165@smartinternz.com

Connection Status

Disconnected

Recent Events

The recent events listed show the live stream of data that is coming and going from this device.

Event

Value

Format

Last Received

subscribe.py - E:\BM\Others\Develop a python script\subscribe.py (3.5.3)

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 3.5.3 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 0Ln 2 Col 15

The screenshot shows the AWS IoT console interface. At the top, there are tabs for 'Browse', 'Action', 'Device Types', and 'Interfaces'. On the right, there is an 'Add Device' button. The main content area displays details for a device named 'abcd', which is currently 'Disconnected'. The 'Recent Events' tab is selected, showing a table of events. The table has four columns: 'Event', 'Value', 'Format', and 'Last Received'. There are five rows of events, each with a random number value. At the bottom of the console, a status bar indicates '1 Simulation running'.

Event	Value	Format	Last Received
event_1	{"randomNumber":74}	json	a few seconds ago
event_1	{"randomNumber":47}	json	a few seconds ago
event_1	{"randomNumber":45}	json	a minute ago
event_1	{"randomNumber":19}	json	a minute ago
event_1	{"randomNumber":79}	json	a minute ago

1 Simulation running