

Develop a Python script and to Publish Data To The IBM Cloud

Team ID	PNT2022TMID52810
Project Name	Project - Signs with smart connectivity for Better road safety

Python Script:

```
import wiotp.sdk.device
import time
import random
import requests,json
myConfig = {
    "identity": {
        "orgId": "tmwrsv",
        "typeId": "Sprint",
        "deviceId": "sprint12"
    },
    "auth": {
        "token": "KxMwjzjw)BijreluFk"
    }
}
CITY = "Coimbatore"
API_KEY = "9111b726e6aa664188c5a2924f15f78e"
URL=
"https://api.openweathermap.org/data/2.5/weather?q=Coimbatore,%20IN&appid=9111b726e6aa664188c5a2924f15f78e"
response = requests.get(URL)
if response.status_code == 200:
    data = response.json()
    main = data['main']
    temp = round(main['temp'] - 273,2)
    humy = main['humidity']
    pres = main['pressure']
    rept = data['weather']
    report = rept[0]['description']
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:
    temp1=temp
    hum=humy
    pre = pres
    wea = report
    myData={'location':CITY,'temperature':temp, 'humidity':hum, 'pressure':pre,
'weather_report':wea}
    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()
```

Python Script:

iotopen.py - C:\Users\Welcome\AppData\Local\Programs\Python\Python311\iotopen.py (3.8.2)

File Edit Format Run Options Window Help

```
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import time
import random
import requests,json
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        "typeId": "Sprint",
        "deviceId": "sprint12"
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    "auth": {
        "token": "KxMwjzjwBijreIuFk"
    }
}
CITY = "Coimbatore"
API_KEY = "9111b726e6aa664188c5a2924f15f78e"
URL= "https://api.openweathermap.org/data/2.5/weather?q=Coimbatore,%20IN&appid=9111b726e6aa664188c5a2924f15f78e"
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while True:
    temp1=temp
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    wea = report
    myData={'location':CITY,'temperature':temp, 'humidity':hum, 'pressure':pre, 'weather_report':wea}
    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()
```


 Python 3.8.2 Shell

1761011 3.0.2 (64bit) 3.0.2.1000000, 100 20 2020, 20.05.20 / [RUC 4.1020 07 010 (RUC/07/)] 011 011020


```
2022-11-14 23:26:50,398    wiotp.sdk.device.client.DeviceClient  INFO    Connected successfully: d:tmwrsv:Sprint:sprint12
```

[illegible]

IBM Watson IoT Output:

IBM Watson IoT Platform

2004201ec@clt.edu.in
ID: tmwrsv

Browse

Action

Device Types

Interfaces

Add Device

1110

Disconnected

sprint12

Connected

Identity

Device Information

The recent events listed show the live

Event	Value
status	{\"location\":\"Coimbatore\",
status	{\"location\":\"Coimbatore\",
status	{\"location\":\"Coimbatore\",
status	{\"location\":\"Coimbatore\",
status	{\"location\":\"Coimbatore\",

Event Payload

Event Name

status

Time Received

Nov 14, 2022 11:39 PM

1

{

2

\"location\": \"Coimbatore\",

3

\"temperature\": 24.03,

4

\"humidity\": 88,

5

\"pressure\": 1016,

6

\"weather_report\": \"mist\"

7

}

1 Simulation running

IBM Watson IoT Platform

2004201ec@clt.edu.in
ID: tmwrsv

Browse

Action

Device Types

Interfaces

Add Device

1110

Disconnected

iot_new

Device

Nov 12, 2022 4:15 PM

sprint12

Connected

Sprint

Device

Nov 14, 2022 11:06 PM

→ ...

Identity

Device Information

Recent Events

State

Logs

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

Event	Value	Format	Last Received
status	{\"location\":\"Coimbatore\",\"temperature\":\"24.03,\"h...	json	a few seconds ago
status	{\"location\":\"Coimbatore\",\"temperature\":\"24.03,\"h...	json	a few seconds ago
status	{\"location\":\"Coimbatore\",\"temperature\":\"24.03,\"h...	json	a few seconds ago
status	{\"location\":\"Coimbatore\",\"temperature\":\"24.03,\"h...	json	a few seconds ago
status	{\"location\":\"Coimbatore\",\"temperature\":\"24.03,\"h...	json	a few seconds ago