

Publish Data to the IBM Cloud

Team ID	PNT2022TMID08717
Project Name	Smart Waste Management System For Metropolitan Cities

PYTHON SCRIPT

```
#IBM Watson IoT Platform
#pip install wiotp-sdk
import ibmiotf.application
import ibmiotf.device

import time
import random
myConfig = {
    "identity": {
        "orgId": "qippa4",
        "typeId": "nodesmcu",
        "deviceId": "200122"
    },
    "auth": {
        "token": "%screnaFQfaFcJFFltK"
    }
}

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()
```

```
Python 3.7.4 Shell
File Edit Shell Debug Options Window Help
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Python\Python37\PythonScript.py =====
2022-11-06 18:04:52,909 ibmiotf.device.Client INFO Connected successfully: d:dluuhi:SWMS:6032
Published Temperature = 73 C Humidity = 97 % to IBM Watson
Published Temperature = 29 C Humidity = 49 % to IBM Watson
Published Temperature = 22 C Humidity = 38 % to IBM Watson
Published Temperature = 38 C Humidity = 23 % to IBM Watson
Published Temperature = 62 C Humidity = 82 % to IBM Watson
Published Temperature = 96 C Humidity = 54 % to IBM Watson
Published Temperature = 93 C Humidity = 73 % to IBM Watson
Published Temperature = 25 C Humidity = 57 % to IBM Watson
Published Temperature = 67 C Humidity = 26 % to IBM Watson
Published Temperature = 98 C Humidity = 100 % to IBM Watson
Published Temperature = 92 C Humidity = 54 % to IBM Watson
Published Temperature = 6 C Humidity = 59 % to IBM Watson
Published Temperature = 97 C Humidity = 57 % to IBM Watson
Published Temperature = 64 C Humidity = 70 % to IBM Watson
Published Temperature = 38 C Humidity = 14 % to IBM Watson
Published Temperature = 6 C Humidity = 49 % to IBM Watson
Published Temperature = 59 C Humidity = 73 % to IBM Watson
Published Temperature = 57 C Humidity = 20 % to IBM Watson
Published Temperature = 3 C Humidity = 42 % to IBM Watson
Published Temperature = 19 C Humidity = 42 % to IBM Watson
Published Temperature = 68 C Humidity = 19 % to IBM Watson
Published Temperature = 10 C Humidity = 14 % to IBM Watson
Published Temperature = 32 C Humidity = 67 % to IBM Watson
|
Ln: 5 Col: 0
```

OUTPUT:

DATA IN IBM CLOUD PLATFORM:

The screenshot displays the IBM Cloud IoT Platform console interface. At the top, there are navigation tabs: 'Browse', 'Action', 'Device Types', and 'Interfaces'. A blue header bar contains the device ID '6032', its status 'Connected', the name 'SWMS', the label 'Device', and the timestamp 'Nov 6, 2022 2:57 PM'. Below this, a sub-header shows tabs for 'Identity', 'Device Information', 'Recent Events', 'State', and 'Logs', with 'Recent Events' currently selected. A message states: 'The recent events listed show the live stream of data that is coming and going from this device.' Below this message is a table with the following data:

Event	Value	Format	Last Received
IoTSensor	["temp":100,"Humid":49]	json	a few seconds ago
IoTSensor	["temp":4,"Humid":28]	json	a few seconds ago
IoTSensor	["temp":80,"Humid":86]	json	a few seconds ago
IoTSensor	["temp":28,"Humid":79]	json	a few seconds ago
IoTSensor	["temp":36,"Humid":98]	json	a few seconds ago

The bottom of the image shows a Windows taskbar with the search bar 'Type here to search', various application icons, and system status information including '29°C Partly cloudy', 'ENG', and the date '06-11-2022'.