

PYTHON SCRIPT TO PUBLISH DATA TO IBM CLOUD

Date	09 November 2022
Team ID	PNT2022TMID13383
Project Name	Project -Smart Waste Management System in Metropolitan Cities.
Maximum Marks	8 Marks

PYTHON CODE:

```
#IBM Watson IOT Platform

#pip install wiotp-sdk

import wiotp.sdk.device

import time

import random

myConfig = {
    "identity": {
        "orgId": "udgvx5",
        "typeId": "Level_Monitoring",
        "deviceId": "Python_Script"
    },
    "auth": {
        "token": "IBM_TEAM@123"
    }
}

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:
    latitude=random.uniform(27.2046,125.25)
    longitude=random.uniform(77.4977,100.1526)
```

```
binlevel=random.randint(10,100)
```

```
if binlevel >= 90:
```

```
    myData={'latitude':latitude,'longitude':longitude,'binlevel':binlevel}
```

```
    client.publishEvent(eventId="status",
```

```
    msgFormat="json", data=myData, qos=0,
```

```
    onPublish=None)
```

```
##print("Published data Successfully: %s", myData)
```

```
    print("BIN IS FULL!!!!",myData)
```

```
    client.commandCallback = myCommandCallback
```

```
    time.sleep(2)
```

```
else :
```

```
    print("BIN IS IN NORMAL LEVEL")
```

```
    time.sleep(2)
```

```
client.disconnect()
```

PYTHON CODE:

```
pythonscript.py - C:/Users/GOMAL/Documents/IBM documents/Team Deliverables/pythonscript.py (3.9.6)
File Edit Format Run Options Window Help
#IBM Watson IoT Platform
#pip install wiotp-sdk
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "udgvx5",
        "typeId": "Level_Monitoring",
        "deviceId": "Python_Script"
    },
    "auth": {
        "token": "IBM_TEAM8123"
    }
}
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:
    latitude=random.uniform(27.2046,125.25)
    longitude=random.uniform(77.4977,100.1526)
    binlevel=random.randint(10,100)
    if binlevel >= 90:
        myData={'latitude':latitude,'longitude':longitude,'binlevel':binlevel}
        client.publishEvent(eventId="status",
        msgFormat="json", data=myData, qos=0,
        onPublish=None)
        ##print("Published data Successfully: %s", myData)
        print("BIN IS FULL!!!!",myData)
        client.commandCallback = myCommandCallback
        time.sleep(2)
    else :
        print("BIN IS IN NORMAL LEVEL")
        time.sleep(2)
client.disconnect()
```

The screenshot shows a Windows desktop environment. At the top, there's a title bar for "IDLE Shell 396". Below it is a menu bar with options: File, Edit, Shell, Debug, Options, Window, Help. The main area of the shell displays the output of a Python script. It starts with "Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [MSC v.1929 64 bit (AMD64)] on win32". Then it prints "Type \"help\", \"copyright\", \"credits\" or \"license()\" for more information." followed by ">>>". A red line indicates a restart command: "RESTART: C:/Users/GOMAL/Documents/IBM documents/Team Deliverables/pythonscript.py =====". This is followed by another red line: "2022-11-09 20:03:00,814 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: dudgvx5:Level_Monitoring:python_script". The rest of the output consists of multiple lines of "BIN IS IN NORMAL LEVEL" and one line of JSON data: "{'latitude': 83.39636569909015, 'longitude': 95.20230389702733, 'binlevel': 96}". At the bottom of the screen is the Windows taskbar, which includes a system tray on the left showing "27°C Haze", several application icons (Task View, Edge, File Explorer, etc.), and a system tray on the right showing language ("ENG IN"), network status, and date/time ("09-11-2022").

```
Python 3.9.6 (tags/v3.9.6:db3fff76, Jun 28 2021, 15:26:21) [MSC v.1929 64 bit (AMD64)] on win
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/GOMAL/Documents/IBM documents/Team Deliverables/pythonscript.py (3.9.6)
=====
2022-11-09 20:03:00.814 wiotp.sdk.device.client.DeviceClient INFO Connected successful
l\y: d:\udgwx5\Level Monitoring\Python_Script
BIN IS IN NORMAL LEVEL
BIN IS IN NORMAL LEVEL
BIN IS IN NORMAL LEVEL
BIN IS IN NORMAL LEVEL
BIN IS IN NORMAL LEVEL
BIN IS IN NORMAL LEVEL
BIN IS FULL!!!! ('latitude': 83.39636566909015, 'longitude': 95.20230389702733, 'binlevel':
96)
BIN IS IN NORMAL LEVEL
BIN IS IN NORMAL LEVEL
BIN IS IN NORMAL LEVEL
BIN IS IN NORMAL LEVEL
BIN IS IN NORMAL LEVEL
BIN IS IN NORMAL LEVEL
BIN IS IN NORMAL LEVEL
BIN IS IN NORMAL LEVEL
BIN IS IN NORMAL LEVEL
BIN IS FULL!!!! ('latitude': 121.69499575852562, 'longitude': 92.62011757871596, 'binlevel':
90)
BIN IS IN NORMAL LEVEL
BIN IS IN NORMAL LEVEL
BIN IS IN NORMAL LEVEL
BIN IS IN NORMAL LEVEL
BIN IS IN NORMAL LEVEL
BIN IS IN NORMAL LEVEL
BIN IS IN NORMAL LEVEL
BIN IS IN NORMAL LEVEL
BIN IS IN NORMAL LEVEL
BIN IS IN NORMAL LEVEL

python3.py - C:/Users/GOMAL/Documents/IBM documents/Team Deliverables/pythonscript.py (3.9.6)
File Edit Format Run Options Window Help
#IBM Watson IoT Platform
#pip install wiotp-sdk
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "udgwx5",
        "typeId": "Level Monitoring",
        "deviceId": "PythOn_Script"
    },
    "auth": {
        "token": "IBM_TEAM@123"
    }
}
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:
    latitude=random.uniform(27.2046,125.25)
    longitude=random.uniform(77.4977,100.1526)
    binlevel=random.randint(10,100)
    if binlevel >= 90:
        myData={'latitude':latitude,'longitude':longitude,'binlevel':binlevel}
        client.publishEvent(eventId="status",
msgFormat="json", data=myData, qos=0,
onPublish=None)
        ##print("Published data Successfully: %s", myData)
        print("BIN IS FULL!!!!",myData)
        client.commandCallback = myCommandCallback
        time.sleep(2)
    else :
        print("BIN IS IN NORMAL LEVEL")
        time.sleep(2)
client.disconnect()
```

