

Python script to publish Data To IBM cloud

Date	30 November 2022
Team ID	PNT2022TMID40285
Title	Smart waste management system
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']

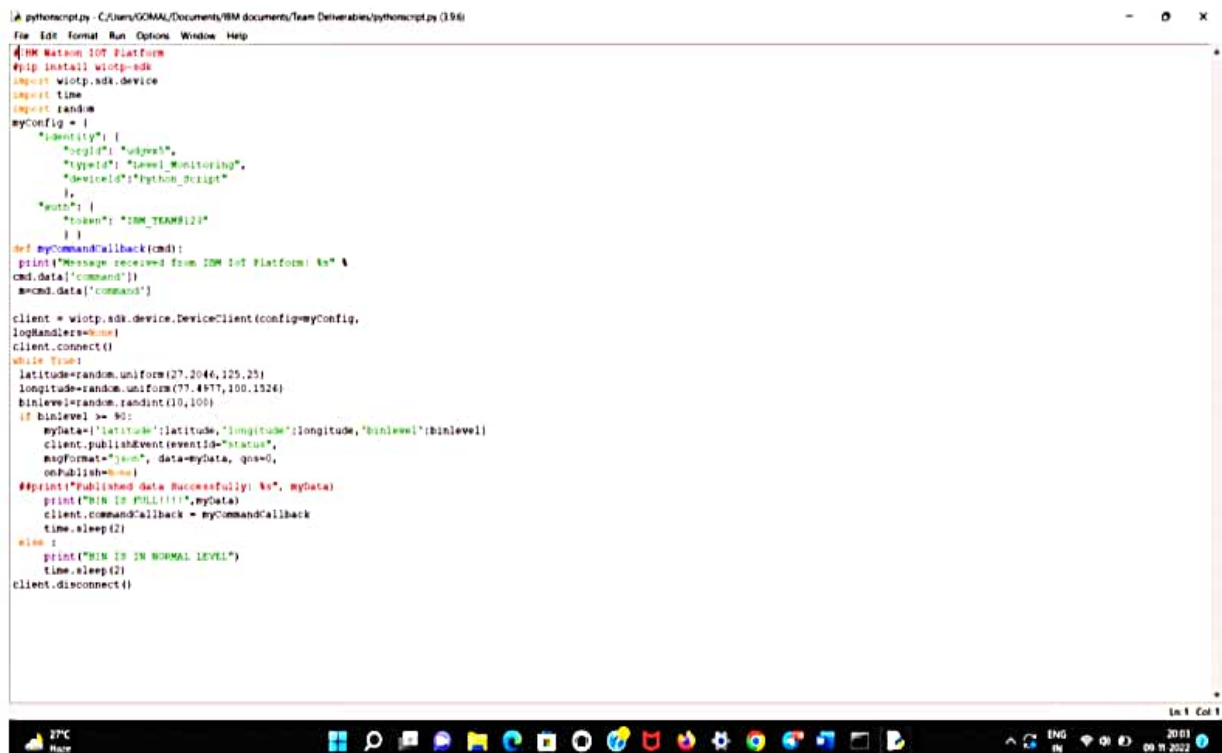
client = wiotp.sdk.device.DeviceClient(config=myConfig,
logHandlers=None)
client.connect()
while True:
    latitude=random.uniform(27.2046,125.25)
    longitude=random.uniform(77.4977,100.1526)
```

```

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 (396)
File Edit Format Run Options Window Help
IBM Watson IoT Platform
pip install wiop-sdk
import wiop.sdk.device
import time
import random
myconfig = {
    "identity": {
        "orgId": "edgehub",
        "typeId": "Level_Monitoring",
        "deviceId": "python_script"
    },
    "auth": {
        "token": "IBM_TEAMS123"
    }
}
def myCommandCallback(cmd):
    print("Message received from IBM IoT Platform: %s" %
        cmd.data["command"])
    mycmd.data["command"]

client = wiop.sdk.device.DeviceClient(config=myconfig,
    logHandler=None)
client.connect()
while True:
    latitude=random.uniform(27.2046,125.25)
    longitude=random.uniform(77.4977,100.1524)
    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()

```

[illegible]

The screenshot displays two Windows command prompts running Python code.

Left Prompt:

```
Python Shell VSP
File Edit Shell Debug Options Window Help
Python 3.9.6 (tags/b3.9.6:db3ff76, Jun 28 2021, 15:26:21) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
----- RESTART: C:/Users/GOMAL/Documents/IHM documents/Team Deliverables/pythonscript.py -----
2022-11-09 20:03:00.814 wiotp.sdk.device.client.DeviceClient INFO Connected successful
ip: debuggwsl Level_Monitoring:Python_Script
R/W 10 IN NORMAL LEVEL
R/W 10 IN NORMAL LEVEL
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```

Right Prompt:

```
Python Script - C:\Users\GOMAL\Documents\IHM documents\Team Deliverables/pythonscript.py [3.9]
File Edit Format Run Options Window Help
#M Watson_100 Platform
$pip install wiotp-sdk
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "ubgwsl",
        "typeId": "Level_Monitoring",
        "deviceId": "Python_Script"
    },
    "auth": {
        "token": "IHMT_EAMH121"
    }
}
def myCommandCallback(cmd):
    print("Message received from IHM IoT Platform: %s" % cmd.data['command'])
    m=cmd.data['command']

client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandler=None)
client.connect()
while True:
    latitude=random.uniform(17.2046,125.25)
    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("RCN 10 PULL!!!!",myData)
    client.commandCallback = myCommandCallback
    time.sleep(2)
else :
    print("R/W 10 IN NORMAL LEVEL")
    time.sleep(2)
client.disconnect()
```

IBM WATSON OUTPUT:

The screenshot displays the IBM Watson IoT Platform interface. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. The main content area is titled 'Python_Script' and 'Connected', with a sub-header 'Level_Monitoring' and 'Device'. The date 'Nov 9, 2022 7:59 PM' is shown. The 'Recent Events' tab is active, displaying a table of events. The table has columns for 'Event', 'Value', 'Format', and 'Last Received'. The events listed are 'status' with values representing latitude and longitude coordinates, all in 'json' format. The 'Last Received' column shows timestamps like 'a few seconds ago' and '2 minutes ago'. The bottom status bar indicates '0 Simulations running'.

Event	Value	Format	Last Received
status	("latitude":40.39402098307,"longitude":94.219...	json	a few seconds ago
status	("latitude":65.65569502609739,"longitude":96....	json	a few seconds ago
status	("latitude":116.25290465561541,"longitude":9...	json	a few seconds ago
status	("latitude":121.64499757852562,"longitude":9...	json	a minute ago
status	("latitude":83.29636569909015,"longitude":95...	json	2 minutes ago