

# TO DEVELOP A PYTHON SCRIPT

Date	16- November -2022
Team ID	PNT2022TMID48657
Project Name	Project-Smart Waste Management System in Metropolitan Cities.
Maximum Marks	8 Marks

## Python code

```
import wiotp.sdk.device
import time
import json

myConfig = {
    "identity": {
        "orgId": "90pizh",
        "typeId": "NodeMCU",
        "deviceId": "123456" },
    "auth": {
        "token": "8098439666"
    }
}

client = wiotp.sdk.device.DeviceClient(config=myConfig,
```

```
logHandlers=None)

client.connect()

while True:

name="smartbridge"

latitude=17.4225176

longitude=70.5450042

myData={'name': 'name', 'lat': latitude, 'lon': longitude}
client.publishEvent(eventId="status", msgFormat="json",
data=myData, qos=0, onPublish=None)

print ("Published data to IBM iot platform: %s", myData)

time.sleep (5)

client.disconnect ()
```

## PYTHON IDLE OUTPUT:



The screenshot displays the Python IDLE environment. The main window shows a Python script that configures a device client, connects to the IBM IoT platform, and enters a loop where it publishes data every 5 seconds. The script includes imports for the IoT SDK, time, and json modules. It defines a configuration dictionary with identity, authentication, and device details. The client is initialized and connected. The loop publishes data with the event ID 'status' in JSON format. A print statement shows the published data, and a sleep function is used to control the loop's frequency. The client is disconnected at the end of the script.

```
3.py - C:/Users/aaravinh/AppData/Local/Programs/Python/Python37/3.py (3.7.0)
File Edit Format Run Options Window Help
import wiotp.sdk.device
import time
import json
myConfig = {
    "identity": {
        "orgId": "9opizh",
        "typeId": "NodeMCU",
        "deviceId": "123456"
    },
    "auth": {
        "token": "8098439666"
    }
}
client = wiotp.sdk.device.DeviceClient(config=myConfig,
logHandlers=None)
client.connect()

while True:
    name="smartbridge"
    latitude=17.4225176
    longitude=70.5450042
    myData={'name': 'name', 'lat': latitude, 'lon': longitude}
    client.publishEvent(eventId="status", msgFormat="json",
data=myData, qos=0, onPublish=None)
    print ("Published data to IBM iot platform: %s", myData)
    time.sleep (5)

client.disconnect ()
```

The right-hand pane shows the output of the script, displaying a series of 'n' characters, which likely represent the data being published or a log of the loop's execution.

```
Python 3.7.0 Shell
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
== RESTART: C:/Users/aaravinth/AppData/Local/Programs/Python/Python37/3.py ==
2022-11-16 21:41:02,804 wiotp.sdk.device.client.DeviceClient INFO Connecte
d successfully: d:9opizh:NodeMCU:123456Published data to IBM iot platform: %s
{'name': 'name', 'lat': 17.4225176, 'lon': 70.5450042}
Published data to IBM iot platform: %s {'name': 'name', 'lat': 17.4225176, 'lon'
: 70.5450042}
Published data to IBM iot platform: %s {'name': 'name', 'lat': 17.4225176, 'lon'
: 70.5450042}
Published data to IBM iot platform: %s {'name': 'name', 'lat': 17.4225176, 'lon'
: 70.5450042}
Published data to IBM iot platform: %s {'name': 'name', 'lat': 17.4225176, 'lon'
: 70.5450042}
Published data to IBM iot platform: %s {'name': 'name', 'lat': 17.4225176, 'lon'
: 70.5450042}
Published data to IBM iot platform: %s {'name': 'name', 'lat': 17.4225176, 'lon'
: 70.5450042}
Published data to IBM iot platform: %s {'name': 'name', 'lat': 17.4225176, 'lon'
: 70.5450042}
```

IBM Watson IoT Platform

920819106006@smartinternz.com  
ID: 9opizh

Browse Action Device Types Interfaces

Search by Device ID

Device Simulator

Device ID	Status	Device Type	Class ID	Date Added
123456	Connected	NodeMCU	Device	Nov 16, 2022 11:42 AM

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	{"name":"name","lat":17.4225176,"lon":70.545...	json	a few seconds ago
status	{"name":"name","lat":17.4225176,"lon":70.545...	json	a few seconds ago
status	{"name":"name","lat":17.4225176,"lon":70.545...	json	a few seconds ago
status	{"name":"name","lat":17.4225176,"lon":70.545...		

0 Simulations running