

## **DEVELOP THE PYTHON SCRIPT**

<b>TEAM ID</b>	PNT2022TMID06962
<b>PROJECT NAME</b>	Smart Waste managementsystem for metropolitan cities

### **PYTHON CODE:**

```
import random
```

```
import time
```

```
import sys
```

```
import ibmiotf.application
```

```
import ibmiotf.device
```

```
# Provide your IBM Watson Device Credentials
```

```
organization = "48az6e" # repalce it with organization ID
```

```
deviceType = "DGGI" # replace it with device type
```

```
deviceId = "1234" # repalce with device id
```

```
authMethod = "token"
```

```
authToken = "12345678" # repalce with token
```

```
def myCommandCallback(cmd):
```

```
    print("Command received: %s" % cmd.data['command'])
```

```
    status=cmd.data['command']
```

```
if status == 'lighton':
    print("LIGHT ON")
elif status == 'lightoff':
    print("LIGHT OFF")
else:
    print ("please send proper command")
```

```
try:
    deviceOptions = {"org": organization, "type": deviceType, "id": deviceId,
"auth-method": authMethod,
                    "auth-token": authToken}
    deviceCli = ibmiotf.device.Client(deviceOptions)
# .....
```

```
except Exception as e:
    print("Caught exception connecting device: %s" % str(e))
    sys.exit()
```

```
deviceCli.connect()
```

```
while True:
    w= random.randint(0,100)
    l = random.randint(0,100)

    # Send Temperature & Humidity to IBM Watson
    data = {'weight': w,'level':l}
```

```

# print data

def myOnPublishCallback():

    print("Published data",data, "to IBM Watson")


success = deviceCli.publishEvent("event", "json", data, 0,
myOnPublishCallback)

if not success:

    print("Not connected to IoT")

time.sleep(5)

deviceCli.commandCallback = myCommandCallback


# Disconnect the device and application from the cloud
devicecli.disconnect()

```

## OUTPUT



```

Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Published data ('weight': 6, 'level': 70) to IBM Watson
Published data ('weight': 38, 'level': 84) to IBM Watson
Published data ('weight': 27, 'level': 96) to IBM Watson
Published data ('weight': 20, 'level': 30) to IBM Watson
Published data ('weight': 52, 'level': 36) to IBM Watson
Published data ('weight': 48, 'level': 13) to IBM Watson
Published data ('weight': 6, 'level': 84) to IBM Watson
Published data ('weight': 16, 'level': 4) to IBM Watson
Published data ('weight': 88, 'level': 41) to IBM Watson
Published data ('weight': 16, 'level': 19) to IBM Watson
Published data ('weight': 89, 'level': 100) to IBM Watson
Published data ('weight': 30, 'level': 34) to IBM Watson
Published data ('weight': 41, 'level': 32) to IBM Watson
Published data ('weight': 100, 'level': 47) to IBM Watson
Published data ('weight': 54, 'level': 23) to IBM Watson
Published data ('weight': 35, 'level': 27) to IBM Watson
Published data ('weight': 5, 'level': 94) to IBM Watson
Published data ('weight': 37, 'level': 95) to IBM Watson
Published data ('weight': 97, 'level': 66) to IBM Watson
Published data ('weight': 45, 'level': 49) to IBM Watson
Published data ('weight': 94, 'level': 5) to IBM Watson
Published data ('weight': 12, 'level': 28) to IBM Watson
Published data ('weight': 61, 'level': 59) to IBM Watson
Published data ('weight': 31, 'level': 38) to IBM Watson
Published data ('weight': 95, 'level': 12) to IBM Watson
Published data ('weight': 67, 'level': 78) to IBM Watson
Published data ('weight': 49, 'level': 91) to IBM Watson
Published data ('weight': 15, 'level': 25) to IBM Watson
Published data ('weight': 58, 'level': 97) to IBM Watson
Published data ('weight': 85, 'level': 7) to IBM Watson
Published data ('weight': 1, 'level': 7) to IBM Watson
Published data ('weight': 49, 'level': 84) to IBM Watson
Published data ('weight': 84, 'level': 16) to IBM Watson
Published data ('weight': 6, 'level': 29) to IBM Watson
Published data ('weight': 90, 'level': 10) to IBM Watson
Published data ('weight': 37, 'level': 50) to IBM Watson
Published data ('weight': 31, 'level': 22) to IBM Watson
Published data ('weight': 50, 'level': 6) to IBM Watson
Published data ('weight': 61, 'level': 59) to IBM Watson
Published data ('weight': 29, 'level': 63) to IBM Watson
Published data ('weight': 10, 'level': 23) to IBM Watson
Published data ('weight': 37, 'level': 36) to IBM Watson
Published data ('weight': 2, 'level': 66) to IBM Watson
Published data ('weight': 14, 'level': 24) to IBM Watson
Published data ('weight': 67, 'level': 55) to IBM Watson
Published data ('weight': 20, 'level': 45) to IBM Watson

```

# PUSH IBM CLOUD

IBM Watson IoT Platform

Search by Device ID

Device Simulator

Device ID

Status

Device Type

Class ID

Date Added

Descriptive Location

1234

Connected

DGGI

Device

Nov 10, 2022 10:57 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
iyappan	{"randomNumber":84,"temp":94,"hum":56}	json	a few seconds ago
event	{"weight":94,"level":23}	json	a few seconds ago
iyappan	{"randomNumber":72,"temp":103,"hum":70}	json	a few seconds ago
iyappan	{"randomNumber":89,"temp":90,"hum":60}	json	a few seconds ago

1 Simulation running