

PYTHON SCRIPT

Date	10 NOVEMBER 2022
Team ID	PNT2022TMID422266
Project Name	SMART WASTE MANAGEMENT SYSTEM IN METROPOLITAN CITIES

PYTHON CODE:

```
#IBM Watson IOT Platform

#pip install wiotp-sdk

import wiotp.sdk.device

import time

import random

myConfig = {
    "identity": {
        "orgId": "zpypic",
        "typeId": "ESP-32",
        "deviceId": "DHT-22"
    },
    "auth": {
        "token": "Hari@321"
    }
}

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 :

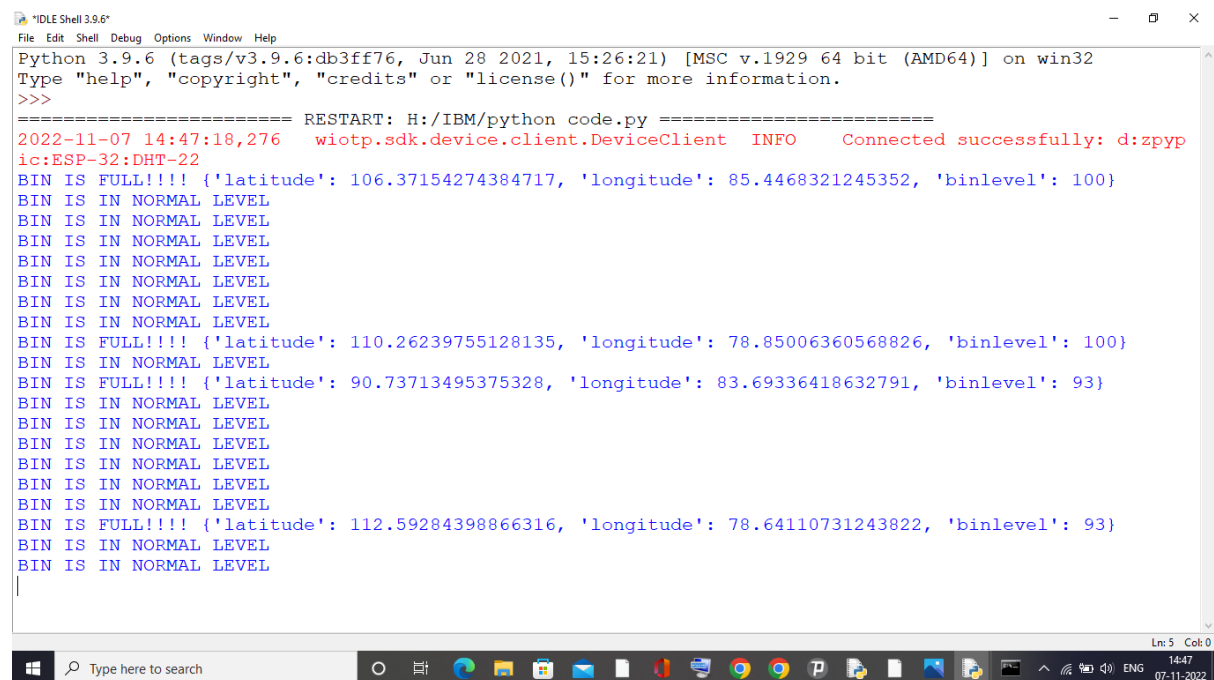
    print("BIN IS IN NORMAL LEVEL")

    time.sleep(2)

client.disconnect()

```

OUTPUT:



```

Python 3.9.6 (tags/v3.9.6: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: H:/IBM/python code.py =====
2022-11-07 14:47:18,276 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:zpyy
ic:ESP-32:DHT-22
BIN IS FULL!!!! {'latitude': 106.37154274384717, 'longitude': 85.4468321245352, 'binlevel': 100}
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': 110.26239755128135, 'longitude': 78.85006360568826, 'binlevel': 100}
BIN IS IN NORMAL LEVEL
BIN IS FULL!!!! {'latitude': 90.73713495375328, 'longitude': 83.69336418632791, 'binlevel': 93}
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': 112.59284398866316, 'longitude': 78.64110731243822, 'binlevel': 93}
BIN IS IN NORMAL LEVEL
BIN IS IN NORMAL LEVEL

```

RESULT:

Thus the python code for the smart waste management is coded and compiled successfully.