

Coding and Solution

TEAM ID	PNT2022TMID33826
PROJECT NAME	Smart Waste Management System For Metropolitan Cities

PYTHON CODE:

```
import time import sys
import ibmiotf.application import ibmiotf.device import random

#Provide your IBM Watson Device Credentials organization = "3f3tah"
deviceType = "sensor" deviceId = "123456" authMethod = "token" authToken =
"1234567890"

# Initialize GPIO

print("Command received: %s" % cmd.data['command'])
status=cmd.data['command'] if status=="binfull":
print ("  EMPTY THE BIN
IMMEDIATELY  ")

#print(cmd)
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()

# Connect and send a datapoint "hello" with value "world" into the cloud as an event of type
"greeting" 10 times
```

```
time.sleep(5)
```

```
success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0,  
on_publish=myOnPublishCallback)
```

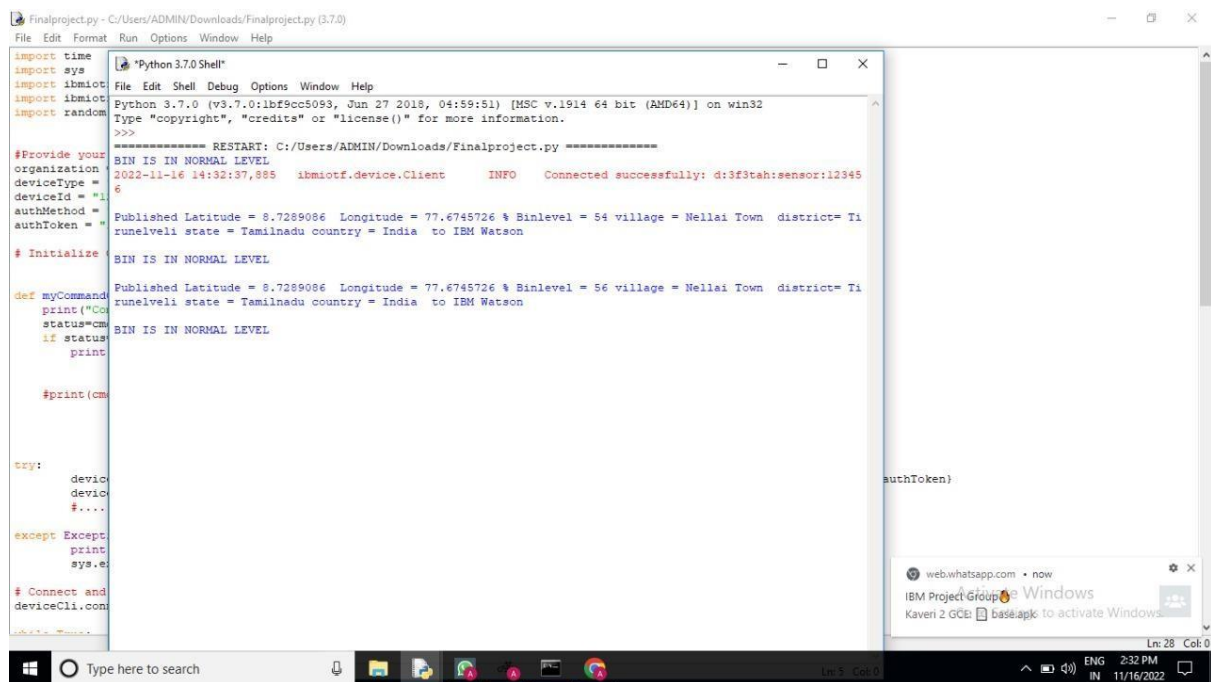
```
if not success:
```

```
print("Not connected to IoT") time.sleep(1)
```

```
# Disconnect the device and application from the cloud
```

```
deviceCli.disconnect()
```

Code Output:



```
Finalproject.py - C:/Users/ADMIN/Downloads/Finalproject.py (3.7.0)  
File Edit Format Run Options Window Help  
Python 3.7.0 Shell  
File Edit Shell Debug Options Window Help  
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/ADMIN/Downloads/Finalproject.py =====  
2022-11-16 14:32:37,885 ibmiotf.device.Client INFO Connected successfully: d:3f3tah:sensor:12345  
6  
Published Latitude = 8.7289086 Longitude = 77.6745726 Binlevel = 54 village = Nallai Town district= Ti  
runelveli state = Tamilnadu country = India to IBM Watson  
# Initialize  
BIN IS IN NORMAL LEVEL  
Published Latitude = 8.7289086 Longitude = 77.6745726 Binlevel = 56 village = Nallai Town district= Ti  
runelveli state = Tamilnadu country = India to IBM Watson  
def myCommand  
print("Co  
status=cm  
if status  
print  
#print(cm  
try:  
device  
device  
#...  
except Except  
print  
sys.e  
# Connect and  
deviceCli.com
```

