DELIVERY OF SPRINT – 1

TEAM ID	PNTIBMTMID44655
PROJECT NAME	SMARTWASTE MANAGEMENT SYSTEM FOR METROPOLITIAN CITIES-IOT

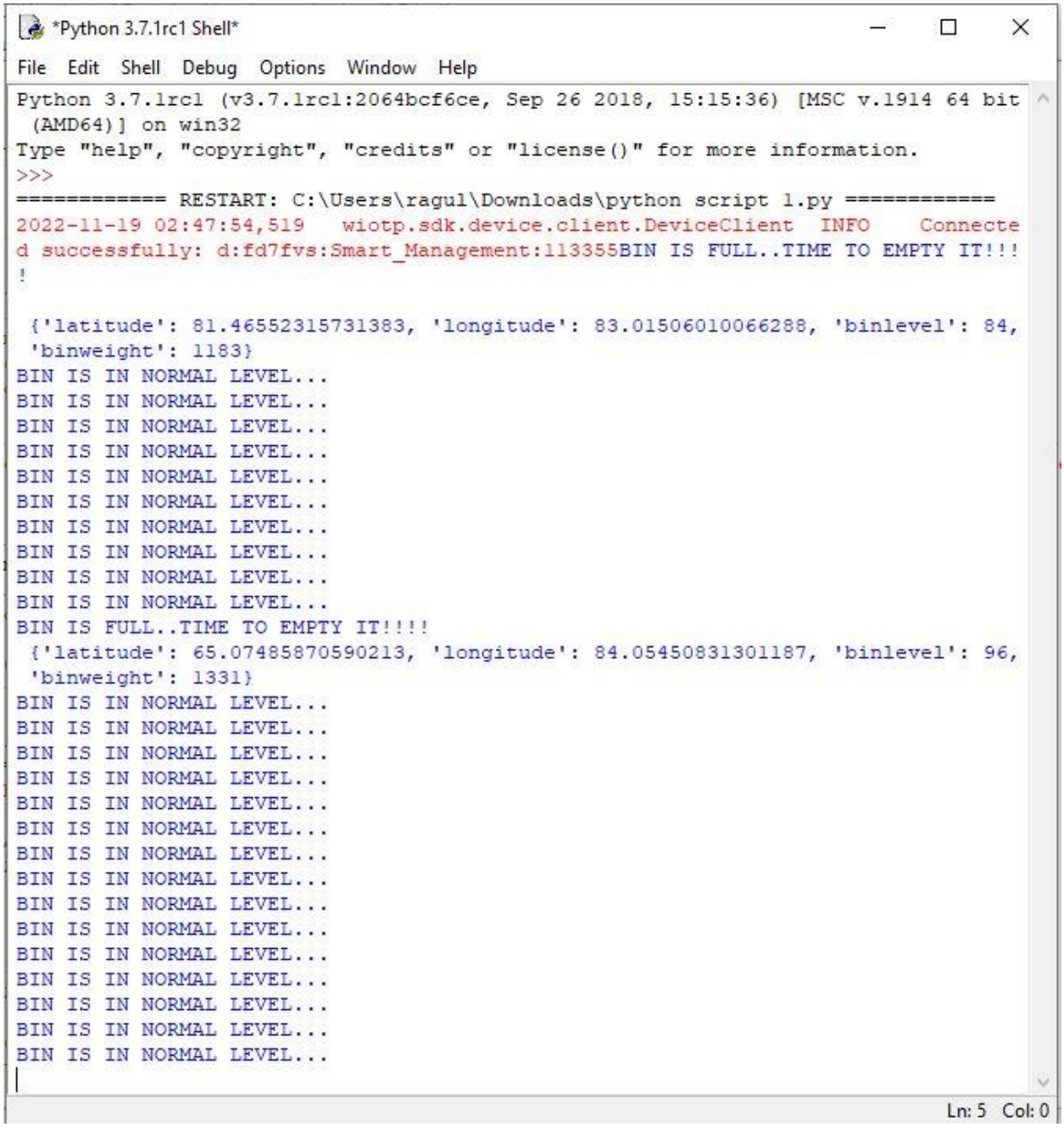
PYTHON SCRIPT:

```
#Installing necessary libraries
import wiotp.sdk.device
import time
import random
import requests
import math
#Configuration details for connecting python script to IBM Watson IOT Platform
myConfig = {
"identity": {
"orgId": "fd7fvs",
"typeId": "Smart_Management",
"deviceId":"113355"
},
"auth": {
"token": "1122334455"
} }
def myCommandCallback(cmd):
```

```
 print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
 m=cmd.data['command']
#Connecting the client to ibm watson iot platform
client = wiotp.sdk.device.DeviceClient(config=myConfig,logHandlers=None)
client.connect()
#Generate Random values for latitude, longitude in a circular distribution from the current location and
#alert the garbage collector to go to the particular location where the bin level and bin weight exceeds the threshold
while True:

 latitude=random.uniform(27.2046,125.25)
 longitude=random.uniform(77.4977,100.15)
 binlevel=random.randint(10,100)
 binweight = random.randint(50,1500)

 if binweight>=1000 and binlevel>80:
     myData={'latitude':latitude, 'longitude':longitude,'binlevel':binlevel,
     'binweight':binweight}
     client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=
    0, onPublish=None)
     ##print("Published data Successfully: %s", myData)
     print("BIN IS FULL..TIME TO EMPTY IT!!!!\n",myData)
```

```
    client.commandCallback = myCommandCallback
    time.sleep(2)
    #break

 else :
    print("BIN IS IN NORMAL LEVEL...")
    time.sleep(2)

#Disconnect the client connection
client.disconnect()
```

OUTPUT:


Python 3.7.1rc1 Shell
File Edit Shell Debug Options Window Help
Python 3.7.1rc1 (v3.7.1rc1:2064bcf6ce, Sep 26 2018, 15:15:36) [MSC v.1914 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: C:\Users\ragul\Downloads\python script 1.py ==========
2022-11-19 02:47:54,519 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:fd7fvs:Smart_Management:113355BIN IS FULL..TIME TO EMPTY IT!!!!
{'latitude': 81.46552315731383, 'longitude': 83.01506010066288, 'binlevel': 84, 'binweight': 1183}
BIN IS IN NORMAL LEVEL...
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BIN IS IN NORMAL LEVEL...
BIN IS FULL..TIME TO EMPTY IT!!!!
{'latitude': 65.07485870590213, 'longitude': 84.05450831301187, 'binlevel': 96, 'binweight': 1331}
BIN IS IN NORMAL LEVEL...
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Ln: 5 Col: 0