DELIVERY OF SPRINT-2

Date	02 November 2022
Team ID	PNT2022TMID03066
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

= "2melo1" deviceType =

"waste" deviceId = "1234" authMethod =

"token" authToken = "12345678"


# Initialize GPIO



def myCommandCallback(cmd):          print("Command received:

%s" % cmd.data['command']) status=cmd.data['command']  if

status=="waste level":

      print ("waste level monitored")
```

```
    else :
        print ("weight level monitored")


    #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 deviceCli.connect()

while True:
        #Get Sensor Data from DHT11


        level=random.randint(0,100) weight=random.randint(0,100)


        data = { 'level' : level, 'weight': weight }
        #print data
        def myOnPublishCallback():
```

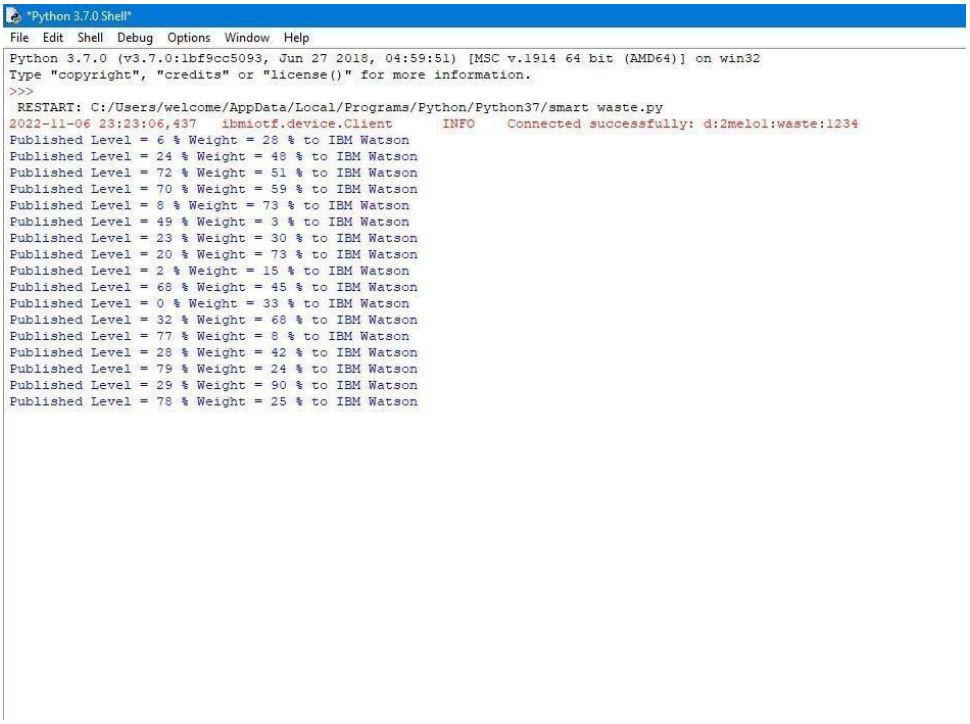
```
print ("Published Level = %s %%" % level, "Weight = %s %%" % weight, "to IBM Watson")

success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0,
on_publish=myOnPublishCallback)
    if not success:  print("Not  connected    to
                IoTF")
time.sleep(20)

deviceCli.commandCallback = myCommandCallback

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

OUTPUT:



NODE RED INPUT AND OUPUT: