RESOURCE FILE

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

Python Script:

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



# watson device details

organization = "fd7fvs"
devicType = "Smart_Management"
deviceId = "113355"
authMethod= "token"
authToken= "1122334455"

#generate random values for random variables (Distance and load)
```

```
def myCommandCallback(cmd):
    global a
    print("command recieved:%s" %cmd.data['command'])
    control=cmd.data['command']
    print(control)

try:
        deviceOptions={"org": organization, "type": devicType,"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 "Distance" with value integer value into the
cloud as a type of event for every 10 seconds
deviceCli.connect()

while True:
    lat=10.9368
    lon=78.1366
    bin_level= random.randint(1,75)
    bin_weight= random.randint(0,20)
    data=
{'Bin_level':bin_level,'Bin_Weight':bin_weight,'latitude':lat,'longitude':lon}
    warn={}
    if bin_weight<5 and bin_weight>0:
        weight="20%"
```

```
elif bin_weight<10 and bin_weight>5:
    weight="40%"
elif bin_weight<15 and bin_weight>10:
    weight="60%"
elif bin_weight<18 and bin_weight>15:
    weight="80%"
elif bin_weight<20 and bin_weight>18:
    weight="90%"
else:
    weight="100%"

if bin_level<7 and bin_level>1:
    level="90%"
elif bin_level<15 and bin_level>7:
    level="80%"
elif bin_level<30 and bin_level>15:
    level="60%"
elif bin_level<45 and bin_level>30:
    level="40%"
elif bin_level<60 and bin_level>45:
    level="20%"
elif bin_level<75 and bin_level>60:
    level="10%"
else:
    level="0%"

if(level=="90%" or weight=="90%"):
        warn={'Alert':'Dustbin is almost filled'}


    def myOnPublishCallback(latitude=10.9368,longitude=78.1366):
        print("Nammakal,komarapalayam,Tamilnadu")
        print("published Level of bin = %s " %level,"weight= %s " %weight,
"Latitude = %s " %latitude,"Longitude = %s " %longitude)
        print(weight)
        print(level)
        print(warn)


    time.sleep(10)



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


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




    if not success:
        print("not connected to ibmiot")
    time.sleep(20)
    deviceCli.commandCallback=myCommandCallback
#disconnect the device
deviceCli.disconnect()
```