PYTHON SCRIPT

DATE	25 AUGUST 2022
TEAM ID	PNT2022TMID11010
PROJECT NAME	SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITAN CITIES

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

# watson device details
organization ="iufdwo"
devicType ="ESP32_Controller"
deviceId ="BME280_Sensor"
authMethod ="token"
authToken ="12345678"


# generate random values for randomo variables (temperature&humidity)
def myCommandCallback(cmd):
global a
print("command recieved:%s" % cmd.data['command'])
control = cmd.data['command']
print(control)
try:
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    deviceOptions = {"org": organization, "type": devicType, "id": deviceId, "authmethod":
authMethod, "authtoken": 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 "temp" with value integer value into the cloud as a type of event for
every 10 seconds

deviceCli.connect()

while True:

distance = random.randint(10, 70)

loadcell = random.randint(5, 15)

data ={'dist': distance, 'load': loadcell}

if loadcell < 13 and loadcell > 15:

load = "90 %"

elif loadcell < 8 and loadcell > 12:

load = "60 %"

elif loadcell < 4 and loadcell > 7:

load = "40 %"

else:

load = "0 %"

if distance < 15:

    dist = 'Risk warning:' 'Dumpster poundage getting high, Time to collect :) 90 %'

elif distance < 40 and distance > 16:

    dist = 'Risk warning:' 'dumpster is above 60%'

    elif distance < 60and distance > 41: dist =

'Risk warning:' '40 %'

else:

dist = 'Risk warning:' '17 %'


if

    load == "90 %" or distance == "90 %":
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warn = 'alert :' ' Dumpster poundage getting high, Time to collect :)'
elif load == "60 %" or
distance == "60 %":
warn = 'alert :'
'dumpster is above 60%' else:
warn = 'alert :' 'No need to collect right now '


def myOnPublishCallback(lat=10.678991, long=78.177731):
    print("Gandigramam, Karur")
    print("published distance = %s " % distance, "loadcell:%s "
        % loadcell, "lon = %s " % long, "lat = %s" % lat)
    print(load)
    print(dist)
    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(30)

deviceCli.commandCallback = myCommandCallback
# disconnect the device deviceCli.disconnect
```