PYTHON SCPRIT

Date	3 November 2022
Team ID	PNT2022TMID42565
Project Name	Smart Waste Management System For Metropolitan Cities
Maximum Marks	4 Marks

PYTHON CODE

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


organization = "70icwf"
deviceType="1234"
deviceId="12345678"
authMethod="token"
authToken="S_OVsw4ICr5-Vk9A9x"



def myCommandCallback(cmd):
        global a
        print("Command received: %s" %cmd.data['command'])
        control=cmd.data['command']
        print(control)
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()
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 = 'Warning:' 'Trash is getting high, Time to collect 90 %'

        elif distance < 40 and distance >16:
             dist = 'Warning:' 'Trash is above 70 %'

        elif distance < 60 and distance > 41:
             dist = 'Warning:' '40 %'
        else:
             dist = 'Warning:' '17 %'
        if load == "90 %" or distance == "90 %":
           warn = 'alert:' ' Warning: Trash poundage getting high, Time to collect'
        elif load == "60%" or distance == "60 %":
             warn = 'alert:' 'Trash is above 60%'
        else :
             warn = 'alert:"No need to collect right now'
        def myOnPublishCallback(lat=11.0168,long=76.9558):
            print("Coimbatore")
            print("published distance = %s" %distance, "loadcell:%s" %loadcell, "lon=
%s"%long,"lat=%s" %lat)
            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 connnected to ibmiot")
```

```
        time.sleep(20)
        deviceCli.commandCallback=myCommandCallback
deviceCli.disconnect()
```