## Develop a python script

Team id	PNT2022TMID46746
Project Name	PROJECT- SMART WASTE MANAGEMENT
	SYSTEM FOR METROPOLITAN CITIES

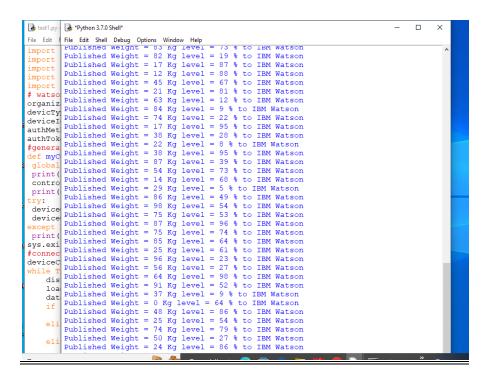
## PROGRAM:

```
import ibmiotf.application
import ibmiotf.device
import time
import random
import sys
# watson device details
organization ="7tbblb"
devicType ="IBM1"
deviceId ="IBM1ID"
authMethod="use-token-auth"
authToken="123456789"
#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:
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 < 60 and distance > 41:
     dist ='Risk warning:' '40 %'
  else:
     dist = 'Risk warning:' '17 %'
  if load == "90 %" or distance == "90 %":
     warn = 'alert :' ' Dumpster poundage getting high, Time to collect :)'
  elif load == "60 %" or distance == "60 %":
     warn = 'alert :"dumpster is above 60%'
     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

## python script:



## **IBM CLOUD OUTPUT:**

