Develop a python script

Team ID	PNT2022TMID22821
Project Name	Smart waste management system for metropolitan cities

Step 1: Open python idle Step2: Type the program Step 3: Then click on file and save the document Step 4: Then click on Run then Run Module Step 5: output will be appeared in the idle window

Python script

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

# watson device details
organization          =
"4yi0vc"   devicType   =
"BIN1"    deviceId    =
"BIN1ID"    authMethod=
"token"      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,"auth-
method":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 secondsdeviceCli.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 %":
 '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
```

Screenshots Python script: