TEAM ID	PNT2022TMID37162
PROJECT NAME	SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITAN CITIES

PYTHON CODE TO PUBLISH DATA TO IBM CLOUD:-

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


organization = "mfy87c"
deviceType = "device3"
deviceId = "1357"
authMethod = "token"
authToken = "12345678"


def myCommandCallback(cmd):
   print("Command recieved : %s"% cmd.data['command'])
   status = cmd.data['command']
   if status == "lighton":
      print("LED is on")
   else:
      print("LED is Off")


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:
        BinLevel=random.randint(0,100)
        Space=random.randint(0,100)


        data={'BinLevel':BinLevel,'Space':Space}


        if BinLevel > 90 and Space <25:
           warn = 'alert bin full'
        elif BinLevel > 60 and Space < 50:
           warn = 'Time to clean'
        else:
           warn= 'May be cleaned later'


        def myOnPublishCallback():
           print("Published BinLevel = %s "%BinLevel , "Space =%s "%Space,"to IBM Watson")
           print(warn)
        success =
deviceCli.publishEvent("IoTSensor","json",data,qos=0,on_publish=myOnPublishCallback)
        if not success:
           print("Not cnncted to IOTF")
        time.sleep(10)
        deviceCli.commandCallback=myCommandCallback
deviceCli.disconnect()
```