

DATE	14 NOVEMBER 2022
TEAM ID	PNT2022TMID25449
PROJECT NAME	Smart waste management system
MAXIMUM MARKS	2 marks

CODE:

```

import random
import sys
import ibmiotf.application
import ibmiotf.device

#Provide your IBM Watson Device Credentials
organization = "a7mbs7"
deviceType = "Smartgarbagebins"
deviceId = "Bin1"
authMethod = "token"
authToken = "Sakthi@2001"

# Initialize GPIO

def myCommandCallback(cmd):
    try:
        #.....
    except Exception as e:
        #Connect and send a datapoint "hello" with value "world" into the cloud as an event of type
        #Connect and send a datapoint "hello" with value "world" into the cloud as an event of type

deviceCli.connect()

while True:
    long = round(random.uniform(76.80, 76.90), 6)
    GPS = str(lat) + str(',') + str(long)

```

```
myData = {'Ultrasonic' : Ultrasonic, 'Weight' : Weight , 'GPS' : GPS}
#print data
def myOnPublishCallback():
print ("Published Ultrasonic = %s Cm" %Ultrasonic, "Weight:%s kg " %Weight, "GPS: %s"%GPS)
success = deviceCli.publishEvent("IoTSensor", "json", data=myData, qos=0,
on_publish=myOnPublishCallback)
if not success:
print("Not connected to IoT")
time.sleep(1)
deviceCli.commandCallback = myCommandCallback
# Disconnect the device and application from the cloud
deviceCli.disconnect()
```

RESULT:

Thus the node-red application is successfully developed