SOURCE CODE

TEAM ID:PNT2022TMID08158

```
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random
#Provide your IBM Watson Device Credentials
organization = "owxp6u"
deviceType = "Smartbin"
deviceId = "Bin1"
authMethod = "token"
authToken= "12345678910"
# Initialize GPIO
def myCommandCallback(cmd):
   print("Command received: %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()

# Connect and send a datapoint "hello" with value "world" into the cloud as an event of type
"greeting" 10 times
deviceCli.connect()

while True:
      #Get Sensor Data from DHT11
      time.sleep(5)
      ultrasensor=random.randint(0,80)
      capacity=random.randint(0,100)
      lat=round(random.uniform(12.03,13.05),6)
      lon=round(random.uniform(80.80,85.90),6)
      data = { 'ultrasonicsensor' : ultrasensor, 'capacity': capacity,'lat':lat,'lom':lon}
      #print data
      def myOnPublishCallback():
         print ("Published ultrasonicsensor = %s Cm" % ultrasensor, "capacity= %s kg" %
capacity,"lat:%s"%lat,"lon:%s"%lon)

      success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0,
on_publish=myOnPublishCallback)
```

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        if not success:
            print("Not connected to IoTF")
        time.sleep(1)

        deviceCli.commandCallback = myCommandCallback

# Disconnect the device and application from the cloud
deviceCli.disconnect()
```