SOURCE CODE:

Python Code for Temperature and Humidity Check

```
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random
# Initialize GPIO
#Provide your IBM Watson Device Credentials
organization = "luhwj8"
deviceType = "IOTdevice-1"
deviceId = "123456
" authMethod = "use-token-auth"
authToken="CNCJXKF5f&WYESGhdt
def myCommandCallback(cmd):
   print("Command received: %s" % cmd.data['command'])
   Status=cmd.data['command']
   if Status=="Alert":
      print("Alert")
      #print(cmd)


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

    temp =random.randint(0,100)

    humid =random.randint(0,100)

    oxygen =random.randint(0,100)

    data = { 'temp' : temp, 'humidity': humid ,'oxygen': oxygen}

    data1 = { 'High temperature' : temp>60}

    #print data

    def myOnPublishCallback():

        print ("Published Temperature = %s C" % temp, "humidity = %s %%" % humid,"alert", "to IBM Watson")

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


    if not success:

      print("Not connected to IoTF")

    time.sleep(1)

    deviceCli.commandCallback = myCommandCallback

# Disconnect the device and application from the cloud

deviceCli.disconnect()
```