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

#Provide your IBM Watson Device Credentials
organization = "4aqwut"
deviceType = "12345678dt"
deviceId = "12345678did"
authMethod = "token"
authToken = "*PrtsGA0?B@_tTPEKT"

# Initialize GPIO
def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
    status=cmd.data['command']
    if status=="sprinkleron":
        print ("Sprinkler is on")
    elif status == "sprinkleroff":
        print ("Sprinkler is off")
    elif status == "exhaustfanon":
        print ("Exhaust Fan ON")
    elif status == "exhaustfanoff":
        print ("Exhaust Fan OFF")

    #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

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temp=random.randint(0,100)
flame_level=random.randint(0,100)
gas_level = random.randint(0,100)

data = { 'Temperature' : temp, 'Flame_Level' : flame_level, 'Gas_Level'
: gas_level }
#print data
def myOnPublishCallback():
    print ("Published Temperature = %s C" % temp, "Flame_Level = %s %"
% flame_level, "Gas_Level = %s %" %gas_level , "to IBM Watson")

    success = deviceCli.publishEvent("IoTSensor", "json", data, 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()

```