

AS-SALAM COLLEGE OF ENGINEERING & TECHNOLOGY  
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IOT Assignment: Assignment no.2

Topic: Build a python code, Assume u get temperature and humidity values(generated with random function to a variable) and write a condition to continuously detect alarm in case of high temperature.

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CODE:

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

```
#Provide your IBM Watson Device Credentials
```

```
organization = "bxobbs"
```

```
deviceType = "b5ibm"
```

```
deviceId = "b5device"  
authMethod = "token"  
authToken = "b55m1eibm"
```

```
# 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")  
  
    #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)
```

```
    data = { 'temp' : temp, 'Humid': Humid }
```

```
    #print data
```

```
    def myOnPublishCallback():
```

```
        print ("Published Temperature = %s C" % temp, "Humidity = %s %" %  
Humid, "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()
```