

DEVELOP A PYTHON SCRIPT

Code:

```
import time

import sys

import ibmiotf.application
import ibmiotf.device

import random


#Provide your IBM Watson Device Credentials
organization = " 7yf9ha"
deviceType = "umamaheswari"
deviceId = "uma27"
authMethod = "token"
authToken = "12345678"
```

```
# Initialize GPIO
```

```
def myCommandCallback(cmd):
```

```
    print("Command received: %s" %  
cmd.data['command'])
```

```
    status=cmd.data['command']
```

```
    if status=="lighton":
```

```
        print ("led is on")
```

```
    elif status == "lightoff":
```

```
        print ("led is off")
```

```
    else :
```

```
        print ("please send proper command")
```

```
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(90,110)
```

```
Humid=random.randint(60,100)
```

```
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(10)
```

```
deviceCli.commandCallback =  
myCommandCallback
```

```
# Disconnect the device and application from the  
cloud
```

```
deviceCli.disconnect()
```

```
ibmiotpublishsubscribe.py
```

```
Displayingibmiotpublishsubscribe.py
```