Develop the Python Code

light on & off.py - C:\Users\K.SIVASHANKARI\OneDrive\Documents\OneDrive\Documents\light on & off.py (3.7.0)

File Edit Format Run Options Window Help

```
import time
import sys
import ibmiotf.application
import ibmiotf.device
#Provide your IBM Watson Device Credentials
organization = "31b6or"
deviceType = "siva23"
deviceId = "trainingid"
authMethod = "token"
authToken = "zxm-aQ@9j5YD(G?OXQ"
# Initialize GPIO
temp=60
pulse=70
oxygen= 30
lat =  17
lon = 18
def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
    status=cmd.data['command']
    if status=="lighton":
        print("light is on")
    else:
        print("light 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

        data = {"d":{ 'temp' : temp, 'pulse': pulse ,'oxygen': oxygen,"lat":lat,"lon":lon}}
        #print data
        def myOnPublishCallback():
            print ("Published Temperature = %s C" % temp, "Humidity = %s %%" % pulse, "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
```

Ln: 1 Col: 0

Python 3.7.0 Shell

File Edit Shell Debug Options Window Help

```
>>>
 RESTART: C:\Users\K.SIVASHANKARI\OneDrive\Documents\OneDrive\Documents\light on & off.py
2022-10-14 15:02:49,489   ibmiotf.device.Client      INFO    Connected successfully: d:31b6or:siva23:trainingid
Published Temperature = 60 C Humidity = 70 % to IBM Watson
Published Temperature = 60 C Humidity = 70 % to IBM Watson
Published Temperature = 60 C Humidity = 70 % to IBM Watson
Published Temperature = 60 C Humidity = 70 % to IBM Watson
Published Temperature = 60 C Humidity = 70 % to IBM Watson
Published Temperature = 60 C Humidity = 70 % to IBM Watson
Published Temperature = 60 C Humidity = 70 % to IBM Watson
Published Temperature = 60 C Humidity = 70 % to IBM Watson
Published Temperature = 60 C Humidity = 70 % to IBM Watson
Command received: light-on
light is off
Command received: light-off
light is off
Command received: light-on
light is off
Command received: light-on
light is off
Command received: light-off
light is off
Command received: light-on
light is off
Published Temperature = 60 C Humidity = 70 % to IBM Watson
Command received: light-off
light is off
Command received: light-off
light is off
Command received: light-on
light is off
Command received: light-on
light is off
Published Temperature = 60 C Humidity = 70 % to IBM Watson
Published Temperature = 60 C Humidity = 70 % to IBM Watson
Published Temperature = 60 C Humidity = 70 % to IBM Watson
Published Temperature = 60 C Humidity = 70 % to IBM Watson
Published Temperature = 60 C Humidity = 70 % to IBM Watson
Published Temperature = 60 C Humidity = 70 % to IBM Watson
Published Temperature = 60 C Humidity = 70 % to IBM Watson
Command received: light-on
light is off
Published Temperature = 60 C Humidity = 70 % to IBM Watson
Command received: light-off
light is off
Published Temperature = 60 C Humidity = 70 % to IBM Watson
Published Temperature = 60 C Humidity = 70 % to IBM Watson
Published Temperature = 60 C Humidity = 70 % to IBM Watson
Published Temperature = 60 C Humidity = 70 % to IBM Watson
```

Ln: 5 Col: 0