

SPRINT 2

Team Id : PNT2022TMID32982

PYTHON CODE

```
import time

import sys

import ibmiotf.application

import ibmiotf.device

import random


#Provide your IBM Watson Device Credentials

organization = "56axre"

deviceType = "raspberrypi"

deviceId = "123"

authMethod = "token"

authToken = "12345678"


# Initialize GPIO


def myCommandCallback(cmd):

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

    status=cmd.data['command']

    if status=="alarmon":

        print ("Alarm is on")

    else:
```

```
print ("Alarm 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 IoTTF")
```

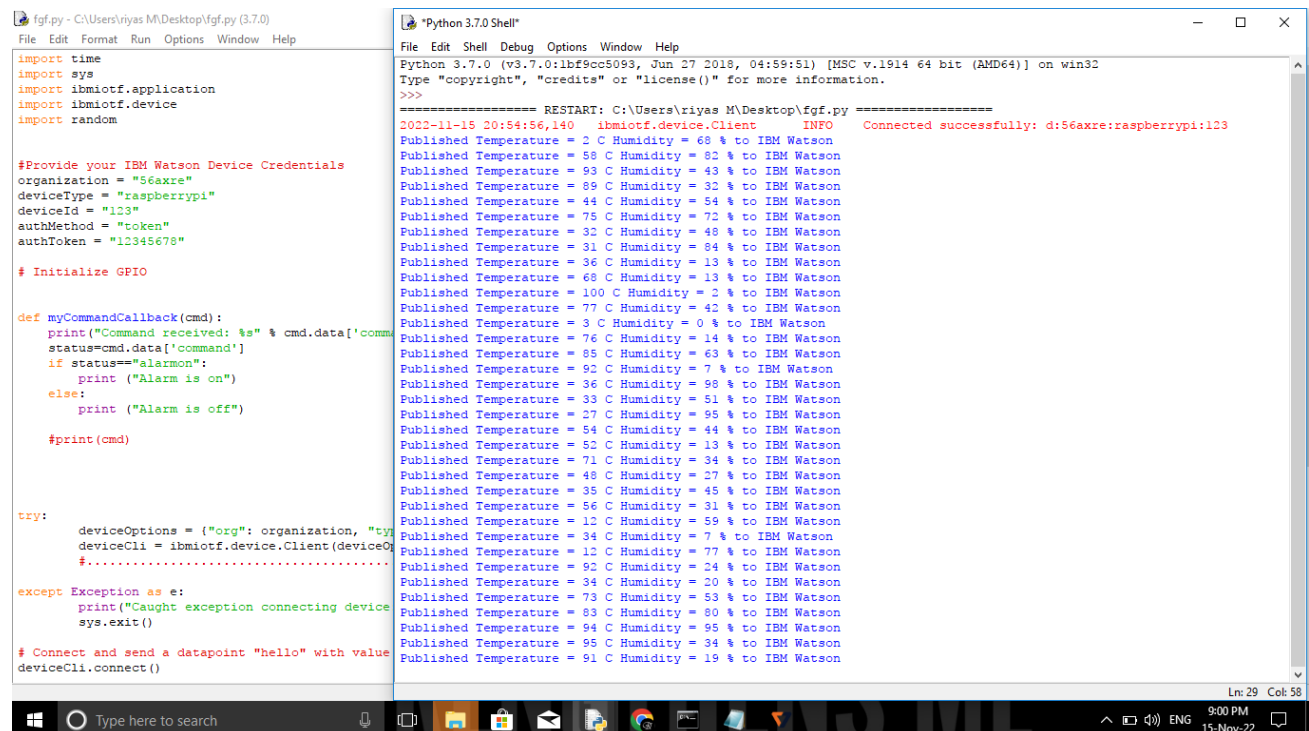
```
time.sleep(10)
```

```
deviceCli.commandCallback = myCommandCallback
```

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

```
deviceCli.disconnect()
```

OUTPUT



```
fgf.py - C:\Users\riyas M\Desktop\fgf.py (3.7.0)  
File Edit Format Run Options Window Help  
import time  
import sys  
import ibmiotf.application  
import ibmiotf.device  
import random  
  
#Provide your IBM Watson Device Credentials  
organization = "56axre"  
deviceType = "raspberrypi"  
deviceId = "123"  
authMethod = "token"  
authToken = "12345678"  
  
# Initialize GPIO  
  
def myCommandCallback(cmd):  
    print("Command received: %s" % cmd.data['command'])  
    status=cmd.data['command']  
    if status=="alarmon":  
        print ("Alarm is on")  
    else:  
        print ("Alarm is off")  
    #print(cmd)  
  
try:  
    deviceOptions = ("org": organization, "type": deviceType, "id": deviceId, "authMethod": authMethod, "authToken": authToken)  
    deviceCli = ibmiotf.device.Client(deviceOptions)  
    #.....  
except Exception as e:  
    print("Caught exception connecting device")  
    sys.exit()  
  
# Connect and send a datapoint "hello" with value  
deviceCli.connect()
```

```
Python 3.7.0 Shell  
File Edit Shell Debug Options Window Help  
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32  
Type "copyright", "credits" or "license()" for more information.  
>>>  
===== RESTART: C:\Users\riyas M\Desktop\fgf.py =====  
2022-11-15 20:54:56,140 ibmiotf.device.Client INFO Connected successfully: d:56axre:raspberrypi:123  
Published Temperature = 2 C Humidity = 68 % to IBM Watson  
Published Temperature = 58 C Humidity = 82 % to IBM Watson  
Published Temperature = 93 C Humidity = 43 % to IBM Watson  
Published Temperature = 89 C Humidity = 32 % to IBM Watson  
Published Temperature = 44 C Humidity = 54 % to IBM Watson  
Published Temperature = 75 C Humidity = 72 % to IBM Watson  
Published Temperature = 32 C Humidity = 48 % to IBM Watson  
Published Temperature = 31 C Humidity = 84 % to IBM Watson  
Published Temperature = 36 C Humidity = 13 % to IBM Watson  
Published Temperature = 68 C Humidity = 13 % to IBM Watson  
Published Temperature = 100 C Humidity = 2 % to IBM Watson  
Published Temperature = 77 C Humidity = 42 % to IBM Watson  
Published Temperature = 3 C Humidity = 0 % to IBM Watson  
Published Temperature = 76 C Humidity = 14 % to IBM Watson  
Published Temperature = 85 C Humidity = 63 % to IBM Watson  
Published Temperature = 92 C Humidity = 7 % to IBM Watson  
Published Temperature = 36 C Humidity = 98 % to IBM Watson  
Published Temperature = 33 C Humidity = 51 % to IBM Watson  
Published Temperature = 27 C Humidity = 95 % to IBM Watson  
Published Temperature = 54 C Humidity = 44 % to IBM Watson  
Published Temperature = 52 C Humidity = 13 % to IBM Watson  
Published Temperature = 71 C Humidity = 34 % to IBM Watson  
Published Temperature = 48 C Humidity = 27 % to IBM Watson  
Published Temperature = 35 C Humidity = 45 % to IBM Watson  
Published Temperature = 56 C Humidity = 31 % to IBM Watson  
Published Temperature = 12 C Humidity = 59 % to IBM Watson  
Published Temperature = 34 C Humidity = 7 % to IBM Watson  
Published Temperature = 12 C Humidity = 77 % to IBM Watson  
Published Temperature = 92 C Humidity = 24 % to IBM Watson  
Published Temperature = 34 C Humidity = 20 % to IBM Watson  
Published Temperature = 73 C Humidity = 53 % to IBM Watson  
Published Temperature = 83 C Humidity = 80 % to IBM Watson  
Published Temperature = 94 C Humidity = 95 % to IBM Watson  
Published Temperature = 95 C Humidity = 34 % to IBM Watson  
Published Temperature = 91 C Humidity = 19 % to IBM Watson  
Ln: 29 Col: 58
```

