

PYTHON SCRIPT

Date	16 NOVEMBER 2022
Team ID	PNT2022TMID32982
Project Name	INDUSTRY-SPECIFIC INTELLIGENT FIRE MANAGEMENT SYSTEM
Maximum Marks	4 Marks

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 IoT")
```

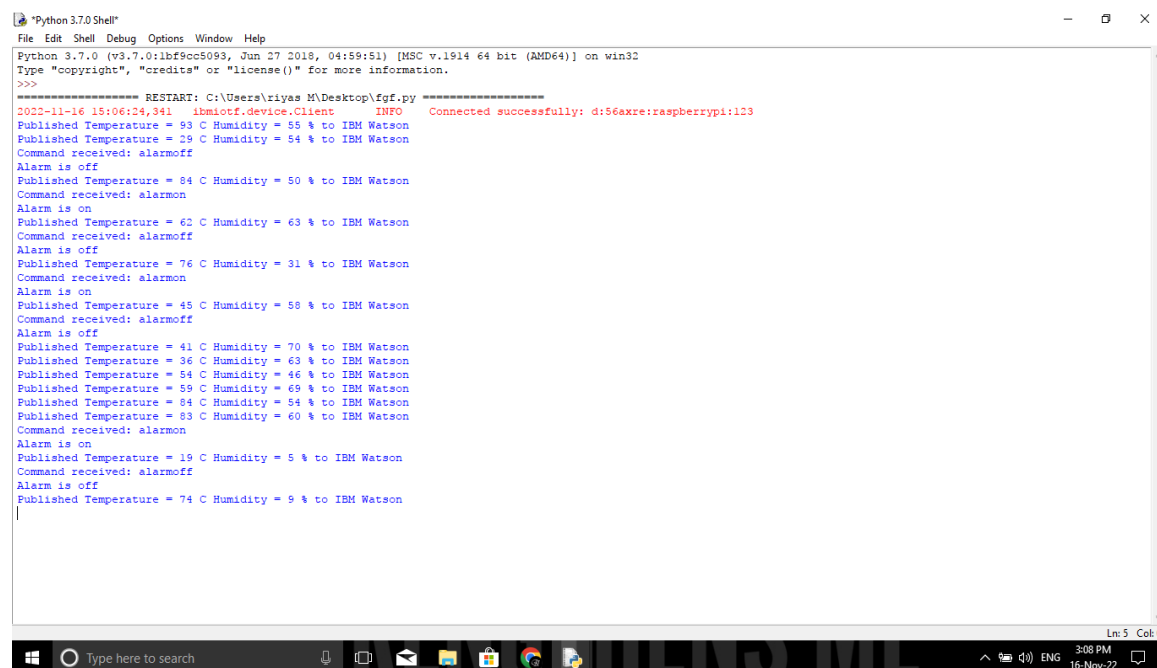
```
time.sleep(10)
```

```
deviceCli.commandCallback = myCommandCallback
```

Disconnect the device and application from the cloud

```
deviceCli.disconnect()
```

OUTPUT



```
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (tags/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 =====
2022-11-16 15:06:24,341 ibmiotf.device.Client INFO Connected successfully: d:56axre:raspberrypi:123
Published Temperature = 93 C Humidity = 55 % to IBM Watson
Published Temperature = 29 C Humidity = 54 % to IBM Watson
Command received: alarmoff
Alarm is off
Published Temperature = 84 C Humidity = 50 % to IBM Watson
Command received: alarmon
Alarm is on
Published Temperature = 62 C Humidity = 63 % to IBM Watson
Command received: alarmoff
Alarm is off
Published Temperature = 76 C Humidity = 31 % to IBM Watson
Command received: alarmon
Alarm is on
Published Temperature = 45 C Humidity = 58 % to IBM Watson
Command received: alarmoff
Alarm is off
Published Temperature = 41 C Humidity = 70 % to IBM Watson
Published Temperature = 36 C Humidity = 63 % to IBM Watson
Published Temperature = 54 C Humidity = 46 % to IBM Watson
Published Temperature = 59 C Humidity = 69 % to IBM Watson
Published Temperature = 84 C Humidity = 54 % to IBM Watson
Published Temperature = 83 C Humidity = 60 % to IBM Watson
Command received: alarmon
Alarm is on
Published Temperature = 19 C Humidity = 5 % to IBM Watson
Command received: alarmoff
Alarm is off
Published Temperature = 74 C Humidity = 9 % to IBM Watson
|
```