

DEVELOP THE PYTHON CODE

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

#Provide your IBM Watson Device Credentials
organization = "vbzdj5"
deviceType = "raspberrypi"
deviceId = "12345"
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")
    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)

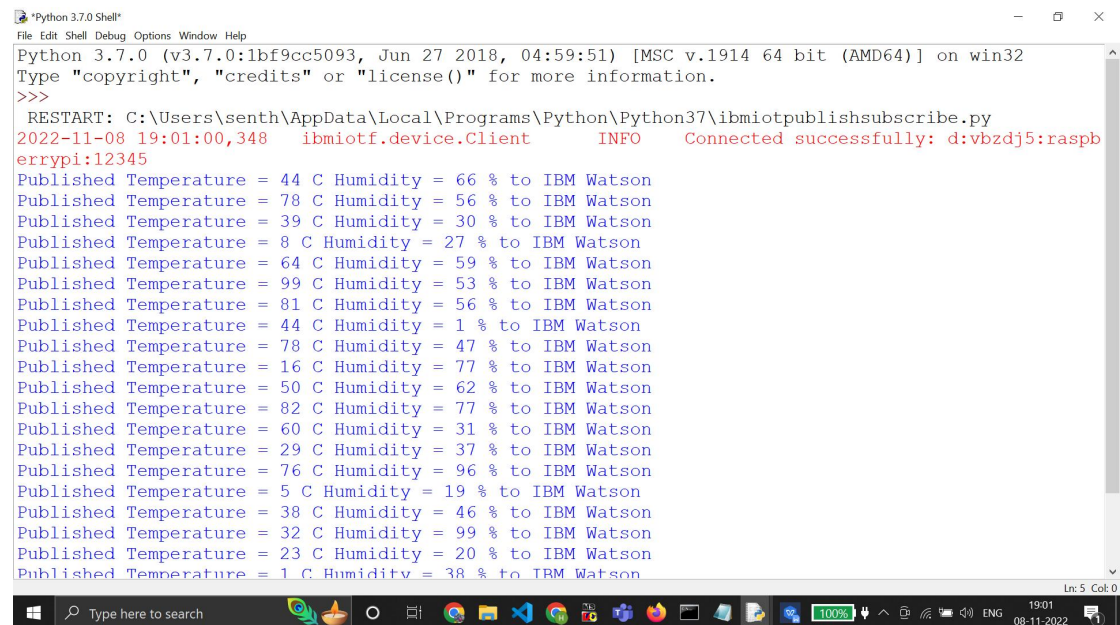
    data = { 'temp' : temp, 'Humid': Humid }
    #print data
    def myOnPublishCallback():
```

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

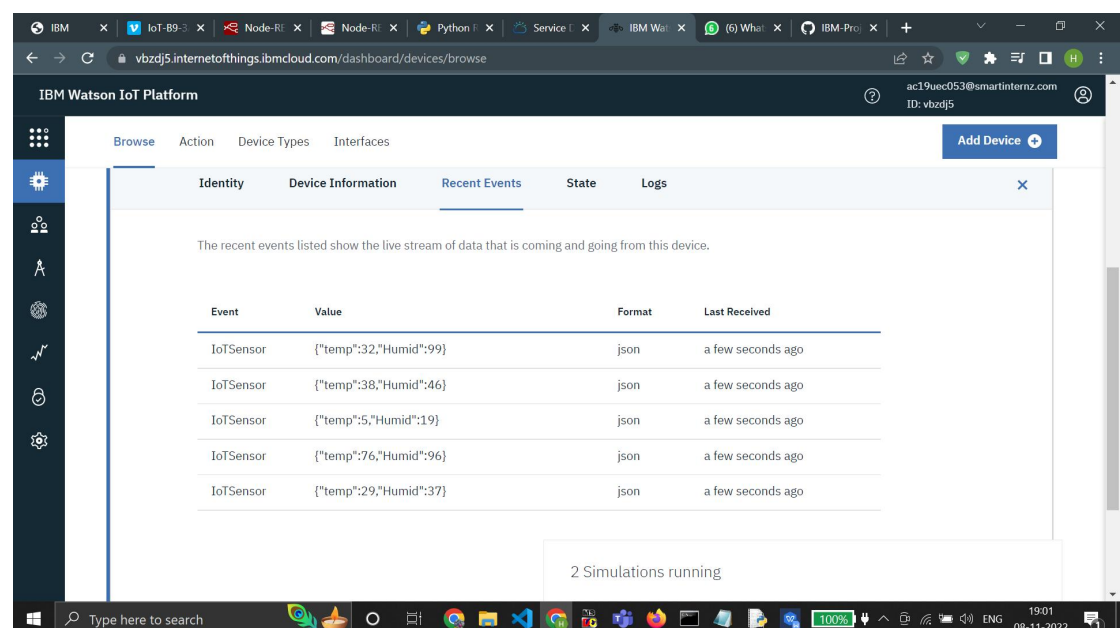
```
success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0,
on_publish=myOnPublishCallback)
if not success:
    print("Not connected to IoT")
time.sleep(1)
```

```
deviceCli.commandCallback = myCommandCallback
```

```
# Disconnect the device and application from the cloud
deviceCli.disconnect()
```



```
*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\senth\AppData\Local\Programs\Python\Python37\ibmiotpublishsubscribe.py
2022-11-08 19:01:00,348 ibmiotf.device.Client INFO Connected successfully: d:vbdzj5:raspb
errypi:12345
Published Temperature = 44 C Humidity = 66 % to IBM Watson
Published Temperature = 78 C Humidity = 56 % to IBM Watson
Published Temperature = 39 C Humidity = 30 % to IBM Watson
Published Temperature = 8 C Humidity = 27 % to IBM Watson
Published Temperature = 64 C Humidity = 59 % to IBM Watson
Published Temperature = 99 C Humidity = 53 % to IBM Watson
Published Temperature = 81 C Humidity = 56 % to IBM Watson
Published Temperature = 44 C Humidity = 1 % to IBM Watson
Published Temperature = 78 C Humidity = 47 % to IBM Watson
Published Temperature = 16 C Humidity = 77 % to IBM Watson
Published Temperature = 50 C Humidity = 62 % to IBM Watson
Published Temperature = 82 C Humidity = 77 % to IBM Watson
Published Temperature = 60 C Humidity = 31 % to IBM Watson
Published Temperature = 29 C Humidity = 37 % to IBM Watson
Published Temperature = 76 C Humidity = 96 % to IBM Watson
Published Temperature = 5 C Humidity = 19 % to IBM Watson
Published Temperature = 38 C Humidity = 46 % to IBM Watson
Published Temperature = 32 C Humidity = 99 % to IBM Watson
Published Temperature = 23 C Humidity = 20 % to IBM Watson
Published Temperature = 1 C Humidity = 38 % to IBM Watson
```



IBM Watson IoT Platform

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Browse Action Device Types Interfaces

Identity Device Information **Recent Events** State Logs

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
IoTSensor	{"temp":32,"Humid":99}	json	a few seconds ago
IoTSensor	{"temp":38,"Humid":46}	json	a few seconds ago
IoTSensor	{"temp":5,"Humid":19}	json	a few seconds ago
IoTSensor	{"temp":76,"Humid":96}	json	a few seconds ago
IoTSensor	{"temp":29,"Humid":37}	json	a few seconds ago

2 Simulations running