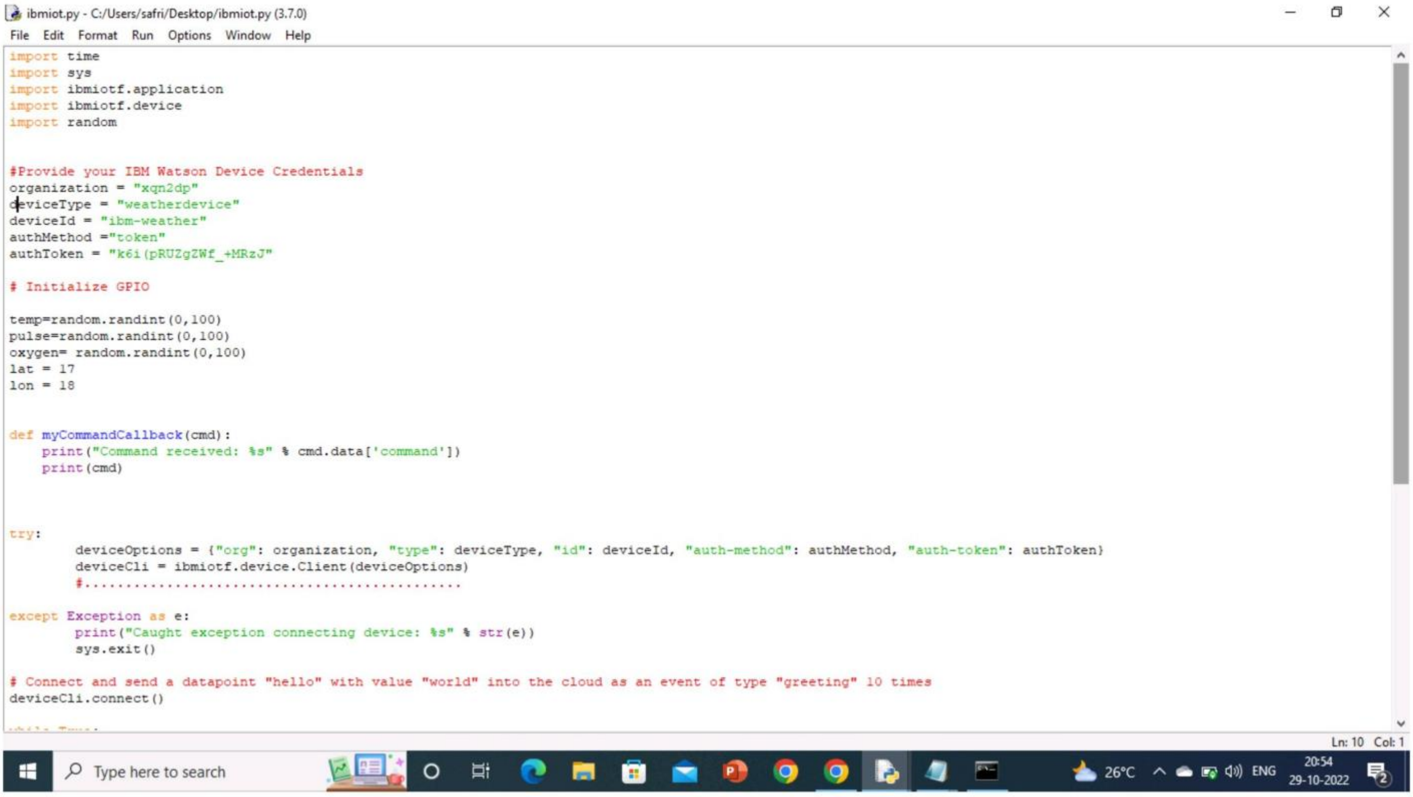
Develop the Python Code


ibmiot.py - C:/Users/safri/Desktop/ibmiot.py (3.7.0)
File Edit Format Run Options Window Help
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26°C
ENG
20:54
29-10-2022

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


#Provide your IBM Watson Device Credentials
organization = "xqn2dp"
deviceType = "weatherdevice"
deviceId = "ibm-weather"
authMethod ="token"
authToken = "k6i(pRUZgZWf_+MRzJ"

# Initialize GPIO

temp=random.randint(0,100)
pulse=random.randint(0,100)
oxygen= random.randint(0,100)
lat = 17
lon = 18


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

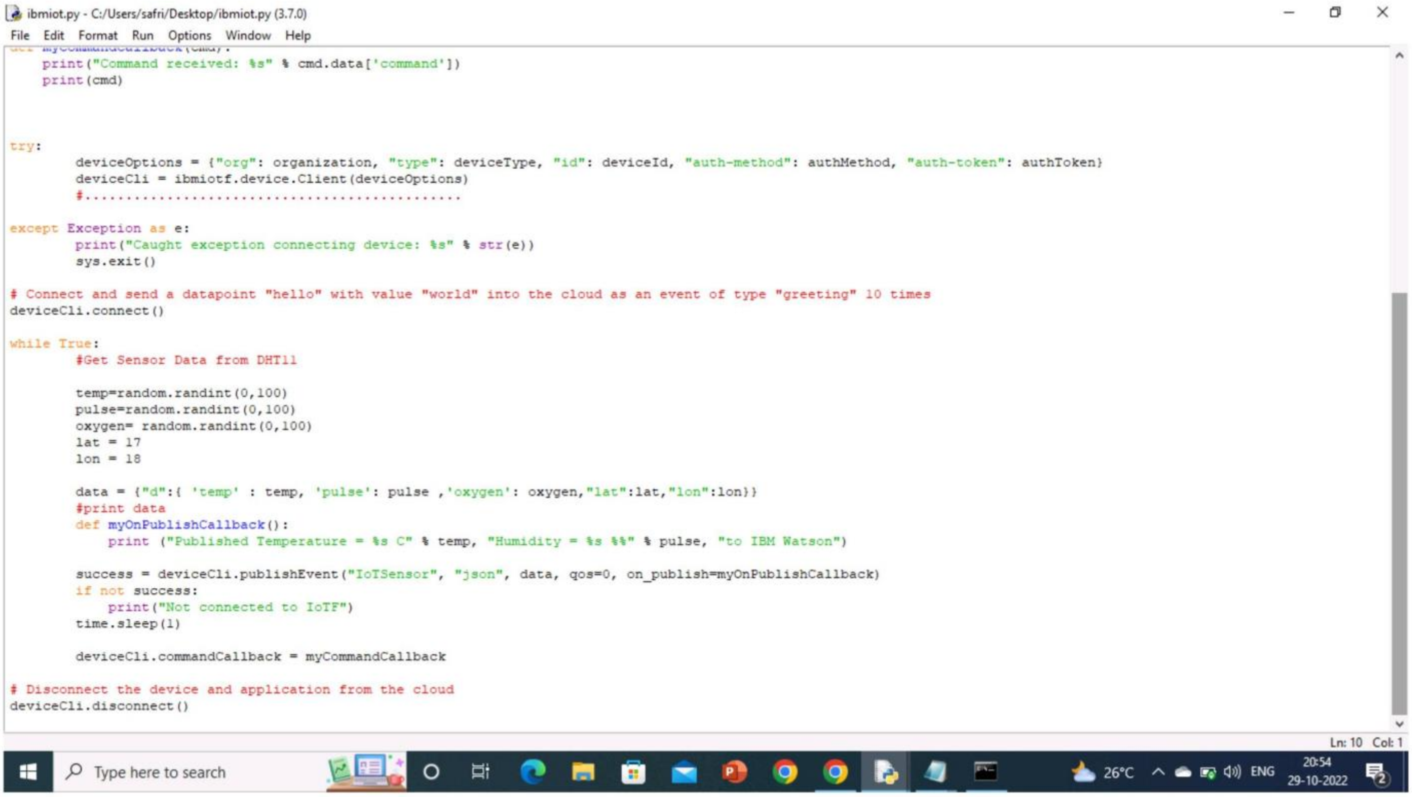


try:
        deviceOptions = {"org": organization, "type": deviceType, "id": deviceId, "auth-method": authMethod, "auth-token": authToken}
        deviceCli = ibmiotf.device.Client(deviceOptions)
        #............................................

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:
```



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        deviceCli = ibmiotf.device.Client(deviceOptions)
        #..............................................

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        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

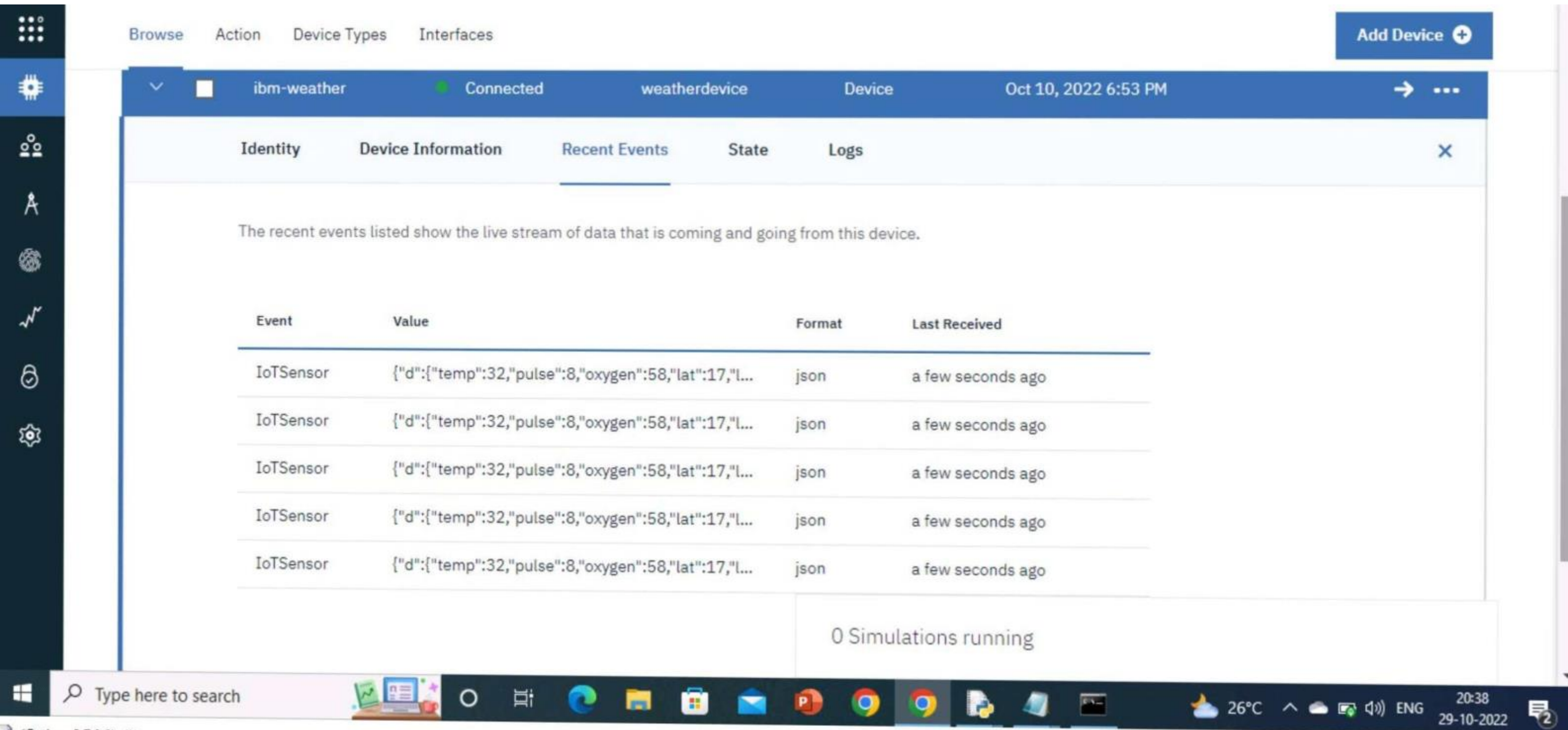
        temp=random.randint(0,100)
        pulse=random.randint(0,100)
        oxygen= random.randint(0,100)
        lat = 17
        lon = 18

        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

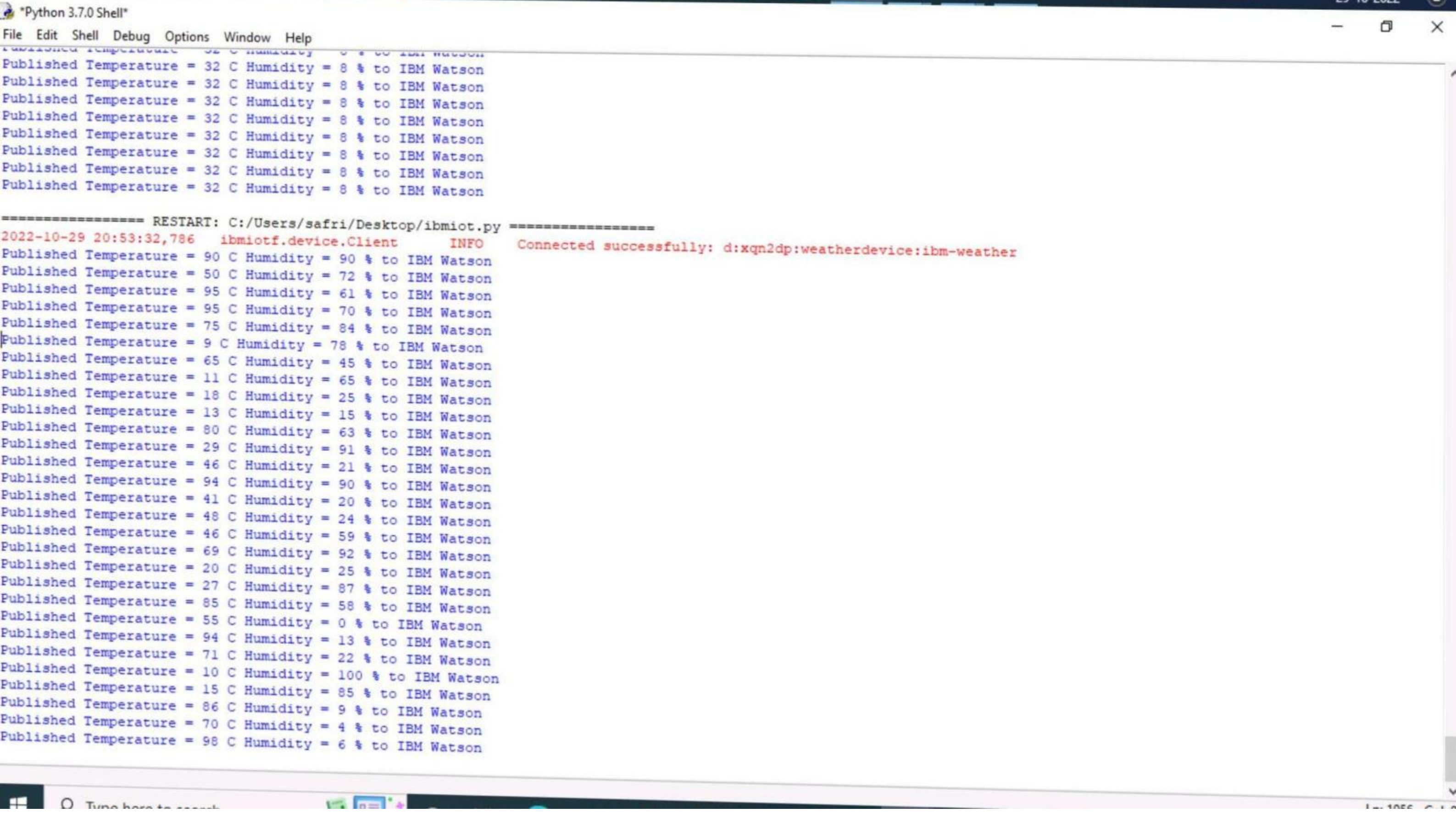
# Disconnect the device and application from the cloud
deviceCli.disconnect()
```



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

Event	Value	Format	Last Received
IoTSensor	{"d":{"temp":32,"pulse":8,"oxygen":58,"lat":17,"l...	json	a few seconds ago
IoTSensor	{"d":{"temp":32,"pulse":8,"oxygen":58,"lat":17,"l...	json	a few seconds ago
IoTSensor	{"d":{"temp":32,"pulse":8,"oxygen":58,"lat":17,"l...	json	a few seconds ago
IoTSensor	{"d":{"temp":32,"pulse":8,"oxygen":58,"lat":17,"l...	json	a few seconds ago
IoTSensor	{"d":{"temp":32,"pulse":8,"oxygen":58,"lat":17,"l...	json	a few seconds ago

0 Simulations running



```
Published Temperature = 32 C Humidity = 8 % to IBM Watson
Published Temperature = 32 C Humidity = 8 % to IBM Watson
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Published Temperature = 32 C Humidity = 8 % to IBM Watson
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================= RESTART: C:/Users/safri/Desktop/ibmiot.py =================
2022-10-29 20:53:32,786   ibmiotf.device.Client      INFO    Connected successfully: d:xqn2dp:weatherdevice:ibm-weather
Published Temperature = 90 C Humidity = 90 % to IBM Watson
Published Temperature = 50 C Humidity = 72 % to IBM Watson
Published Temperature = 95 C Humidity = 61 % to IBM Watson
Published Temperature = 95 C Humidity = 70 % to IBM Watson
Published Temperature = 75 C Humidity = 84 % to IBM Watson
Published Temperature = 9 C Humidity = 78 % to IBM Watson
Published Temperature = 65 C Humidity = 45 % to IBM Watson
Published Temperature = 11 C Humidity = 65 % to IBM Watson
Published Temperature = 18 C Humidity = 25 % to IBM Watson
Published Temperature = 13 C Humidity = 15 % to IBM Watson
Published Temperature = 80 C Humidity = 63 % to IBM Watson
Published Temperature = 29 C Humidity = 91 % to IBM Watson
Published Temperature = 46 C Humidity = 21 % to IBM Watson
Published Temperature = 94 C Humidity = 90 % to IBM Watson
Published Temperature = 41 C Humidity = 20 % to IBM Watson
Published Temperature = 48 C Humidity = 24 % to IBM Watson
Published Temperature = 46 C Humidity = 59 % to IBM Watson
Published Temperature = 69 C Humidity = 92 % to IBM Watson
Published Temperature = 20 C Humidity = 25 % to IBM Watson
Published Temperature = 27 C Humidity = 87 % to IBM Watson
Published Temperature = 85 C Humidity = 58 % to IBM Watson
Published Temperature = 55 C Humidity = 0 % to IBM Watson
Published Temperature = 94 C Humidity = 13 % to IBM Watson
Published Temperature = 71 C Humidity = 22 % to IBM Watson
Published Temperature = 10 C Humidity = 100 % to IBM Watson
Published Temperature = 15 C Humidity = 85 % to IBM Watson
Published Temperature = 86 C Humidity = 9 % to IBM Watson
Published Temperature = 70 C Humidity = 4 % to IBM Watson
Published Temperature = 98 C Humidity = 6 % to IBM Watson
```