PYTHON SCRIPT

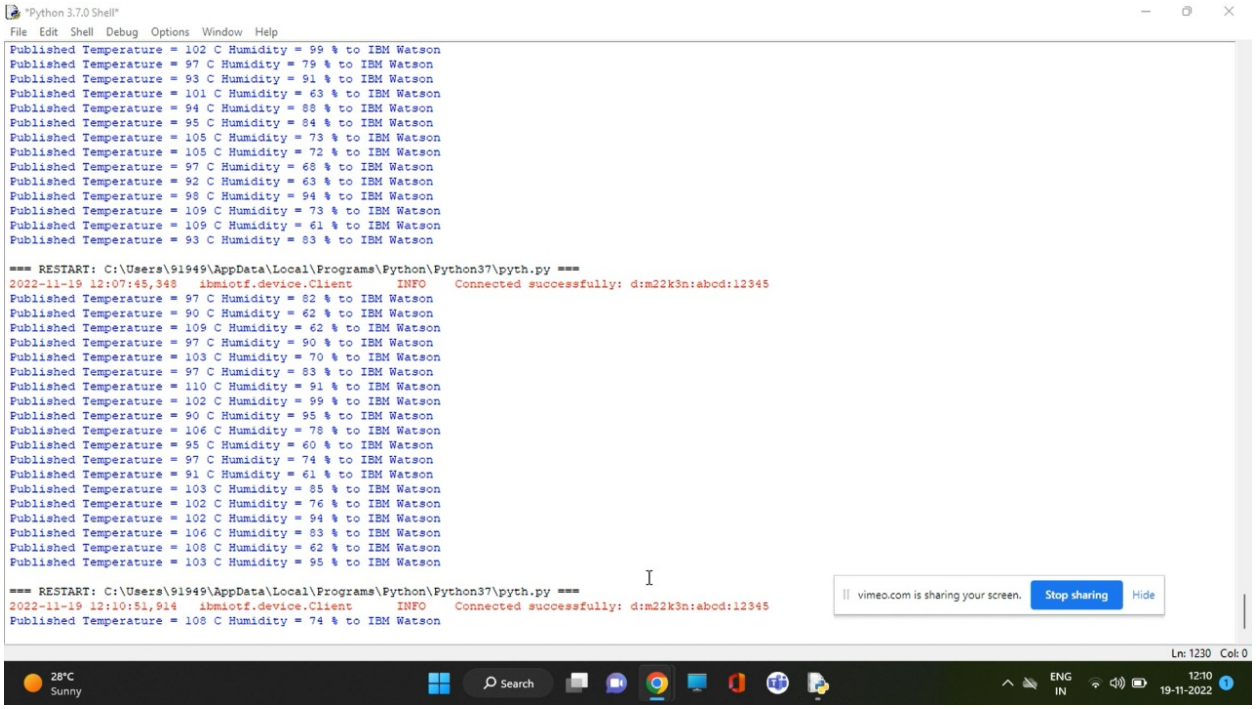
CODE:

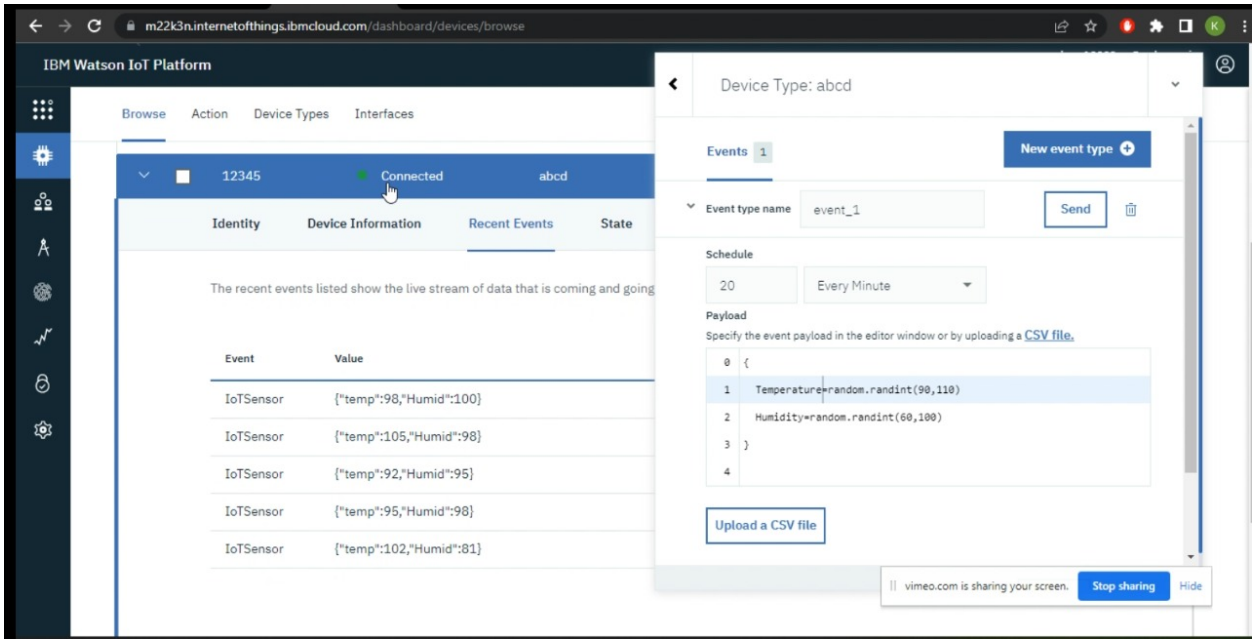
```
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random

#Provide your IBM Watson Device Credentials
organization = "i3869j"
deviceType = "abcd"
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")
    elif status == "lightoff":
```

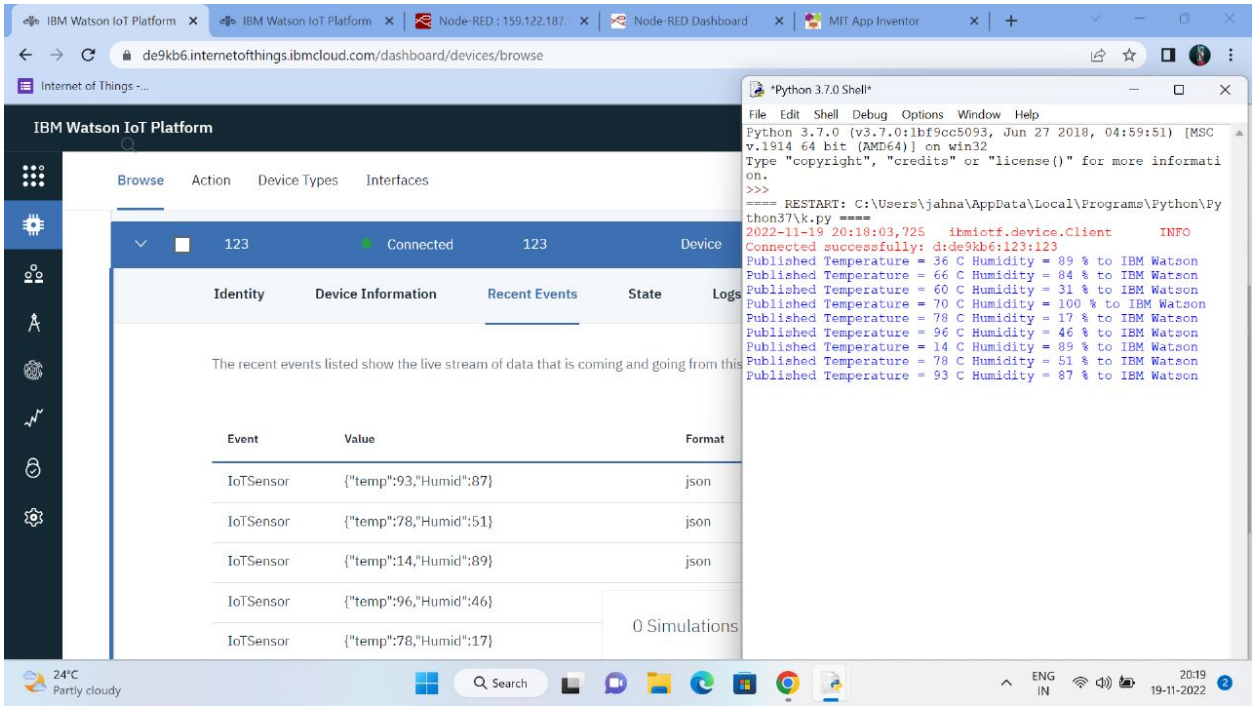
```
        print ("led is off")
    else :
        print ("please send proper command")

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(90,110)
        Humid=random.randint(60,100)

        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 IoTF")
        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
Published Temperature = 102 C Humidity = 99 % to IBM Watson
Published Temperature = 97 C Humidity = 79 % to IBM Watson
Published Temperature = 93 C Humidity = 91 % to IBM Watson
Published Temperature = 101 C Humidity = 63 % to IBM Watson
Published Temperature = 94 C Humidity = 88 % to IBM Watson
Published Temperature = 95 C Humidity = 84 % to IBM Watson
Published Temperature = 105 C Humidity = 73 % to IBM Watson
Published Temperature = 105 C Humidity = 72 % to IBM Watson
Published Temperature = 97 C Humidity = 68 % to IBM Watson
Published Temperature = 92 C Humidity = 63 % to IBM Watson
Published Temperature = 98 C Humidity = 94 % to IBM Watson
Published Temperature = 109 C Humidity = 73 % to IBM Watson
Published Temperature = 109 C Humidity = 61 % to IBM Watson
Published Temperature = 93 C Humidity = 83 % to IBM Watson
=== RESTART: C:\Users\91949\AppData\Local\Programs\Python\Python37\pyth.py ===
2022-11-19 12:07:45,348 ibmiotf.device.Client INFO Connected successfully: d:m22k3n:abcd:12345
Published Temperature = 97 C Humidity = 82 % to IBM Watson
Published Temperature = 90 C Humidity = 62 % to IBM Watson
Published Temperature = 109 C Humidity = 62 % to IBM Watson
Published Temperature = 97 C Humidity = 90 % to IBM Watson
Published Temperature = 103 C Humidity = 70 % to IBM Watson
Published Temperature = 97 C Humidity = 83 % to IBM Watson
Published Temperature = 110 C Humidity = 91 % to IBM Watson
Published Temperature = 102 C Humidity = 99 % to IBM Watson
Published Temperature = 90 C Humidity = 95 % to IBM Watson
Published Temperature = 106 C Humidity = 78 % to IBM Watson
Published Temperature = 95 C Humidity = 60 % to IBM Watson
Published Temperature = 97 C Humidity = 74 % to IBM Watson
Published Temperature = 91 C Humidity = 61 % to IBM Watson
Published Temperature = 103 C Humidity = 85 % to IBM Watson
Published Temperature = 102 C Humidity = 76 % to IBM Watson
Published Temperature = 102 C Humidity = 94 % to IBM Watson
Published Temperature = 106 C Humidity = 83 % to IBM Watson
Published Temperature = 108 C Humidity = 62 % to IBM Watson
Published Temperature = 103 C Humidity = 95 % to IBM Watson
=== RESTART: C:\Users\91949\AppData\Local\Programs\Python\Python37\pyth.py ===
2022-11-19 12:10:51,914 ibmiotf.device.Client INFO Connected successfully: d:m22k3n:abcd:12345
Published Temperature = 108 C Humidity = 74 % to IBM Watson
vimeo.com is sharing your screen.
Stop sharing
Hide
Ln: 1230 Col: 0
28°C Sunny
Search
ENG IN
12:10 19-11-2022


m22k3n.internetofthings.ibmcloud.com/dashboard/devices/browse
IBM Watson IoT Platform
Browse
Action
Device Types
Interfaces
12345
Connected
abcd
Identity
Device Information
Recent Events
State
The recent events listed show the live stream of data that is coming and going
Event
Value
IoTSensor {"temp":98,"Humid":100}
IoTSensor {"temp":105,"Humid":98}
IoTSensor {"temp":92,"Humid":95}
IoTSensor {"temp":95,"Humid":98}
IoTSensor {"temp":102,"Humid":81}
Device Type: abcd
Events 1
New event type
Event type name
event_1
Send
Schedule
20
Every Minute
Payload
Specify the event payload in the editor window or by uploading a CSV file.
{
Temperature=random.randint(90,110)
Humidity=random.randint(60,100)
}
Upload a CSV file
vimeo.com is sharing your screen.
Stop sharing
Hide


IBM Watson IoT Platform
IBM Watson IoT Platform
Node-RED : 159.122.187.
Node-RED Dashboard
MIT App Inventor
de9kb6.internetofthings.ibmcloud.com/dashboard/devices/browse
Internet of Things -...
IBM Watson IoT Platform
Browse
Action
Device Types
Interfaces
123
Connected
123
Device
Identity
Device Information
Recent Events
State
Logs
The recent events listed show the live stream of data that is coming and going from this
Event
Value
Format
IoTSensor
{"temp":93,"Humid":87}
json
IoTSensor
{"temp":78,"Humid":51}
json
IoTSensor
{"temp":14,"Humid":89}
json
IoTSensor
{"temp":96,"Humid":46}
IoTSensor
{"temp":78,"Humid":17}
0 Simulations
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\jahna\AppData\Local\Programs\Python\Python37\k.py ====
2022-11-19 20:18:03,725 ibmiotf.device.Client INFO
Connected successfully: d:de9kb6:123:123
Published Temperature = 36 C Humidity = 89 % to IBM Watson
Published Temperature = 66 C Humidity = 84 % to IBM Watson
Published Temperature = 60 C Humidity = 31 % to IBM Watson
Published Temperature = 70 C Humidity = 100 % to IBM Watson
Published Temperature = 78 C Humidity = 17 % to IBM Watson
Published Temperature = 96 C Humidity = 46 % to IBM Watson
Published Temperature = 14 C Humidity = 89 % to IBM Watson
Published Temperature = 78 C Humidity = 51 % to IBM Watson
Published Temperature = 93 C Humidity = 87 % to IBM Watson
24°C
Partly cloudy
Search
ENG
IN
20:19
19-11-2022