PYTHON SCRIPT

Team ID: PNT2022TMID21185

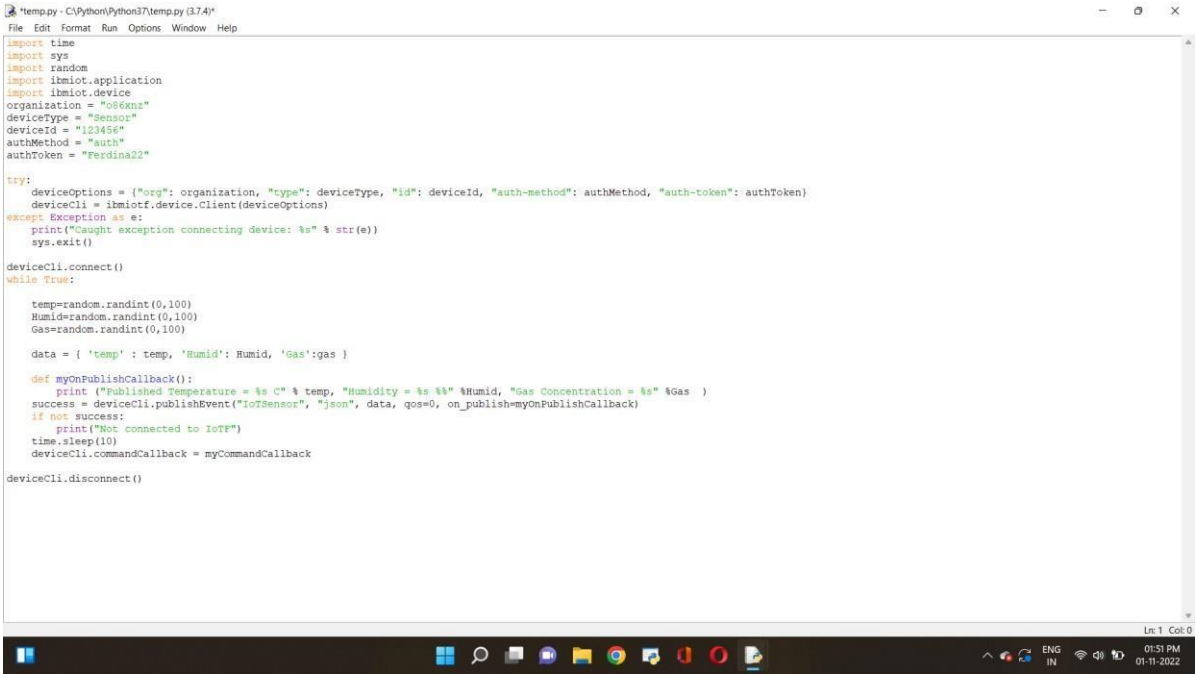
Python Code: import time

```
import sys

import random

import ibmiot.application

import ibmiot.device

organization = "o86xnz"

deviceType = "Sensor"

deviceId = "123456"

authMethod = "auth"

authToken = "Ferdina22"



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()



deviceCli.connect()

while True:



    temp=random.randint(0,100)

    Humid=random.randint(0,100)

    Gas=random.randint(0,100)
```

```
    data = { 'temp' : temp, 'Humid': Humid, 'Gas':gas }



    def myOnPublishCallback():

        print ("Published Temperature = %s C" % temp, "Humidity =
%s %%" %Humid, "Gas Concentration = %s" %Gas  )

    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



deviceCli.disconnect()
```

Output:


temp.py - C:\Python\Python37\temp.py (3.7.4)
File Edit Format Run Options Window Help
import time
import sys
import random
import ibmiot.application
import ibmiot.device
organization = "o86xnz"
deviceType = "Sensor"
deviceId = "123456"
authMethod = "auth"
authToken = "Ferdina22"
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()
deviceCli.connect()
while True:
temp=random.randint(0,100)
Humid=random.randint(0,100)
Gas=random.randint(0,100)
data = { 'temp' : temp, 'Humid': Humid, 'Gas':gas }
def myOnPublishCallback():
print ("Published Temperature = %s C" % temp, "Humidity = %s %%" %Humid, "Gas Concentration = %s" %Gas)
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
deviceCli.disconnect()
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Python 3.7.4 Shell
File Edit Shell Debug Options Window Help
Published Temperature = 37 C Humidity = 99 % Gas Concentration = 58
Published Temperature = 7 C Humidity = 53 % Gas Concentration = 1
Published Temperature = 73 C Humidity = 78 % Gas Concentration = 42
Published Temperature = 74 C Humidity = 52 % Gas Concentration = 2
Published Temperature = 61 C Humidity = 64 % Gas Concentration = 69
Published Temperature = 7 C Humidity = 84 % Gas Concentration = 80
Published Temperature = 58 C Humidity = 91 % Gas Concentration = 95
Published Temperature = 20 C Humidity = 26 % Gas Concentration = 37
Published Temperature = 90 C Humidity = 85 % Gas Concentration = 98
Published Temperature = 14 C Humidity = 18 % Gas Concentration = 49
Published Temperature = 85 C Humidity = 38 % Gas Concentration = 8
Published Temperature = 42 C Humidity = 37 % Gas Concentration = 84
Published Temperature = 2 C Humidity = 88 % Gas Concentration = 34
Published Temperature = 6 C Humidity = 72 % Gas Concentration = 69
Published Temperature = 35 C Humidity = 100 % Gas Concentration = 78
Published Temperature = 80 C Humidity = 100 % Gas Concentration = 48
Published Temperature = 12 C Humidity = 98 % Gas Concentration = 37
Published Temperature = 38 C Humidity = 50 % Gas Concentration = 11
Published Temperature = 10 C Humidity = 14 % Gas Concentration = 24
Published Temperature = 90 C Humidity = 76 % Gas Concentration = 94
Published Temperature = 33 C Humidity = 17 % Gas Concentration = 92
Published Temperature = 71 C Humidity = 14 % Gas Concentration = 47
Published Temperature = 26 C Humidity = 56 % Gas Concentration = 43
Published Temperature = 100 C Humidity = 85 % Gas Concentration = 43
Published Temperature = 36 C Humidity = 37 % Gas Concentration = 34
Published Temperature = 6 C Humidity = 80 % Gas Concentration = 53
Published Temperature = 78 C Humidity = 4 % Gas Concentration = 70
Published Temperature = 50 C Humidity = 65 % Gas Concentration = 7
Published Temperature = 19 C Humidity = 60 % Gas Concentration = 47
Published Temperature = 28 C Humidity = 74 % Gas Concentration = 14
Published Temperature = 82 C Humidity = 17 % Gas Concentration = 73
Published Temperature = 5 C Humidity = 98 % Gas Concentration = 80
Published Temperature = 92 C Humidity = 78 % Gas Concentration = 33
Published Temperature = 47 C Humidity = 13 % Gas Concentration = 100
Published Temperature = 99 C Humidity = 72 % Gas Concentration = 83
Published Temperature = 69 C Humidity = 26 % Gas Concentration = 87
Published Temperature = 24 C Humidity = 96 % Gas Concentration = 16
Published Temperature = 97 C Humidity = 23 % Gas Concentration = 18
Published Temperature = 91 C Humidity = 31 % Gas Concentration = 0
Published Temperature = 4 C Humidity = 64 % Gas Concentration = 44
Published Temperature = 25 C Humidity = 7 % Gas Concentration = 38
Published Temperature = 99 C Humidity = 23 % Gas Concentration = 12
Published Temperature = 61 C Humidity = 21 % Gas Concentration = 24
Published Temperature = 54 C Humidity = 48 % Gas Concentration = 78
Published Temperature = 23 C Humidity = 87 % Gas Concentration = 50
Published Temperature = 43 C Humidity = 25 % Gas Concentration = 10
Published Temperature = 8 C Humidity = 32 %
Ln: 953 Col: 67
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01-11-2022