

Develop A Python Script

TEAM ID	PNT2022TMID50056
PROJECT NAME	IOT based Smart Waste Management in Metropolitan cities

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

```
organizationID='wjnzmz'
deviceType='George'
deviceId='1234'
authMethod='token'
authToken='12345678'
```

```
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:
    deviceOption={"org":organizationID,"type":deviceType,"id":deviceId,"auth-
method":authMethod,"auth-token":authToken}
    deviceCli = ibmiotf.device.Client(deviceOption)
except Exception as e:
    print("Caught exception connecting device: %s" %str(e))
    sys.exit()

deviceCli.connect()

while True:
    temp=random.randint(90,100)
    Humid=random.randint(10,100)

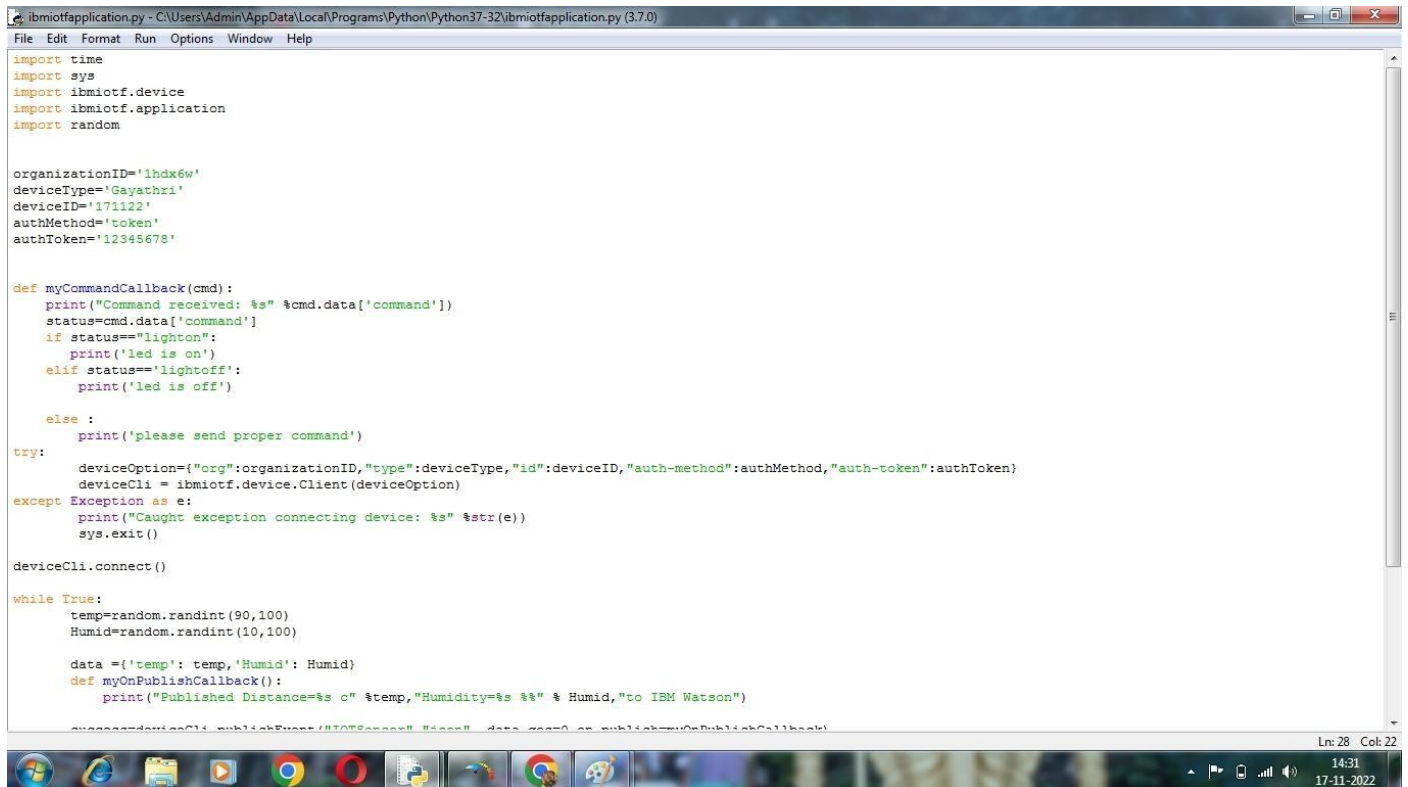
    data ={'temp': temp,'Humid': Humid}
    def myOnPublishCallback():
        print("Published Distance=%s c" %temp,"Humidity=%s %" % Humid,"to IBM Watson")

    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
```

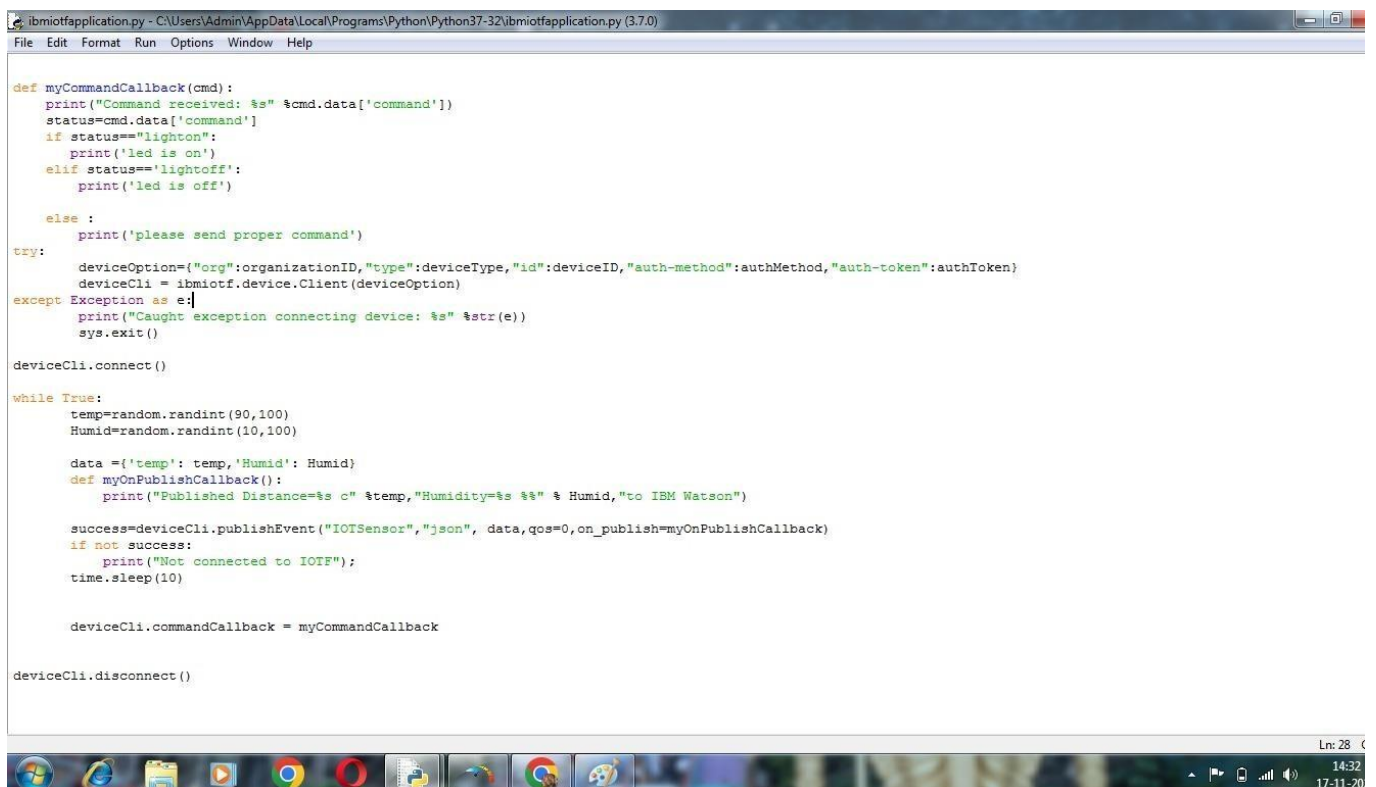
```
deviceCli.disconnect()
```



The screenshot shows a Python script editor window titled 'ibmiotfapplication.py - C:\Users\Admin\AppData\Local\Programs\Python\Python37-32\ibmiotfapplication.py (3.7.0)'. The script contains the following code:

```
import time  
import sys  
import ibmiotf.device  
import ibmiotf.application  
import random  
  
organizationID='1hdx6w'  
deviceType='Gayathri'  
deviceID='171122'  
authMethod='token'  
authToken='12345678'  
  
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:  
    deviceOption={'org':organizationID,"type":deviceType,"id":deviceID,"auth-method":authMethod,"auth-token":authToken}  
    deviceCli = ibmiotf.device.Client(deviceOption)  
except Exception as e:  
    print("Caught exception connecting device: %s" %str(e))  
    sys.exit()  
  
deviceCli.connect()  
  
while True:  
    temp=random.randint(90,100)  
    Humid=random.randint(10,100)  
  
    data ={'temp': temp,'Humid': Humid}  
    def myOnPublishCallback():  
        print("Published Distance=%s c" %temp,"Humidity=%s %" % Humid,"to IBM Watson")  
    success=deviceCli.publishEvent("IOTSensor", "json", data, qos=0, on_publish=myOnPublishCallback)
```

The status bar at the bottom right shows 'Ln: 28 Col: 22'.



The screenshot shows the same Python script editor window, displaying the continuation of the code:

```
    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()
```

The status bar at the bottom right shows 'Ln: 28 Col: 22'.

```
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Administrator: C:\Users\hammad\AppData\Local\Programs\Python\Python37-32\ibmWatsonApplication.py
2022-11-17 14:27:24,348 ibmiotrf.device.Client INFO Connected successfully: d:1hdx6w:Gayathri:171122
Published Distance=98 c Humidity=89 % to IBM Watson
Published Distance=91 c Humidity=21 % to IBM Watson
Published Distance=92 c Humidity=27 % to IBM Watson
Published Distance=96 c Humidity=54 % to IBM Watson
Published Distance=96 c Humidity=30 % to IBM Watson
Published Distance=91 c Humidity=93 % to IBM Watson
Published Distance=97 c Humidity=93 % to IBM Watson
Published Distance=99 c Humidity=79 % to IBM Watson
Published Distance=90 c Humidity=32 % to IBM Watson
Published Distance=98 c Humidity=38 % to IBM Watson
Published Distance=91 c Humidity=80 % to IBM Watson
Published Distance=95 c Humidity=71 % to IBM Watson
Published Distance=96 c Humidity=78 % to IBM Watson
Published Distance=96 c Humidity=41 % to IBM Watson
Published Distance=91 c Humidity=51 % to IBM Watson
Published Distance=96 c Humidity=86 % to IBM Watson
Published Distance=91 c Humidity=33 % to IBM Watson
Published Distance=95 c Humidity=26 % to IBM Watson
Published Distance=92 c Humidity=45 % to IBM Watson
Published Distance=90 c Humidity=33 % to IBM Watson
Published Distance=91 c Humidity=45 % to IBM Watson
Published Distance=94 c Humidity=14 % to IBM Watson
Published Distance=100 c Humidity=58 % to IBM Watson
Published Distance=100 c Humidity=41 % to IBM Watson
Published Distance=100 c Humidity=37 % to IBM Watson
Published Distance=95 c Humidity=92 % to IBM Watson
Published Distance=92 c Humidity=82 % to IBM Watson
Published Distance=97 c Humidity=46 % to IBM Watson
Published Distance=94 c Humidity=62 % to IBM Watson
Published Distance=98 c Humidity=82 % to IBM Watson
Published Distance=98 c Humidity=61 % to IBM Watson
Published Distance=100 c Humidity=64 % to IBM Watson
Published Distance=92 c Humidity=46 % to IBM Watson
Published Distance=92 c Humidity=95 % to IBM Watson
Published Distance=90 c Humidity=25 % to IBM Watson
Published Distance=96 c Humidity=97 % to IBM Watson
Published Distance=93 c Humidity=32 % to IBM Watson
Published Distance=93 c Humidity=10 % to IBM Watson
Published Distance=98 c Humidity=93 % to IBM Watson
Ln: 9 Col: 0
14:33
17-11-2022
```