

PYTHON SCRIPT

TEAM ID	PNT2022TMID45478
PROJECT NAME	PROJECT- SMART WASTE MANGEMENT FOR METROPOLITAN CITIES

PYTHON SCRIPT:

```
import time
```

```
import sys
```

```
import ibmiotf.application
```

```
import ibmiotf.device
```

```
import random
```

```
#Provide your IBM Watson Device Credentials
```

```
organization = "ctmv6u"
```

```
deviceType = "NodeMCU"
```

```
deviceId = "106003"
```

```
authMethod = "token"
```

```
authToken = "123456789"
```

```
# Initialize GPIO
```

```
def myCommandcallback (cmd) :
```

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

```
    status=cmd.data['command']
```

```
    if status=="1ighton" :
```

```
        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 DET11  
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")
```

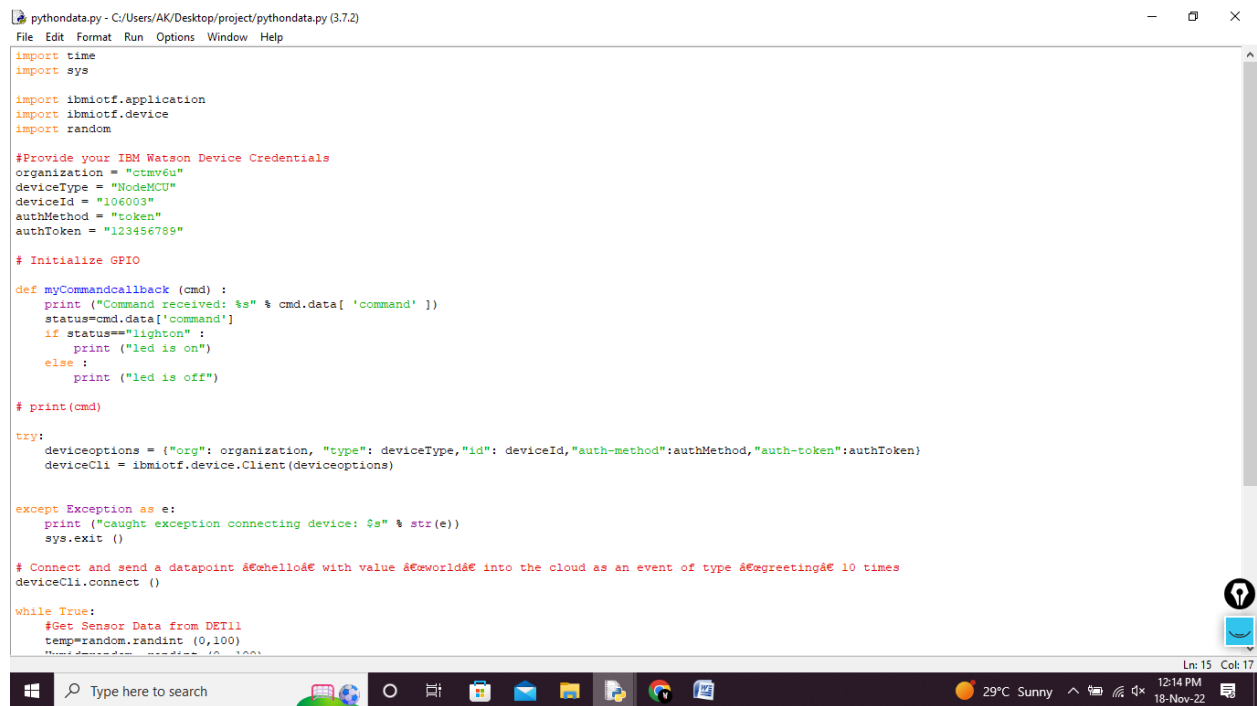
```
    success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0,  
on_publish=myonPublishCallback)
```

```
    if not success:
```

```
        print ("Not connected to IoT")  
        time.sleep(1)
```

```
devicecli.commandcallback = myCommandcallback
```

SCREENSHOTS :



```
pythondata.py - C:/Users/AK/Desktop/project/pythondata.py (3.7.2)
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import time
import sys

import ibmiotf.application
import ibmiotf.device
import random

#Provide your IBM Watson Device Credentials
organization = "ctmv6u"
deviceType = "NodeMCU"
deviceId = "106003"
authMethod = "token"
authToken = "123456789"

# 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 (40,100)
```

```
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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 @shello@ with value @world@ into the cloud as an event of type @greeting@ 10 times
deviceCli.connect ()

while True:
    #Get Sensor Data from DET11
    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 ()
```

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