

DEVELOP A PYTHON SCRIPT

PROJECT TITLE	HAZARDOUS AREA MONITORING FOR INDUSTRIAL PLANT POWERED BY IoT
TEAM ID	PNT2022TMID30680
TEAM MEMBERS	TEAM LEAD:R.VIJAYALAKSHMI TEAM MEMBER_1:S.VAISHNAVI TEAM MEMBER_2:S.SHOBANA DEVI

SOURCE CODE:

```
import
time

import sys
import imiotf.application
import ibmiotf.device
import random

organization = "illeiar"
deviceType = "IBM IOT"
deviceId = "IBM_IOT_1"
authMethod = "token"
authToken = "987654321"

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")

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)
    humd=random.randint(0,100)
    data={'temp':temp, 'Humid': humd}
    def myOnPublishCallback():
        print("Published Temperature = %s C" % temp, "Humidity= %s %" % humd,
            "to IBM Watson")

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

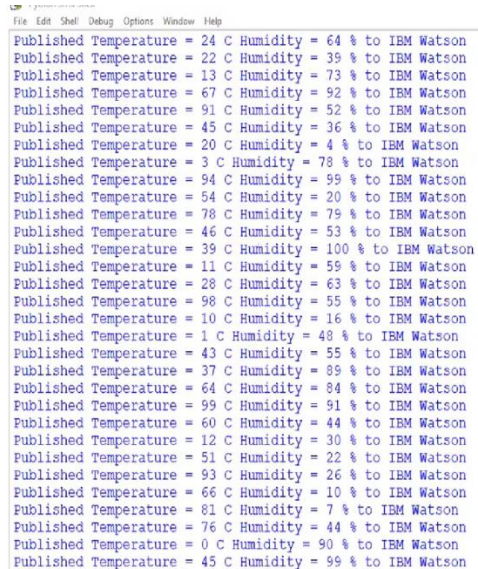
    if not success:
        print("Not Connected to IoT")
        time.sleep(1)

deviceCli.commandCallback=myCommandCallback

deviceCli.disconnect()

```

OUTPUT:



```

Published Temperature = 24 C Humidity = 64 % to IBM Watson
Published Temperature = 22 C Humidity = 39 % to IBM Watson
Published Temperature = 13 C Humidity = 73 % to IBM Watson
Published Temperature = 67 C Humidity = 92 % to IBM Watson
Published Temperature = 91 C Humidity = 52 % to IBM Watson
Published Temperature = 45 C Humidity = 36 % to IBM Watson
Published Temperature = 20 C Humidity = 4 % to IBM Watson
Published Temperature = 3 C Humidity = 78 % to IBM Watson
Published Temperature = 94 C Humidity = 99 % to IBM Watson
Published Temperature = 54 C Humidity = 20 % to IBM Watson
Published Temperature = 78 C Humidity = 79 % to IBM Watson
Published Temperature = 46 C Humidity = 53 % to IBM Watson
Published Temperature = 39 C Humidity = 100 % to IBM Watson
Published Temperature = 11 C Humidity = 59 % to IBM Watson
Published Temperature = 28 C Humidity = 63 % to IBM Watson
Published Temperature = 98 C Humidity = 55 % to IBM Watson
Published Temperature = 10 C Humidity = 16 % to IBM Watson
Published Temperature = 1 C Humidity = 48 % to IBM Watson
Published Temperature = 43 C Humidity = 55 % to IBM Watson
Published Temperature = 37 C Humidity = 89 % to IBM Watson
Published Temperature = 64 C Humidity = 84 % to IBM Watson
Published Temperature = 99 C Humidity = 91 % to IBM Watson
Published Temperature = 60 C Humidity = 44 % to IBM Watson
Published Temperature = 12 C Humidity = 30 % to IBM Watson
Published Temperature = 51 C Humidity = 22 % to IBM Watson
Published Temperature = 93 C Humidity = 26 % to IBM Watson
Published Temperature = 66 C Humidity = 10 % to IBM Watson
Published Temperature = 81 C Humidity = 7 % to IBM Watson
Published Temperature = 76 C Humidity = 44 % to IBM Watson
Published Temperature = 0 C Humidity = 90 % to IBM Watson
Published Temperature = 45 C Humidity = 99 % to IBM Watson

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