

SPRINT – 1

DATE	29/10/2022
TEAM ID	PNT2022TMID22887
PROJECT NAME	GAS LEAKAGE MONITORING & ALERTING SYSTEM FOR INDUSTRIES
MAXIMUM MARKS	2

PYTHON SCRIPT:

```
pythoncode.py - C:/Users/hp/AppData/Local/Programs/Python/Python39/pythoncode.py (3.9.6)
File Edit Format Run Options Window Help

import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "38mp1z",
        "typeId": "NodeMCU",
        "deviceId": "12345"
    },
    "auth": {
        "token": "H-KggsSRRRSimlWg*"
    }
}

def myCommandCallback(cmd):
    print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
    m=cmd.data['command']

client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()

while True:
    gas=random.randint(200,1500)
    tem=random.randint(0,100)
    hum=random.randint(0,100)
    pre=random.randint(12,25)
    if gas<1000:
        san=("Normal")
        sl=0
    else:
        san=("Danger Leakage")
        sl=1
    myData={'gas level':gas,"status":san,"st":sl,"pr":pre,"temp":tem,"hu":hum}
    #myData={'co2 level in ppm':gas}
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
    print("Published data Successfully: %s", myData)
    client.commandCallback = myCommandCallback
    time.sleep(2)

client.disconnect()
```

```
import wiotp.sdk.device
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```
import time
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import random
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```
myConfig = {
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    "identity": {
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        "orgId": "38mp1z",
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        "typeId": "NodeMCU",
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        "deviceId": "12345"
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},  
"auth": {  
    "token": "n-KgpsSRRRSimlWg*("  
}  
}
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def myCommandCallback(cmd):  
    print("Message received from IBM IoT Platform: %s" % cmd.data['command'])  
    m=cmd.data['command']
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client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)  
client.connect()
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while True:  
    gas=random.randint(200,1500)  
    tem=random.randint(0,100)  
    hum=random.randint(0,100)  
    pre=random.randint(12,25)  
    if gas<1000:  
        san=("Normal")  
        s1=0  
    else:  
        san=("Danger Leakage")  
        s1=1  
    myData={'gaslevel':gas,"status":san,"st":s1,"pr":pre,"temp":tem,"hu":hum}
```

```

#myData={'co2 level in ppm':gas}

client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,
onPublish=None)

print("Published data Successfully: %s", myData)

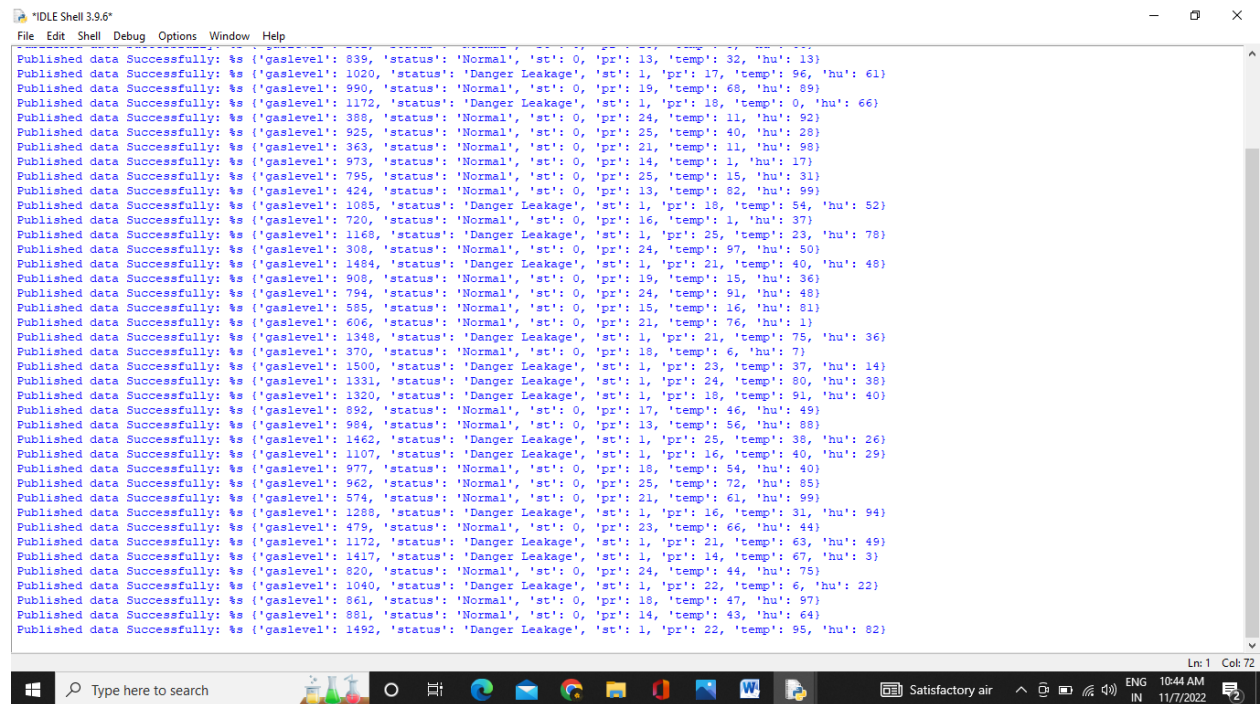
client.commandCallback = myCommandCallback

time.sleep(2)

client.disconnect()

```

SCRIPT OUTPUT:



```

Published data Successfully: %s ('gaslevel': 839, 'status': 'Normal', 'st': 0, 'pr': 13, 'temp': 32, 'hu': 13)
Published data Successfully: %s ('gaslevel': 1020, 'status': 'Danger Leakage', 'st': 1, 'pr': 17, 'temp': 96, 'hu': 61)
Published data Successfully: %s ('gaslevel': 990, 'status': 'Normal', 'st': 0, 'pr': 19, 'temp': 68, 'hu': 89)
Published data Successfully: %s ('gaslevel': 1172, 'status': 'Danger Leakage', 'st': 1, 'pr': 18, 'temp': 0, 'hu': 66)
Published data Successfully: %s ('gaslevel': 385, 'status': 'Normal', 'st': 0, 'pr': 24, 'temp': 11, 'hu': 92)
Published data Successfully: %s ('gaslevel': 925, 'status': 'Normal', 'st': 0, 'pr': 25, 'temp': 40, 'hu': 28)
Published data Successfully: %s ('gaslevel': 363, 'status': 'Normal', 'st': 0, 'pr': 21, 'temp': 11, 'hu': 98)
Published data Successfully: %s ('gaslevel': 973, 'status': 'Normal', 'st': 0, 'pr': 14, 'temp': 1, 'hu': 17)
Published data Successfully: %s ('gaslevel': 795, 'status': 'Normal', 'st': 0, 'pr': 25, 'temp': 15, 'hu': 31)
Published data Successfully: %s ('gaslevel': 424, 'status': 'Normal', 'st': 0, 'pr': 13, 'temp': 82, 'hu': 99)
Published data Successfully: %s ('gaslevel': 1085, 'status': 'Danger Leakage', 'st': 1, 'pr': 18, 'temp': 54, 'hu': 52)
Published data Successfully: %s ('gaslevel': 720, 'status': 'Normal', 'st': 0, 'pr': 16, 'temp': 1, 'hu': 37)
Published data Successfully: %s ('gaslevel': 1168, 'status': 'Danger Leakage', 'st': 1, 'pr': 25, 'temp': 23, 'hu': 78)
Published data Successfully: %s ('gaslevel': 308, 'status': 'Normal', 'st': 0, 'pr': 24, 'temp': 97, 'hu': 50)
Published data Successfully: %s ('gaslevel': 1484, 'status': 'Danger Leakage', 'st': 1, 'pr': 21, 'temp': 40, 'hu': 48)
Published data Successfully: %s ('gaslevel': 908, 'status': 'Normal', 'st': 0, 'pr': 19, 'temp': 15, 'hu': 36)
Published data Successfully: %s ('gaslevel': 794, 'status': 'Normal', 'st': 0, 'pr': 24, 'temp': 91, 'hu': 48)
Published data Successfully: %s ('gaslevel': 585, 'status': 'Normal', 'st': 0, 'pr': 15, 'temp': 16, 'hu': 81)
Published data Successfully: %s ('gaslevel': 606, 'status': 'Normal', 'st': 0, 'pr': 21, 'temp': 76, 'hu': 11)
Published data Successfully: %s ('gaslevel': 1348, 'status': 'Danger Leakage', 'st': 1, 'pr': 21, 'temp': 75, 'hu': 36)
Published data Successfully: %s ('gaslevel': 370, 'status': 'Normal', 'st': 0, 'pr': 18, 'temp': 6, 'hu': 7)
Published data Successfully: %s ('gaslevel': 1500, 'status': 'Danger Leakage', 'st': 1, 'pr': 23, 'temp': 37, 'hu': 14)
Published data Successfully: %s ('gaslevel': 1331, 'status': 'Danger Leakage', 'st': 1, 'pr': 24, 'temp': 80, 'hu': 38)
Published data Successfully: %s ('gaslevel': 1320, 'status': 'Danger Leakage', 'st': 1, 'pr': 18, 'temp': 91, 'hu': 40)
Published data Successfully: %s ('gaslevel': 892, 'status': 'Normal', 'st': 0, 'pr': 17, 'temp': 46, 'hu': 49)
Published data Successfully: %s ('gaslevel': 984, 'status': 'Normal', 'st': 0, 'pr': 13, 'temp': 56, 'hu': 88)
Published data Successfully: %s ('gaslevel': 1462, 'status': 'Danger Leakage', 'st': 1, 'pr': 25, 'temp': 38, 'hu': 26)
Published data Successfully: %s ('gaslevel': 1107, 'status': 'Danger Leakage', 'st': 1, 'pr': 16, 'temp': 40, 'hu': 29)
Published data Successfully: %s ('gaslevel': 977, 'status': 'Normal', 'st': 0, 'pr': 18, 'temp': 54, 'hu': 40)
Published data Successfully: %s ('gaslevel': 962, 'status': 'Normal', 'st': 0, 'pr': 25, 'temp': 72, 'hu': 85)
Published data Successfully: %s ('gaslevel': 574, 'status': 'Normal', 'st': 0, 'pr': 21, 'temp': 61, 'hu': 99)
Published data Successfully: %s ('gaslevel': 1288, 'status': 'Danger Leakage', 'st': 1, 'pr': 16, 'temp': 31, 'hu': 94)
Published data Successfully: %s ('gaslevel': 479, 'status': 'Normal', 'st': 0, 'pr': 23, 'temp': 66, 'hu': 44)
Published data Successfully: %s ('gaslevel': 1172, 'status': 'Danger Leakage', 'st': 1, 'pr': 21, 'temp': 63, 'hu': 49)
Published data Successfully: %s ('gaslevel': 1417, 'status': 'Danger Leakage', 'st': 1, 'pr': 14, 'temp': 67, 'hu': 3)
Published data Successfully: %s ('gaslevel': 820, 'status': 'Normal', 'st': 0, 'pr': 24, 'temp': 44, 'hu': 75)
Published data Successfully: %s ('gaslevel': 1040, 'status': 'Danger Leakage', 'st': 1, 'pr': 22, 'temp': 6, 'hu': 22)
Published data Successfully: %s ('gaslevel': 861, 'status': 'Normal', 'st': 0, 'pr': 18, 'temp': 47, 'hu': 97)
Published data Successfully: %s ('gaslevel': 891, 'status': 'Normal', 'st': 0, 'pr': 14, 'temp': 43, 'hu': 64)
Published data Successfully: %s ('gaslevel': 1492, 'status': 'Danger Leakage', 'st': 1, 'pr': 22, 'temp': 95, 'hu': 82)

```

ACCOUNT IN IBM WATSON:

Node-RED x (no subject) - shobika x Python Release Python x IBM x IBM Cloud x IBM Watson IoT Platform x

38mp1z.internetofthings.ibmcloud.com/dashboard/devices/drilldown/NodeMCU:12345?returnTo=/devices/browse

IBM Watson IoT Platform

732919ecr108@smartinternz.com
ID: 38mp1z

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Device Drilldown - 12345

Device Credentials

- Connection Information
- Recent Events
- State
- Device Information
- Metadata
- Diagnostics
- Connection Logs
- Device Actions

Find out how to add these credentials to your device

Connection Information

Basic connection information about this device.

Device ID	12345
Device Type	NodeMCU
Date Added	Nov 4, 2022 11:53 AM
Added By	732919ecr108@smartinternz.com
Connection Status	Connected
Connection Time: Nov 4, 2022 11:56 AM	
Client Address: 12	

0 Simulations running

Type here to search

28°C 11:56 AM 11/4/2022

IOT WATSON OUTPUT:

IBM Watson IoT Platform x (no subject) - s.sweetha143sa x IBM x (3) Roundcube Webmail x sketchino - Wokwi Arduino x

yy65z9.internetofthings.ibmcloud.com/dashboard/devices/drilldown/ESP32:12345?returnTo=/devices/browse

IBM Watson IoT Platform

732919ecr143@smartinternz.com
ID: yy65z9

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Device Drilldown - 12345

Recent Events

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
Data	{"Distance":84.98,"MESSAGE":"ALERT"}	json	a few seconds ago
Data	{"Distance":84.98,"MESSAGE":"ALERT"}	json	a few seconds ago
Data	{"Distance":84.98,"MESSAGE":"ALERT"}	json	a few seconds ago
Data	{"Distance":84.98,"MESSAGE":"ALERT"}	json	a few seconds ago
Data	{"Distance":85,"MESSAGE":"ALERT"}	json	a few seconds ago

Type here to search

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