SPRINT2

DATE	5 November 2022
TEAM ID	PNT2022TMID22887
PROJECT NAME	Gas Leakage Monitoring and Alerting System for Industries
MAXIMUM MARKS	2

CODE DEVELOPMENT IN PYTHON IDLE:

PYTHON PROGRAM:

```python
#IBM Watson IOT Platform

#pip install wiotp-sdk

import wiotp.sdk.device

import time

import random

myConfig = {

    "identity": {

        "orgId": "yy65z9",

        "typeId": "NodeMCU",

        "deviceId":"12345"

    },

    "auth": {

        "token": "12345678"

    }

}


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()
```

```python
while True:
    co2gas=random.randint(400,5000)
    if co2gas<1000:
        sts="no leakage of co2"
    else:
        sts="danger, co2 is leaking"
    methane=random.randint(1000,4000)
    if methane<2000:
        st="no leakage of methane"
    else:
        st="danger, methane is leaking"
    temp=random.randint(-20,50)
    humidity=random.randint(0,100)
    myData={'level':co2gas,"status":sts,"lvl":methane,"stat":st,"temperature":temp,"humidity":humidity}
    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()
```

CONNECTING THE DEVICE AND CREATING DEVICE ID IN IBM WATSON PLATFORM: