

## DEVELOP A PYTHON SCRIPT TO PUBLISH AND SUBSCRIBE TO IBM IOT PLATFORM

|              |  |
|--------------|--|
| Date         | 15 November 2022                           |
| Team ID      | PNT2022TMID53557                           |
| Project Name | Gas leakage monitoring and alerting system |

### PYTHON CODE:

```
#IBM Watson IOT Platform
#pip install wiotp-sdk
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "oqhi1j",
        "typeId": "NODEMCU",
        "deviceId": "BHAVAN0108"
    },
    "auth": {
        "token": "bharathi0503"
    }
}

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:
    temp=random.randint(32,40)
    hum=random.randint(60,80)
    gas=random.randint(500,800)
    pres=random.randint(20,80)
    myData={'temperature':temp, 'humidity':hum, 'gasLevel':gas, 'pressure':pres, 'latitude':13.148760, 'longitude':80.229100}
    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()
```

## PUBLISH THE DATA TO IBM CLOUD:

| Identity | Device Information | Recent Events | State | Logs |
|----------|--------------------|---------------|-------|------|
|----------|--------------------|---------------|-------|------|

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

| Event  | Value   | Format | Last Received  |
|--------|---|--------|----------------|
| status | {"temperature":34,"humidity":68,"gasLevel":558... | json   | 10 minutes ago |
| status | {"temperature":37,"humidity":63,"gasLevel":665... | json   | 10 minutes ago |
| status | {"temperature":32,"humidity":74,"gasLevel":700... | json   | 10 minutes ago |
| status | {"temperature":34,"humidity":75,"gasLevel":718... | json   | 10 minutes ago |
| status | {"temperature":32,"humidity":71,"gasLevel":741... | json   | 10 minutes ago |