

SPRINT 4

DATE	19/11/2022
TEAM ID	PNT2022TMID22891
PROJECT NAME	GAS LEAKAGE MONITORING AND DETECTING SYSTEM FOR INDUSTRIES
MAXIMUM MARKS	2

PYTHON CODE OUTPUT:

gasleak.py - C:\Users\Swetha\AppData\Local\Programs\Python\Python39\gasleak.py (3.9.6)

File Edit Format Run Options Window Help

```
#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()

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()
```

IDLE Shell 3.9.6

File Edit Shell Debug Options Window Help

```
Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
== RESTART: C:\Users\Swetha\AppData\Local\Programs\Python\Python39\gasleak.py ==
2022-11-03 11:41:48,136 wiotp.sdk.device.client.DeviceClient INFO Connected
successfully: d:yy65z9:NodeMCU:12345
Published data Successfully: %s {'level': 4700, 'status': 'danger, co2 is leaking'
, 'lvl': 2239, 'stat': 'danger, methane is leaking', 'temperature': -17, 'humidity'
': 66}
Published data Successfully: %s {'level': 1209, 'status': 'danger, co2 is leaking'
, 'lvl': 2137, 'stat': 'danger, methane is leaking', 'temperature': 30, 'humidity'
': 63}
Published data Successfully: %s {'level': 3298, 'status': 'danger, co2 is leaking'
, 'lvl': 2266, 'stat': 'danger, methane is leaking', 'temperature': 23, 'humidity'
': 41}
Published data Successfully: %s {'level': 2509, 'status': 'danger, co2 is leaking'
, 'lvl': 2227, 'stat': 'danger, methane is leaking', 'temperature': -1, 'humidity'
': 66}
Published data Successfully: %s {'level': 1389, 'status': 'danger, co2 is leaking'
, 'lvl': 2227, 'stat': 'danger, methane is leaking', 'temperature': 26, 'humidity'
': 60}
Published data Successfully: %s {'level': 3269, 'status': 'danger, co2 is leaking'
, 'lvl': 3450, 'stat': 'danger, methane is leaking', 'temperature': 5, 'humidity':
58}
Published data Successfully: %s {'level': 501, 'status': 'no leakage of co2', 'lvl
': 2123, 'stat': 'danger, methane is leaking', 'temperature': 2, 'humidity': 66}
Published data Successfully: %s {'level': 1754, 'status': 'danger, co2 is leaking'
, 'lvl': 3179, 'stat': 'danger, methane is leaking', 'temperature': -15, 'humidity
': 15}
Published data Successfully: %s {'level': 935, 'status': 'no leakage of co2', 'lvl
': 1888, 'stat': 'no leakage of methane', 'temperature': 18, 'humidity': 38}
Published data Successfully: %s {'level': 4906, 'status': 'danger, co2 is leaking'
, 'lvl': 1712, 'stat': 'no leakage of methane', 'temperature': -15, 'humidity': 19
}
Published data Successfully: %s {'level': 779, 'status': 'no leakage of co2', 'lvl
': 1908, 'stat': 'no leakage of methane', 'temperature': 18, 'humidity': 28}
|
```

OUTPUT IN IBM WATSON :

IBM Watson IoT Platform

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Device Drilldown - 12345

Connection Information

Recent Events

State

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Metadata

Diagnostics

Connection Logs

Device Actions

Connection Information

Basic connection information about this device.

Device ID

12345

Device Type

NodeMCU

Date Added

Nov 1, 2022 1:21 PM

Added By

732919ecr143@smartinternz.com

Connection Status

Connected

Connection Time: Nov 3, 2022 11:01 AM

Client Address: 157.46.101.157 SecureToken

Recent Events

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

Event	Value	For
status	{"level":1301,"status":"danger. co2 is leaking","lv...	isc

0 Simulations running

IBM Watson IoT Platform

732919ecr143@smartinternz.com
ID: yy65z9

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Device Drilldown - 12345

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State

This table shows a list of data points that are reported by this device.

📶 Showing Raw Data | No Interfaces Available

Property	Value	Type	Event	Last Received
level	4154	Number	status	a few seconds ago
status	danger, co2 is leaking	String	status	a few seconds ago
lvl	3948	Number	status	a few seconds ago
stat	danger, methane is leaking	String	status	a few seconds ago
temperature	43	Number	status	a few seconds ago
humidity	5	Number	status	a few seconds ago



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Device Drilldown - 12345

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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
status	{"level":2362,"status":"danger, co2 is leaking","lv...	json	a few seconds ago
status	{"level":3809,"status":"danger, co2 is leaking","lv...	json	a few seconds ago
status	{"level":2226,"status":"danger, co2 is leaking","lv...	json	a few seconds ago
status	{"level":4452,"status":"danger, co2 is leaking","lv...	json	a few seconds ago
status	{"level":3229,"status":"danger, co2 is leaking","lv...	json	a few seconds ago

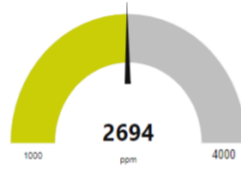
NODE RED WEB APPLICATION OUTPUT:

gas leakage

status of
carbondioxide

no leakage of
co2

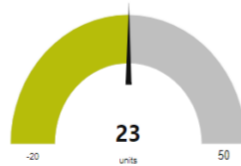
methane level



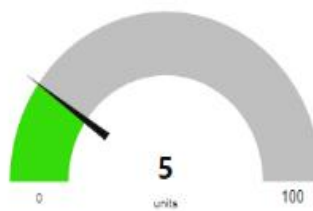
status of
methane

danger, methane is
leaking

temperature



humidity



co2 level

