

## Project Development Phase

### SPRINT 1

Date	15 November 2022
Team ID	PNT2022TMID36194
Project Name	Gas leakage monitoring and alerting system

```
import wiotp.sdk.device
```

```
import time
```

```
import random
```

```
myConfig = {
```

```
    "identity": {
```

```
        "orgId": "9q9raj",
```

```
        "typeId": "manikandan",
```

```
        "deviceId": "6009"
```

```
    },
```

```
    "auth": {
```

```
        "token": "a-9q9raj-alnlrmedqm"
```

```
    }
```

```
}
```

```
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_Value = random.randint(10,100)
```

```
    myData={'Gas Level':Gas_Value}
```

```
    if Gas_Value > 80:
```

```
        Gas_Value = "Warning"
```

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

```
    print(myData)
```

```

print(Gas_Value)

client.commandCallback = myCommandCallback

time.sleep(2)
client.disconnect()

```

## OUTPUT

Demo.py - C:\Users\ELCOT\Desktop\Demo.py (3.7.4)

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```

import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "9q9raj",
        "typeId": "manikandan",
        "deviceId": "6009"
    },
    "auth": {
        "token": "a-9q9raj-alnlrmedqm"
    }
}

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_Value = random.randint(10,100)

    myData={'Gas_Level':Gas_Value}
    if Gas_Value > 80:
        Gas_Value = "Warning"
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
    print(myData)
    print(Gas_Value)
    client.commandCallback = myCommandCallback
    time.sleep(2)
client.disconnect()

```

Python 3.7.4 Shell

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```

14
{'Gas_Level': 93}
Warning
{'Gas_Level': 25}
25
{'Gas_Level': 16}
16
{'Gas_Level': 52}
52
{'Gas_Level': 14}
14
{'Gas_Level': 57}
57
{'Gas_Level': 54}
54
{'Gas_Level': 88}
Warning
{'Gas_Level': 84}
Warning
{'Gas_Level': 76}
76
{'Gas_Level': 40}
40
{'Gas_Level': 86}
Warning
{'Gas_Level': 40}
40
{'Gas_Level': 19}
19
{'Gas_Level': 18}
18
{'Gas_Level': 13}
13
{'Gas_Level': 57}
57
{'Gas_Level': 80}
80
{'Gas_Level': 90}
Warning

```

## IBM WATSON IOT OUTPUT

IBM Watson IoT Platform

110519106009@smartinternz.com  
ID: 9q9raj

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Device Drilldown - 6009

Connection Information

Recent Events

State

Device Information

Metadata

Diagnostics

Connection Logs

Device Actions

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	{"Gas_Level":95}	json	a few seconds ago
status	{"Gas_Level":63}	json	a few seconds ago
status	{"Gas_Level":97}	json	a few seconds ago
status	{"Gas_Level":50}	json	a few seconds ago
status	{"Gas_Level":90}	json	a few seconds ago