

SPRINT 2

| | |
|---------------|--|
| Project Title | Industry-specific intelligent fire management system |
| Team ID | PNT2022TMID46732 |
| Date | 5 NOV 2022 |

Code for Simulation

```
#IBM Watson IOT Platform
```

```
#pip install wiotp-sdk
```

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

```
import time
```

```
import random
```

```
myConfig = {
```

```
    "identity": {
```

```
        "orgId": "s8ov1q",
```

```
        "typeId": "abcd",
```

```
        "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:
```

```
    temp=random.randint(-20,125)
```

```
    hum=random.randint(0,100)
```

```
    flame=random.randint(0,50)
```

```
    gas=random.randint(0,100)
```

```
    myData={'temperature':temp, 'humidity':hum,'flame':flame,'gas':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()
```

OUTPUT (IBM IOT Watson)

Connection Details

| Device ID | Status | Device Type | Class ID | Date Added | |
|-------------------|--|---------------|----------|-----------------------|-------|
| 12345 | Connected | abcd | Device | Nov 15, 2022 11:38 AM | → ... |
| Identity | Device Information | Recent Events | State | Logs | X |
| Device ID | 12345 | | | | |
| Device Type | abcd | | | | |
| Date Added | Nov 15, 2022 11:38 AM | | | | |
| Added By | gayathri19m2001@gmail.com | | | | |
| Connection Status | Connected | | | | |
| | Connection Time: Nov 16, 2022 10:06 PM | | | | |
| | Client Address: 223.181.233.93 SecureToken | | | | |

[illegible]

Node-RED

Deploy

filter nodes

common

inject

debug

complete

catch

status

link in

link call

link out

comment

function

function

switch

Flow 1

Hello Node-RED!

msg.payload

IBM IoT

connected

function

function

[get] /Sensor

function

http

debug

all nodes

all

11/17/2022, 12:05:15 PM node: 02649a-0d0d98
iot-2/type/abcd/id/12345/evt/IoTSensor/fmt/json :
msg.payload : number
96

11/17/2022, 12:05:15 PM node: 02649a-0d0d98
iot-2/type/abcd/id/12345/evt/IoTSensor/fmt/json :
msg.payload : number
92

11/17/2022, 12:05:25 PM node: 02649a-0d0d98
iot-2/type/abcd/id/12345/evt/IoTSensor/fmt/json :
msg.payload : number
93

11/17/2022, 12:05:25 PM node: 02649a-0d0d98
iot-2/type/abcd/id/12345/evt/IoTSensor/fmt/json :
msg.payload : number
61