

## SPRINT 2

Project Title	Industry-specific intelligent fire management system
Team ID	PNT2022TMID10962
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	✕
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				

The screenshot displays the IBM Watson IoT Platform interface. On the left is a dark sidebar with navigation icons. The main header area shows 'Browse', 'Action', 'Device Types', and 'Interfaces'. Below this, a light blue bar contains tabs for 'Identity', 'Device Information', 'Recent Events' (which is selected), 'State', and 'Logs'. The central content area has a heading 'Recent events from Temperature Sensor' followed by a paragraph explaining that the listed events show a live stream of data. Below this is a table with four columns: Event, Value, Format, and Last Received. The table lists five status events with JSON payloads containing temperature, humidity, flame, and gas data.

Event	Value	Format	Last Received
status	{"temperature":51,"humidity":2,"flame":44,"gas"...}	json	a few seconds ago
status	{"temperature":45,"humidity":78,"flame":2,"gas"...}	json	a few seconds ago
status	{"temperature":29,"humidity":41,"flame":10,"ga..."}	json	a few seconds ago
status	{"temperature":114,"humidity":67,"flame":25,"g..."}	json	a few seconds ago
status	{"temperature":82,"humidity":81,"flame":16,"ga..."}	json	a few seconds ago

Node-RED

Deploy

filter nodes

Flow 1

common

inject

debug

complete

catch

status

link in

link call

link out

comment

function

function

switch

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: f2f2649a.0d0d98  
iot-2/type/abcd/id/12345/evt/loTSensor/fmt/json :  
msg.payload : number  
96

11/17/2022, 12:05:15 PM node: f2f2649a.0d0d98  
iot-2/type/abcd/id/12345/evt/loTSensor/fmt/json :  
msg.payload : number  
92

11/17/2022, 12:05:25 PM node: f2f2649a.0d0d98  
iot-2/type/abcd/id/12345/evt/loTSensor/fmt/json :  
msg.payload : number  
93

11/17/2022, 12:05:25 PM node: f2f2649a.0d0d98  
iot-2/type/abcd/id/12345/evt/loTSensor/fmt/json :  
msg.payload : number  
61