

SPRINT 2

Project Title	Industry-specific intelligent fire management system
Team ID	PNT2022TMID24775
Date	5 NOV 2022

Code for Simulation

```
#IBM Watson IOT Platform
```

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

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

```
import time
```

```
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

<input type="checkbox"/>	Device ID	Status	Device Type	Class ID	Date Added	
▼ <input type="checkbox"/>	12345	Connected	abcd	Device	Nov 15, 2022 11:38 AM	→ ...
<div>Identity Device Information Recent Events State Logs ✕</div>						
Device ID		12345				
Device Type		abcd				
Date Added		Nov 15, 2022 11:38 AM				
Added By		gayathri19m2001@gmail.com				
Connection Status		<div>Connected</div> <div>Connection Time: Nov 16, 2022 10:06 PM</div> <div>Client Address: 223.181.233.93 SecureToken</div>				

IBM Watson IoT Platform



Browse Action Device Types Interfaces

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":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

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

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

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

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