

SPRINT 2

Project Title	Industry-specific intelligent fire management system
Team ID	PNT2022TMID17394
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				



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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

Flow 1

common

inject

debug

complete

catch

status

link in

link call

link out

comment

function

function

switch

Flow 1

inject

debug

complete

catch

status

link in

link call

link out

comment

function

function

switch

IBM IoT

connected

function

function

[get] /Sensor

function

http

msg.payload

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