

SPRINT-2

TEAM ID	PNT2022TMID10968
PROJECT NAME	INDUSTRY - SPECIFIC INTELLIGENT FIRE MANAGEMENT SYSTEM
IBM ID	IBM-Project-62210-1658823576

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	atchayabece@gmail.com				
	Connection Status	Connected				
		Connection Time: Nov 16, 2022 10:06 PM				
		Client Address: 223.181.233.93 SecureToken				

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

Flow 1

common

inject

debug

complete

catch

status

link in

link call

link out

comment

function

function

switch

Flow 1

inject

msg.payload

function

function

[get] /Sensor

http

function

IBM IoT

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