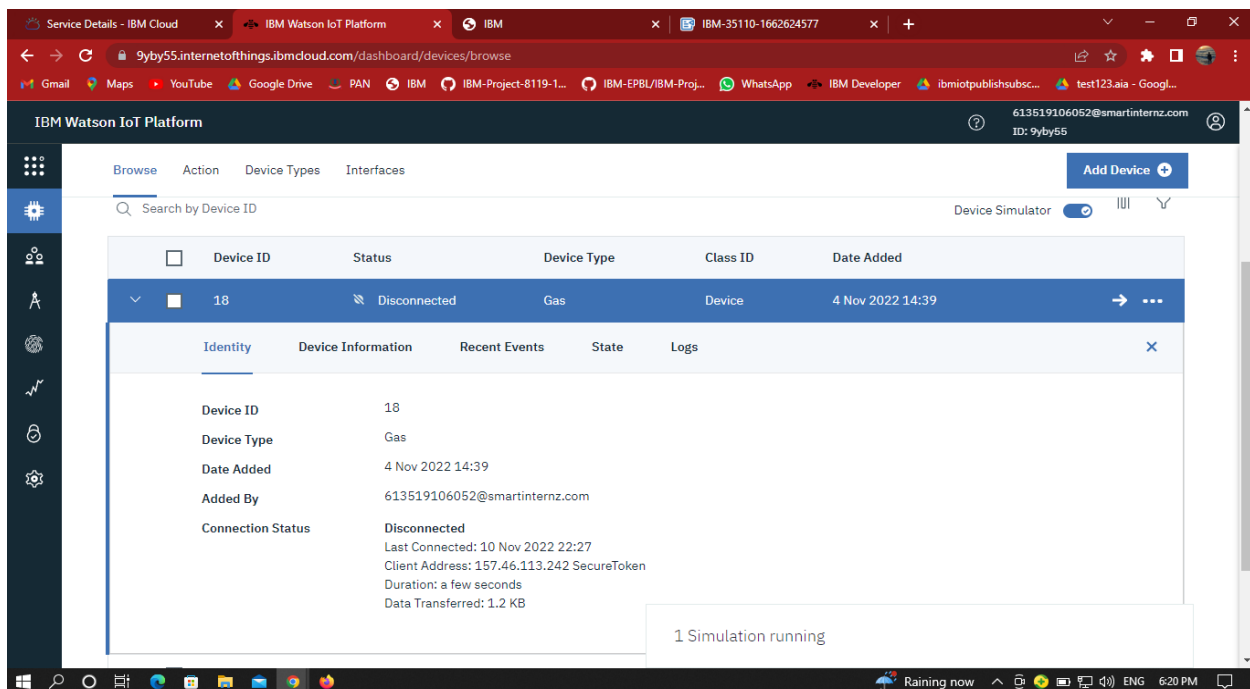
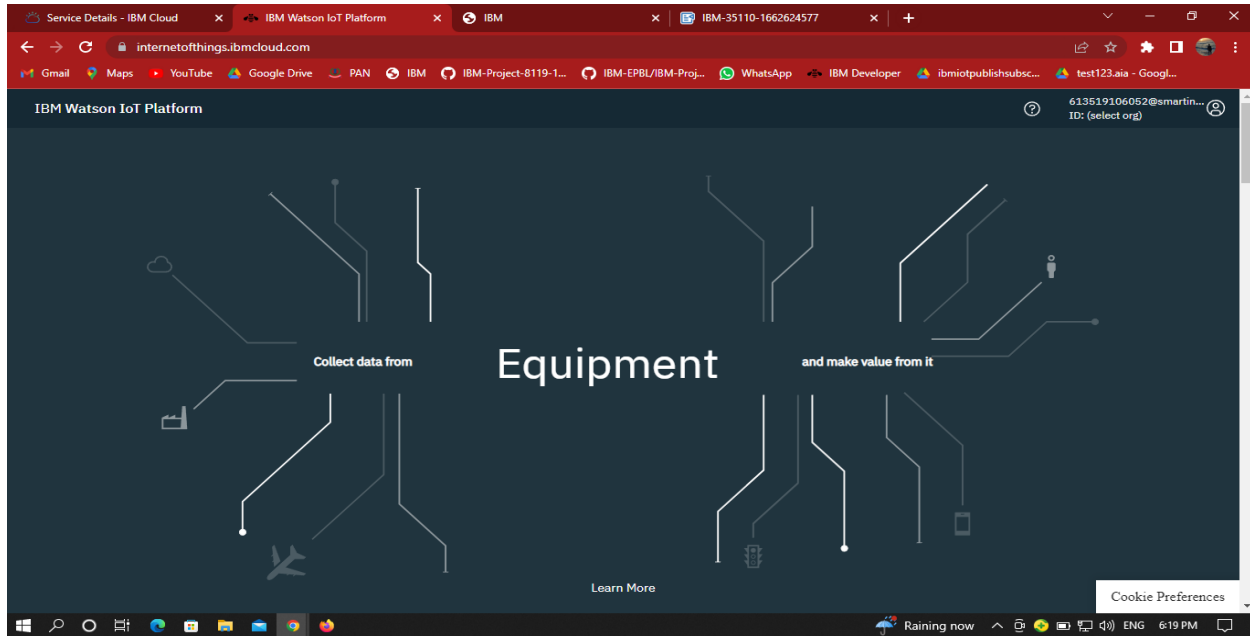


## Project Development -Delivery of Sprint 1

### Creating And Connecting IBM cloud to Python Code

Team ID	PNT2022TMID41307
Project Name	Gas Leakage Monitoring and Alerting System for Industries

### IBM Cloud:



**Python Code:**

```
#pip install wiotp-sdk

import wiotp.sdk.device
import time
import random

myConfig = {
    "identity":
    {
        "orgId": "9yby55",
        "typeId": "Gas",
        "deviceId": "18"
    },
    "auth":
    {
        "token": "zlbdsvljWkP@1S34*&"
    }
}

client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()

while True:
    TemperatureZ1=random.randint(0,100)
    HumidityZ1=random.randint(0,100)
    GasLevelZ1=random.randint(0,100)
    PressureZ1=random.randint(0,100)
    TemperatureZ2=random.randint(0,100)
    HumidityZ2=random.randint(0,100)
    GasLevelZ2=random.randint(0,100)
    PressureZ2=random.randint(0,100)
```

```
myData={'TemperatureZ1':TemperatureZ1,'HumidityZ1':HumidityZ1,'GasLevelZ1':GasLevelZ1,
'PressureZ1':PressureZ1,'TemperatureZ2':TemperatureZ2,'HumidityZ2':HumidityZ2,'GasLevelZ
2':GasLevelZ2,'PressureZ2':PressureZ2}
```

```
client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,
onPublish=None)
```

```
print("Published data Successfully: %s", myData , "to the IBM Platform")
```

```
time.sleep(2)
```

```
client.disconnect()
```

## Connecting IBM Cloud and Python Code

The screenshot displays the IBM Watson IoT Platform dashboard. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. A search bar is present with the text 'Search by Device ID'. The main content area shows a table of devices. The first device, with ID '18', is in a 'Disconnected' state and is of type 'Gas'. Below the device list, a 'Recent Events' tab is selected, showing a stream of data events. The events are listed in a table with columns: Event, Value, Format, and Last Received. The events include 'status' and 'event\_1' with various sensor data values. A notification at the bottom right indicates '1 Simulation running'.

Event	Value	Format	Last Received
status	{"TemperatureZ1":28,"HumidityZ1":17,"GasLeve...	json	a few seconds ago
event_1	{"TemperatureZ1":61,"HumidityZ1":95,"GasLeve...	json	a few seconds ago
status	{"TemperatureZ1":8,"HumidityZ1":71,"GasLevel...	json	a few seconds ago
status	{"TemperatureZ1":56,"HumidityZ1":56,"GasLeve...	json	a few seconds ago
event_1	{"TemperatureZ1":93,"HumidityZ1":71,"GasLeve...	json	a few seconds ago

Service Details - IBM Cloud

IBM Watson IoT Platform

IBM

Python 3.7.4 Shell

9by55.internetofthings.ibmcloud.com/dashboard/devices/browse

IBM Watson IoT Platform

Browse

Action

Device Types

Interfaces

Search by Device ID

Device ID

Status

Device Type

18

Disconnected

Gas

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	{ "TemperatureZ1": 4, "HumidityZ1": 72, "GasLevelZ1": 105, "PressureZ1": 100 }	json	a few seconds ago
event_1	{ "TemperatureZ1": 105, "HumidityZ1": 80, "GasLevelZ1": 104, "PressureZ1": 100 }	json	a few seconds ago
status	{ "TemperatureZ1": 19, "HumidityZ1": 43, "GasLevelZ1": 104, "PressureZ1": 100 }	json	a few seconds ago
event_1	{ "TemperatureZ1": 104, "HumidityZ1": 61, "GasLevelZ1": 104, "PressureZ1": 100 }	json	a few seconds ago
status	{ "TemperatureZ1": 16, "HumidityZ1": 93, "GasLevelZ1": 104, "PressureZ1": 100 }	json	a few seconds ago

File

Edit

Shell

Debug

Options

Window

Help

Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit (AMD64)] on win32  
Type "help", "copyright", "credits" or "license()" for more information.  
>>>  
===== RESTART: C:\Users\sthir\Documents\IBM py\Py code z1,z2.py =====  
2022-11-11 18:38:43.789 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:9by55:Gas:18  
Published data Successfully: { "TemperatureZ1": 54, "HumidityZ1": 17, "GasLevelZ1": 45, "PressureZ1": 18, "TemperatureZ2": 0, "HumidityZ2": 25, "GasLevelZ2": 71, "PressureZ2": 4 } to the IBM Platform  
Published data Successfully: { "TemperatureZ1": 81, "HumidityZ1": 30, "GasLevelZ1": 72, "PressureZ1": 25, "TemperatureZ2": 59, "HumidityZ2": 94, "GasLevelZ2": 10, "PressureZ2": 86 } to the IBM Platform  
Published data Successfully: { "TemperatureZ1": 85, "HumidityZ1": 53, "GasLevelZ1": 79, "PressureZ1": 42, "TemperatureZ2": 81, "HumidityZ2": 75, "GasLevelZ2": 50, "PressureZ2": 48 } to the IBM Platform  
Published data Successfully: { "TemperatureZ1": 93, "HumidityZ1": 93, "GasLevelZ1": 77, "PressureZ1": 74, "TemperatureZ2": 2, "HumidityZ2": 68, "GasLevelZ2": 21, "PressureZ2": 27 } to the IBM Platform  
Published data Successfully: { "TemperatureZ1": 16, "HumidityZ1": 93, "GasLevelZ1": 55, "PressureZ1": 51, "TemperatureZ2": 42, "HumidityZ2": 8, "GasLevelZ2": 37, "PressureZ2": 100 } to the IBM Platform  
Published data Successfully: { "TemperatureZ1": 19, "HumidityZ1": 43, "GasLevelZ1": 55, "PressureZ1": 27, "TemperatureZ2": 2, "HumidityZ2": 51, "GasLevelZ2": 92, "PressureZ2": 5 } to the IBM Platform  
Published data Successfully: { "TemperatureZ1": 4, "HumidityZ1": 72, "GasLevelZ1": 91, "PressureZ1": 56, "TemperatureZ2": 54, "HumidityZ2": 84, "GasLevelZ2": 17, "PressureZ2": 11 } to the IBM Platform