Project Development - Delivery Of Sprint-2

Team ID	PNT2022TMID41307
Project Name	Gas Leakage Monitoring and Alerting System

Developing a python script to send the random sensor data of Hazardous gas levels, temperature, humidity, pressure.

Then, Using the node red service the device will subscribe to the commands to take decisions accordingly to switch on the rainwater sprinkler in case of emergencies.

Python Code:

```python
#IBM Watson IOT Platform
#pip install wiotp-sdk
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity":
    {
        "orgId": "9yby55",
        "typeId": "Gas",
        "deviceId":"18"
```

```python
        },
        "auth":
        {
            "token": "zIbdsvljWkP@1S34*&"
        }
}


def myCommandCallback(cmd):
    print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
    status=cmd.data['command']
    if status=="sprinkleron":
        print (" Rainwater sprinkler is ON")
    elif status=="sprinkleroff":
        print (" Rainwater sprinkler is OFF")
    else:
        print ("please send proper command")



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

```python
while True:
    TemperatureZ1=random.randint(60,100)
    HumidityZ1=random.randint(60,100)
    GasLevelZ1=random.randint(20,100)
    PressureZ1=random.randint(20,100)
    TemperatureZ2=random.randint(60,100)
    HumidityZ2=random.randint(60,100)
    GasLevelZ2=random.randint(20,100)
    PressureZ2=random.randint(20,100)

    myData={'TemperatureZ1':TemperatureZ1,'HumidityZ1':HumidityZ1,'GasLevelZ1':GasLevelZ1,'PressureZ1':PressureZ1,'TemperatureZ2':
    TemperatureZ2, 'HumidityZ2':HumidityZ2,'GasLevelZ2':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")
    client.commandCallback = myCommandCallback
    time.sleep(2)
client.disconnect()
```