Wokwi code:

Link:

https://wokwi.com/projects/348681809497686611

Node-Red flow:

Link:

https://node-red-ntmuo-2022-10-10.eu-de.mybluemix.net/red/#flow/5cd0318a9f47bd22

Source Code:

```
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random
#Provide your IBM Watson Device Credentials
organization = "msi400"
deviceType = "Gasleak"
deviceId = "6068"
authMethod = "token"
authToken = "123456781"
# Initialize GPIO
def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
    status=cmd.data['command']
    if status=="lighton":
        print ("led is on")
    elif status == "lightoff":
        print ("led is off")
    else :
        print ("please send proper command")
try:
```

```
deviceOptions = {"org": organization, "type": deviceType, "id": deviceId,
"auth-method": authMethod, "auth-token": authToken}
        deviceCli = ibmiotf.device.Client(deviceOptions)
        #.....................................

except Exception as e:
        print("Caught exception connecting device: %s" % str(e))
        sys.exit()

# Connect and send a datapoint "hello" with value "world" into the
cloud as an event of type "greeting" 10 times
deviceCli.connect()

while True:
        #Get Sensor Data from DHT11
        gas_level=random.randint(25,500)
        temp=random.randint(90,110)
        Humid=random.randint(60,100)

        data = {'Gas_level':gas_level, 'temp' : temp, 'Humid': Humid }
        #print data
        def myOnPublishCallback():
            print ("Toxicity_of_the_gas=%s
ppm"%gas_level,",Published_Temperature = %s C" % temp,",Humidity =
%s %%" % Humid, "to IBM Watson")

        success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0,
on_publish=myOnPublishCallback)
        if not success:
            print("Not connected to IoTF")
        time.sleep(10)

        deviceCli.commandCallback = myCommandCallback

# Disconnect the device and application from the cloud
deviceCli.disconnect()
```

Link: https://drive.google.com/file/d/1P-snpeiWyi443e9m4XAFEzPkMEM8_jxt/view?usp=sharing