Project development phase

Sprint - 2

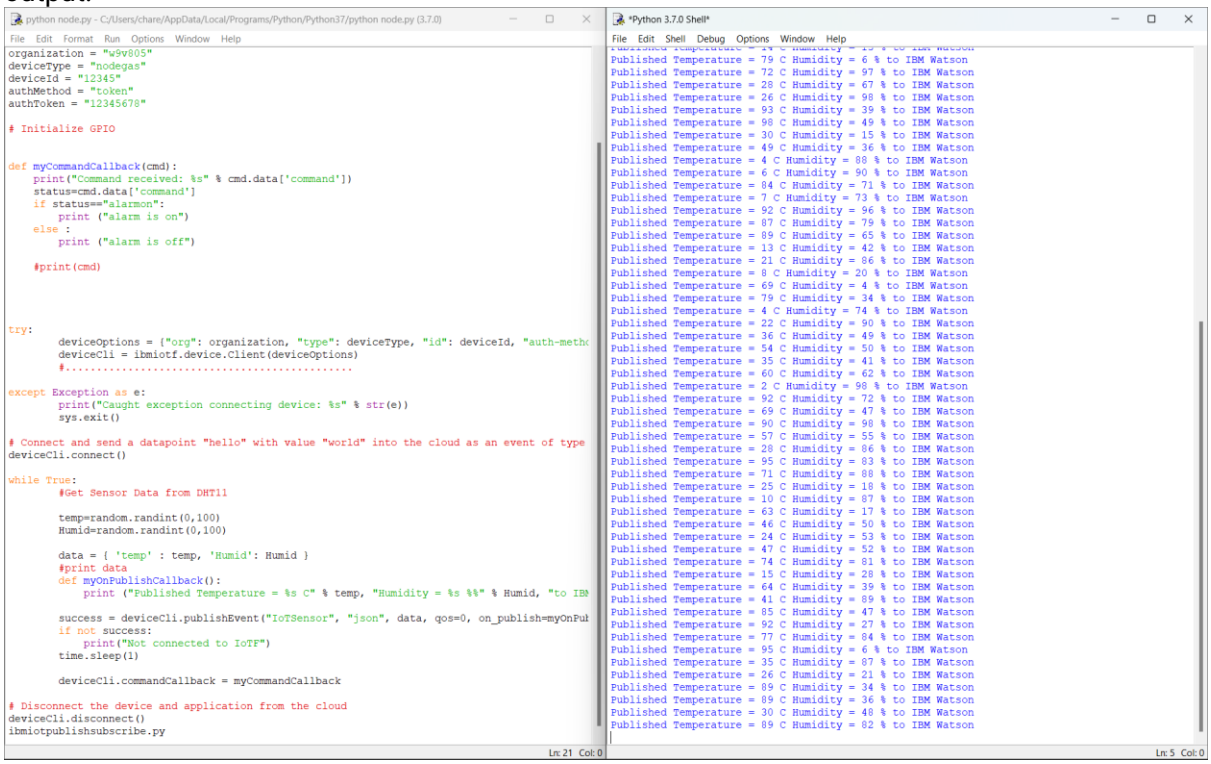
Date	05 Nov 2022
Team ID	PNT2022TMID46768
Project Name	Gas leakage Monitering and alerting System for Industries

Step-1

```
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random


#Provide your IBM Watson Device Credentials
organization = "w9v805"
deviceType = "nodegas"
deviceId = "12345"
authMethod = "token"
authToken = "12345678"

# Initialize GPIO


def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
    status=cmd.data['command']
    if status=="alarmon":
        print ("alarm is on")
    else :
        print ("alarm is off")

    #print(cmd)



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
```

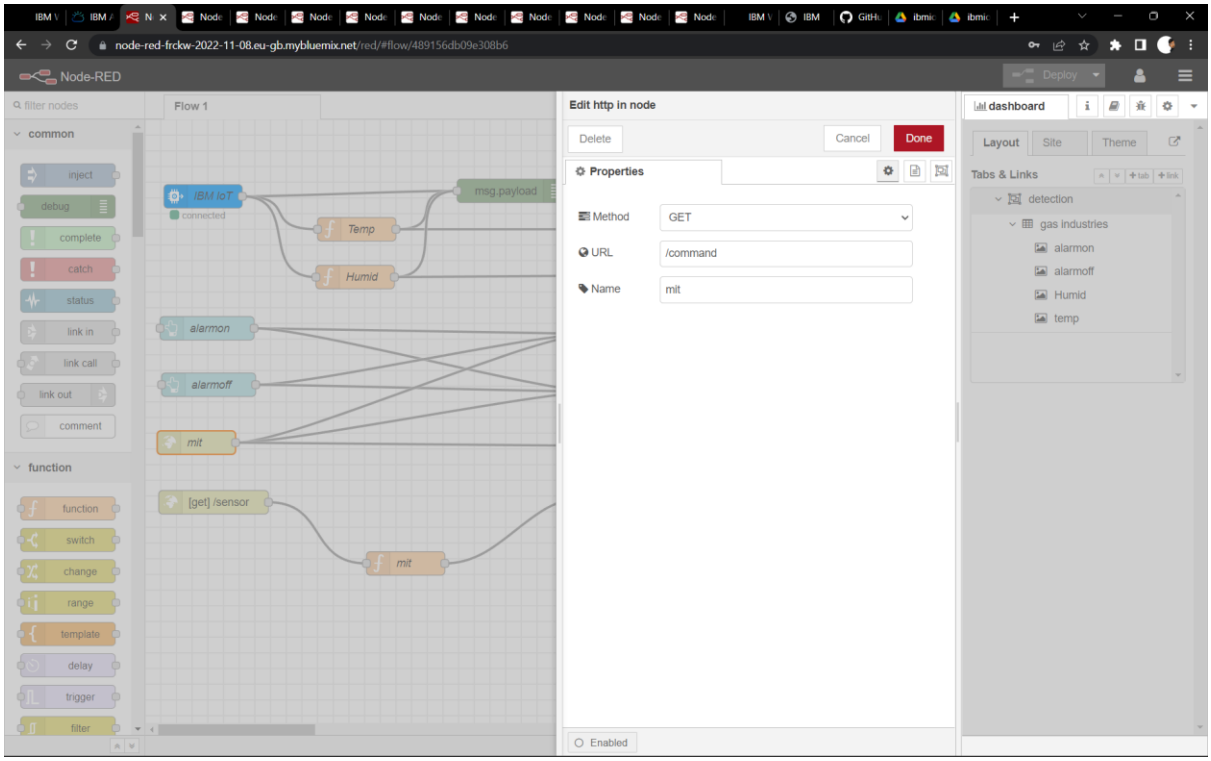
```
deviceCli.connect()

while True:
        #Get Sensor Data from DHT11

        temp=random.randint(0,100)
        Humid=random.randint(0,100)

        data = { 'temp' : temp, 'Humid': Humid }
        #print data
        def myOnPublishCallback():
            print ("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(1)

        deviceCli.commandCallback = myCommandCallback

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

output:

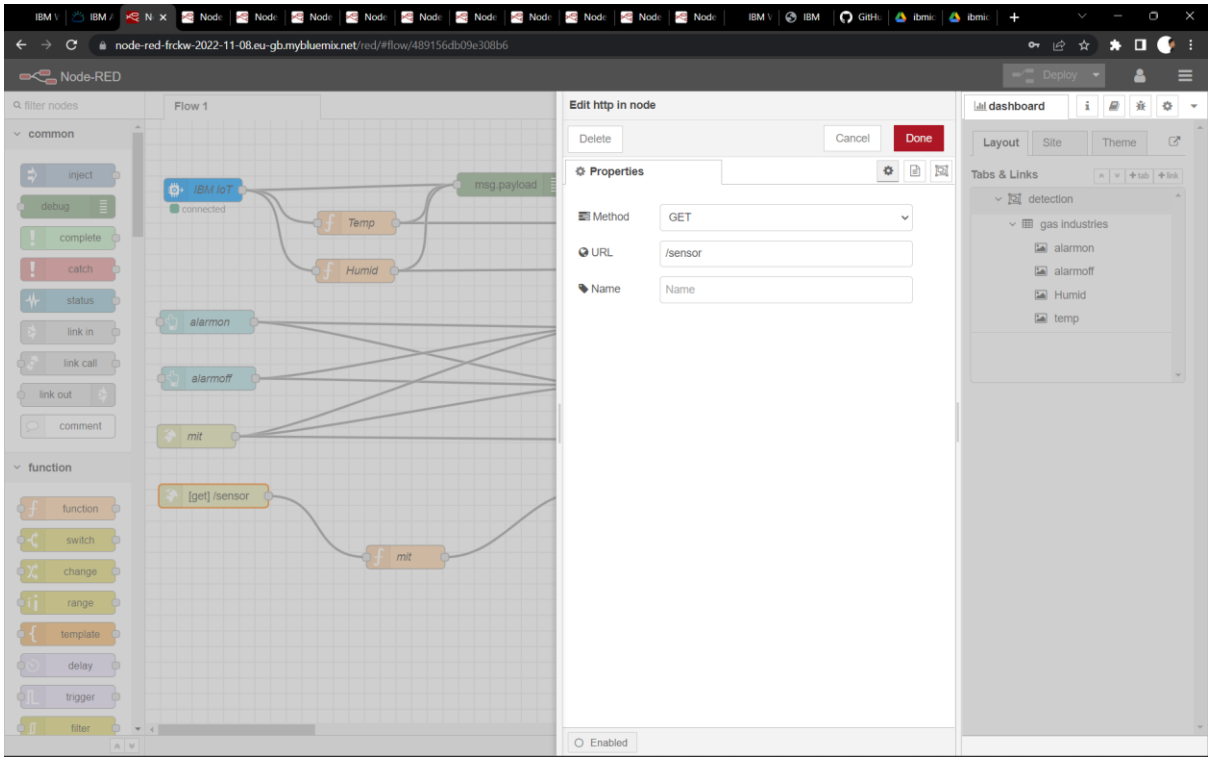


https://node-red-frckw-2022-11-08.eu-gb.mybluemix.net/red/#flow/489156db09e308b6

Get/command


node-red-frckw-2022-11-08.eu-gb.mybluemix.net/red/#flow/489156db09e308b6
Node-RED
Deploy
Flow 1
Edit http in node
Delete
Cancel
Done
Properties
Method
GET
URL
/command
Name
mit
Enabled
dashboard
Layout
Site
Theme
Tabs & Links
detection
gas industries
alarmon
alarmoff
Humid
temp
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
function
switch
change
range
template
delay
trigger
filter
IBM IoT
connected
Temp
Humid
msg.payload
alarmon
alarmoff
mit
[get] /sensor
mit

Get / sensor


node-red-frckw-2022-11-08.eu-gb.mybluemix.net/red/#flow/489156db09e308b6
Node-RED
Deploy
Flow 1
Edit http in node
Delete
Cancel
Done
Properties
Method
GET
URL
/sensor
Name
Name
Enabled
dashboard
Layout
Site
Theme
Tabs & Links
detection
gas industries
alarmon
alarmoff
Humid
temp
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
function
switch
change
range
template
delay
trigger
filter
IBM IoT
connected
Temp
Humid
msg.payload
alarmon
alarmoff
mit
[get] /sensor
mit