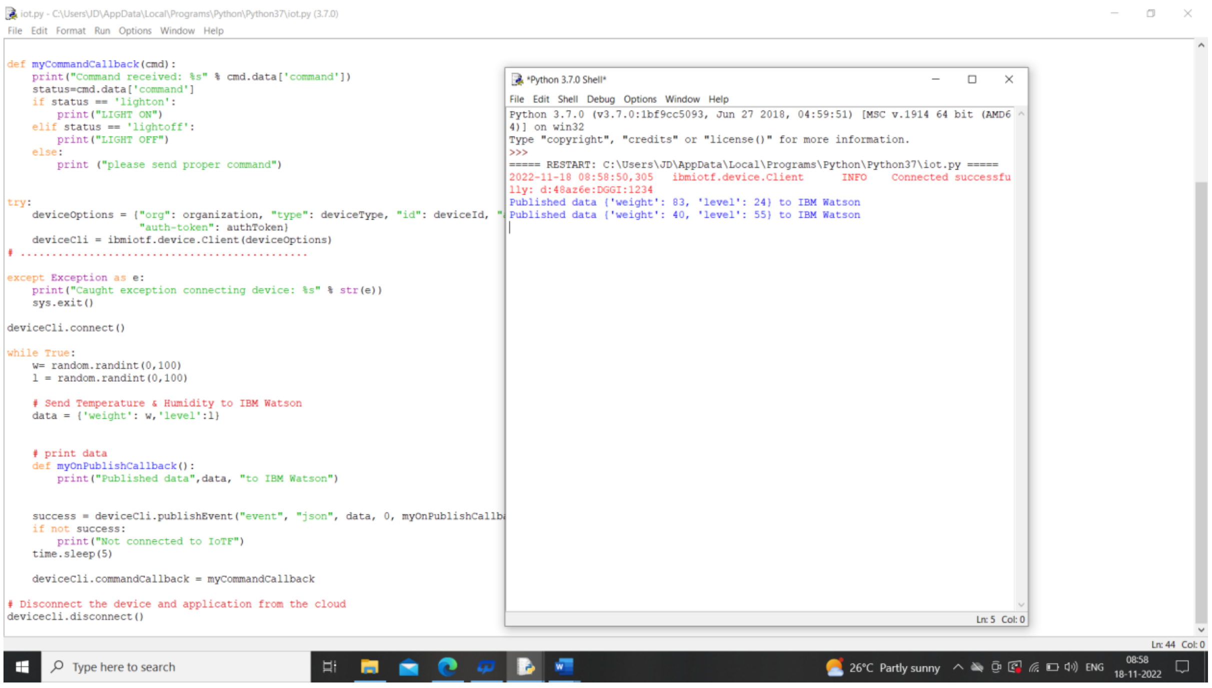
PROJECT DEVELOPMENT PHASE

DELIVERY OF - SPRINT 4

TEAM ID	PNT2022TMID06962
PROJECT NAME	Smart Waste managmentsystem for metropolitan cities

STEP 1

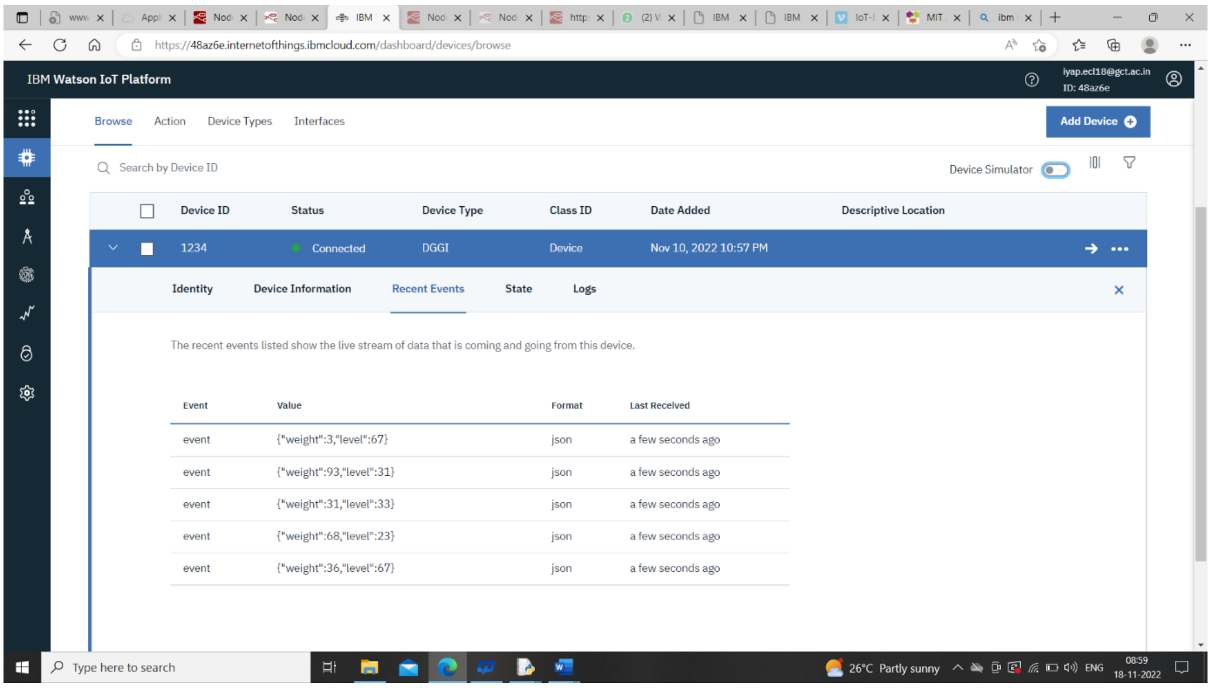
Python program push in Ibm cloud



```
def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
    status=cmd.data['command']
    if status == 'lighton':
        print("LIGHT ON")
    elif status == 'lightoff':
        print("LIGHT OFF")
    else:
        print ("please send proper command")


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

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

deviceCli.connect()

while True:
    w= random.randint(0,100)
    l = random.randint(0,100)

    # Send Temperature & Humidity to IBM Watson
    data = {'weight': w,'level':l}


    # print data
    def myOnPublishCallback():
        print("Published data",data, "to IBM Watson")


    success = deviceCli.publishEvent("event", "json", data, 0, myOnPublishCallba
    if not success:
        print("Not connected to IoTF")
    time.sleep(5)

    deviceCli.commandCallback = myCommandCallback

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

```
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD6
4)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\JD\AppData\Local\Programs\Python\Python37\iot.py =====
2022-11-18 08:58:50,305  ibmiotf.device.Client     INFO    Connected successfu
lly: d:48az6e:DGGI:1234
Published data {'weight': 83, 'level': 24} to IBM Watson
Published data {'weight': 40, 'level': 55} to IBM Watson
```

iot.py - C:\Users\JD\AppData\Local\Programs\Python\Python37\iot.py (3.7.0)
File Edit Format Run Options Window Help
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Ln: 5 Col: 0
Ln: 44 Col: 0
Type here to search
26°C Partly sunny
ENG
08:58
18-11-2022



https://48az6e.internetofthings.ibmcloud.com/dashboard/devices/browse

IBM Watson IoT Platform

iyap.ecl18@gct.ac.in
ID: 48az6e

Browse Action Device Types Interfaces

Add Device

Search by Device ID

Device Simulator

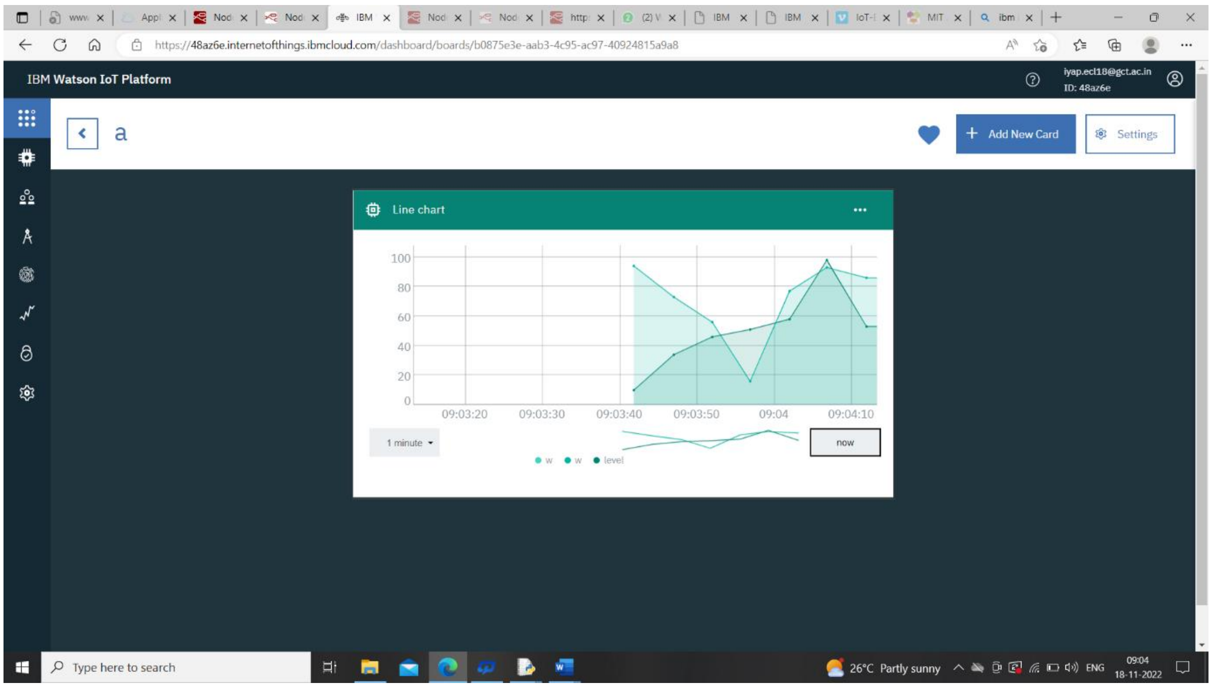
Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
1234	Connected	DGGI	Device	Nov 10, 2022 10:57 PM	

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
event	{"weight":3,"level":67}	json	a few seconds ago
event	{"weight":93,"level":31}	json	a few seconds ago
event	{"weight":31,"level":33}	json	a few seconds ago
event	{"weight":68,"level":23}	json	a few seconds ago
event	{"weight":36,"level":67}	json	a few seconds ago

Type here to search 26°C Partly sunny ENG 08:59 18-11-2022



https://48az6e.internetofthings.ibmcloud.com/dashboard/boards/b0875e3e-aab3-4c95-ac97-40924815a9a8

IBM Watson IoT Platform

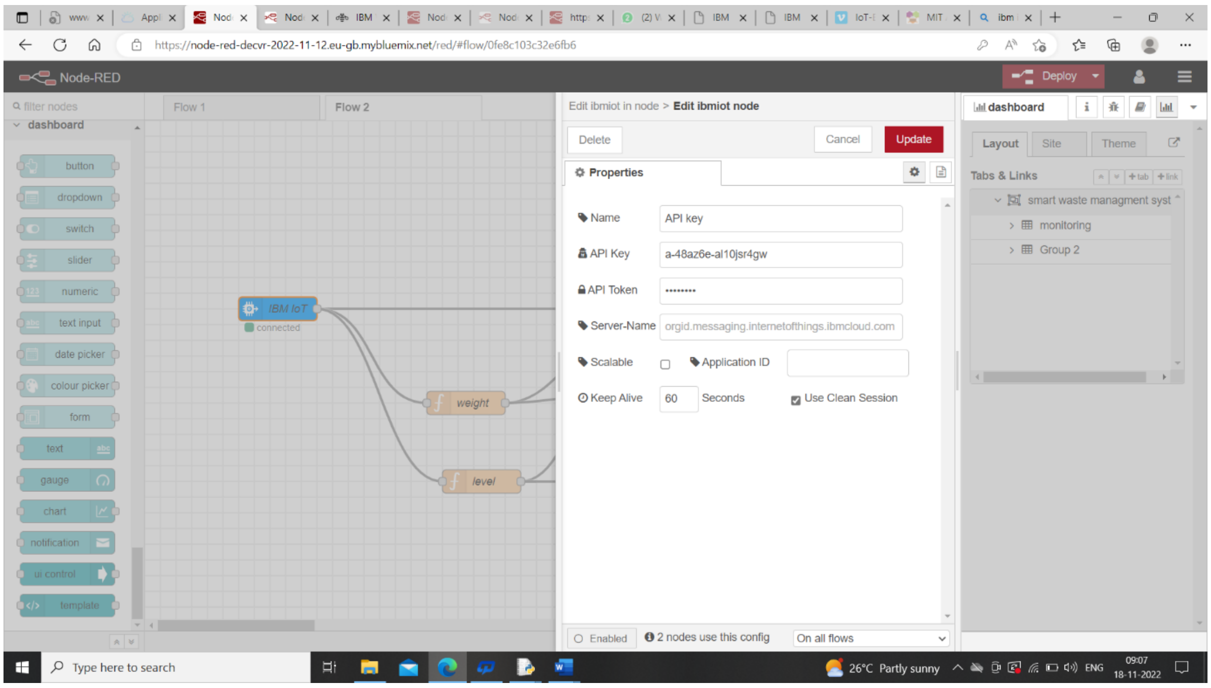
iyap.ecl18@gct.ac.in
ID: 48az6e

a

Add New Card Settings

Type here to search 26°C Partly sunny ENG 09:04 18-11-2022

IBM WATSON TO NODE RED



Edit ibmiot in node > **Edit ibmiot node**

Delete Cancel Update

Properties

Name: API key

API Key: a-48az6e-al10jsr4gw

API Token: ••••••••

Server-Name: orgid.messaging.internetofthings.ibmcloud.com

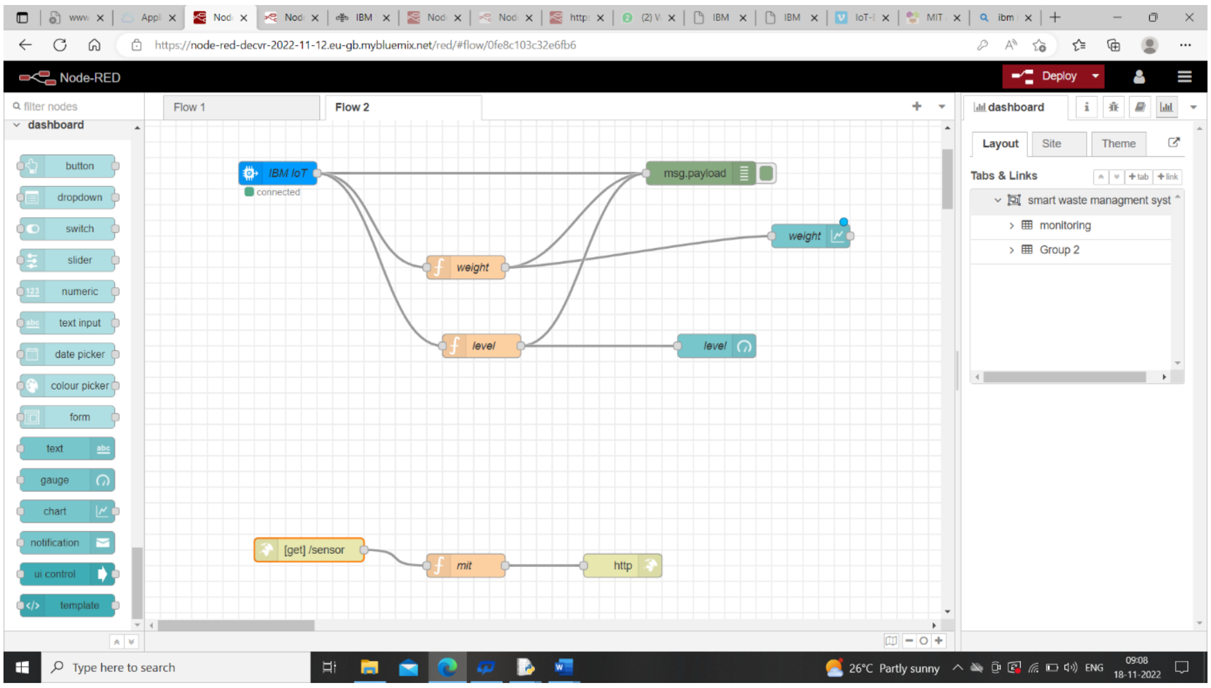
Scalable ☐ Application ID

Keep Alive: 60 Seconds ☑ Use Clean Session

Enabled 2 nodes use this config On all flows

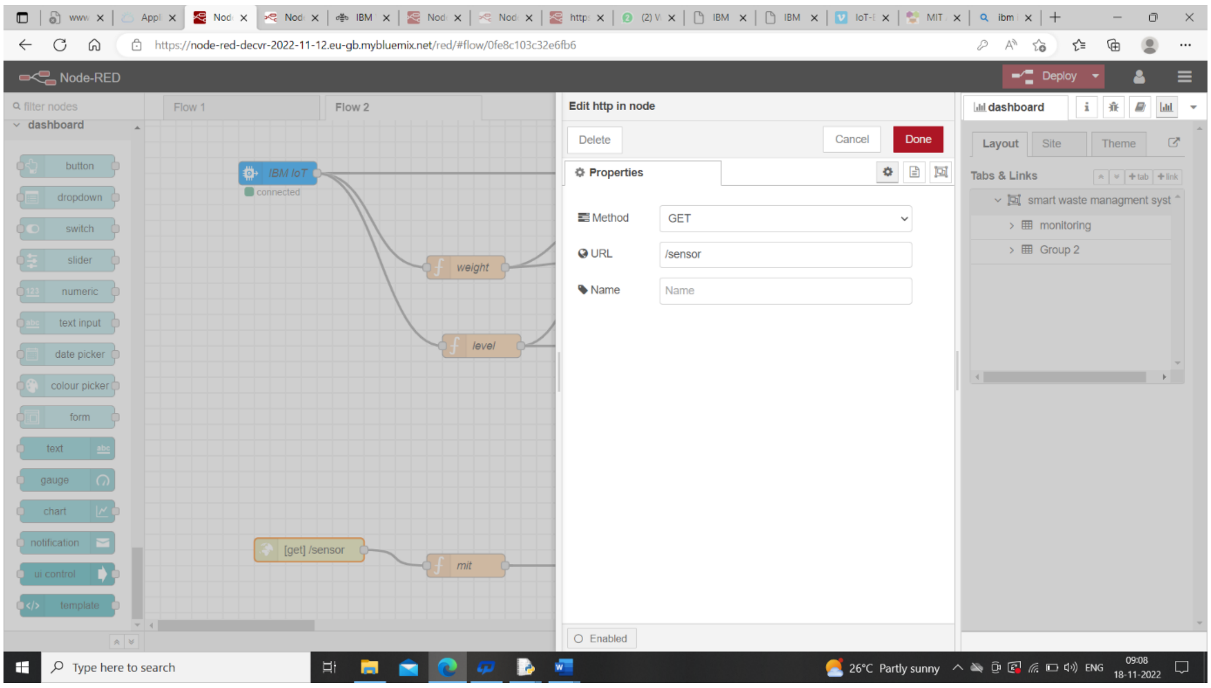
https://node-red-decvr-2022-11-12.eu-gb.mybluemix.net/red/#flow/0fe8c103c32e6fb6

26°C Partly sunny 09:07 18-11-2022



https://node-red-decvr-2022-11-12.eu-gb.mybluemix.net/red/#flow/0fe8c103c32e6fb6

26°C Partly sunny 09:08 18-11-2022


https://node-red-decvr-2022-11-12.eu-gb.mybluemix.net/red/#flow/0fe8c103c32e6fb6

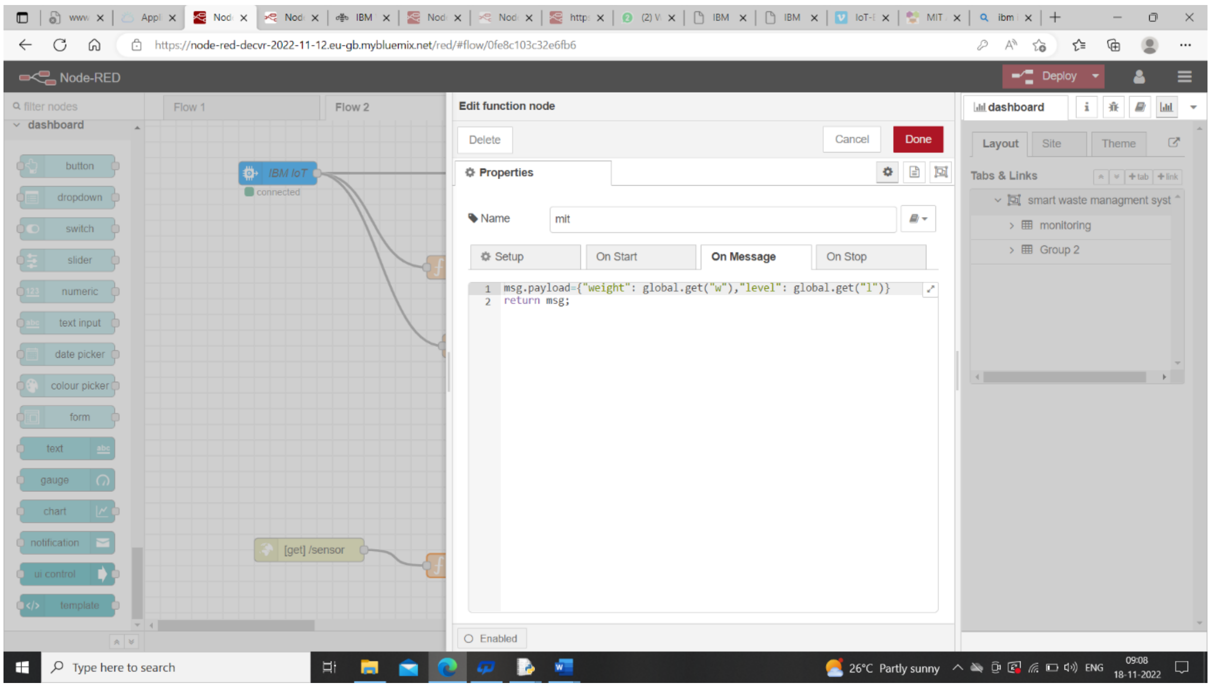
Edit http in node

Properties

Method: GET

URL: /sensor

Name: Name


https://node-red-decvr-2022-11-12.eu-gb.mybluemix.net/red/#flow/0fe8c103c32e6fb6

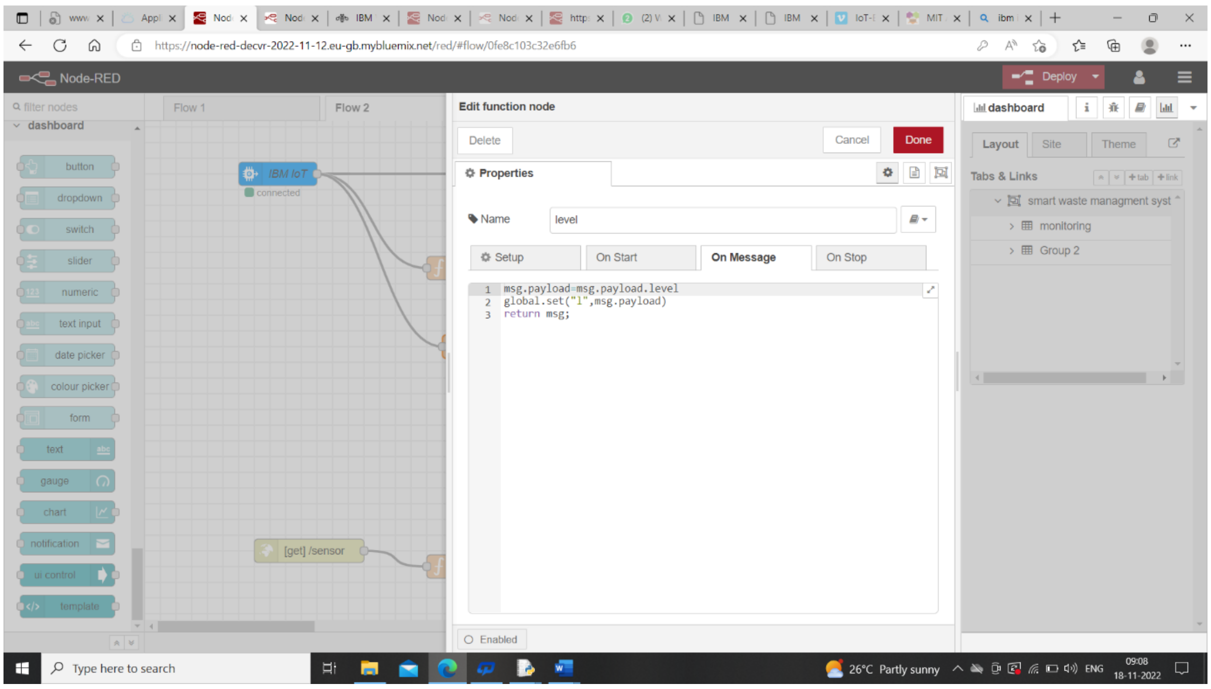
Edit function node

Properties

Name: mit

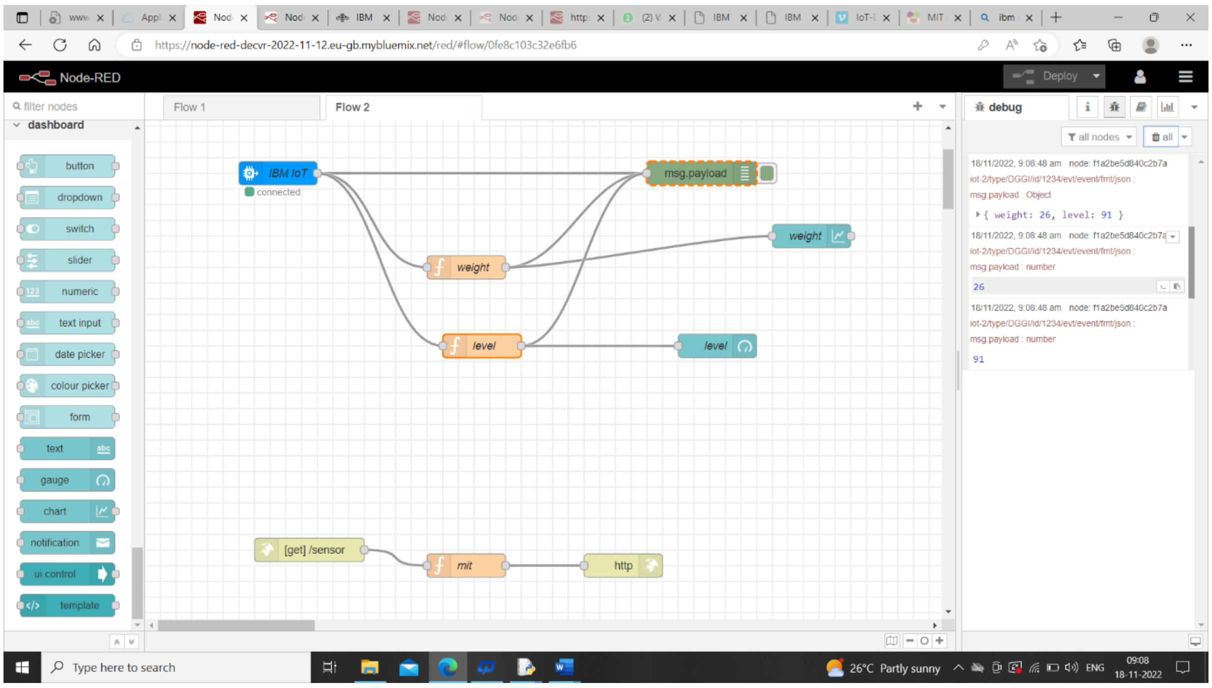
Setup | On Start | On Message | On Stop

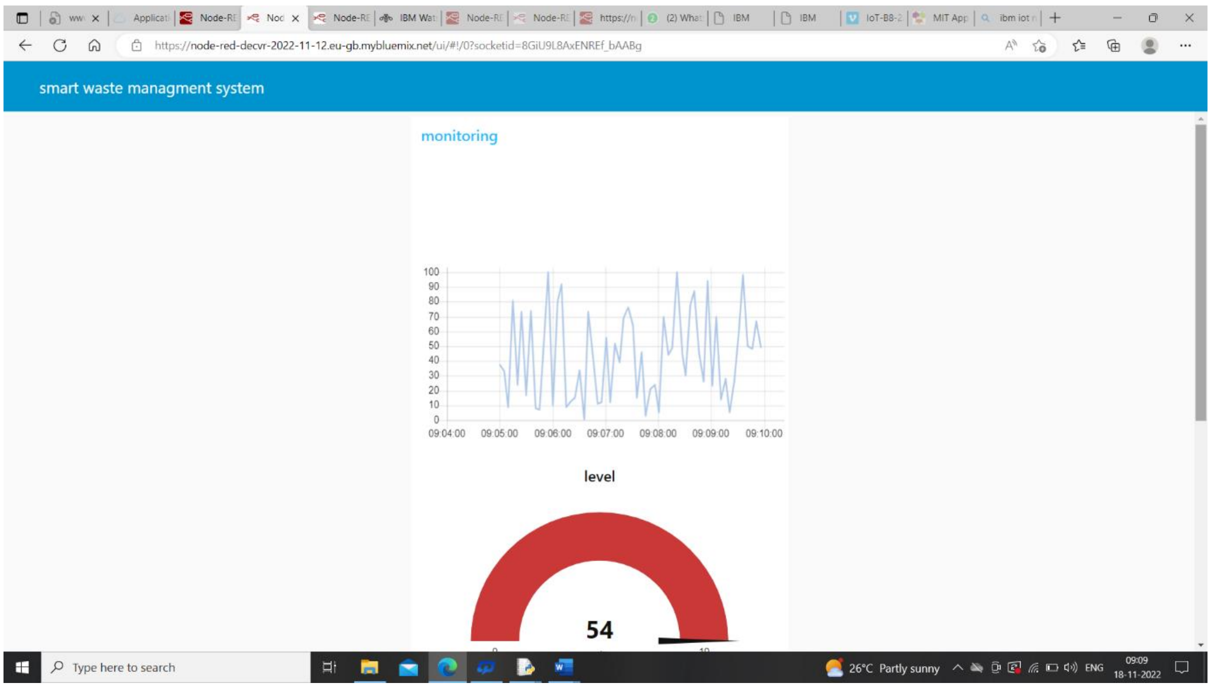
```
msg.payload={"weight": global.get("w"),"level": global.get("l")}
return msg;
```


Edit function node

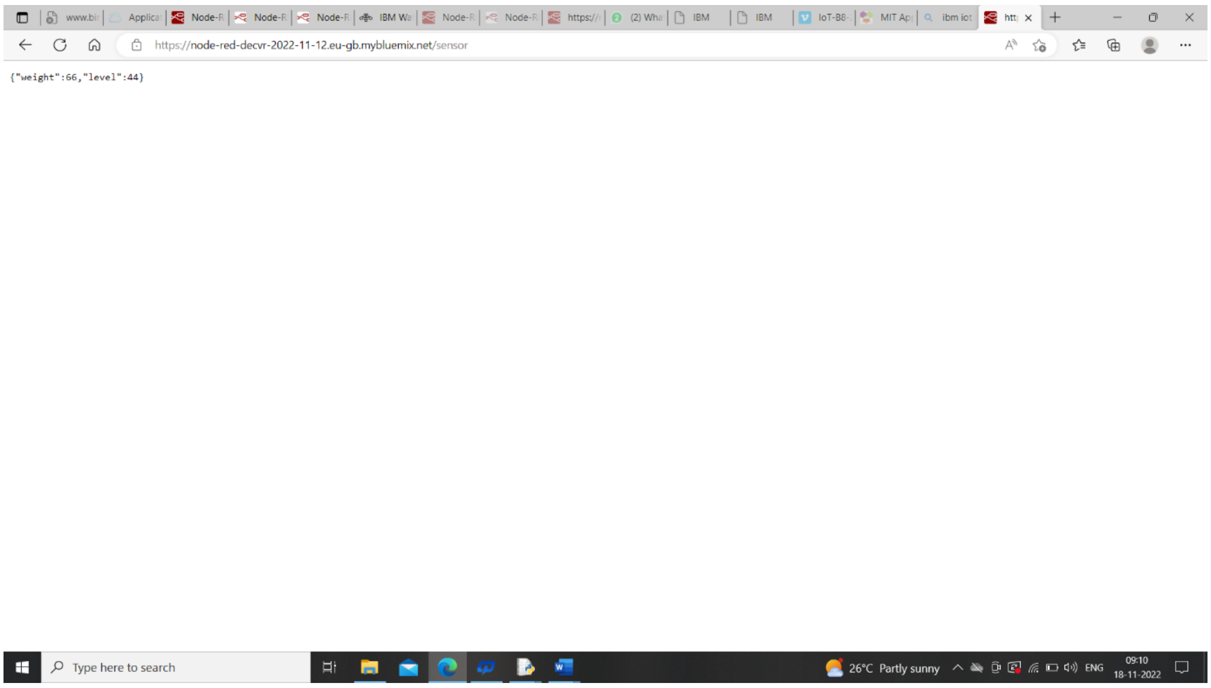
Name: level

```
msg.payload=msg.payload.level
global.set("l",msg.payload)
return msg;
```


```
18/11/2022, 9:08:48 am   node: f1a2be5d840c2b7a
iot-2/type/DGGI/id/1234/evt/event/fmt/json :
msg.payload : Object
▸{ weight: 26, level: 91 }
18/11/2022, 9:08:48 am   node: f1a2be5d840c2b7a
iot-2/type/DGGI/id/1234/evt/event/fmt/json :
msg.payload : number
26
18/11/2022, 9:08:48 am   node: f1a2be5d840c2b7a
iot-2/type/DGGI/id/1234/evt/event/fmt/json :
msg.payload : number
91
```

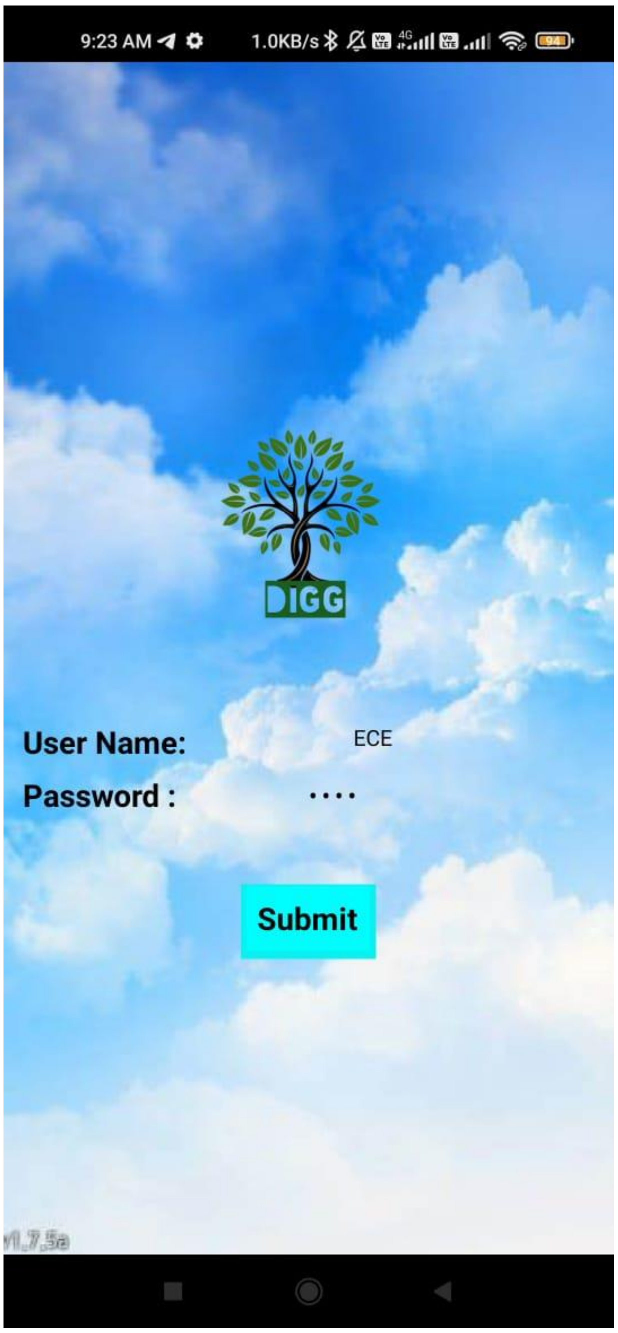

https://node-red-decvr-2022-11-12.eu-gb.mybluemix.net/ui/#!/0?socketid=8GiU9L8AxENREf_bAABg
smart waste managment system
monitoring
level
54
Type here to search
26°C Partly sunny
ENG
09:09
18-11-2022

WEB PORTEL CREATE


https://node-red-decvr-2022-11-12.eu-gb.mybluemix.net/sensor
Type here to search
26°C Partly sunny
ENG
09:10
18-11-2022

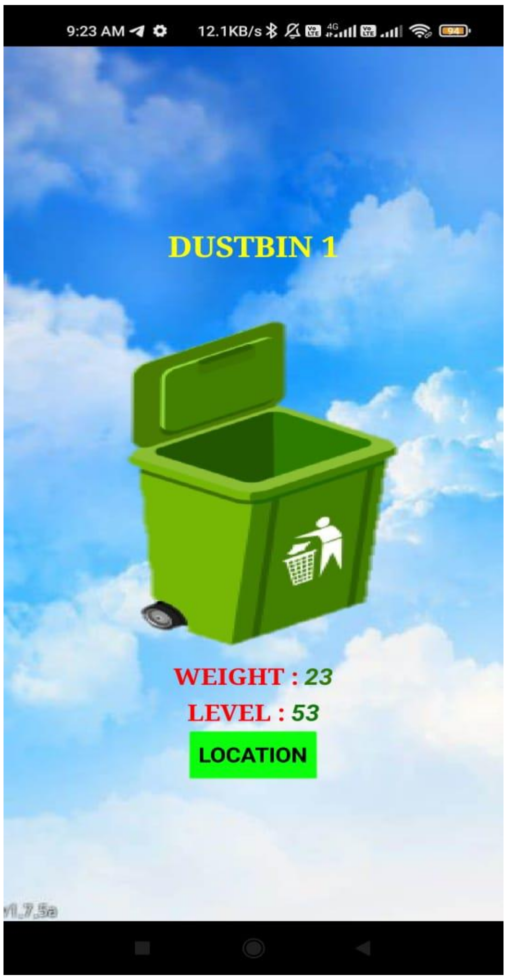
```
{"weight":66,"level":44}
```

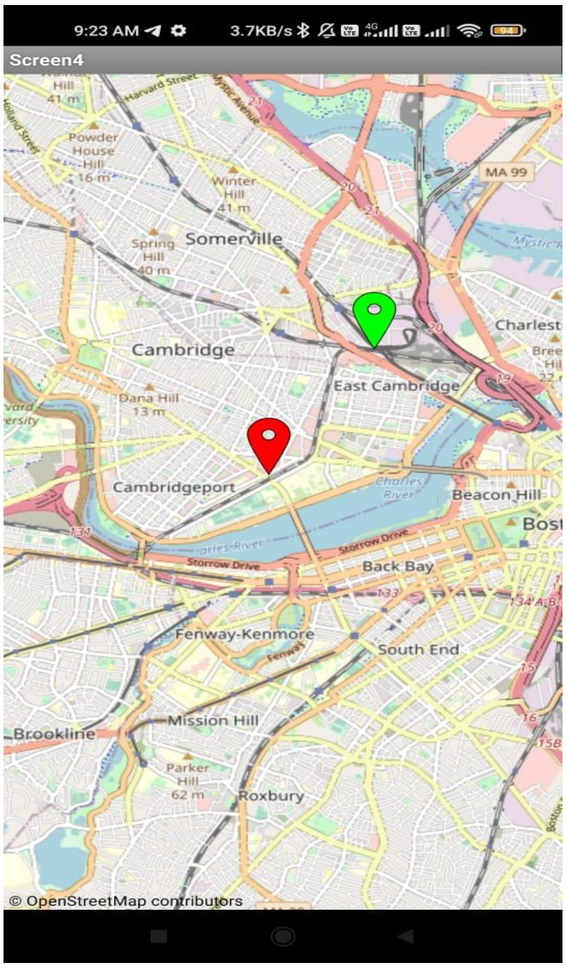
PUSH DATA IN APP



User Name: ECE

Password : ····


9:23 AM
12.1KB/s
DUSTBIN 1
WEIGHT : 23
LEVEL : 53
LOCATION


9:23 AM
3.7KB/s
Screen4
Somerville
Cambridge
East Cambridge
Cambridgeport
Beacon Hill
Back Bay
Fenway-Kenmore
South End
Mission Hill
Brookline
Roxbury
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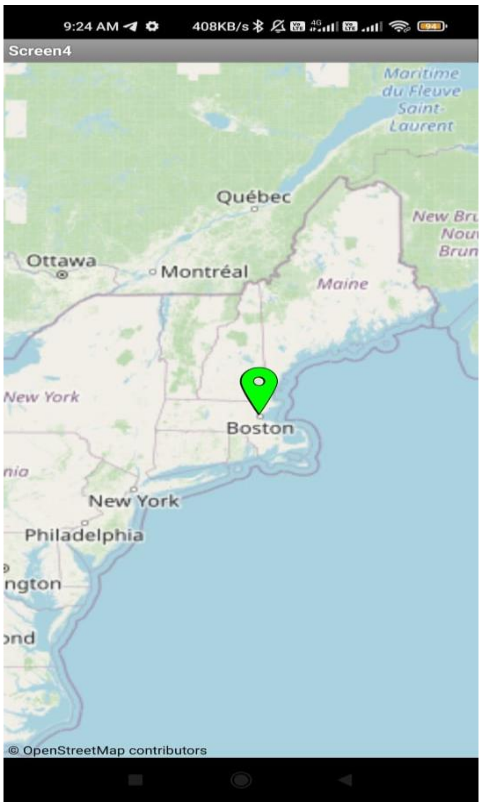
9:24 AM
408KB/s
Screen4
Québec
Ottawa
Montréal
Maine
Boston
New York
Philadelphia
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APP QR CODE

USER NAME : ECE

PASSWORD : DIGG