**SPRINT – 3**

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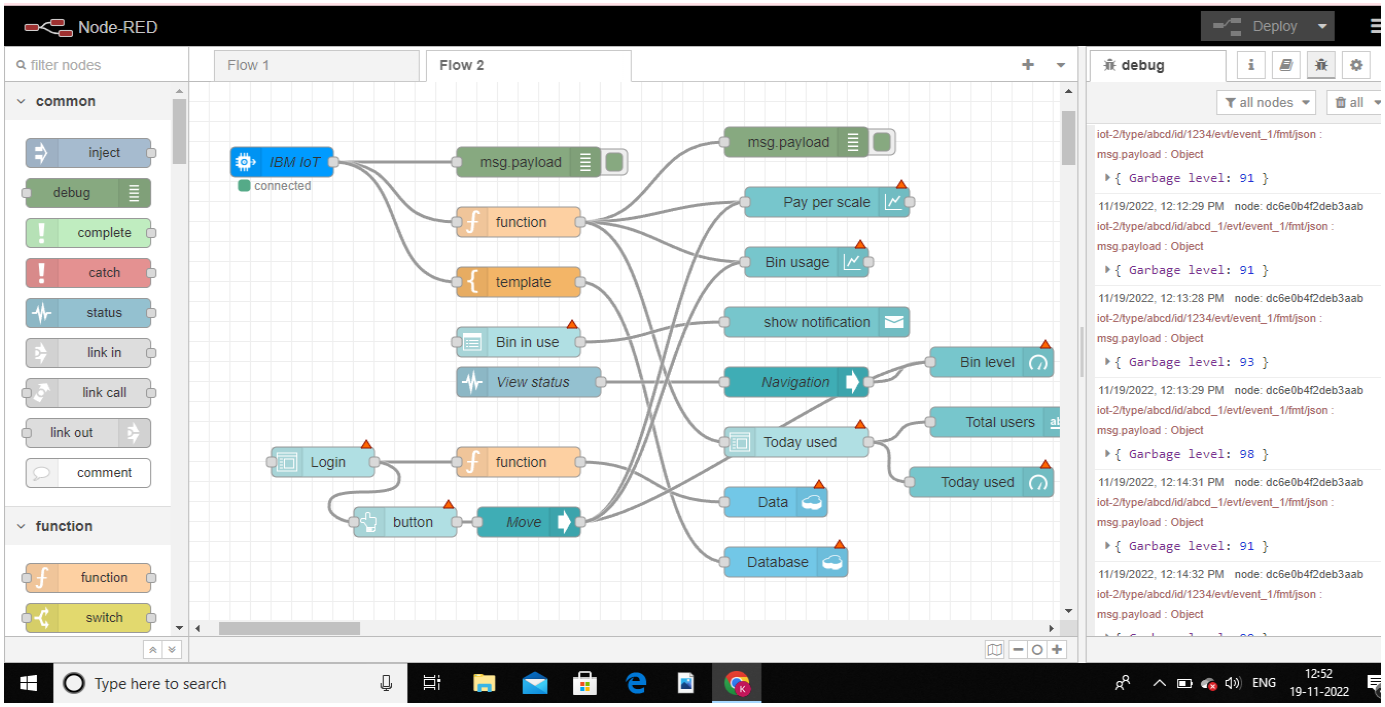
|---|---|
| **DATE** | 19 NOVEMBER 2022 |
| **TEAM ID** | PNT2022TMID33070 |
| **PROJECT NAME** | SMART WASTE MANAGEMENT FOR METROPOLITAN CITIES- IOT |

**PYTHON CODE** : [ To connect IBM WATSON ]

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

#Provide your IBM Watson Device Credentials organization =
"vg9l12"
deviceType = "abcd" deviceId
= "123"
authMethod = "use-token-auth" authToken =
"12345678"

# Initialize GPIO

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



#print(cmd) try:
```

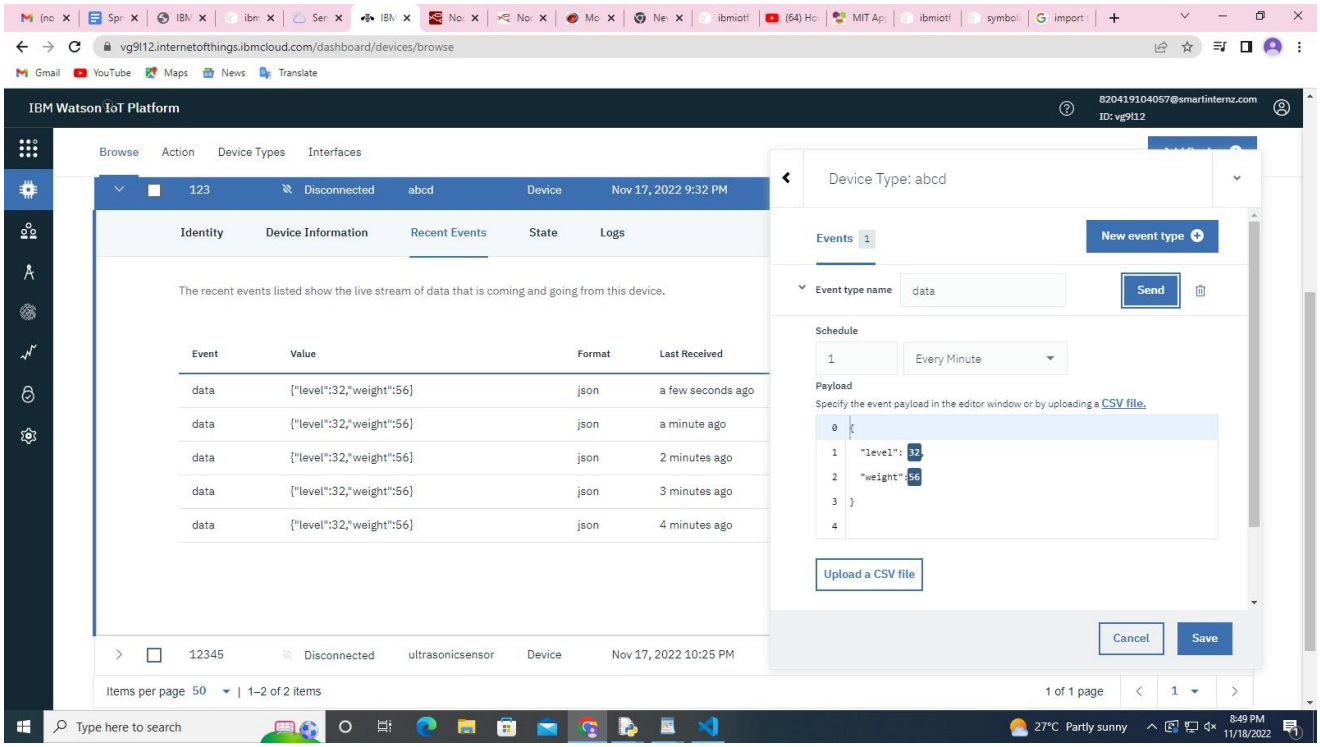
```
    deviceOptions = {"org": organization, "type": deviceType, "id": deviceId, "auth- method":
authMethod, "auth-token": authToken}
    deviceCli = ibmiotf.device.Client(deviceOptions)
#.....

except Exception as e:
    print("Caught exception connecting device: %s" % str(e)) sys.exit()
# Connect and send a datapoint "hello" with value "world" into thecloud as an event of type "greeting"
10 times
deviceCli.connect() while
True:
#Get Sensor Data from DHT11

    level=random.randint(0,100) weight=random.randint(0,100)
    data = { 'level' : level, 'weight': weight } #print data
def myOnPublishCallback():
    print ("Published level = %s C" % level, "weight = %s %%" % weight, "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 if
(level>=75):
    print("Full LED ON")
# Disconnect the device and application from the cloud deviceCli.disconnect()
```

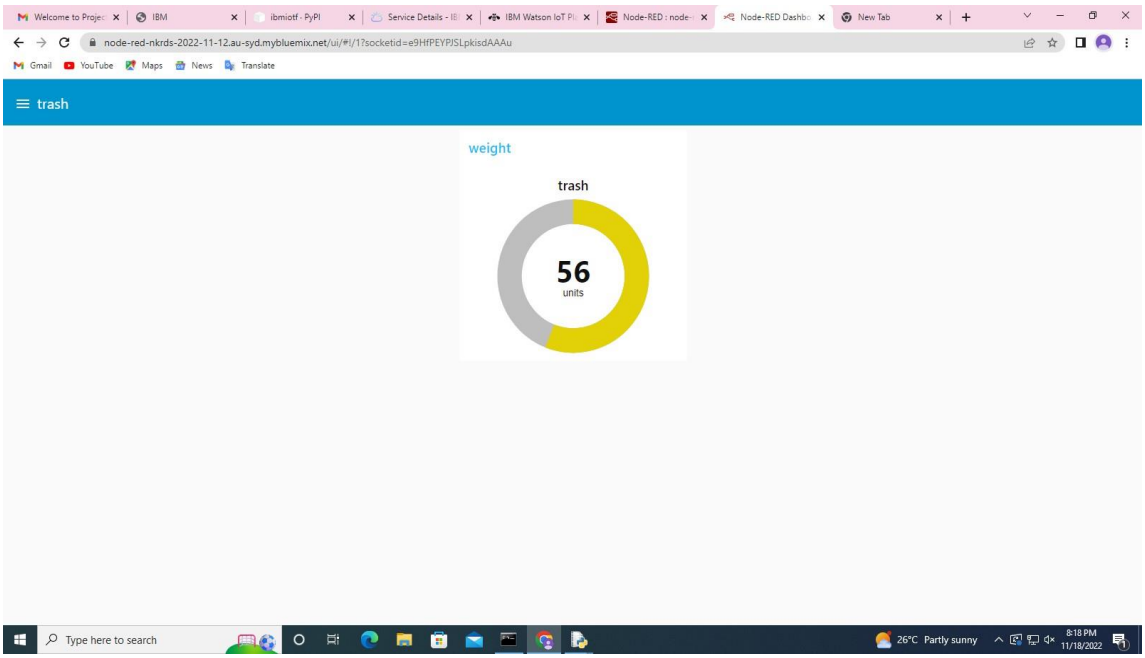
OUTPUT :

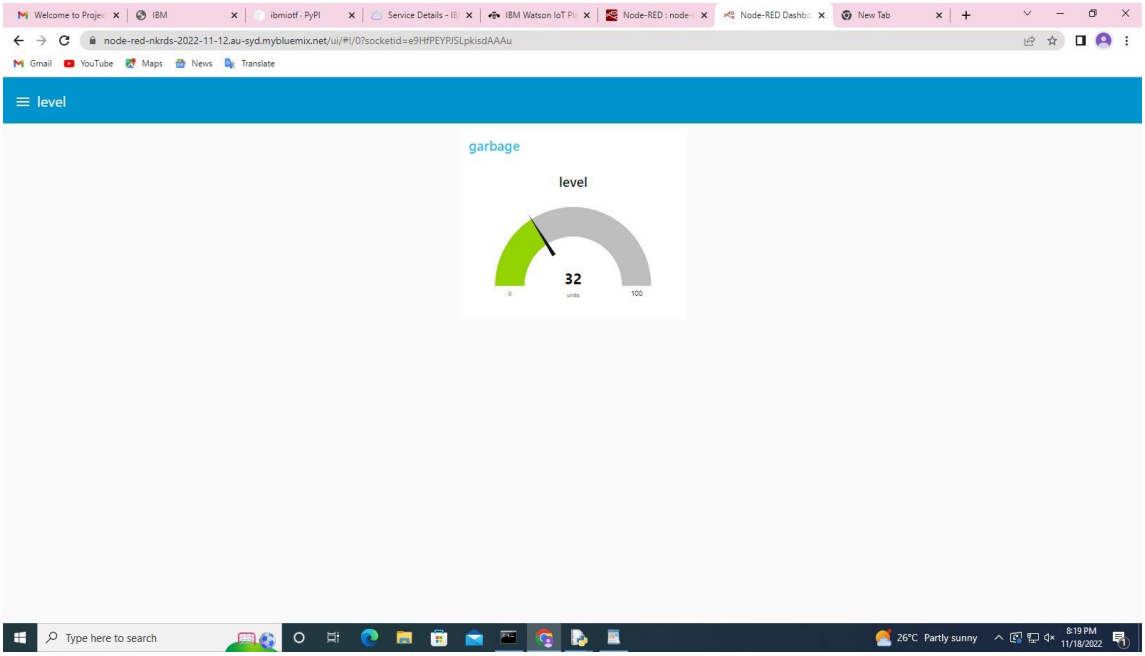


```
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random


#Provide your IBM Watson Device Credentials
organization = "cbseji"
deviceType = "abcd"
deviceId = "1234"
authMethod = "token"
authToken = "12345678"

# Initialize GPIO


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

    #print(cmd)



try:
        deviceOptions = {"org": organization, "type": de
```

```
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win3
2
Type "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\Users\navee\Dropbox\PC\Downloads\ibmiotpublishsubscribe (1).py =
2022-11-13 11:52:44,654  ibmiotf.device.Client     INFO    Connected successfully: d:cbseji:abc
d:1234
Published level = 82 C weight = 64 % to IBM Watson
Full LED ON
Published level = 5 C weight = 2 % to IBM Watson
Published level = 22 C weight = 57 % to IBM Watson
Published level = 83 C weight = 60 % to IBM Watson
Full LED ON
Published level = 16 C weight = 12 % to IBM Watson
Published level = 19 C weight = 91 % to IBM Watson
Published level = 35 C weight = 77 % to IBM Watson
Published level = 22 C weight = 46 % to IBM Watson
Published level = 85 C weight = 68 % to IBM Watson
Full LED ON
Published level = 36 C weight = 88 % to IBM Watson
Published level = 69 C weight = 72 % to IBM Watson
Published level = 14 C weight = 3 % to IBM Watson
Published level = 99 C weight = 0 % to IBM Watson
```


vg9l12.internetofthings.ibmcloud.com/dashboard/devices/browse
IBM Watson IoT Platform
820419104057@smartinternz.com
ID: vg9l12
Browse
Action
Device Types
Interfaces
123
Disconnected
abcd
Device
Nov 17, 2022 9:32 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
data
{"level":32,"weight":56}
json
a few seconds ago
a minute ago
2 minutes ago
3 minutes ago
4 minutes ago
12345
Disconnected
ultrasonicsensor
Device
Nov 17, 2022 10:25 PM
Items per page 50
1–2 of 2 items
1 of 1 page
Device Type: abcd
Events 1
New event type
Event type name
data
Send
Schedule
1
Every Minute
Payload
Specify the event payload in the editor window or by uploading a CSV file.
Upload a CSV file
Cancel
Save
Type here to search
27°C Partly sunny
8:49 PM
11/18/2022


node-red-nkrds-2022-11-12.au-syd.mybluemix.net/ui/#!/1?socketid=e9HfPEYPJSLpkisdAAAu
trash
weight
trash
56
units
Type here to search
26°C Partly sunny
8:18 PM
11/18/2022


Welcome to Projec
IBM
ibmiotf · PyPI
Service Details - IB
IBM Watson IoT Pl
Node-RED : node-r
Node-RED Dashbo
New Tab
node-red-nkrds-2022-11-12.au-syd.mybluemix.net/ui/#!/0?socketid=e9HfPEYPJSLpkisdAAAu
Gmail
YouTube
Maps
News
Translate
level
garbage
level
32
0
100
Type here to search
26°C Partly sunny
8:19 PM
11/18/2022