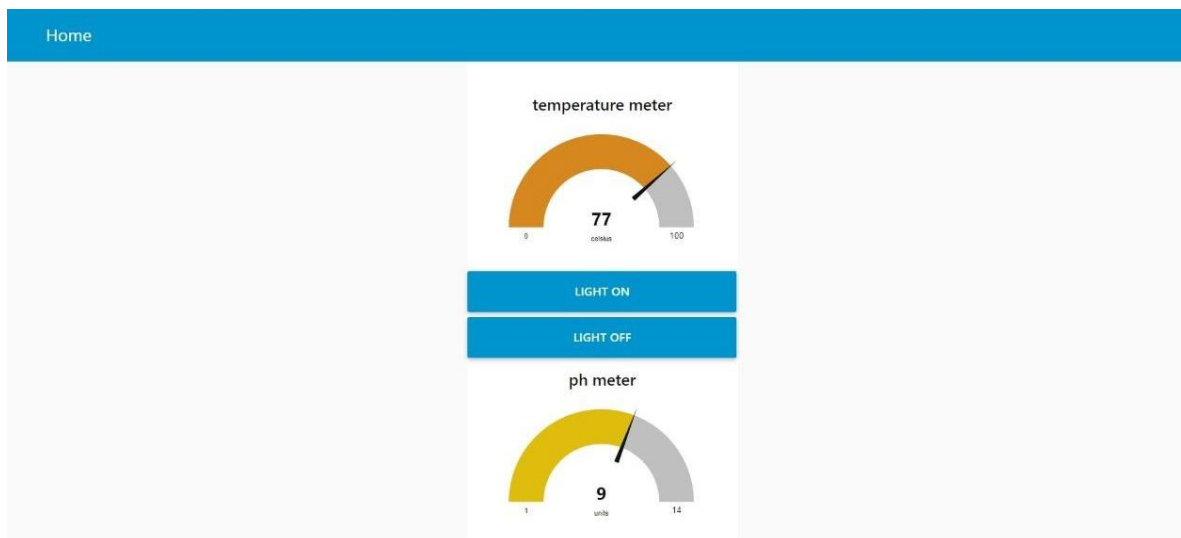
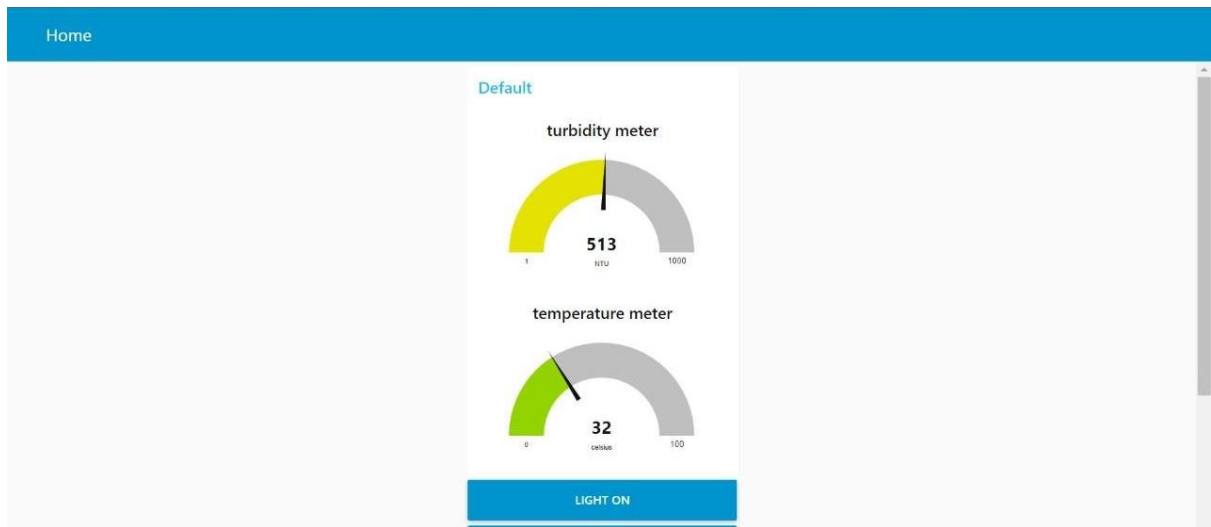
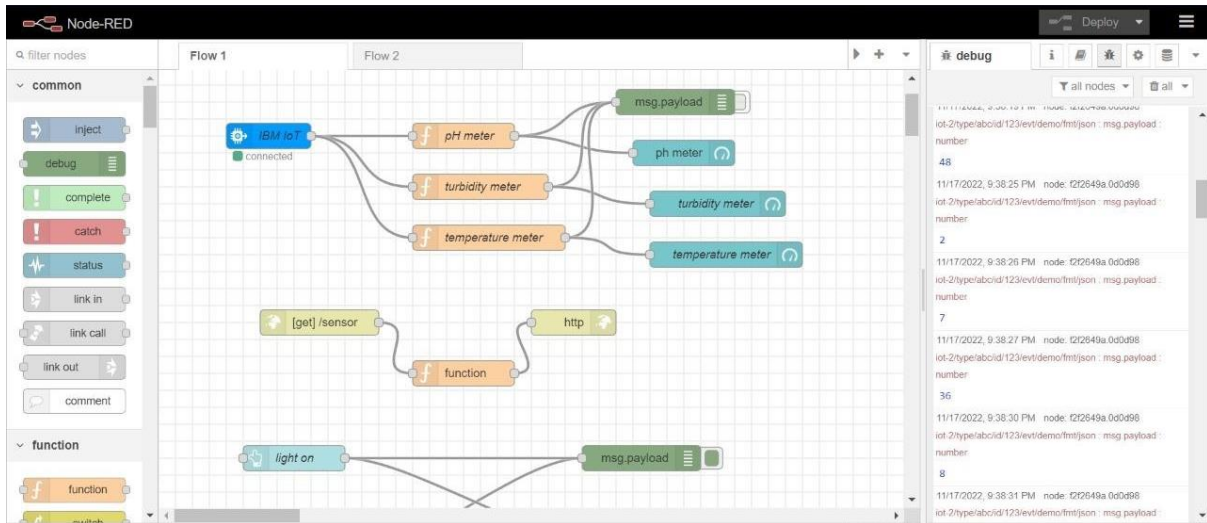


WEB UI

WEB UI FOR USER TO INTERACT WITH THE SOFTWARE:



NODE RED DEPLOYMENT:



PYTHON IDLE OUTPUT WHEN PYTHON SCRIPT IS RUN

```
File Edit Format Run Options Window Help
import ibmiotf.device
import ibmiotf.application
import time
import random
import sys
from twilio.rest import Client
import keys
Client = Client(keys.account_sid, keys.auth_token)

organization = "15rapi"
deviceType = "abc"
deviceId = "123"
authMethod = "token"
authToken = "12345678"

# Initialize GPIO
def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
    status=cmd.data['command']
    if status=="light on":
        print ("led is on")
    elif status == "light off":
        print ("led is off")
    else :
        print ("please send proper command")

pH = random.randint(1, 14)
turbidity = random.randint(1, 1000)
temperature = random.randint(0, 100)

def myCommandCallback(cmd):
    print("Command Received: %s" % cmd.data['command'])
    print(cmd)

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

```
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\dheekshi\Desktop\nalaiyathiran\ibmiot.py =====
2022-11-17 22:35:05,761 ibmiotf.device.Client INFO Connected successfully: d15rapi:abc:123
Published pH= 12 Turbidity:404 Temperature:3
Sent from your Twilio trial account - ALERT!! THE WATER QUALITY IS DEGRADED
Published pH= 6 Turbidity:546 Temperature:34
Sent from your Twilio trial account - ALERT!! THE WATER QUALITY IS DEGRADED
Published pH= 5 Turbidity:619 Temperature:42
Sent from your Twilio trial account - ALERT!! THE WATER QUALITY IS DEGRADED
Published pH= 5 Turbidity:272 Temperature:53
Sent from your Twilio trial account - ALERT!! THE WATER QUALITY IS DEGRADED
Published pH= 12 Turbidity:23 Temperature:79
Sent from your Twilio trial account - ALERT!! THE WATER QUALITY IS DEGRADED
Published pH= 10 Turbidity:970 Temperature:90
Sent from your Twilio trial account - ALERT!! THE WATER QUALITY IS DEGRADED
Published pH= 4 Turbidity:112 Temperature:52
Sent from your Twilio trial account - ALERT!! THE WATER QUALITY IS DEGRADED
Published pH= 5 Turbidity:410 Temperature:96
Sent from your Twilio trial account - ALERT!! THE WATER QUALITY IS DEGRADED
Published pH= 1 Turbidity:773 Temperature:98
Sent from your Twilio trial account - ALERT!! THE WATER QUALITY IS DEGRADED
Published pH= 6 Turbidity:605 Temperature:89
Sent from your Twilio trial account - ALERT!! THE WATER QUALITY IS DEGRADED
Published pH= 6 Turbidity:710 Temperature:53
```