# Sprint-3

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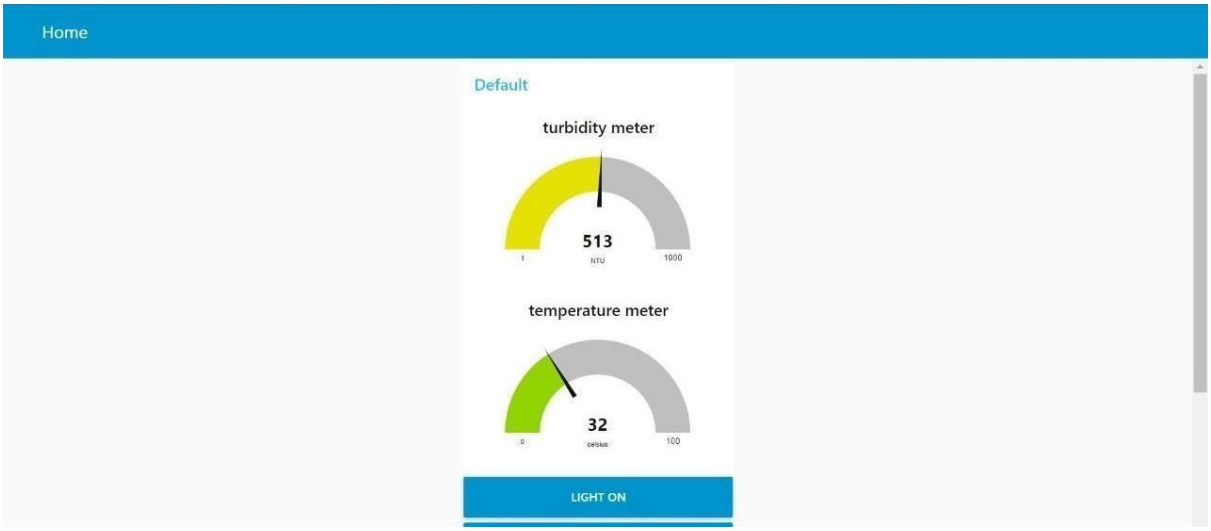
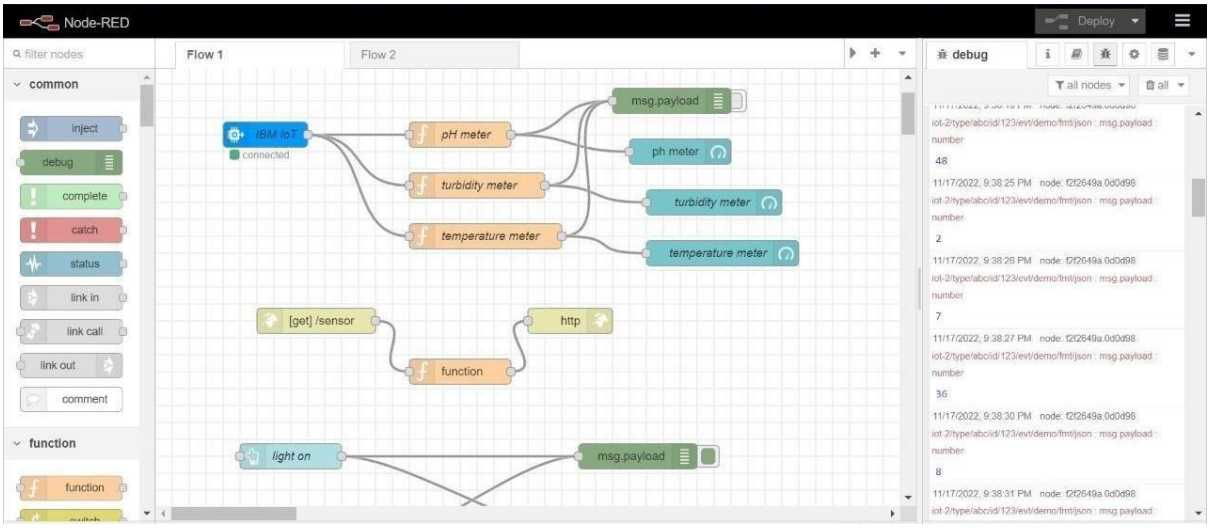
|---|---|
| Date | 19 November 2022 |
| Team ID | PNT2022TMID04601 |
| Project Name | Real Time River Water Quality Monitoring and Control System |
| Maximum Marks | 20 marks |

# WEB UI

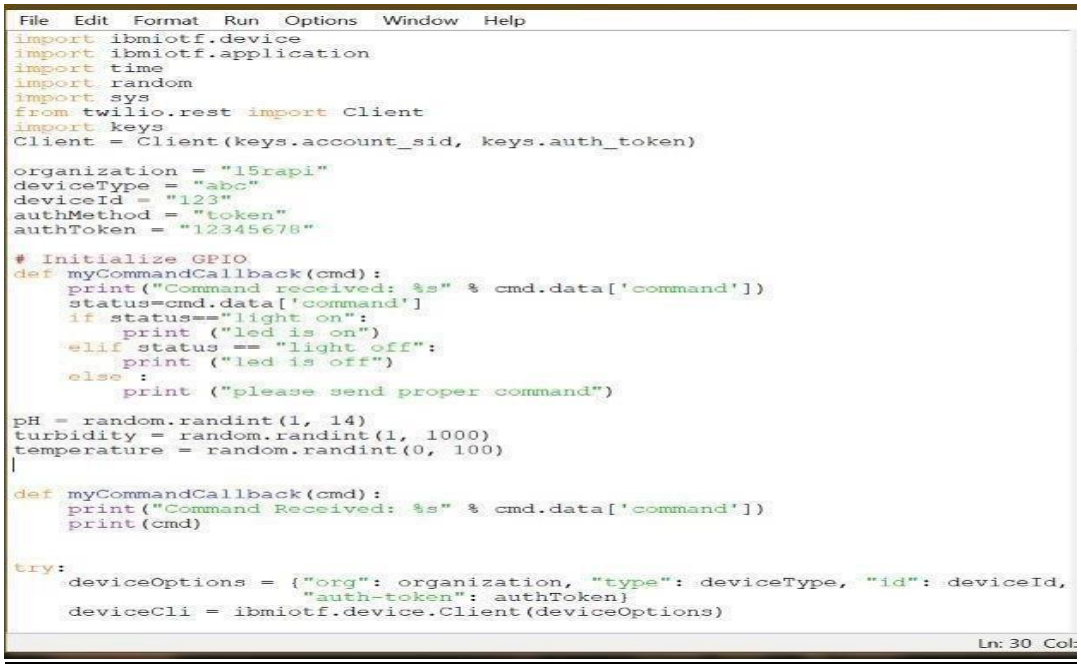
WEB UI FOR USER TO INTERACT WITH THE SOFTWARE:



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)
Ln: 30  Col:
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Sén't. { LO#" !  !?j   •jl'j'C ttl'Sl  jCCC??D't. -  éj.,ART'!!  TWK WATER.Q'âLITY  TS''OKSRADFG.
Pdblished'pH 4. Turbidity:112.Temperdiñre:52
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Pñ$lished' pH t Tqrbi'dity\tJ5 TemperaCur'e:BS
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PUbli'sheJ pW=.ñ Tpr$j:''dftyL7]0 Temperatqté:S3.
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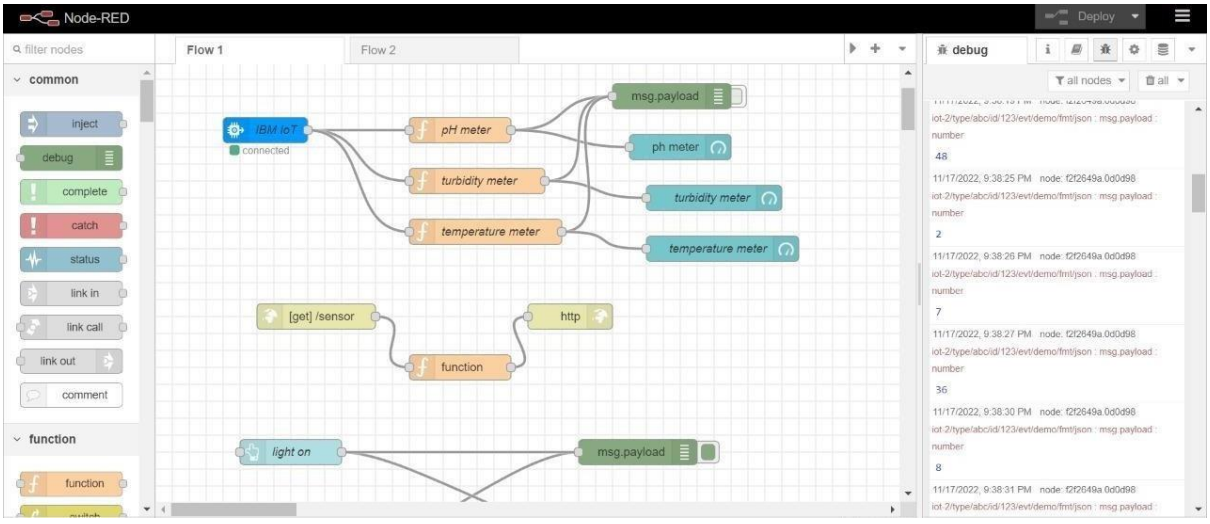
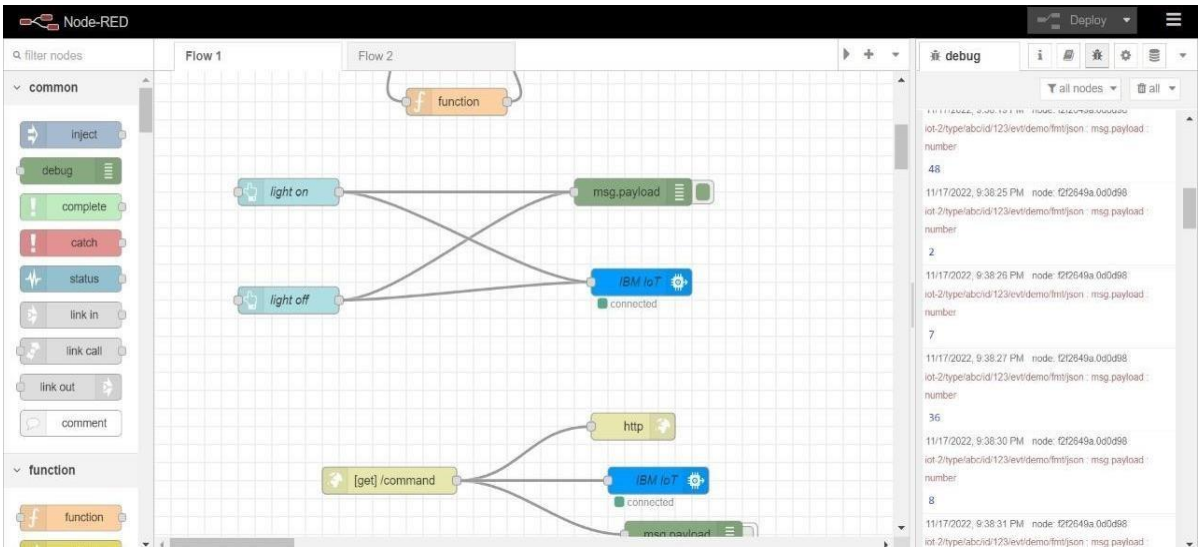
## NODE RED ARCHITECTURE




Node-RED
Deploy
filter nodes
Flow 1
Flow 2
debug
all nodes
all
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
function
light on
light off
msg.payload
IBM IoT
connected
http
[get] /command
IBM IoT
connected
48
2
7
36
8