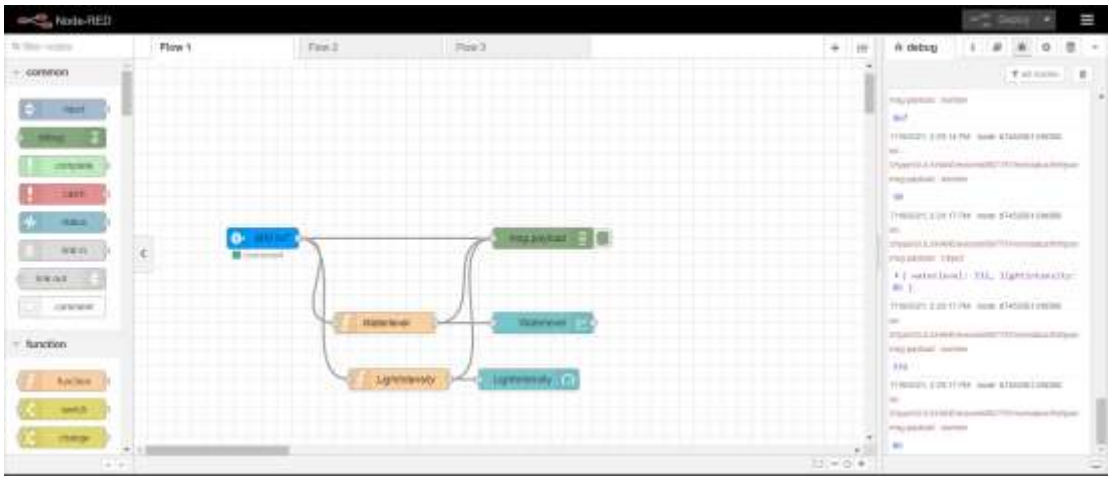
ASSIGNMENT-3

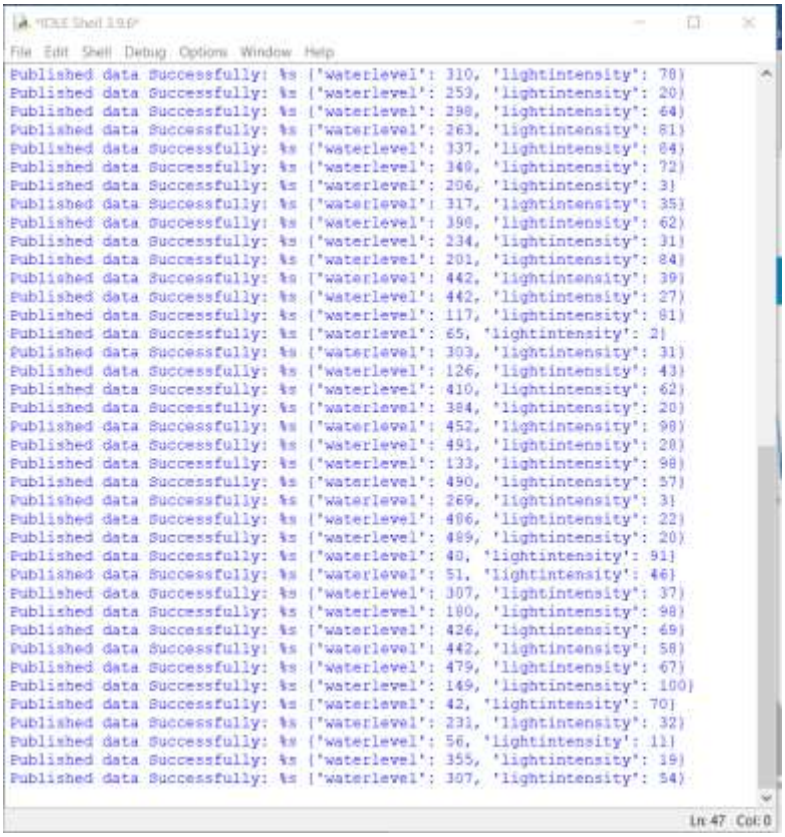
Develop a code to upload the water tank level and light intensity values to the IBMIoT platform and visualize them in the web application.

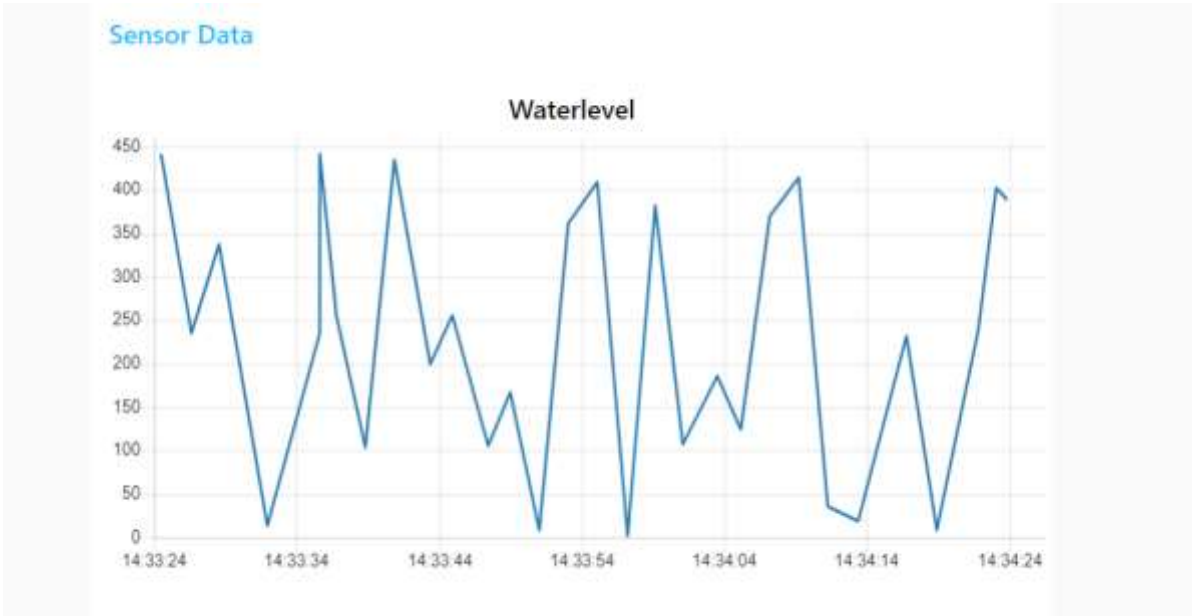
CODE:

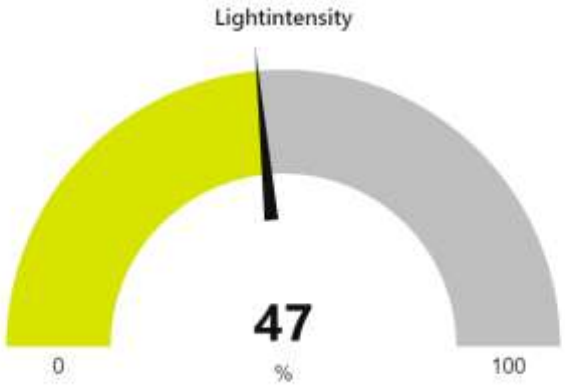
```
assignment3.py - C:\Users\gulsh\Downloads\assignment3.py (3.9.6)
File  Edit  Format  Run  Options  Window  Help
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "g90xhu",
        "typeId": "GULSHANDevice",
        "deviceId":"067797"
    },
    "auth": {
        "token": "06779700"
    }
}

def myCommandCallback(cmd):
    print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
    m=cmd.data['command']
client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()

while True:
    level=random.randint(0,500)
    light=random.randint(0,100)
    myData={'waterlevel':level, 'lightintensity':light}
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
    print("Published data Successfully: %s", myData)
    client.commandCallback = myCommandCallback
    time.sleep(2)
client.disconnect()
```

NODE-RED OUTPUT:




IDLE Shell 3.9.6
File Edit Shell Debug Options Window Help
Published data Successfully: %s {'waterlevel': 310, 'lightintensity': 70}
Published data Successfully: %s {'waterlevel': 253, 'lightintensity': 20}
Published data Successfully: %s {'waterlevel': 298, 'lightintensity': 64}
Published data Successfully: %s {'waterlevel': 263, 'lightintensity': 81}
Published data Successfully: %s {'waterlevel': 337, 'lightintensity': 84}
Published data Successfully: %s {'waterlevel': 340, 'lightintensity': 72}
Published data Successfully: %s {'waterlevel': 206, 'lightintensity': 3}
Published data Successfully: %s {'waterlevel': 317, 'lightintensity': 35}
Published data Successfully: %s {'waterlevel': 398, 'lightintensity': 62}
Published data Successfully: %s {'waterlevel': 234, 'lightintensity': 31}
Published data Successfully: %s {'waterlevel': 201, 'lightintensity': 84}
Published data Successfully: %s {'waterlevel': 442, 'lightintensity': 39}
Published data Successfully: %s {'waterlevel': 442, 'lightintensity': 27}
Published data Successfully: %s {'waterlevel': 117, 'lightintensity': 81}
Published data Successfully: %s {'waterlevel': 65, 'lightintensity': 2}
Published data Successfully: %s {'waterlevel': 303, 'lightintensity': 31}
Published data Successfully: %s {'waterlevel': 126, 'lightintensity': 43}
Published data Successfully: %s {'waterlevel': 410, 'lightintensity': 62}
Published data Successfully: %s {'waterlevel': 384, 'lightintensity': 20}
Published data Successfully: %s {'waterlevel': 452, 'lightintensity': 98}
Published data Successfully: %s {'waterlevel': 491, 'lightintensity': 20}
Published data Successfully: %s {'waterlevel': 133, 'lightintensity': 98}
Published data Successfully: %s {'waterlevel': 490, 'lightintensity': 57}
Published data Successfully: %s {'waterlevel': 269, 'lightintensity': 3}
Published data Successfully: %s {'waterlevel': 406, 'lightintensity': 22}
Published data Successfully: %s {'waterlevel': 489, 'lightintensity': 20}
Published data Successfully: %s {'waterlevel': 40, 'lightintensity': 91}
Published data Successfully: %s {'waterlevel': 51, 'lightintensity': 46}
Published data Successfully: %s {'waterlevel': 307, 'lightintensity': 37}
Published data Successfully: %s {'waterlevel': 180, 'lightintensity': 98}
Published data Successfully: %s {'waterlevel': 426, 'lightintensity': 69}
Published data Successfully: %s {'waterlevel': 442, 'lightintensity': 58}
Published data Successfully: %s {'waterlevel': 479, 'lightintensity': 67}
Published data Successfully: %s {'waterlevel': 149, 'lightintensity': 100}
Published data Successfully: %s {'waterlevel': 42, 'lightintensity': 70}
Published data Successfully: %s {'waterlevel': 231, 'lightintensity': 32}
Published data Successfully: %s {'waterlevel': 56, 'lightintensity': 11}
Published data Successfully: %s {'waterlevel': 355, 'lightintensity': 19}
Published data Successfully: %s {'waterlevel': 307, 'lightintensity': 54}
Ln: 47 Col: 0


Sensor Data
Waterlevel
450
400
350
300
250
200
150
100
50
0
14:33:24
14:33:34
14:33:44
14:33:54
14:34:04
14:34:14
14:34:24


Lightintensity
47
%
0
100