Assignment 3

Name: Kripa Karthik

Registration number: 19BEC0549

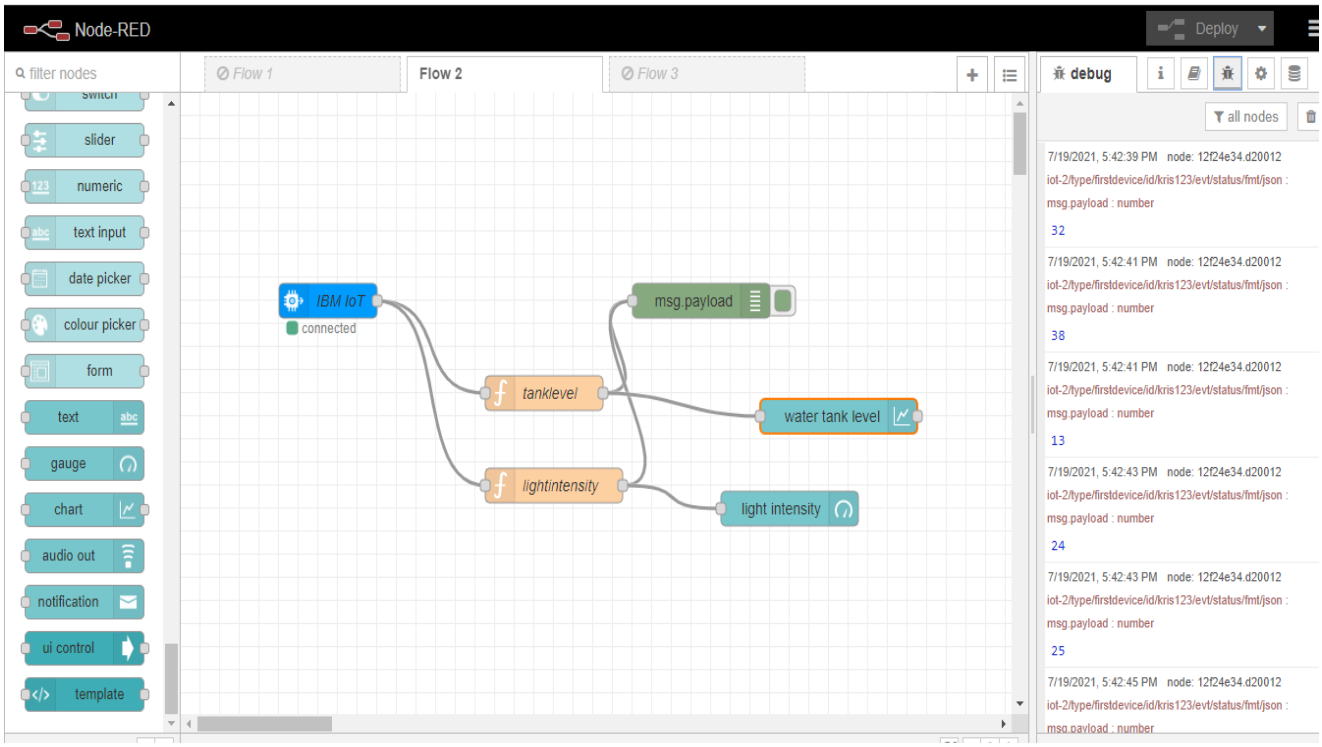
Develop a code to upload the water tank level and light intensity values to the IBM IoT platform and visualize them in the web application.

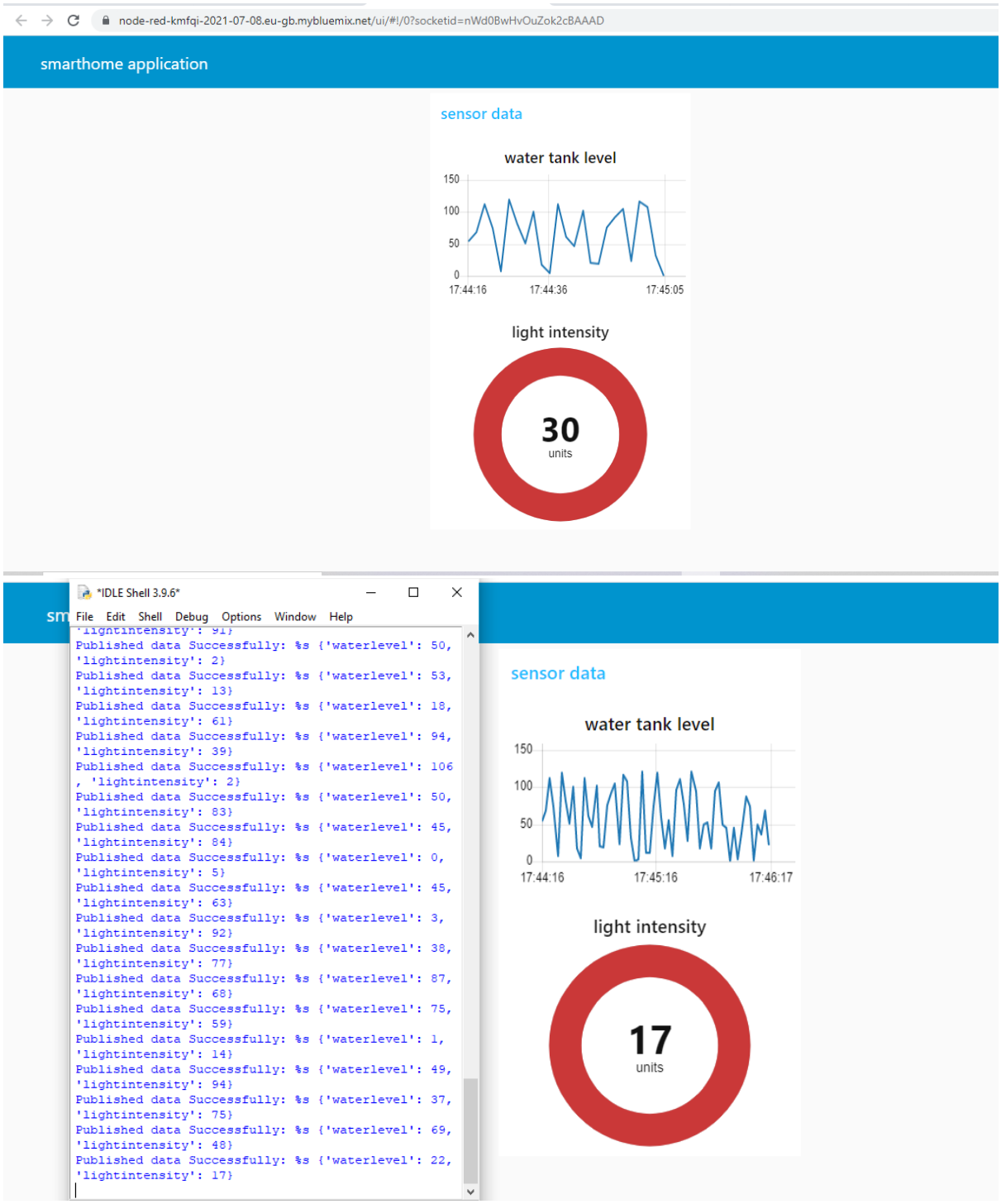
PYTHON CODE

```
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "cp3p3y",
        "typeId": "firstdevice",
        "deviceId":"kris123"
    },
    "auth": {
        "token": "12345678"
    }
}

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:

    tanklevel=random.randint(0,125)

    lightint=random.randint(0,100)

    myData={'waterlevel':tanklevel, 'lightintensity':lightint}

    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()
```

SCREENSHOTS




node-red-kmfqi-2021-07-08.eu-gb.mybluemix.net/ui/#!/0?socketid=nWd0BwHvOuZok2cBAAAD
smarthome application
sensor data
water tank level
150
100
50
0
17:44:16
17:44:36
17:45:05
light intensity
30
units
IDLE Shell 3.9.6
File Edit Shell Debug Options Window Help
Published data Successfully: %s {'waterlevel': 50, 'lightintensity': 2}
Published data Successfully: %s {'waterlevel': 53, 'lightintensity': 13}
Published data Successfully: %s {'waterlevel': 18, 'lightintensity': 61}
Published data Successfully: %s {'waterlevel': 94, 'lightintensity': 39}
Published data Successfully: %s {'waterlevel': 106, 'lightintensity': 2}
Published data Successfully: %s {'waterlevel': 50, 'lightintensity': 83}
Published data Successfully: %s {'waterlevel': 45, 'lightintensity': 84}
Published data Successfully: %s {'waterlevel': 0, 'lightintensity': 5}
Published data Successfully: %s {'waterlevel': 45, 'lightintensity': 63}
Published data Successfully: %s {'waterlevel': 3, 'lightintensity': 92}
Published data Successfully: %s {'waterlevel': 38, 'lightintensity': 77}
Published data Successfully: %s {'waterlevel': 87, 'lightintensity': 68}
Published data Successfully: %s {'waterlevel': 75, 'lightintensity': 59}
Published data Successfully: %s {'waterlevel': 1, 'lightintensity': 14}
Published data Successfully: %s {'waterlevel': 49, 'lightintensity': 94}
Published data Successfully: %s {'waterlevel': 37, 'lightintensity': 75}
Published data Successfully: %s {'waterlevel': 69, 'lightintensity': 48}
Published data Successfully: %s {'waterlevel': 22, 'lightintensity': 17}
sensor data
water tank level
150
100
50
0
17:44:16
17:45:16
17:46:17
light intensity
17
units

assignment3.py - C:\Users\Lenovo\Desktop\python programs IOT\assignment3.py (3.9.6)

File Edit Format Run Options Window Help

```
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "cp3p3y",
        "typeId": "firstdevice",
        "deviceId":"kris123"
    },
    "auth": {
        "token": "12345678"
    }
}

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:
    tanklevel=random.randint(0,125)
    lightint=random.randint(0,100)
    myData={'waterlevel':tanklevel, 'lightintensity':lightint}
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,
    print("Published data Successfully: %s", myData)
    client.commandCallback = myCommandCallback
    time.sleep(2)
client.disconnect()
```