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Assignment – 3

Python Console :

nodemcu.py - C:\Users\HARISH\OneDrive\Desktop\Assignment\nodemcu.py (3.9.6)

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```
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "q2mp6a",
        "typeId": "HarishDevice",
        "deviceId":"22072002"
    },
    "auth": {
        "token": "123456789"
    }
}

def myCommandCallback(cmd):
    print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
    m=cmd.data['command']
    if (m== "lighton"):
        print("....Light is ON....")
    elif (m=="lightoff"):
        print("....Light is OFF....")
    print()

client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()

while True:
    waterlevel=random.randint(-20,125)
    lightintensity=random.randint(0,100)
    myData={'waterlevel':waterlevel, 'lightintensity':lightintensity}
    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()
```

IDLE Shell 3.9.6

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```
Published data Successfully: %s {'waterlevel': 37, 'lightintensity': 40}
Published data Successfully: %s {'waterlevel': 14, 'lightintensity': 74}
Published data Successfully: %s {'waterlevel': 96, 'lightintensity': 73}
Published data Successfully: %s {'waterlevel': 43, 'lightintensity': 47}
Published data Successfully: %s {'waterlevel': 21, 'lightintensity': 49}
Published data Successfully: %s {'waterlevel': 96, 'lightintensity': 21}
Published data Successfully: %s {'waterlevel': 21, 'lightintensity': 2}
Published data Successfully: %s {'waterlevel': 41, 'lightintensity': 62}
Published data Successfully: %s {'waterlevel': 3, 'lightintensity': 89}
Published data Successfully: %s {'waterlevel': 47, 'lightintensity': 93}
Published data Successfully: %s {'waterlevel': 53, 'lightintensity': 12}
Published data Successfully: %s {'waterlevel': 7, 'lightintensity': 93}
Published data Successfully: %s {'waterlevel': 30, 'lightintensity': 85}
Published data Successfully: %s {'waterlevel': 50, 'lightintensity': 28}
Published data Successfully: %s {'waterlevel': 48, 'lightintensity': 10}
Published data Successfully: %s {'waterlevel': 83, 'lightintensity': 28}
Published data Successfully: %s {'waterlevel': 75, 'lightintensity': 55}
Published data Successfully: %s {'waterlevel': 74, 'lightintensity': 2}
Published data Successfully: %s {'waterlevel': 5, 'lightintensity': 23}
Published data Successfully: %s {'waterlevel': 87, 'lightintensity': 47}
Published data Successfully: %s {'waterlevel': 78, 'lightintensity': 39}
Published data Successfully: %s {'waterlevel': 52, 'lightintensity': 94}
Published data Successfully: %s {'waterlevel': 7, 'lightintensity': 90}
Published data Successfully: %s {'waterlevel': -14, 'lightintensity': 5}
Published data Successfully: %s {'waterlevel': 15, 'lightintensity': 68}
Published data Successfully: %s {'waterlevel': 75, 'lightintensity': 37}
Published data Successfully: %s {'waterlevel': 42, 'lightintensity': 72}
Published data Successfully: %s {'waterlevel': -14, 'lightintensity': 62}
Published data Successfully: %s {'waterlevel': 83, 'lightintensity': 73}
Published data Successfully: %s {'waterlevel': 22, 'lightintensity': 50}
Published data Successfully: %s {'waterlevel': 22, 'lightintensity': 20}
Published data Successfully: %s {'waterlevel': 4, 'lightintensity': 10}
Published data Successfully: %s {'waterlevel': 89, 'lightintensity': 85}
Published data Successfully: %s {'waterlevel': 74, 'lightintensity': 50}
Published data Successfully: %s {'waterlevel': 75, 'lightintensity': 25}
Published data Successfully: %s {'waterlevel': 87, 'lightintensity': 21}
Published data Successfully: %s {'waterlevel': 0, 'lightintensity': 3}
Published data Successfully: %s {'waterlevel': 89, 'lightintensity': 75}
Published data Successfully: %s {'waterlevel': 113, 'lightintensity': 18}
Published data Successfully: %s {'waterlevel': 101, 'lightintensity': 5}
Published data Successfully: %s {'waterlevel': 96, 'lightintensity': 46}
Published data Successfully: %s {'waterlevel': -20, 'lightintensity': 18}
Published data Successfully: %s {'waterlevel': 119, 'lightintensity': 30}
Published data Successfully: %s {'waterlevel': 125, 'lightintensity': 55}
Published data Successfully: %s {'waterlevel': 72, 'lightintensity': 99}
Published data Successfully: %s {'waterlevel': -19, 'lightintensity': 58}
```

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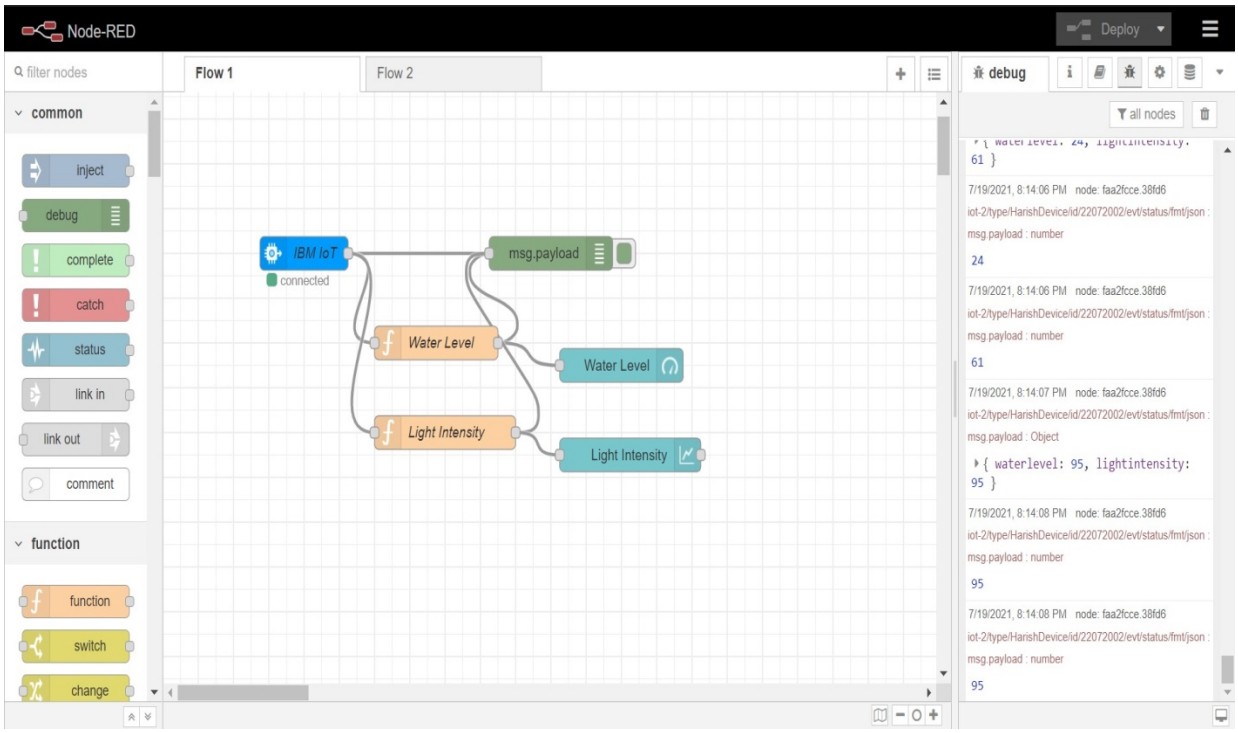
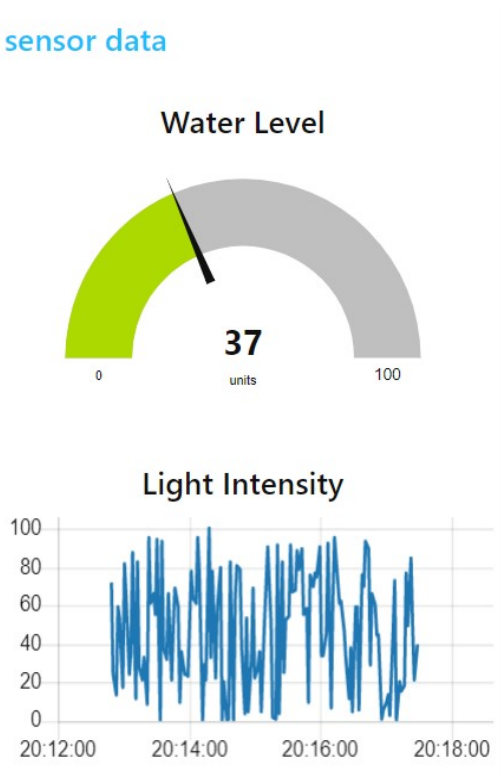
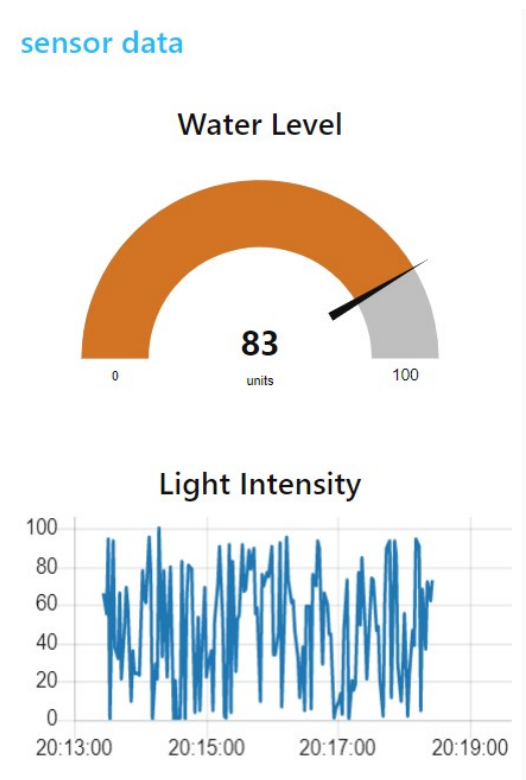
NodeRED Interface :







Coding Part :

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```
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