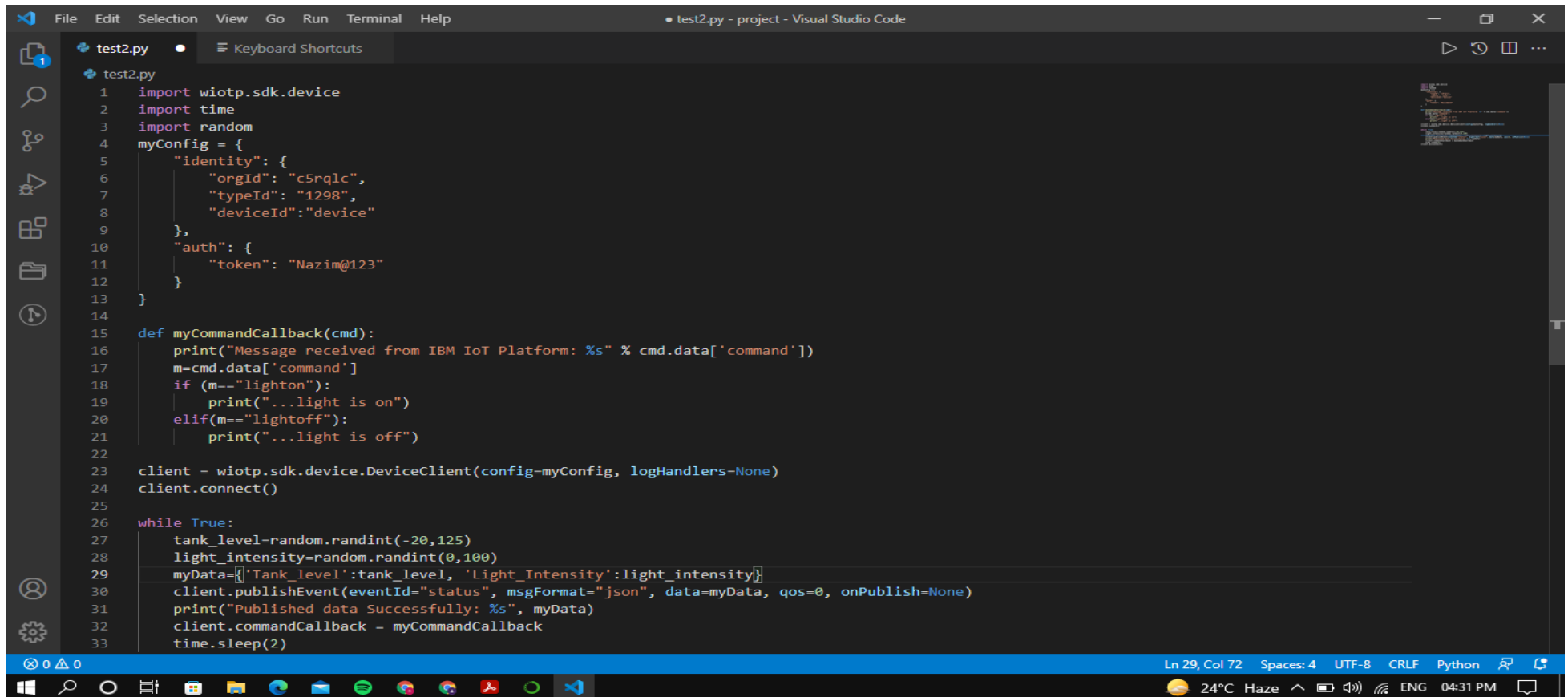


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## Assignment-3



```
test2.py • Keyboard Shortcuts
test2.py
1 import wiotp.sdk.device
2 import time
3 import random
4 myConfig = {
5     "identity": {
6         "orgId": "c5rqlc",
7         "typeId": "1298",
8         "deviceId": "device"
9     },
10    "auth": {
11        "token": "Nazim@123"
12    }
13 }
14
15 def myCommandCallback(cmd):
16     print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
17     m=cmd.data['command']
18     if (m=="lighton"):
19         print("...light is on")
20     elif(m=="lightoff"):
21         print("...light is off")
22
23 client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
24 client.connect()
25
26 while True:
27     tank_level=random.randint(-20,125)
28     light_intensity=random.randint(0,100)
29     myData=[{"Tank_level":tank_level, "Light_Intensity":light_intensity}]
30     client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
31     print("Published data Successfully: %s", myData)
32     client.commandCallback = myCommandCallback
33     time.sleep(2)
```

Ln 29, Col 72 Spaces: 4 UTF-8 CRLF Python 24°C Haze ENG 04:31 PM

IBM Watson IoT Platform | Service Details - IBM Cloud | IBM Watson IoT Platform | Node-RED : node-red-pgrfy | Node-RED Dashboard

node-red-pgrfy-2021-12-02.mybluemix.net/red/#flow/8d479e2b28b23525

### Node-RED

filter nodes | Flow 1 | Deploy

udp in | udp out

**input**

ibmiot in

**output**

OpenWhisk | ibmiot out

**sequence**

split | join | sort | batch

**parser**

```
graph TD; Start[ ] --> Hello[Hello Node-RED! hiii]; Hello --> P1[msg.payload]; IoT1[IBM IoT connected] --> FTank[water tank level]; IoT1 --> FLight[Light Intensity]; FTank --> OutTank[Water_tank_level]; FLight --> OutLight[Light_Intensity]; LightON[Light ON] --> P2[msg.payload]; LightOFF[Light OFF] --> P2; P2 --> IoT2[IBM IoT connected];
```

**debug**

all nodes | all

57 }

12/7/2021, 5:28:37 PM node: 738c697daedc3696  
iot-2/type/1298/id/device/evt/status/fmt/json :  
msg.payload : Object  
{ Tank\_level: 74, Light\_Intensity: 51 }

12/7/2021, 5:28:40 PM node: 738c697daedc3696  
iot-2/type/1298/id/device/evt/status/fmt/json :  
msg.payload : Object  
{ Tank\_level: 113, Light\_Intensity: 63 }

12/7/2021, 5:28:29 PM node: 65e586f8b0007761  
msg.payload : Object  
{ command: "lighton" }

12/7/2021, 5:28:31 PM node: 65e586f8b0007761  
msg.payload : Object  
{ command: "lightoff" }

12/7/2021, 5:28:48 PM node: 738c697daedc3696  
iot-2/type/1298/id/device/evt/status/fmt/json :  
msg.payload : Object  
{ Tank\_level: 39, Light\_Intensity: 16 }

12/7/2021, 5:28:50 PM node: 738c697daedc3696  
iot-2/type/1298/id/device/evt/status/fmt/json :  
msg.payload : Object  
{ Tank\_level: -16, Light\_Intensity: 94 }

24°C Haze 05:29 PM

Node-RED : node-red-pgrfy-202

node-red-pgrfy-2021-12-02.mybluemix.net/red/#fl...

Node-RED

Flow 1

debug

all nodes

msg.payload

msg.payload

water tank level

Light Intensity

Light ON

Light OFF

```
{ Tank_level: 100, Light_Intensity: 63 }
12/7/2021, 5:40:20 PM node: 65e586f8b0007761
msg.payload : Object
{ command: "lightoff" }
12/7/2021, 5:40:21 PM node: 738c697daedc3696
iot-2/type/1298/id/device/evt/status/fmt/json :
msg.payload : Object
{ Tank_level: 12, Light_Intensity: 90 }
12/7/2021, 5:40:21 PM node: 65e586f8b0007761
msg.payload : Object
{ command: "lighton" }
12/7/2021, 5:40:22 PM node: 738c697daedc3696
iot-2/type/1298/id/device/evt/status/fmt/json :
msg.payload : Object
{ Tank_level: -4, Light_Intensity: 86 }
12/7/2021, 5:40:23 PM node: 65e586f8b0007761
msg.payload : Object
{ command: "lightoff" }
12/7/2021, 5:40:24 PM node: 738c697daedc3696
iot-2/type/1298/id/device/evt/status/fmt/json :
msg.payload : Object
{ Tank_level: 29, Light_Intensity: 76 }
```

IBM W x Service x IBM W x Node- x

node-red-pgrfy-2021-12-02.mybluemix.net/ui/#1/0...

VIT-B Dashboard

Demo

Light\_Intensity

0 100

%

Light\_Intensity

LIGHT ON

LIGHT OFF

Water\_tank\_level

150

100

50

0

-50

17:08:00 17:18:00 17:28:00 17:41:00

23°C Haze

ENG 05:40 PM