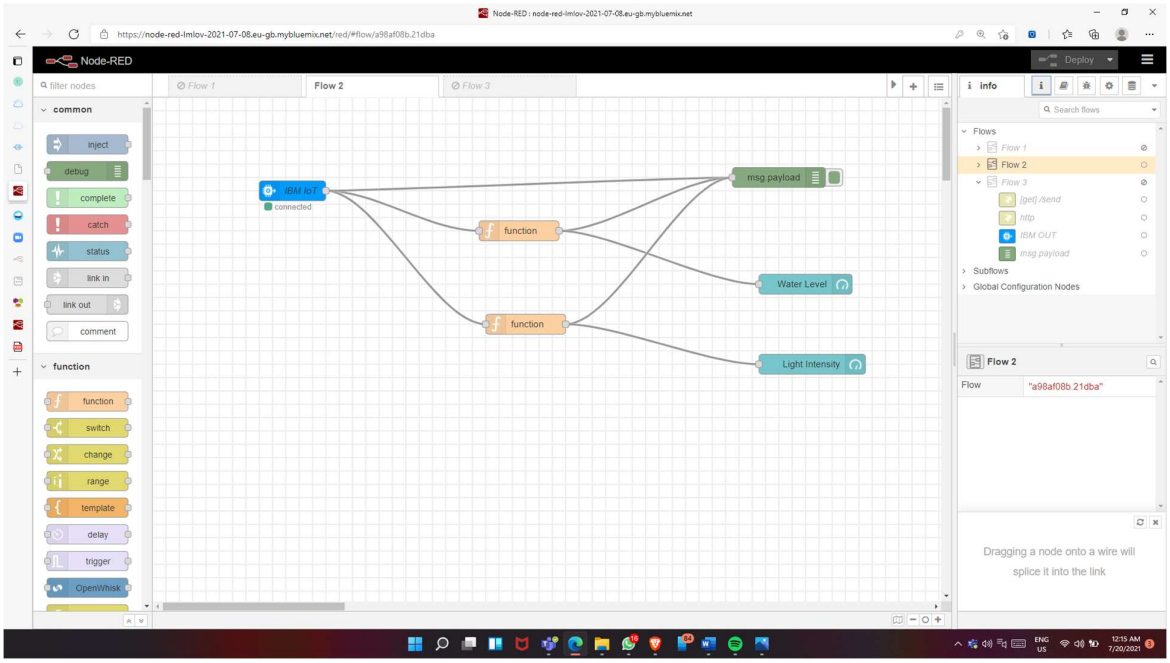
Assignment-3

PRANAY KUMAR IPPILI
ippilipranay.kumar2019@vitstudent.ac.in

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.



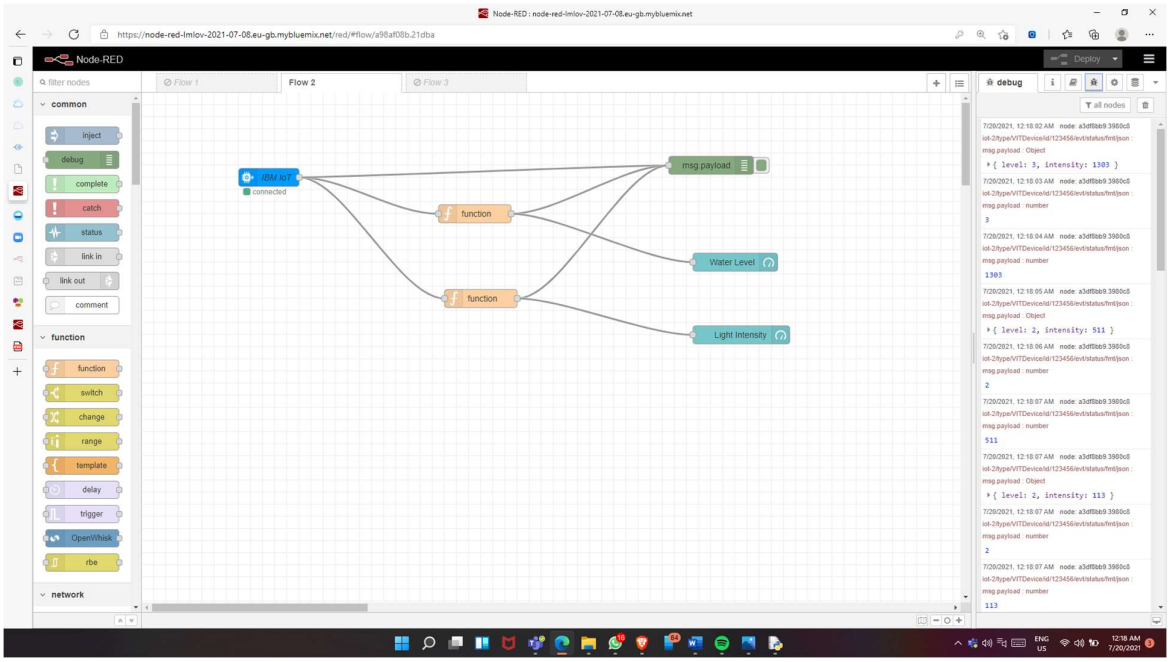
CODE:

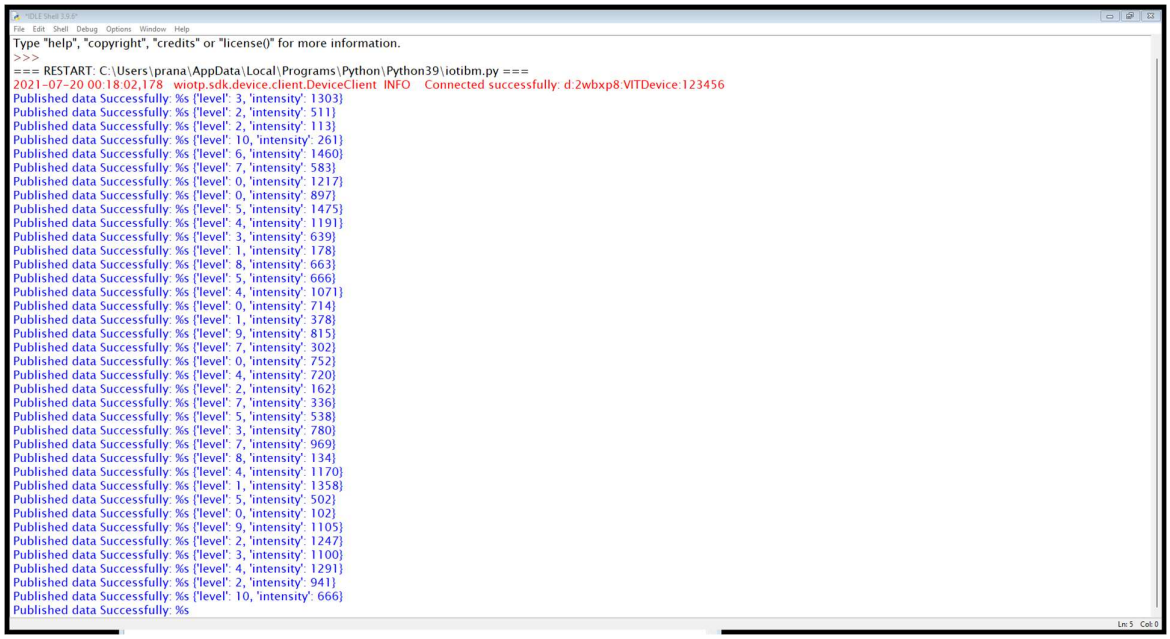
```
import wiotp.sdk.device
import time
import random
myConfig = {
 "identity": {
 "orgId": "2wbxp8",
 "typeId": "VITDevice",
 "deviceId":"123456"
 },
 "auth": {
 "token": "Q8mStguHsUz0hcwz_8"
 }
}
def myCommandCallback(cmd):
 print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
 m=cmd.data['command']
client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()
while True:
 level=random.randint(0,10)
 intensity=random.randint(100,1500)
 myData={'level':level, 'intensity':intensity}
 client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
 print("Published data Successfully: %s", myData)
 client.commandCallback = myCommandCallback
```

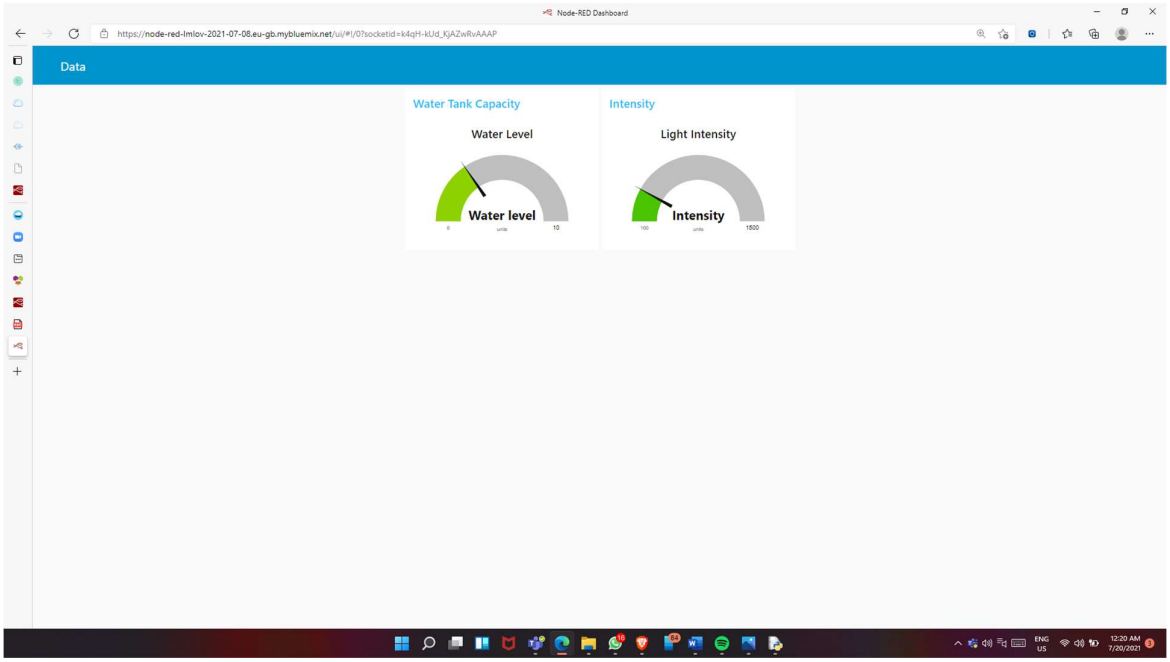
time.sleep(2)
client.disconnect()

```
import wiotp.sdk.device
import time
import random
myConfig = {
 "identity": {
 "orgId": "2wbxp8",
 "typeId": "VITDevice",
 "deviceId":"123456"
 },
 "auth": {
 "token": "Q8mStguHsUz0hcwz_8"
 }
}
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(0,10)
 intensity=random.randint(100,1500)
 myData={'level':level, 'intensity':intensity}
 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()
```

After simulation:




IDLE Shell 3.9.6
File Edit Shell Debug Options Window Help
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:\Users\prana\AppData\Local\Programs\Python\Python39\iotibm.py ===
2021-07-20 00:18:02,178 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:2wbxp8:VITDevice:123456
Published data Successfully: %s {'level': 3, 'intensity': 1303}
Published data Successfully: %s {'level': 2, 'intensity': 511}
Published data Successfully: %s {'level': 2, 'intensity': 113}
Published data Successfully: %s {'level': 10, 'intensity': 261}
Published data Successfully: %s {'level': 6, 'intensity': 1460}
Published data Successfully: %s {'level': 7, 'intensity': 583}
Published data Successfully: %s {'level': 0, 'intensity': 1217}
Published data Successfully: %s {'level': 0, 'intensity': 897}
Published data Successfully: %s {'level': 5, 'intensity': 1475}
Published data Successfully: %s {'level': 4, 'intensity': 1191}
Published data Successfully: %s {'level': 3, 'intensity': 639}
Published data Successfully: %s {'level': 1, 'intensity': 178}
Published data Successfully: %s {'level': 8, 'intensity': 663}
Published data Successfully: %s {'level': 5, 'intensity': 666}
Published data Successfully: %s {'level': 4, 'intensity': 1071}
Published data Successfully: %s {'level': 0, 'intensity': 714}
Published data Successfully: %s {'level': 1, 'intensity': 378}
Published data Successfully: %s {'level': 9, 'intensity': 815}
Published data Successfully: %s {'level': 7, 'intensity': 302}
Published data Successfully: %s {'level': 0, 'intensity': 752}
Published data Successfully: %s {'level': 4, 'intensity': 720}
Published data Successfully: %s {'level': 2, 'intensity': 162}
Published data Successfully: %s {'level': 7, 'intensity': 336}
Published data Successfully: %s {'level': 5, 'intensity': 538}
Published data Successfully: %s {'level': 3, 'intensity': 780}
Published data Successfully: %s {'level': 7, 'intensity': 969}
Published data Successfully: %s {'level': 8, 'intensity': 134}
Published data Successfully: %s {'level': 4, 'intensity': 1170}
Published data Successfully: %s {'level': 1, 'intensity': 1358}
Published data Successfully: %s {'level': 5, 'intensity': 502}
Published data Successfully: %s {'level': 0, 'intensity': 102}
Published data Successfully: %s {'level': 9, 'intensity': 1105}
Published data Successfully: %s {'level': 2, 'intensity': 1247}
Published data Successfully: %s {'level': 3, 'intensity': 1100}
Published data Successfully: %s {'level': 4, 'intensity': 1291}
Published data Successfully: %s {'level': 2, 'intensity': 941}
Published data Successfully: %s {'level': 10, 'intensity': 666}
Published data Successfully: %s
Ln: 5 Col: 0


Node-RED Dashboard
https://node-red-lmlov-2021-07-08.eu-gb.mybluemix.net/ui/#!/0?socketid=k4qH-kUd_KjAZwRvAAAP
Data
Water Tank Capacity
Water Level
Water level
0
10
units
Intensity
Light Intensity
Intensity
100
1500
units
ENG
US
12:20 AM
7/20/2021