Ayaluri Soujanya
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VIT-IOT-INDUSTRY CERTIFICATE-EXTERNSHIP PROGRAM

ASSIGNMENT-3

Assignment-3

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:

Assignment 3.py - C:\Users\Soujanya\AppData\Local\Programs\Python\Python39\Assignment 3.py (3.9.6)

File Edit Format Run Options Window Help

```
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "rxdn0x",
        "typeId": "Soujanya",
        "deviceId":"12345"
    },
    "auth": {
        "token": "123456789"
    }
}

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:
    waterlevel=random.randint(0,100)
    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()
```

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```
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    print("Published data Successfully: %s", myData)
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    time.sleep(2)
client.disconnect()
```

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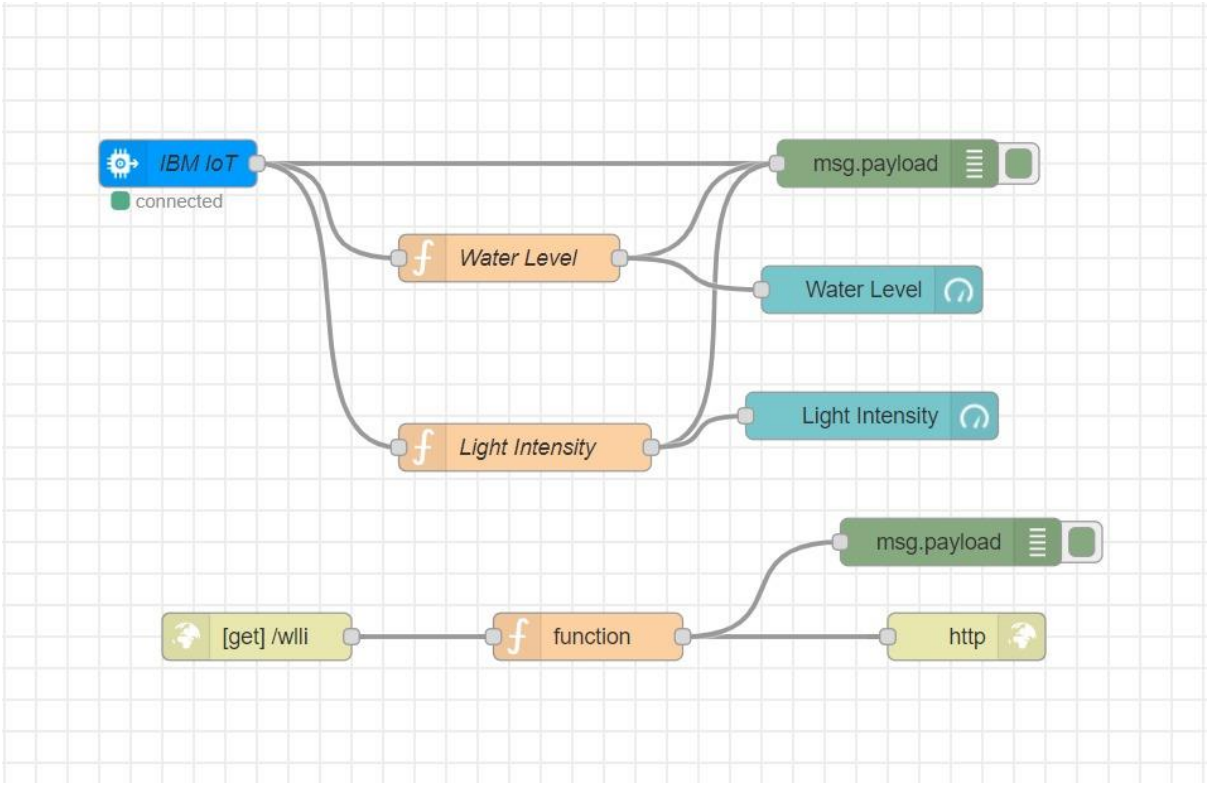
OUTPUT OF PYTHON CODE:

```
Published data Successfully: %s {'WaterLevel': 78, 'LightIntensity': 74}
Published data Successfully: %s {'WaterLevel': 100, 'LightIntensity': 32}
Published data Successfully: %s {'WaterLevel': 46, 'LightIntensity': 14}
Published data Successfully: %s {'WaterLevel': 81, 'LightIntensity': 100}
Published data Successfully: %s {'WaterLevel': 57, 'LightIntensity': 93}
Published data Successfully: %s {'WaterLevel': 36, 'LightIntensity': 99}
Published data Successfully: %s {'WaterLevel': 17, 'LightIntensity': 52}
Published data Successfully: %s {'WaterLevel': 21, 'LightIntensity': 55}
Published data Successfully: %s {'WaterLevel': 9, 'LightIntensity': 31}
Published data Successfully: %s {'WaterLevel': 20, 'LightIntensity': 55}
Published data Successfully: %s {'WaterLevel': 8, 'LightIntensity': 89}
Published data Successfully: %s {'WaterLevel': 73, 'LightIntensity': 96}
Published data Successfully: %s {'WaterLevel': 100, 'LightIntensity': 95}
Published data Successfully: %s {'WaterLevel': 72, 'LightIntensity': 79}
Published data Successfully: %s {'WaterLevel': 78, 'LightIntensity': 96}
Published data Successfully: %s {'WaterLevel': 39, 'LightIntensity': 24}
Published data Successfully: %s {'WaterLevel': 52, 'LightIntensity': 82}
Published data Successfully: %s {'WaterLevel': 34, 'LightIntensity': 83}
Published data Successfully: %s {'WaterLevel': 53, 'LightIntensity': 1}
Published data Successfully: %s {'WaterLevel': 91, 'LightIntensity': 19}
Published data Successfully: %s {'WaterLevel': 34, 'LightIntensity': 70}
Published data Successfully: %s {'WaterLevel': 91, 'LightIntensity': 2}
```

NODE-RED FLOW CHART:



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DATA RECEIVED FROM PYTHON:

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WATSON IOT – RECENT EVENTS:

Event	Value	Format	Last Received
status	{"WaterLevel":71,"LightIntensity":24}	json	a few seconds ago
status	{"WaterLevel":70,"LightIntensity":46}	json	a few seconds ago
status	{"WaterLevel":54,"LightIntensity":24}	json	a few seconds ago
status	{"WaterLevel":2,"LightIntensity":29}	json	a few seconds ago
status	{"WaterLevel":16,"LightIntensity":40}	json	a few seconds ago

WEB PAGE: