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.

CODE:

waterlevel.py - C:\Users\SUBHRAJIT HOOM\Downloads\waterlevel.py (3.9.6)

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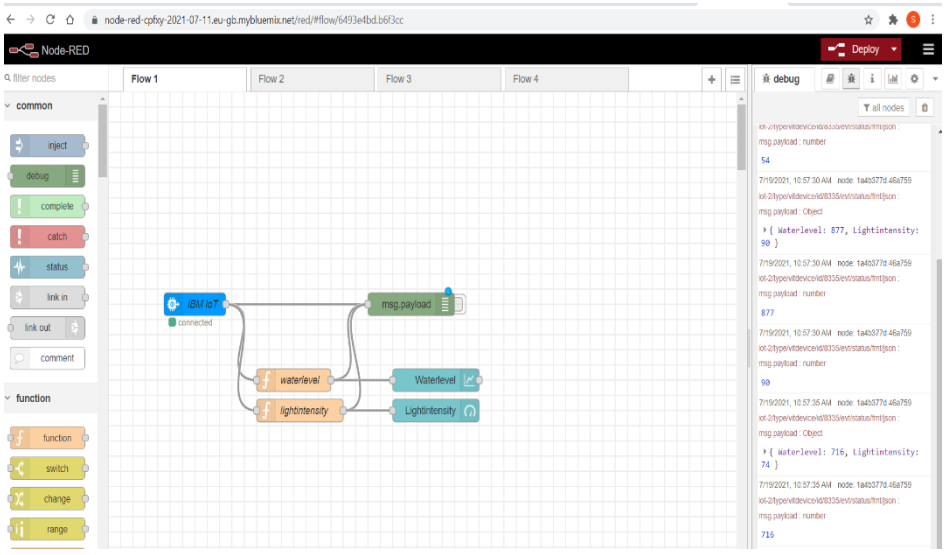
```
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "3zj2w8",
        "typeId": "vitdevice",
        "deviceId":"8335"
    },
    "auth": {
        "token": "8335920874"
    }
}

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(0,1000)
    light=random.randint(0,100)
    myData={'Waterlevel':level, 'Lightintensity':light}
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,
    print("Published data Successfully: %s", myData)
    client.commandCallback = myCommandCallback
    time.sleep(5)
client.disconnect()
```

NODE-RED OUTPUT:



IDLE Shell 3.9.6

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```
Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [MSC v.1929 64 bit
D64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: C:\Users\SUBHRAJIT HOOM\Downloads\waterlevel.py ========
2021-07-19 10:57:25,349   wiotp.sdk.device.client.DeviceClient  INFO    Conne
d successfully: d:3zj2w8:vitdevice:8335
Published data Successfully: %s {'Waterlevel': 36, 'Lightintensity': 54}
Published data Successfully: %s {'Waterlevel': 877, 'Lightintensity': 90}
Published data Successfully: %s {'Waterlevel': 716, 'Lightintensity': 74}
Published data Successfully: %s {'Waterlevel': 859, 'Lightintensity': 85}
Published data Successfully: %s {'Waterlevel': 593, 'Lightintensity': 85}
Published data Successfully: %s {'Waterlevel': 784, 'Lightintensity': 81}
Published data Successfully: %s {'Waterlevel': 666, 'Lightintensity': 72}
Published data Successfully: %s {'Waterlevel': 722, 'Lightintensity': 67}
Published data Successfully: %s {'Waterlevel': 972, 'Lightintensity': 87}
Published data Successfully: %s {'Waterlevel': 239, 'Lightintensity': 41}
Published data Successfully: %s {'Waterlevel': 780, 'Lightintensity': 98}
Published data Successfully: %s {'Waterlevel': 262, 'Lightintensity': 15}
Published data Successfully: %s {'Waterlevel': 378, 'Lightintensity': 20}
Published data Successfully: %s {'Waterlevel': 974, 'Lightintensity': 67}
Published data Successfully: %s {'Waterlevel': 270, 'Lightintensity': 8}
Published data Successfully: %s {'Waterlevel': 24, 'Lightintensity': 86}
Published data Successfully: %s {'Waterlevel': 73, 'Lightintensity': 42}
Published data Successfully: %s {'Waterlevel': 792, 'Lightintensity': 45}
```