ASSIGNMENT-3

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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": "0aaw8c",
        "typeId": "VITDevice",
        "deviceId":"12345"
    },
    "auth": {
        "token": "12345678"
    }
}

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(0,100)
    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(2)
client.disconnect()
```

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import time
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myConfig = {
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  "typeId": "VITDevice",
   "deviceId":"12345"
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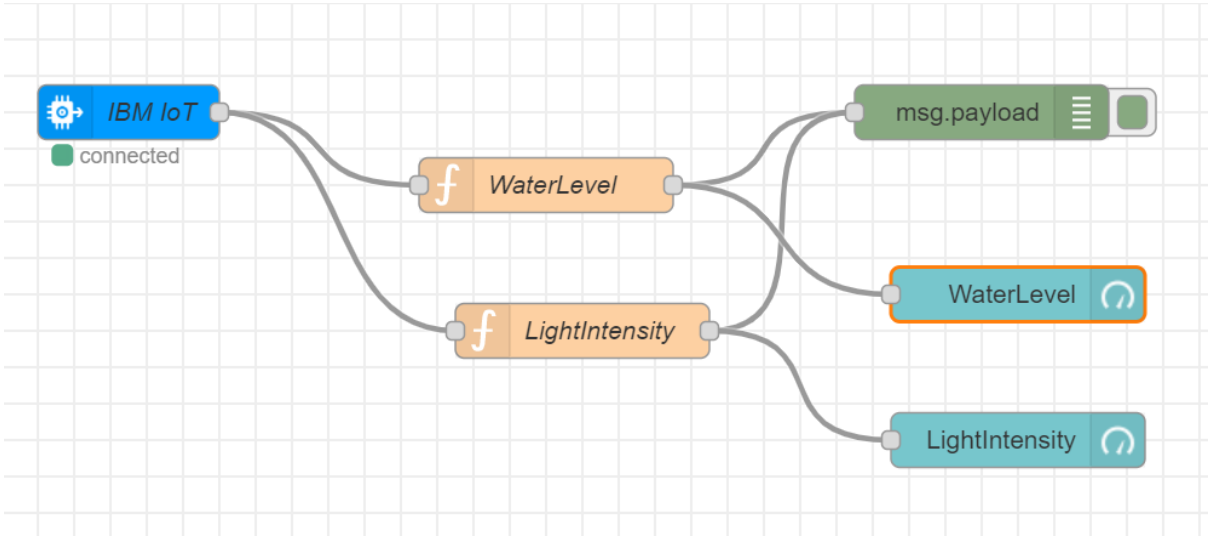
   m=cmd.data['command']
client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()

while True:
   level=random.randint(0,100)
   light=random.randint(0,100)
   myData={'WaterLevel':level, 'LightIntensity':light}
   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()
```

```
===== RESTART: C:\Users\DELL\Desktop\ASSIGNMENTS\Assignment3\assignment3.py ====
2021-07-18 11:22:45,997   wiotp.sdk.device.client.DeviceClient  INFO    Connecte
d successfully: d:0aaw8c:VITDevice:12345
Published data Successfully: %s {'WaterLevel': 79, 'LightIntensity': 25}
Published data Successfully: %s {'WaterLevel': 45, 'LightIntensity': 40}
Published data Successfully: %s {'WaterLevel': 91, 'LightIntensity': 50}
Published data Successfully: %s {'WaterLevel': 88, 'LightIntensity': 89}
Published data Successfully: %s {'WaterLevel': 88, 'LightIntensity': 1}
Published data Successfully: %s {'WaterLevel': 66, 'LightIntensity': 38}
Published data Successfully: %s {'WaterLevel': 75, 'LightIntensity': 65}
Published data Successfully: %s {'WaterLevel': 63, 'LightIntensity': 29}
Published data Successfully: %s {'WaterLevel': 0, 'LightIntensity': 58}
Published data Successfully: %s {'WaterLevel': 19, 'LightIntensity': 75}
Published data Successfully: %s {'WaterLevel': 59, 'LightIntensity': 86}
Published data Successfully: %s {'WaterLevel': 38, 'LightIntensity': 8}
Published data Successfully: %s {'WaterLevel': 97, 'LightIntensity': 51}
Published data Successfully: %s {'WaterLevel': 24, 'LightIntensity': 95}
```

Output of the python code→ It is sending some random data values to the device



Node Red flow chart → In this The IBM IoT Node connects the Device with python code

iot-2/type/VITDevice/id/12345/evt/status/fmt/json :
msg.payload : number

97

7/18/2021, 11:17:57 AM node: b481154b.2692b8
iot-2/type/VITDevice/id/12345/evt/status/fmt/json :
msg.payload : number

55

7/18/2021, 11:17:57 AM node: b481154b.2692b8
iot-2/type/VITDevice/id/12345/evt/status/fmt/json :
msg.payload : number

19

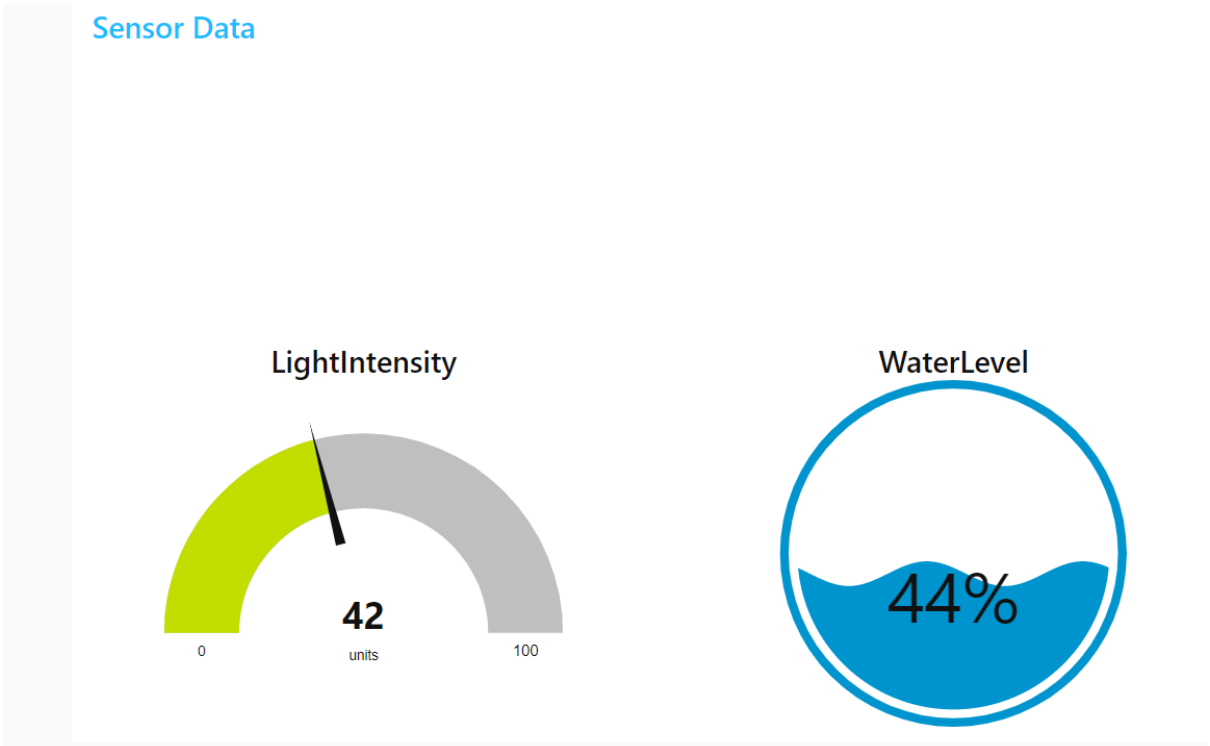
7/18/2021, 11:17:59 AM node: b481154b.2692b8
iot-2/type/VITDevice/id/12345/evt/status/fmt/json :
msg.payload : number

44

7/18/2021, 11:17:59 AM node: b481154b.2692b8
iot-2/type/VITDevice/id/12345/evt/status/fmt/json :
msg.payload : number

42

Data received successfully from python code



Final webpage it aslo receiving the same data produced by the random variables in python