Jivika S

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IoT – Industrial Internship
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:

```
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "96dm08",
        "typeID": "A4",
        "deviceId": "12321"
    },
    "auth": {
        "token": "JivikaS@4"
    }
}
def myCommandCallback(cmd):
    print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
client = wiotp.sdk.device.DeviceClient(config = myConfig, logHandlers=None)
```

client.connect()

while True:

wlevel=random.randit(0,100)

light=random.randint(0,100)

myData={'Water_Level':wlevel, 'Light_Intensity':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()

```
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import random
myConfig = {
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        "deviceId": "12321"
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def myCommandCallback(cmd):
    print("Message received from IBM IoT Platform: %s" % cmd.c

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client.connect()

while True:
    wlevel=random.randit(0,100)
    light=random.randint(0,100)
```

Fig 1: Python Code

Node Red Flow:

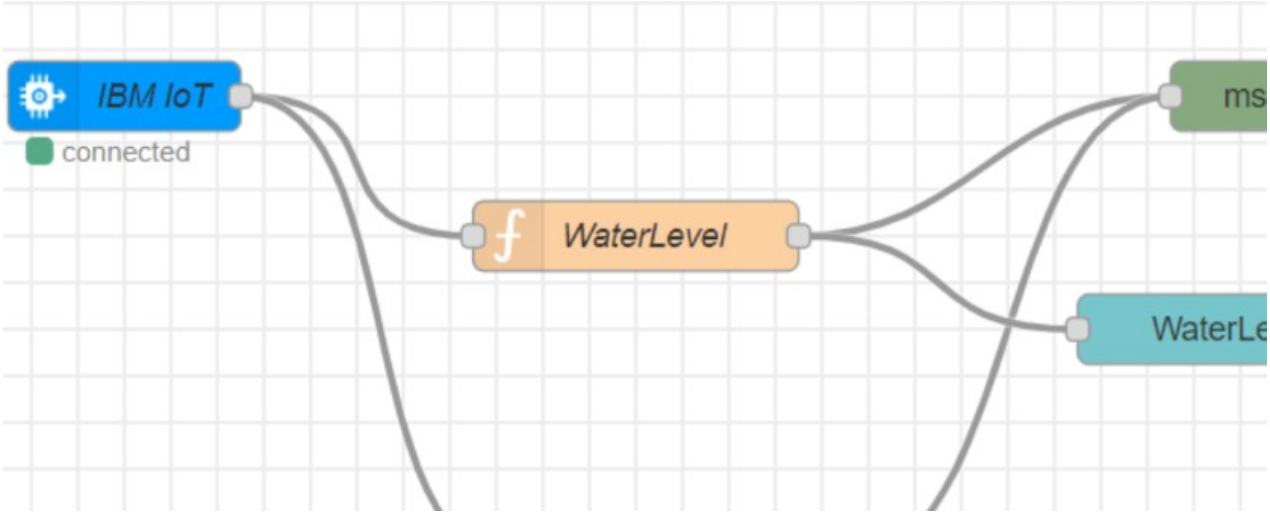

Fig 2: Node Red Flow

Message:

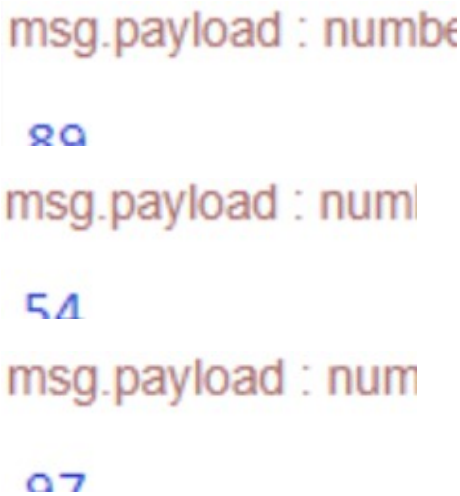

Fig 3: The data is successfully received to Node Red Window

Receiving Data:

```
Published data Successfully: %s {'Water_Level': 14, 'Light_I
Published data Successfully: %s {'Water_Level': 1, 'Light_Ir
Published data Successfully: %s {'Water_Level': 52, 'Light_I
Published data Successfully: %s {'Water_Level': 99, 'Light_I
```

Fig 4: Python Shell of receiving data

Light Intensity output in Web page:

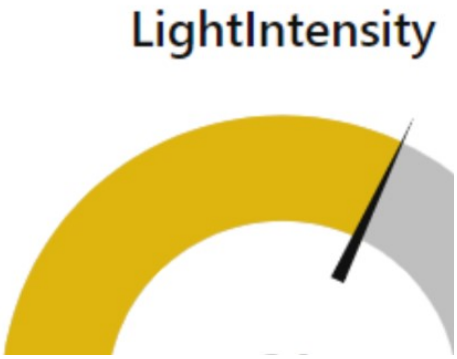

Fig 5: Web page is also displaying the same light intensity values as the random values in python

Water Level output in Web page:

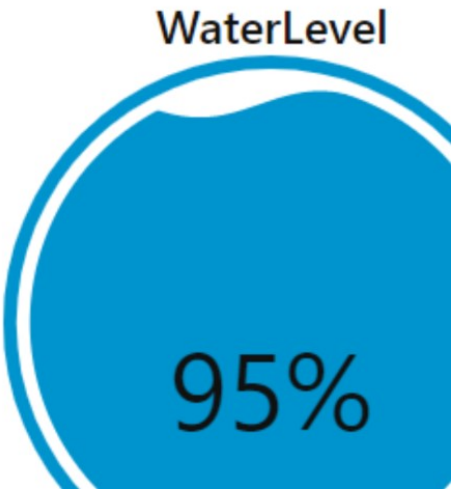

Fig 6: Web page is also displaying the same water level values as the random values in python