

## 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": "jmhx1u",
        "typeId": "SmartDevice",
        "deviceId": "2468"
    },
    "auth": {
        "token": "246810xd"
    }
}

def myCommandCallback(cmd):
    print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
    m=cmd.data['command']

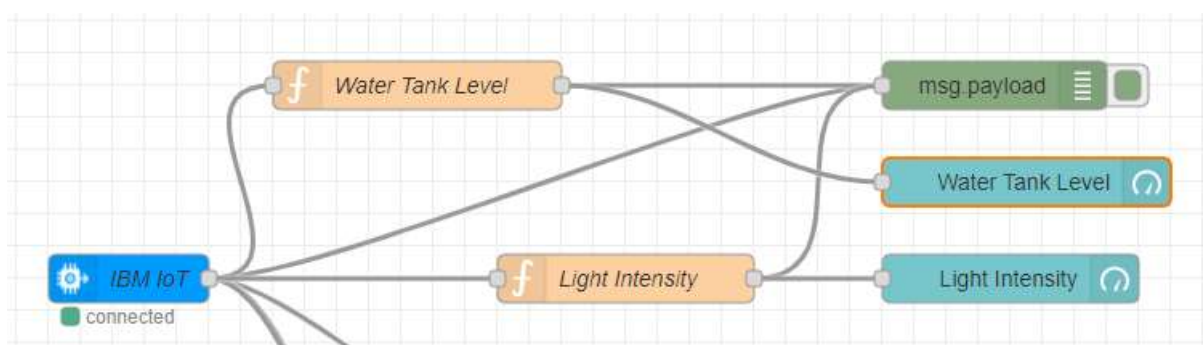
client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()

while True:
    wtl=random.randint(0,100)
    lty=random.randint(0,100)
    myData={'watertanklevel':wtl, 'lightintensity':lty}
    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()
```

### IDLE Shell Output:

```
*IDLE Shell 3.9.6*
File Edit Shell Debug Options Window Help
Published data Successfully: %s {'watertanklevel': 88, 'lightintensity': 77}
Published data Successfully: %s {'watertanklevel': 17, 'lightintensity': 41}
Published data Successfully: %s {'watertanklevel': 54, 'lightintensity': 10}
Published data Successfully: %s {'watertanklevel': 1, 'lightintensity': 42}
Published data Successfully: %s {'watertanklevel': 2, 'lightintensity': 9}
Published data Successfully: %s {'watertanklevel': 22, 'lightintensity': 70}
Published data Successfully: %s {'watertanklevel': 54, 'lightintensity': 74}
Published data Successfully: %s {'watertanklevel': 49, 'lightintensity': 61}
Published data Successfully: %s {'watertanklevel': 42, 'lightintensity': 54}
Published data Successfully: %s {'watertanklevel': 78, 'lightintensity': 34}
Published data Successfully: %s {'watertanklevel': 34, 'lightintensity': 18}
Published data Successfully: %s {'watertanklevel': 31, 'lightintensity': 15}
Published data Successfully: %s {'watertanklevel': 56, 'lightintensity': 30}
Published data Successfully: %s {'watertanklevel': 73, 'lightintensity': 50}
Published data Successfully: %s {'watertanklevel': 68, 'lightintensity': 35}
Published data Successfully: %s {'watertanklevel': 10, 'lightintensity': 55}
Published data Successfully: %s {'watertanklevel': 51, 'lightintensity': 96}
Published data Successfully: %s {'watertanklevel': 33, 'lightintensity': 87}
Published data Successfully: %s {'watertanklevel': 79, 'lightintensity': 94}
Published data Successfully: %s {'watertanklevel': 78, 'lightintensity': 48}
Published data Successfully: %s {'watertanklevel': 39, 'lightintensity': 57}
Published data Successfully: %s {'watertanklevel': 75, 'lightintensity': 9}
Published data Successfully: %s {'watertanklevel': 43, 'lightintensity': 57}
Published data Successfully: %s {'watertanklevel': 1, 'lightintensity': 96}
Published data Successfully: %s {'watertanklevel': 55, 'lightintensity': 68}
Published data Successfully: %s {'watertanklevel': 2, 'lightintensity': 41}
Published data Successfully: %s {'watertanklevel': 83, 'lightintensity': 41}
Published data Successfully: %s {'watertanklevel': 56, 'lightintensity': 72}
Published data Successfully: %s {'watertanklevel': 87, 'lightintensity': 75}
Published data Successfully: %s {'watertanklevel': 66, 'lightintensity': 66}
Published data Successfully: %s {'watertanklevel': 10, 'lightintensity': 46}
Published data Successfully: %s {'watertanklevel': 15, 'lightintensity': 50}
Published data Successfully: %s {'watertanklevel': 57, 'lightintensity': 74}
Published data Successfully: %s {'watertanklevel': 51, 'lightintensity': 35}
Published data Successfully: %s {'watertanklevel': 87, 'lightintensity': 27}
Published data Successfully: %s {'watertanklevel': 79, 'lightintensity': 22}
Published data Successfully: %s {'watertanklevel': 14, 'lightintensity': 98}
Published data Successfully: %s {'watertanklevel': 6, 'lightintensity': 18}
Published data Successfully: %s {'watertanklevel': 40, 'lightintensity': 69}
Published data Successfully: %s {'watertanklevel': 27, 'lightintensity': 61}
```

### Uploading Values to the IBM IOT Platform:




```
7/18/2021, 12:23:00 AM node: 441e6128.6d6
iot-2/type/SmartDevice/id/2468/evt/status/fmt/json :
msg.payload : number
```

```
7/18/2021, 12:23:02 AM node: 441e6128.6d6
iot-2/type/SmartDevice/id/2468/evt/status/fmt/json :
msg.payload : Object
```

```
7/18/2021, 12:23:02 AM node: 441e6128.6d6
iot-2/type/SmartDevice/id/2468/evt/status/fmt/json :
msg.payload : number
```

```
7/18/2021, 12:23:02 AM node: 441e6128.6d6
iot-2/type/SmartDevice/id/2468/evt/status/fmt/json :
msg.payload : number
```

```
7/18/2021, 12:23:04 AM node: 441e6128.6d6
iot-2/type/SmartDevice/id/2468/evt/status/fmt/json :
msg.payload : Object
```



**70**  
units

Sensor Data

Water Tank Level



Light Intensity



Sensor Data

Water Tank Level



Light Intensity

