VIT-IOT

(INDUSTRY CERTIFICATE INTERNSHIP PROGRAM)

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.

PYTHON CODE:

```
>>> import wiotp.sdk.device
import time
import random
myConfig = {
"identity": {
"orgId": "d9cbnt",
"typeId": "FirstDevice",
"deviceId":"14831"
},
"auth": {
"token": "Gopinath1752"
}
}
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:
wlevel=random.randint(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()
```

Fig.1 Python code window

CODE:

```
import wiotp.sdk.device
import time
import random
myConfig = {
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"orgId": "d9cbnt",
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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/avina/Desktop/saivardhan/externship/assignmentttt.py ====
2021-07-17 17:18:26,965   wiotp.sdk.device.client.DeviceClient  INFO    Connecte
d successfully: d:d9cbnt:FirstDevice:14831
Published data Successfully: %s {'Water_Level': 41, 'Light_Intensity': 53}
Published data Successfully: %s {'Water_Level': 2, 'Light_Intensity': 4}
Published data Successfully: %s {'Water_Level': 14, 'Light_Intensity': 89}
Published data Successfully: %s {'Water_Level': 1, 'Light_Intensity': 54}
Published data Successfully: %s {'Water_Level': 52, 'Light_Intensity': 97}
Published data Successfully: %s {'Water_Level': 99, 'Light_Intensity': 77}
Published data Successfully: %s {'Water_Level': 30, 'Light_Intensity': 73}
Published data Successfully: %s {'Water_Level': 91, 'Light_Intensity': 85}
Published data Successfully: %s {'Water_Level': 45, 'Light_Intensity': 98}
```

Fig2. Output of the python code→ It is sending some random data values to the device

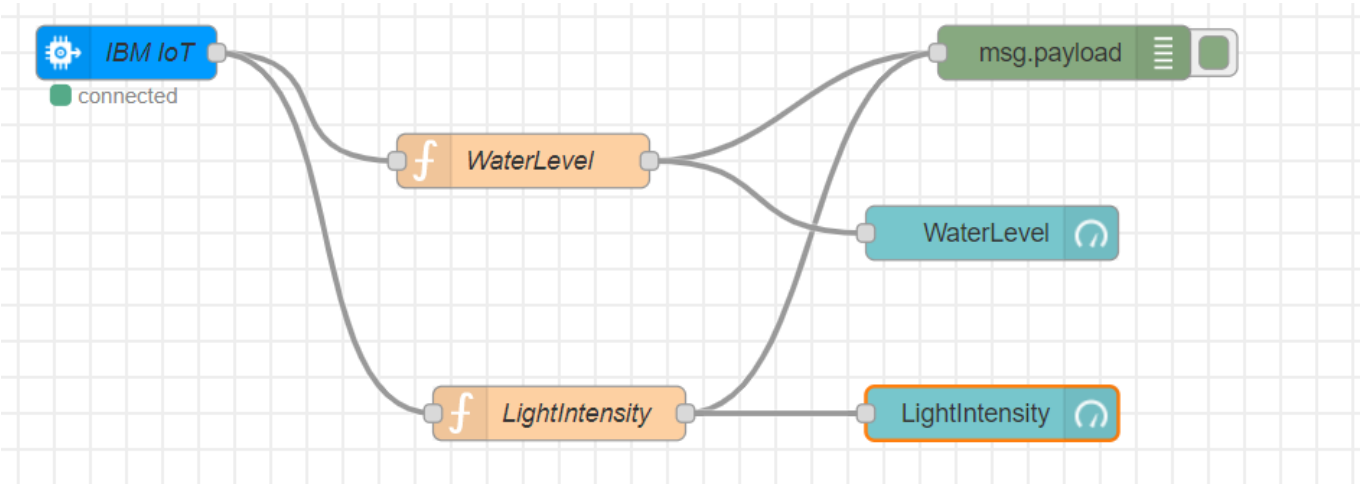

Fig3. Node Red flow chart → In this The IBM IoT Node connects the Device with python code

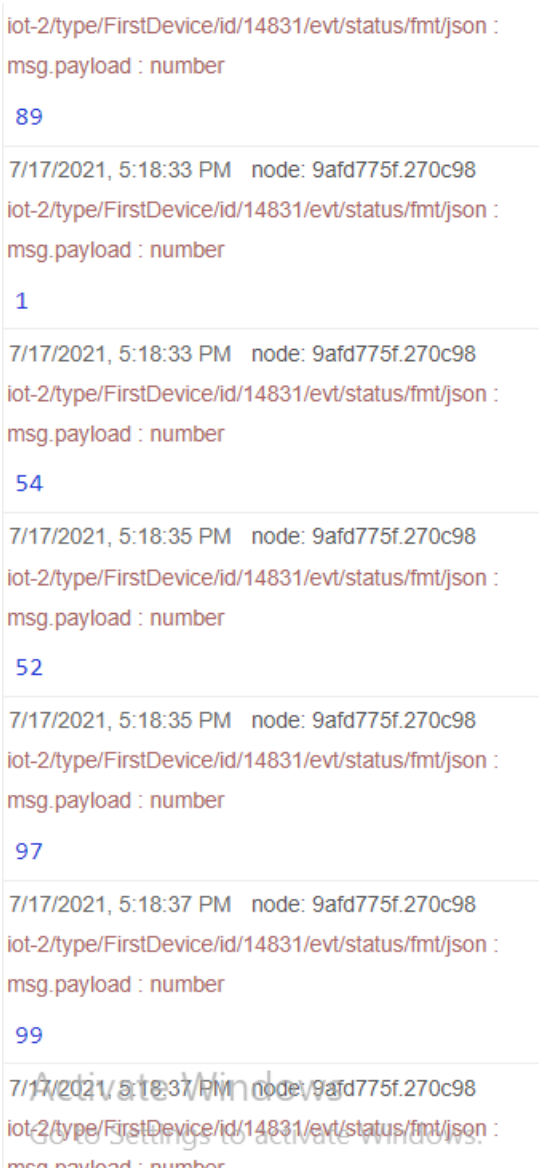

Fig4. Data received successfully from python code