VIT SMART BRIDGE IOT EXTERNSHIP PROGRAM

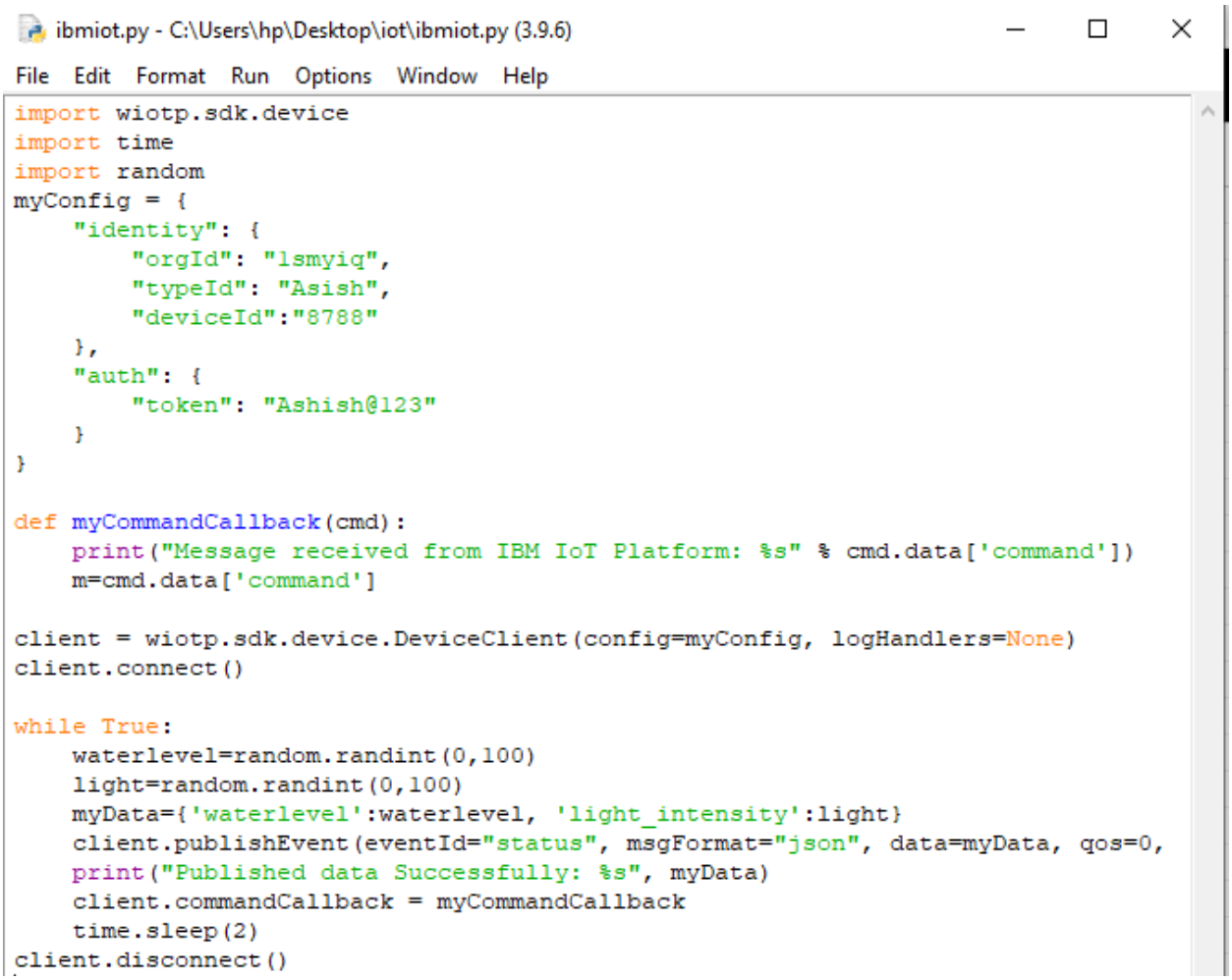
NAME: Javvaji Venkata Asish Rama Sumanth

ashishjavvaji@gmail.com

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.

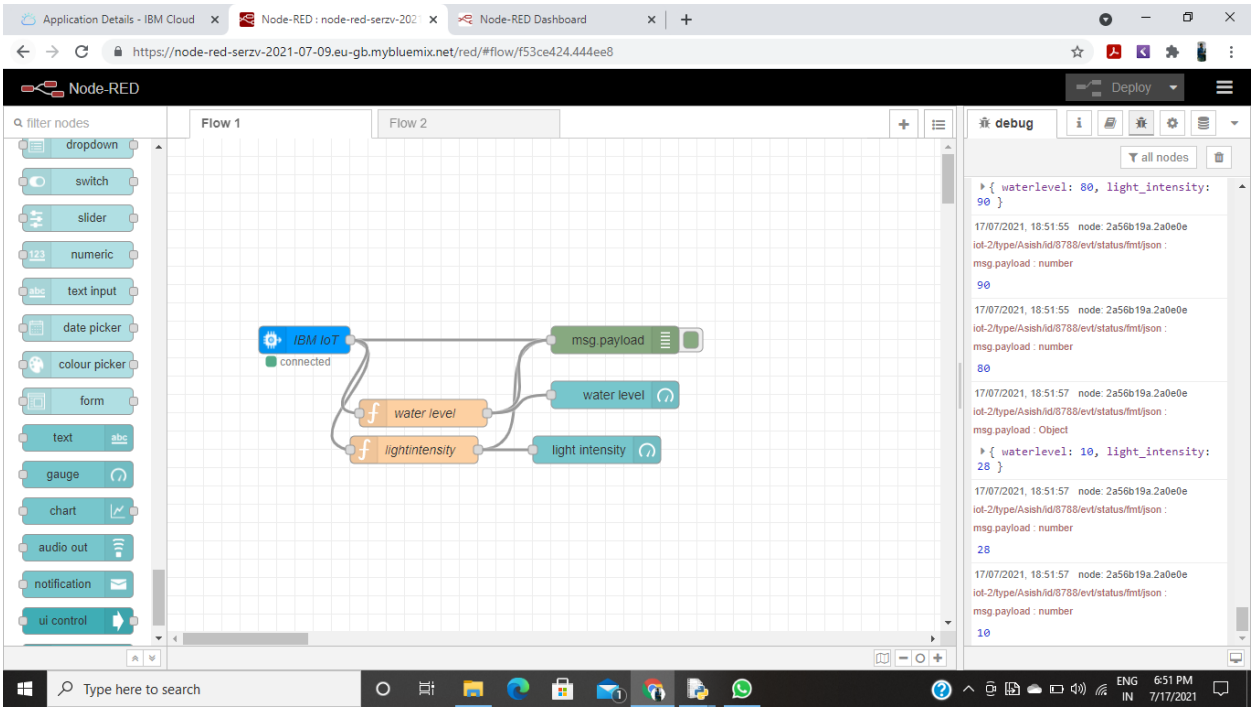
Python code:



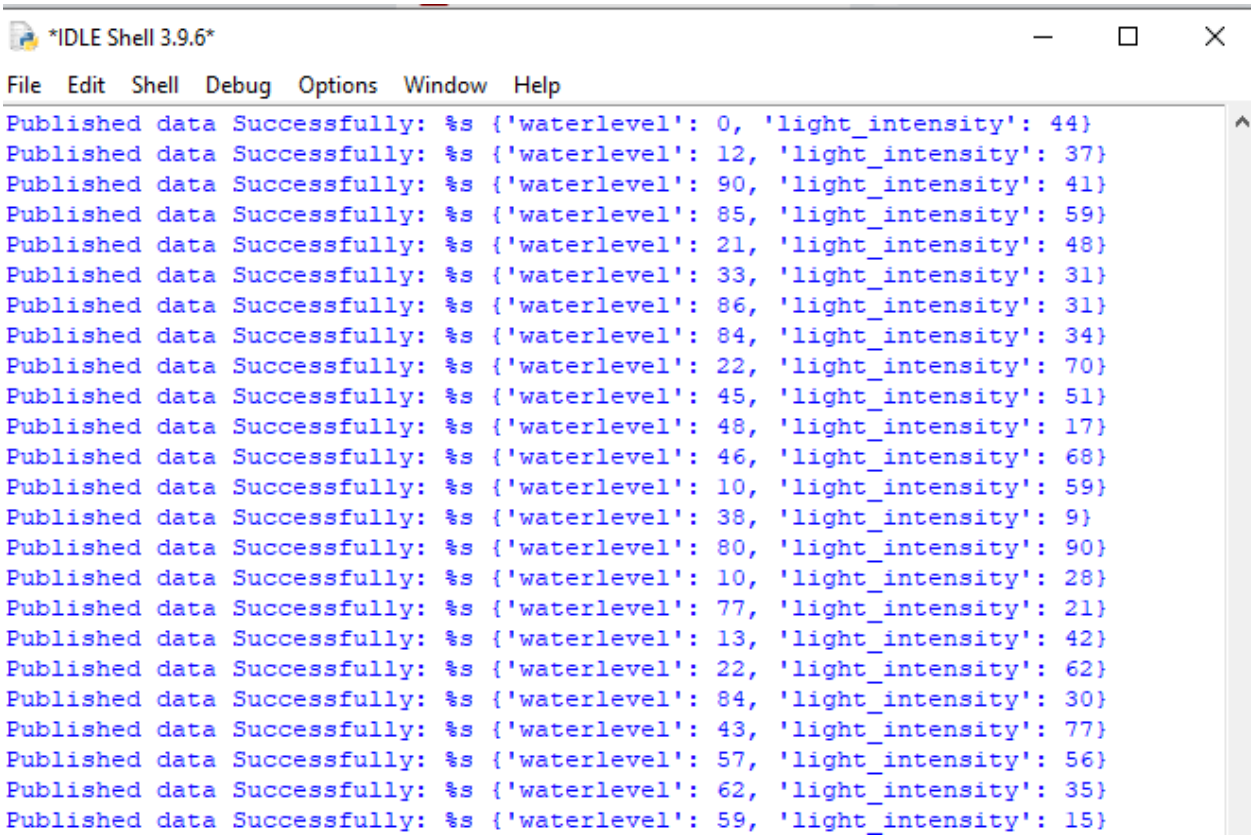
Code:

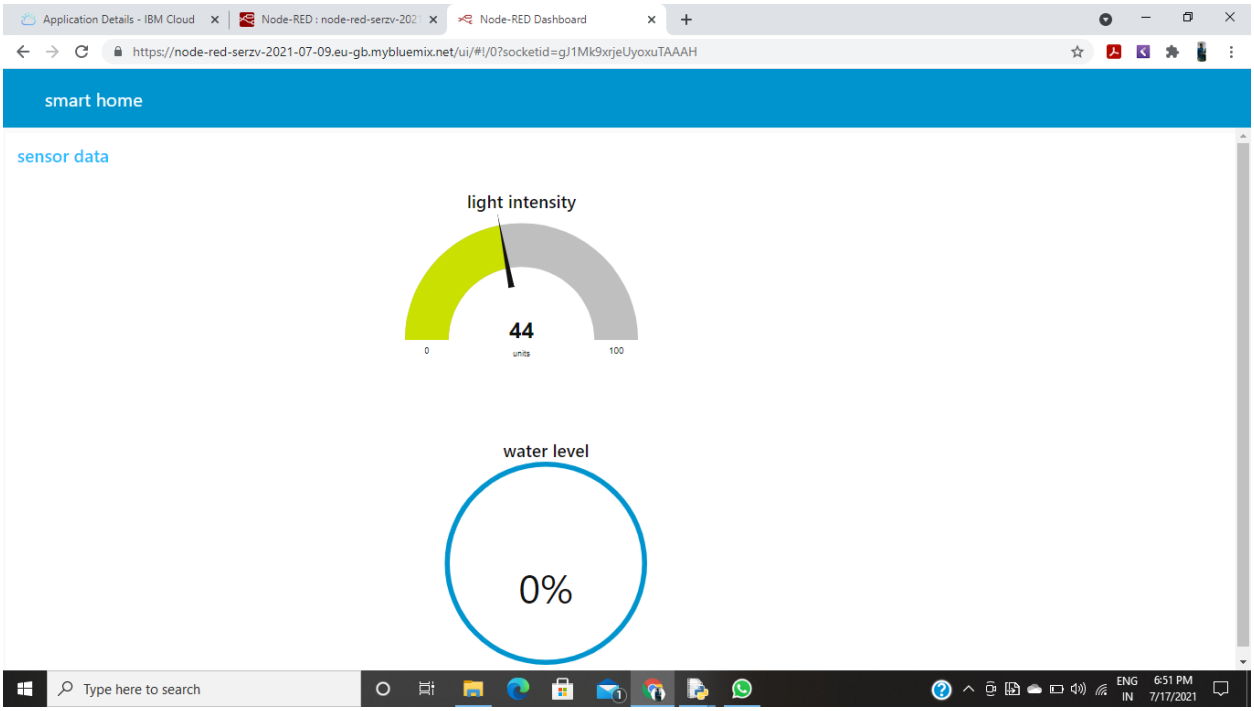
```
import wiotp.sdk.device
```

```
import time
import random
myConfig = {
   "identity": {
      "orgId": "1smyiq",
      "typeId": "Asish",
      "deviceId":"8788"
   },
   "auth": {
      "token": "Ashish@123"
   }
}
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:
   waterlevel=random.randint(0,100)
   light=random.randint(0,100)
   myData={'waterlevel':waterlevel, '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()
```


Application Details - IBM Cloud
Node-RED : node-red-serzv-202
Node-RED Dashboard
https://node-red-serzv-2021-07-09.eu-gb.mybluemix.net/red/#flow/f53ce424.444ee8
Node-RED
Deploy
filter nodes
Flow 1
Flow 2
dropdown
switch
slider
numeric
text input
date picker
colour picker
form
text
gauge
chart
audio out
notification
ui control
IBM IoT
connected
water level
lightintensity
msg.payload
water level
light intensity
debug
all nodes
{ waterlevel: 80, light_intensity: 90 }
17/07/2021, 18:51:55 node: 2a56b19a.2a0e0e
iot-2/type/Asish/id/8788/evt/status/fmt/json : msg.payload : number
90
17/07/2021, 18:51:55 node: 2a56b19a.2a0e0e
iot-2/type/Asish/id/8788/evt/status/fmt/json : msg.payload : number
80
17/07/2021, 18:51:57 node: 2a56b19a.2a0e0e
iot-2/type/Asish/id/8788/evt/status/fmt/json : msg.payload : Object
{ waterlevel: 10, light_intensity: 28 }
17/07/2021, 18:51:57 node: 2a56b19a.2a0e0e
iot-2/type/Asish/id/8788/evt/status/fmt/json : msg.payload : number
28
17/07/2021, 18:51:57 node: 2a56b19a.2a0e0e
iot-2/type/Asish/id/8788/evt/status/fmt/json : msg.payload : number
10
Type here to search
ENG
IN
6:51 PM
7/17/2021

Output:


IDLE Shell 3.9.6
File Edit Shell Debug Options Window Help
Published data Successfully: %s {'waterlevel': 0, 'light_intensity': 44}
Published data Successfully: %s {'waterlevel': 12, 'light_intensity': 37}
Published data Successfully: %s {'waterlevel': 90, 'light_intensity': 41}
Published data Successfully: %s {'waterlevel': 85, 'light_intensity': 59}
Published data Successfully: %s {'waterlevel': 21, 'light_intensity': 48}
Published data Successfully: %s {'waterlevel': 33, 'light_intensity': 31}
Published data Successfully: %s {'waterlevel': 86, 'light_intensity': 31}
Published data Successfully: %s {'waterlevel': 84, 'light_intensity': 34}
Published data Successfully: %s {'waterlevel': 22, 'light_intensity': 70}
Published data Successfully: %s {'waterlevel': 45, 'light_intensity': 51}
Published data Successfully: %s {'waterlevel': 48, 'light_intensity': 17}
Published data Successfully: %s {'waterlevel': 46, 'light_intensity': 68}
Published data Successfully: %s {'waterlevel': 10, 'light_intensity': 59}
Published data Successfully: %s {'waterlevel': 38, 'light_intensity': 9}
Published data Successfully: %s {'waterlevel': 80, 'light_intensity': 90}
Published data Successfully: %s {'waterlevel': 10, 'light_intensity': 28}
Published data Successfully: %s {'waterlevel': 77, 'light_intensity': 21}
Published data Successfully: %s {'waterlevel': 13, 'light_intensity': 42}
Published data Successfully: %s {'waterlevel': 22, 'light_intensity': 62}
Published data Successfully: %s {'waterlevel': 84, 'light_intensity': 30}
Published data Successfully: %s {'waterlevel': 43, 'light_intensity': 77}
Published data Successfully: %s {'waterlevel': 57, 'light_intensity': 56}
Published data Successfully: %s {'waterlevel': 62, 'light_intensity': 35}
Published data Successfully: %s {'waterlevel': 59, 'light_intensity': 15}



https://node-red-serzv-2021-07-09.eu-gb.mybluemix.net/ui/#!/0?socketid=gJ1Mk9xrjeUyoxuTAAAH