SPRINT-2

DEVELOP THE PYTHON SCRIPT

TEAM ID	PNT2022TMID48248
PROJECT NAME	Real time river water quality monitoring and control system

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PYTHON CODE :

```
File  Edit  Format  Run  Options  Window  Help
import random
import time
import sys
import ibmiotf.application
import ibmiotf.device



#Provide your IBM Watson Device Credentials
organization ="avu8gg"
deviceType = "Nodered"
deviceId = "12345"
authMethod = "use-token-auth"
authToken = "12345678"

# Initialize GPIO


def myCommandCallback(cmd):
     print("command received: %s" % cmd.data['command'])
     status=cmd.data['command']

     if status == 'lighton':
         print ("LIGHT ON")
     elif status == 'lightoff' :
         print ("LIGHT OFF")
     else:
         print ("please send proper command")



try:
        deviceOptions = {"org": organization, "type": deviceType, "id": deviceId, "auth-method": authMethod, "auth-token": authToken}
        deviceCli = ibmiotf.device.Client(deviceOptions)
        #.....................................................

except Exception as e:
        print("caught exception connecting device: %s" % str(e))
        sys.exit()

# Connect and send a datapoint "hello" with value "world" into the cloud as an event of type "greeting" 10 times
deviceCli.connect()

while True:
```

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File  Edit  Format  Run  Options  Window  Help
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# Connect and send a datapoint "hello" with value "world" into the cloud as an event of type "greeting" 10 times
deviceCli.connect()

while True:
        #Get Sensor Data from DHT11
        pH=random.randint(0,100)
        T=random.randint(0,100)
        conductivity=random.randint(0,100)
        Turbidity=random.randint(0,100)
        oxygen=random.randint(0,100)

        Data = { 'PH' :pH , 'Temperture': t,'Conductivity':conductivity,'Turbidity':Turbidity,'oxygen': oxygen }
        #print data
        def myOnPublishCallback():
            Print ("published data" ,data,"to IBM Waston")

        success = deviceCli.publishEvent("event", "json", data, 0, myOnPublishCallback)
        if not success:
            print("Not connected to IoTF")
        time.sleep(5)

        deviceCli.commandCallback = myCommandCallback

# Disconnect the device and application from the cloud
```