

Develop a python script

Date	20October2022
Team id	PNT2022TMID41415
Project Title	Real Time River Water Quality Monitor and control system
Marks	

Python code

```
import ibmiotf.application
import ibmiotf.device
import time
import random
import sys

#ibm watson device credentials

organization="srkld6"
deviceType="RiverWater"
deviceid="Monitoring"
authMethod="token"
authToken="87654321"

#generate random values for pH and turbidity
def myCommandCallback(cmd):
    print ("command received: %s" %cmd.data['command'])
    status=cmd.data['command']
    if status=="lighton":
        print("led is on")
    elif status=="lightoff":
        print("led is off")
    else:
        print (cmd)
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 sending data into cloud
deviceCli.connect()

while True:

    pH=random.randint(0,14)
    turb=random.randint(0,100)
```

Develop a python script

```
data={'pHValue':pH,'Turbidity Value':turb}
print(data)
def myOnPublishCallBack():
    print("pH Value of Water %s " %pH)
    print("Turbidity Value of Water %s " %turb)

success=deviceCli.publishEvent("IoTSensor","json",data,qos=0,on_publish=myOnPublishCallBack)
if not success:
    print ("Not connected to IoT")
    time.sleep(10)

deviceCli.commandCallback=myCommandCallback

#disconnect the device from the cloud

deviceCli.connect()
```