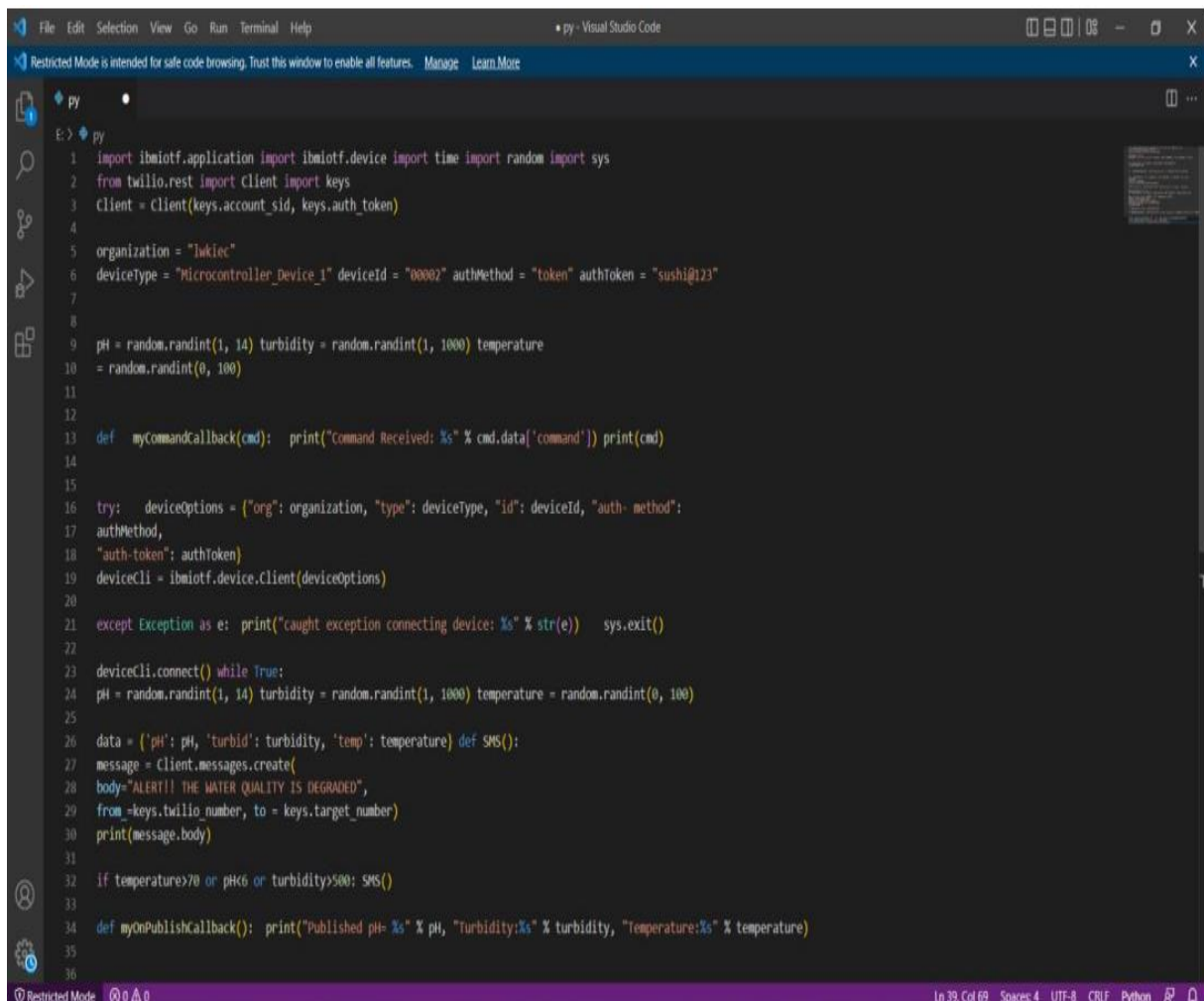


# PUBLISH DATA TO THE IBM CLOUD

<b>TEAM ID</b>	PNT2022TMID23838
<b>Project Name</b>	REAL-TIME RIVER WATER QUALITY MONITORING AND CONTROL SYSTEM
<b>Leader Name</b>	BHUVANESHWARI SRIDHAR S
<b>Team Members Name</b>	BAVANI P DIVEDHA V KAVIYARASI P



```
1 import ibmiotf.application import ibmiotf.device import time import random import sys
2 from twilio.rest import Client import keys
3 Client = Client(keys.account_sid, keys.auth_token)
4
5 organization = "Iwkiec"
6 deviceType = "Microcontroller_Device_1" deviceId = "00002" authMethod = "token" authToken = "sushi@123"
7
8
9 pH = random.randint(1, 14) turbidity = random.randint(1, 1000) temperature
10 = random.randint(0, 100)
11
12
13 def myCommandCallback(cmd): print("Command Received: %s" % cmd.data['command']) print(cmd)
14
15
16 try: deviceOptions = {"org": organization, "type": deviceType, "id": deviceId, "auth- method":
17 authMethod,
18 "auth-token": authToken}
19 deviceCli = ibmiotf.device.Client(deviceOptions)
20
21 except Exception as e: print("caught exception connecting device: %s" % str(e)) sys.exit()
22
23 deviceCli.connect() while True:
24 pH = random.randint(1, 14) turbidity = random.randint(1, 1000) temperature = random.randint(0, 100)
25
26 data = {'pH': pH, 'turbid': turbidity, 'temp': temperature} def SMS():
27 message = Client.messages.create(
28 body="ALERT!! THE WATER QUALITY IS DEGRADED",
29 from_=keys.twilio_number, to = keys.target_number)
30 print(message.body)
31
32 if temperature>70 or pH<6 or turbidity>500: SMS()
33
34 def myOnPublishCallback(): print("Published pH= %s" % pH, "Turbidity:%s" % turbidity, "Temperature:%s" % temperature)
35
36
```

Test\_Python\_3.7.4Test\_python\_3.7.4.pyTest\_python\_3.7.4Test\_python\_3.7.4

Project

Test\_Python\_3.7.4 - jupyterProjects/Test\_Pyth  
d\_hwlec\_Microcontroller\_Device\_1\_00002.log  
main.py  
Test\_python\_3.7.4.py  
External Libraries  
Scratches and Consoles

```
42 pH = random.r
43 turbidity = random.randint(1,
44 temperature = random.randint(0
45
46 data = {'pH': pH, 'turbid': tur
47
48
49 # print(data)
50 def myOnPublishCallback():
    while True
```

Run: Test\_python\_3.7.4  
Published pH= 4 Turbidity:242 Temperature:71  
Published pH= 12 Turbidity:564 Temperature:54  
Published pH= 2 Turbidity:571 Temperature:98  
Published pH= 7 Turbidity:677 Temperature:65  
Published pH= 8 Turbidity:352 Temperature:13  
Published pH= 5 Turbidity:862 Temperature:88  
Published pH= 3 Turbidity:834 Temperature:7  
Published pH= 9 Turbidity:213 Temperature:89  
Published pH= 14 Turbidity:677 Temperature:22  
Published pH= 11 Turbidity:292 Temperature:160  
Published pH= 2 Turbidity:53 Temperature:21  
Published pH= 6 Turbidity:409 Temperature:69  
Published pH= 11 Turbidity:238 Temperature:26  
Published pH= 2 Turbidity:443 Temperature:43  
Published pH= 6 Turbidity:986 Temperature:91  
Published pH= 5 Turbidity:593 Temperature:85  
Published pH= 14 Turbidity:388 Temperature:86  
Published pH= 4 Turbidity:532 Temperature:8  
Published pH= 1 Turbidity:84 Temperature:8

IBM Watson IoT Platform

BrowseActionDevice TypesInterfacesAdd Device

The recent events listed show the live stream of data that is coming an

Event	Value
demo	{"pH":12,"turbid":93,"temp":87}
demo	{"pH":7,"turbid":873,"temp":94}
demo	{"pH":3,"turbid":204,"temp":19}
demo	{"pH":11,"turbid":304,"temp":77}
demo	{"pH":13,"turbid":16,"temp":50}

> 00003 Disconnected Micro\_controller\_2 Devi

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