PYTHON SOURCE CODE

Simulated Code:

Code:

```python
import ibmiotf.device
import ibmiotf.application
import time
import random
import sys
from twilio.rest import Client
import keys
Client = Client(keys.account_sid, keys.auth_token)
organization = "luicm6"
deviceType = "ThisDevice"
deviceId = "12309"
authMethod = "token"
authToken = "V2oLr-jJK48pMO8rHx"
pH = random.randint(1, 14)
turbidity = random.randint(1, 1000)
def myCommandCallback(cmd):
    print("Command Received: %s" % cmd.data['command'])
    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:
```
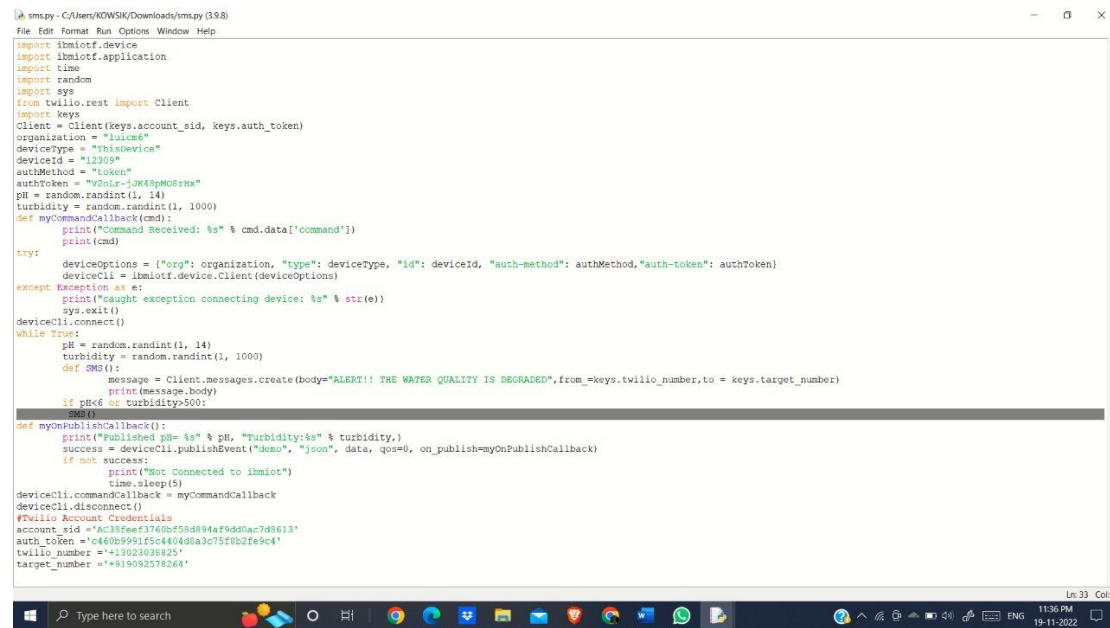
```python
        print("caught exception connecting device: %s" % str(e))
        sys.exit()
deviceCli.connect()
while True:
    pH = random.randint(1, 14)
    turbidity = random.randint(1, 1000)
def SMS():
    message = Client.messages.create(body="ALERT!! THE WATER
QUALITY IS DEGRADED",from_=keys.twilio_number,to =
keys.target_number)
    print(message.body)
if pH<6 or turbidity>500:
    SMS()
def myOnPublishCallback():
    print("Published pH= %s" % pH, "Turbidity:%s" % turbidity,)
    success = deviceCli.publishEvent("demo", "json", data, qos=0,
on_publish=myOnPublishCallback)
    if not success:
        print("Not Connected to ibmiot")
        time.sleep(5)
deviceCli.commandCallback = myCommandCallback
deviceCli.disconnect()
#Twilio Account Credentials
account_sid ='AC38feef3760bf58d894af9dd0ac7d8613'
auth_token ='c460b9991f5c4404d8a3c75f8b2fe9c4'
twilio_number ='+13023038825'
target_number ='+919092578264'
```