

SPRINT 2

Python code:

```
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 = "15rapi"
deviceType = "abc"
deviceId = "123"
authMethod = "token"
authToken = "12345678"
```

```
pH = random.randint(1, 14)
turbidity = random.randint(1, 1000)
temperature = random.randint(0, 100)
```

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

```
deviceCli.connect()
```

```
while True:
```

```
    pH = random.randint(1, 14)
    turbidity = random.randint(1, 1000)
    temperature = random.randint(0, 100)
```

```
    data = {'pH': pH, 'turbid': turbidity, 'temp': temperature}
```

```

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 temperature>70 or pH<6 or turbidity>500:
    SMS()

def myOnPublishCallback():
    print("Published pH= %s" % pH, "Turbidity:%s" % turbidity, "Temperature:%s" %
temperature)

    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 ='AC674a168fa92e54f2830009d96f9676dc'
auth_token ='a0127bca9a184493c92a4f6e5db2c91b'
twilio_number =' +15133275826'
target_number =' +919361564622'

```