## **PYTHON SOURCE CODE**

## **Simulated Code:**

## 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 = "y6lllb"
deviceType = "ThisDevice"
deviceId = "1105"
authMethod = "use-
token-auth"
authToken =
"ZL6oKKhTAfMQaaa8DQ"
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:
```

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```
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'
```