PYTHON CODE

TEAM ID	PNT2022TMID23839
Project Name	REAL-TIME RIVER WATER MONITORING AND CONTROL SYSTEM
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```python
import ibmiotf.application import ibmiotf.device import time import random import sys
from twilio.rest import Client import keys
Client = Client(keys.account_sid, keys.auth_token)

organization = "lwkiec"
deviceType = "Microcontroller_Device_1" deviceId = "00002" authMethod = "token" authToken = "sushi@123"


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)
```