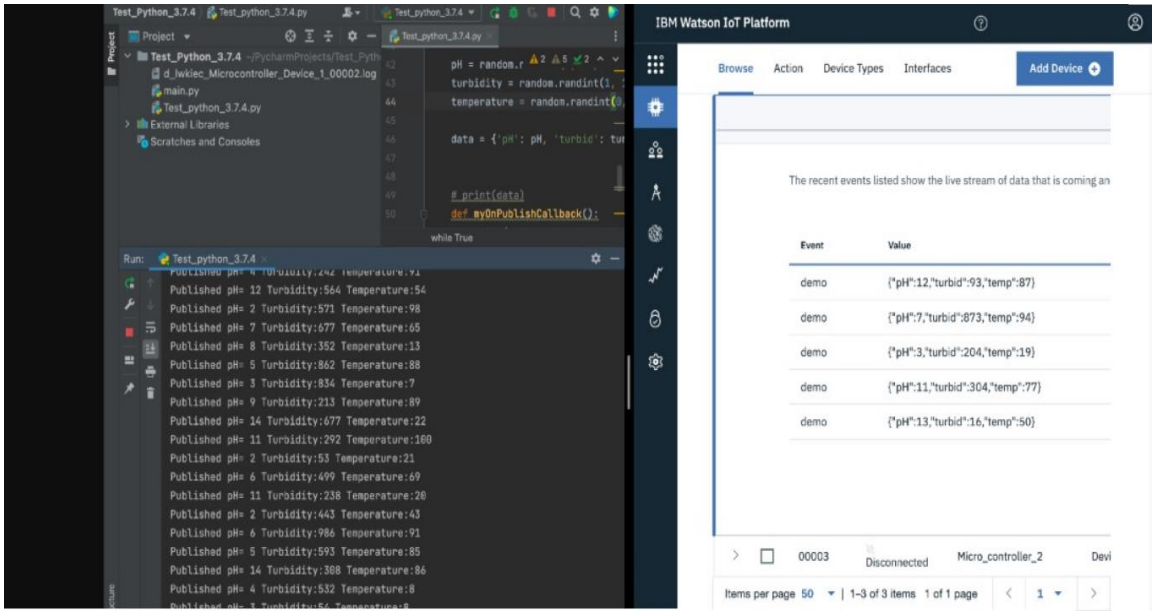
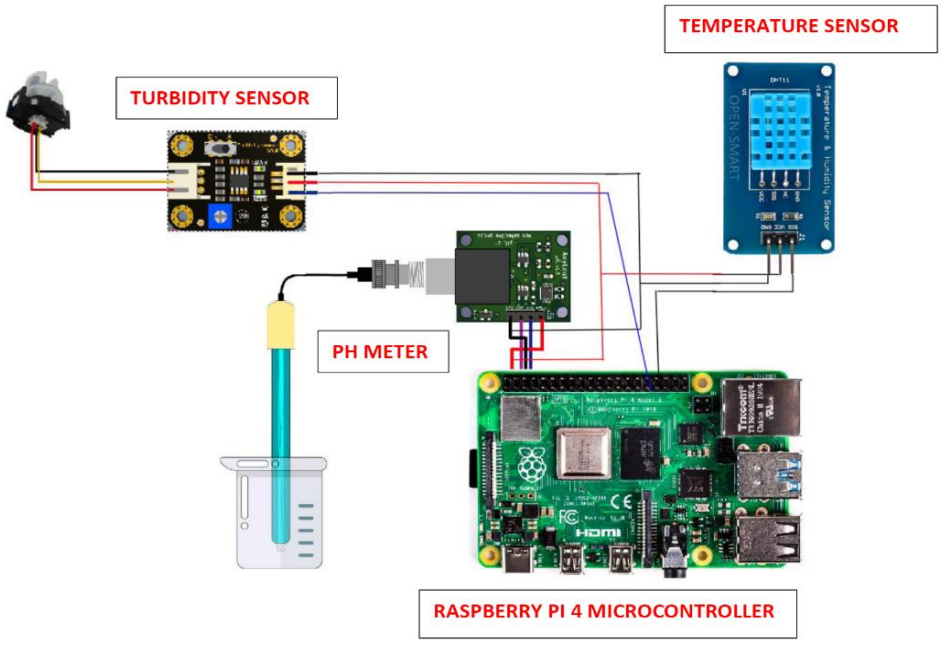
SPRINT 2

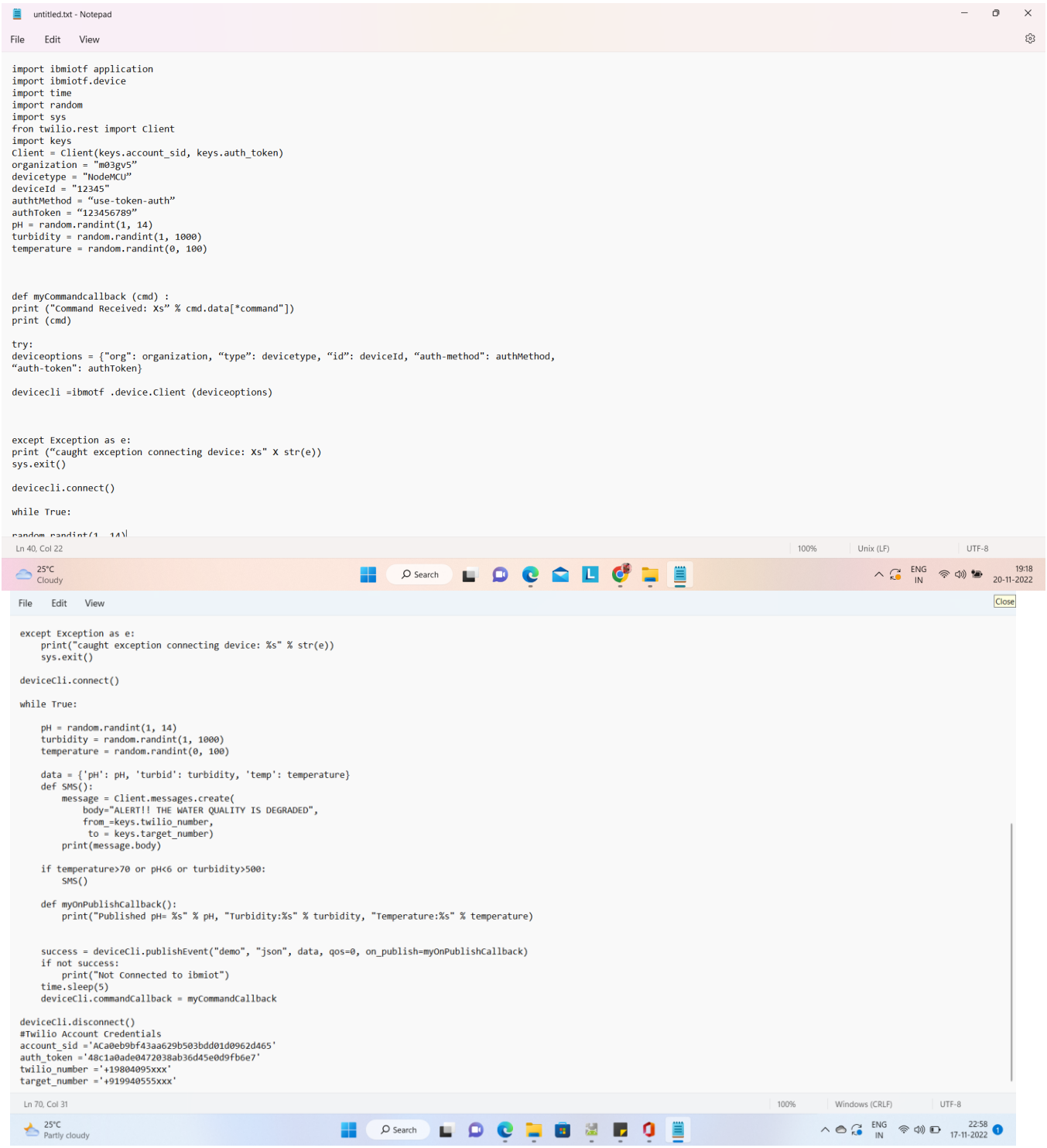
IBM CLOUD



CIRCUIT DAIGRAM



CODING



untitled.txt - Notepad

File Edit View

```
import ibmiotf application
import ibmiotf.device
import time
import random
import sys
fron twilio.rest import Client
import keys
Client = Client(keys.account_sid, keys.auth_token)
organization = "m03gv5”
devicetype = "NodeMCU”
deviceId = "12345"
authtMethod = “use-token-auth”
authToken = “123456789”
pH = random.randint(1, 14)
turbidity = random.randint(1, 1000)
temperature = random.randint(0, 100)


def myCommandcallback (cmd) :
print ("Command Received: Xs” % cmd.data[*command"])
print (cmd)

try:
deviceoptions = {"org": organization, “type”: devicetype, “id”: deviceId, “auth-method”: authMethod,
“auth-token”: authToken}

devicecli =ibmotf .device.Client (deviceoptions)



except Exception as e:
print (“caught exception connecting device: Xs" X str(e))
sys.exit()

devicecli.connect()

while True:

random.randint(1, 14)
```

Ln 40, Col 22 100% Unix (LF) UTF-8

25°C Cloudy Search ENG IN 19:18 20-11-2022

File Edit View Close

```
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 ='ACa0eb9bf43aa629b503bdd01d0962d465'
auth_token ='48c1a0ade0472038ab36d45e0d9fb6e7'
twilio_number ='+19804095xxx'
target_number ='+919940555xxx'
```

Ln 70, Col 31 100% Windows (CRLF) UTF-8

25°C Partly cloudy Search ENG IN 22:58 17-11-2022