

SPRINT 4

Date	17 November 2022
Team ID	PNT2022TMID32705
Project Name	Real time River Water Quality Monitoring And Control System

STEP 1 :

Python code to connect IBM WATSON

#IBM Watson IOT Platform

#pip install wiotp-sdk

import wiotp.sdk.device

import time

import random

myConfig = {

"identity": {

"orgId": "pyvd3r",

"typeId": "waterquality",

"deviceId": "1357911"

},

"auth": {

"token": "Aarthi0908"

}

}

def myCommandCallback(cmd):

print("Message received from IBM IoT Platform: %s" % cmd.data['command'])

m=cmd.data['command']

client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)

client.connect()

while True:

temp=random.randint(-20,125)

hum=random.randint(0,100)

myData={'temperature':temp, 'humidity':hum}

```
client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)  
print("Published data Successfully: %s", myData)  
client.commandCallback = myCommandCallback  
time.sleep(2)  
client.disconnect()
```

STEP 2 :

Publish Watson data to the Node-red and connect with Twilio Account to send SMS

STEP 3 :

Information about the water quality sent from Twilio Account to Higher Authority via SMS

The screenshot displays the Twilio Console interface, specifically the API Explorer for an outbound API message. The left sidebar shows the navigation menu with 'API Explorer' selected. The main area is divided into two panels: the configuration panel on the left and the response panel on the right.

Configuration Panel (Conditional):

- FROM:** +18176705441 - (817) 670-5441
- MESSAGING SERVICE SID:** (Empty field)
- BODY:** Low Water Quality Detected Due To High pH Level An
- MEDIA URL:** (Empty field)
- Optional:**
 - STATUS CALLBACK:** (Empty field)
 - APPLICATION SID:** (Empty field)

Response Panel:

- Show your Auth Token:** (Link to check out the curl manpage)
- curl command:**

```
curl 'https://api.twilio.com/2010-04-01/Accounts/AC2f35bc97048c9abb2368f' \
--data-urlencode 'To=+918610214540' \
--data-urlencode 'From=+18176705441' \
--data-urlencode 'Body=Low Water Quality Detected Due To High pH Level A' \
-u AC2f35bc97048c9abb2368fc243b07fcbc:[AuthToken]
```
- Response:** 201 - CREATED - The request was successful. We created a new resource and the response body contains the representation.
- Response Body (JSON):**

```
{
  "body": "Sent from your Twilio trial account - Low Water Quality Detected Due To High pH Level And Humidity.Consider TURN OFF The MOT OR",
  "num_segments": "1",
  "direction": "outbound-api",
  "from": "+18176705441",
  "date_updated": "Thu, 17 Nov 2022 14:51:55 +0000",
  "price": null,
  "status": "queued"
}
```

STEP 4 :

SMS Received to Higher Authority



