

Create an HTTP Request to Communicate With Mobile App:

Date	17 th November 2022
Team ID	PNT2022TMID15034
Project Name	IOT Based Real-Time River Water Quality Monitoring and Control System
Maximum Marks	4 Mark

The screenshot displays a Python IDE with a project named 'pythonProject1'. The main.py file contains the following code:

```
1 #IBM Watson IoT Platform
2 #pip install wiotp-sdk
3 import wiotp.sdk.device
4 import time
5 import random
6 myConfig = {
7     "identity": {
8         "orgId": "93egjg",
9         "typeId": "MyDeviceType",
10        "deviceId": "12345"
11    },
12    "auth": {
13        "token": "12345678"
14    }
15 }
16
17 def myCommandCallback(cmd):
18     print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
19     m=cmd.data['command']
20     if(m=="LIGHT_ON"):
21         print("***** LIGHTS ARE ON")
22     else:
23         print("***** LIGHTS ARE OFF")
24
25 client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
26 client.connect()
27
28 while True:
29     tur=random.randint(0,100)
30     ph=random.randint(1,14)
31     myData={'turbidity':tur, 'Ph_Value':ph}
32     client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
33     print("Published data Successfully: %s", myData)
34     client.commandCallback = myCommandCallback
35     time.sleep(2)
36     client.disconnect()
```

The console output shows the following sequence of events:

```
Message received from IBM IoT Platform: lightoff
***** LIGHTS ARE OFF
Published data Successfully: %s {'turbidity': 19, 'Ph_Value': 4}
Message received from IBM IoT Platform: lightoff
***** LIGHTS ARE OFF
Published data Successfully: %s {'turbidity': 85, 'Ph_Value': 3}
Published data Successfully: %s {'turbidity': 99, 'Ph_Value': 7}
Published data Successfully: %s {'turbidity': 33, 'Ph_Value': 2}
Published data Successfully: %s {'turbidity': 87, 'Ph_Value': 14}
Published data Successfully: %s {'turbidity': 28, 'Ph_Value': 5}
Published data Successfully: %s {'turbidity': 25, 'Ph_Value': 7}
Published data Successfully: %s {'turbidity': 69, 'Ph_Value': 9}
Published data Successfully: %s {'turbidity': 87, 'Ph_Value': 3}
Published data Successfully: %s {'turbidity': 44, 'Ph_Value': 7}
Published data Successfully: %s {'turbidity': 34, 'Ph_Value': 8}
Published data Successfully: %s {'turbidity': 93, 'Ph_Value': 12}
Published data Successfully: %s {'turbidity': 44, 'Ph_Value': 6}
Published data Successfully: %s {'turbidity': 55, 'Ph_Value': 10}
Published data Successfully: %s {'turbidity': 78, 'Ph_Value': 8}
Published data Successfully: %s {'turbidity': 75, 'Ph_Value': 14}
Message received from IBM IoT Platform: lighton
***** LIGHTS ARE OFF
Published data Successfully: %s {'turbidity': 78, 'Ph_Value': 4}
Message received from IBM IoT Platform: lighton
***** LIGHTS ARE OFF
Message received from IBM IoT Platform: lighton
***** LIGHTS ARE OFF
Published data Successfully: %s {'turbidity': 85, 'Ph_Value': 13}
Published data Successfully: %s {'turbidity': 96, 'Ph_Value': 7}
Published data Successfully: %s {'turbidity': 34, 'Ph_Value': 4}
Published data Successfully: %s {'turbidity': 47, 'Ph_Value': 11}
Message received from IBM IoT Platform: lightoff
***** LIGHTS ARE OFF
Message received from IBM IoT Platform: lightoff
***** LIGHTS ARE OFF
Published data Successfully: %s {'turbidity': 86, 'Ph_Value': 13}
Published data Successfully: %s {'turbidity': 22, 'Ph_Value': 7}
Published data Successfully: %s {'turbidity': 33, 'Ph_Value': 9}
```

The status bar at the bottom indicates: Packages installed successfully: Installed packages: wiotp-sdk (today 17:24). The bottom right corner shows the time 23:45, encoding CRLF, UTF-8, 4 spaces, and the language Python.

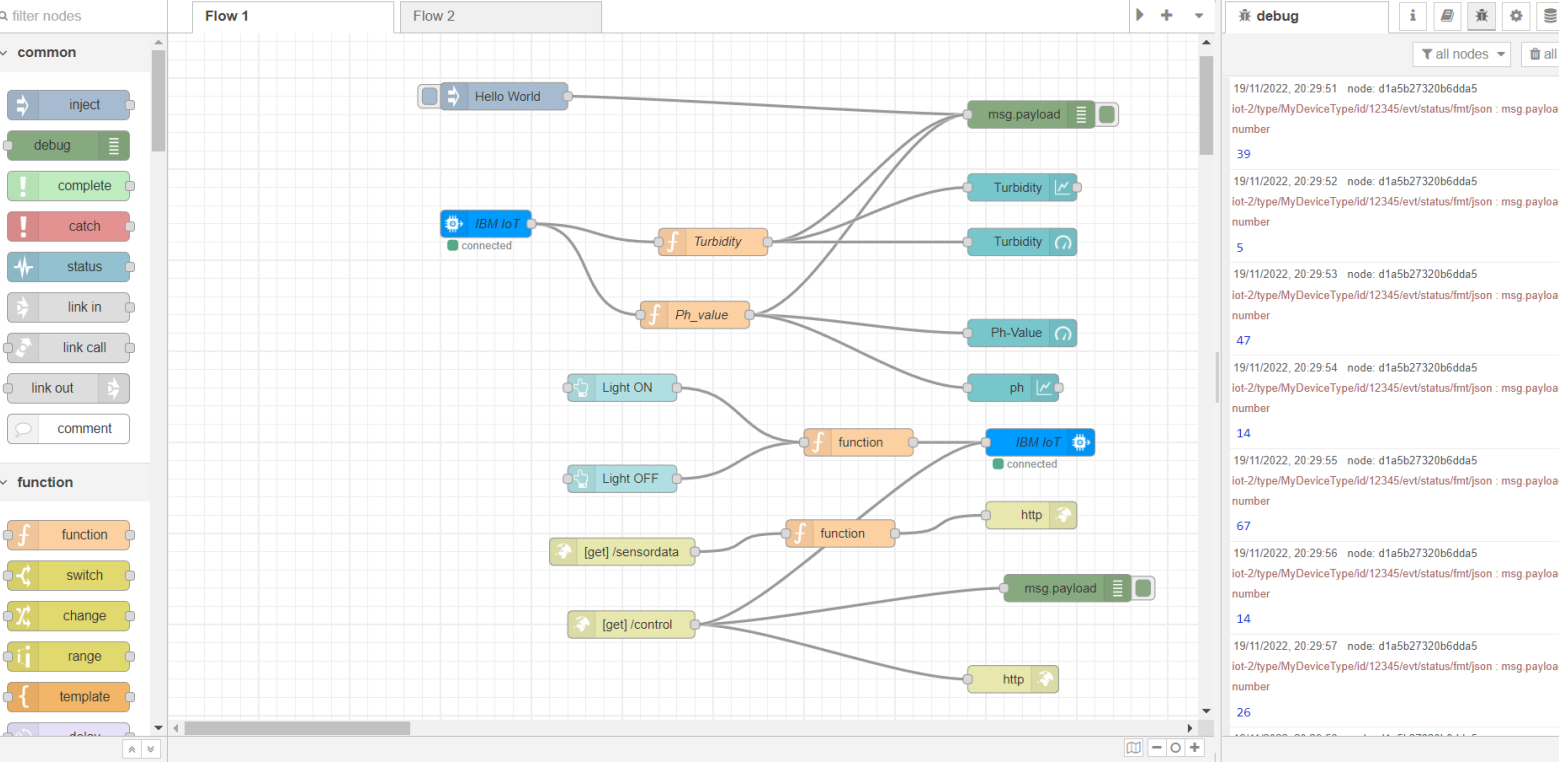
Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location	Added By
12345	Connected	MyDeviceType	Device	19 Nov 2022 15:09		sprateekcs01@gmail.com

Identity Device Information Recent Events State Logs

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
status	{"turbidity":55,"Ph_Value":3}	json	a few seconds ago
status	{"turbidity":47,"Ph_Value":5}	json	a few seconds ago
status	{"turbidity":52,"Ph_Value":1}	json	a few seconds ago
status	{"turbidity":9,"Ph_Value":9}	json	a few seconds ago
status	{"turbidity":73,"Ph_Value":14}	json	a few seconds ago

0 Simulations running

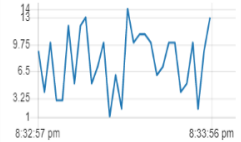


{ "command": "lightoff" }

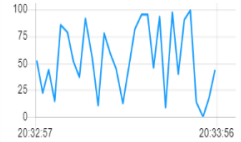
{ "turbidity": 92, "Ph_Value": 8 }

Ph-value

ph



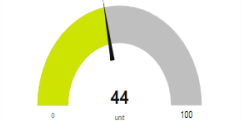
Turbidity



LIGHT ON

LIGHT OFF

Turbidity



Ph-Value

