PYTHON CODE TO PUBLISH DATA TO IBM CLOUD

Team ID	PNT2022TMID18536
Project Name	GAS LEAKAGE MONITORING AND ALERTING SYSTEM FOR INDUSTRIES

```python
#IBM Watson IOT Platform

#pip install wiotp-sdk

import wiotp.sdk.device

import time

import random

myConfig = {

  "identity": {

"orgId": "juel0b",

"typeId": "NodeMCU",

"deviceId":"12345"

  },

  "auth": {

"token": "12345678"

}

}

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:

  gas=random.randint(0,100)

  temp=random.randint(0,100)

  hum=random.randint(0,100)
```

```
pre=random.randint(0,100)

myData={

'Hazardous Gas':gas,

'Temperature':temp,

'Humidity':hum,

'Pressure':pre

}

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()
```
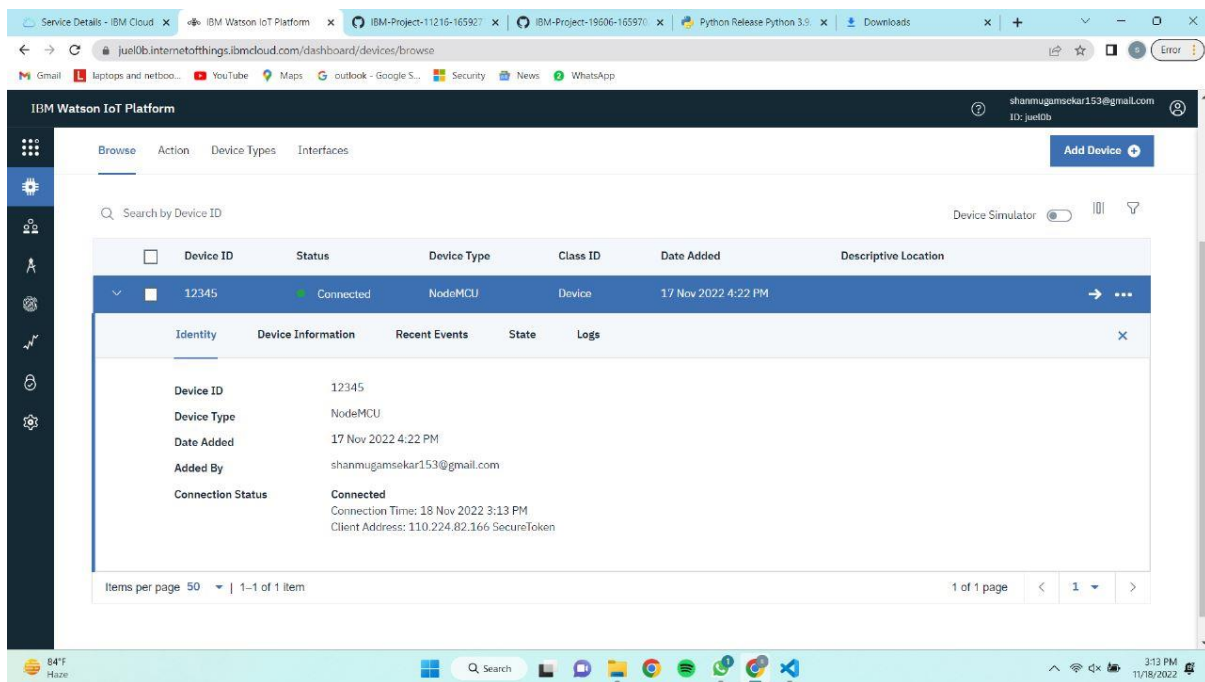
IBM Watson IoT Platform

Browse Action Device Types Interfaces   Add Device

☐ Device ID   Status   Device Type   Class ID   Date Added   Descriptive Location

12345   ● Connected   NodeMCU   Device   17 Nov 2022 4:22 PM

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   {"Hazardous Gas":33,"Temperature":56,"Humidit...   json   a few seconds ago
status   {"Hazardous Gas":96,"Temperature":93,"Humidit...   json   a few seconds ago
status   {"Hazardous Gas":44,"Temperature":55,"Humidit...   json   a few seconds ago
status   {"Hazardous Gas":92,"Temperature":23,"Humidit...   json   a few seconds ago
status   {"Hazardous Gas":19,"Temperature":0,"Humidity...   json   a few seconds ago

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```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER

Published data Successfully: %s {'Hazardous Gas': 22, 'Temperature': 43, 'Humidity': 93, 'Pressure': 5}
Published data Successfully: %s {'Hazardous Gas': 57, 'Temperature': 62, 'Humidity': 73, 'Pressure': 96}
Published data Successfully: %s {'Hazardous Gas': 33, 'Temperature': 89, 'Humidity': 1, 'Pressure': 71}
Published data Successfully: %s {'Hazardous Gas': 75, 'Temperature': 5, 'Humidity': 21, 'Pressure': 83}
Published data Successfully: %s {'Hazardous Gas': 95, 'Temperature': 5, 'Humidity': 96, 'Pressure': 67}
Published data Successfully: %s {'Hazardous Gas': 14, 'Temperature': 12, 'Humidity': 4, 'Pressure': 94}
Published data Successfully: %s {'Hazardous Gas': 5, 'Temperature': 27, 'Humidity': 44, 'Pressure': 4}
Published data Successfully: %s {'Hazardous Gas': 6, 'Temperature': 78, 'Humidity': 38, 'Pressure': 17}
Published data Successfully: %s {'Hazardous Gas': 31, 'Temperature': 63, 'Humidity': 52, 'Pressure': 59}
Published data Successfully: %s {'Hazardous Gas': 0, 'Temperature': 8, 'Humidity': 13, 'Pressure': 55}
Published data Successfully: %s {'Hazardous Gas': 58, 'Temperature': 27, 'Humidity': 8, 'Pressure': 7}