

## PUSHING DATA TO THE CLOUD

Team ID	PNT2022TMID06927
Project Name	Gas Leakage Detection and Alerting System for Industries

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GasLeakageDetectionAndAlerting\BMioTPublishSubscribe.py - C:\Users\Gowtham S\AppData\Local\Programs\Python\Python37\GasLeakageDetectionAndAlerting\BMioTPublishSubscribe.py (3.7.0)
File Edit Format Run Options Window Help

import time
import sys
import ibmiotf.application
import ibmiotf.device
import random

organization = "bbs7ek"
deviceType = "ESP32"
deviceId = "123"
authMethod = "token"
authToken = "1234567890"

def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
    status=cmd.data['command']
    if status=="lighton":
        print ("led is on")
    elif status == "lightoff":
        print ("led is off")
    else :
        print ("please send proper command")

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()

# Connect and send a datapoint "hello" with value "world" into the cloud as an event of type "greeting" 10 times
deviceCli.connect()

while True:
    MQ6_Sensor=random.randint(200,10000)
    MQ4_Sensor=random.randint(300,10000)
    MQ135_Sensor=random.randint(10,1000)

    data = { 'LPG' : MQ6_Sensor, 'Methane': MQ4_Sensor, 'Benzene': MQ135_Sensor }
    #print data
    #deviceCli.publishEvent("IoTSensor", "json", data, qos=0, on_publish=myOnPublishCallback)

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    data = { 'LPG' : MQ6_Sensor, 'Methane': MQ4_Sensor, 'Benzene': MQ135_Sensor }
    #print data
    def myOnPublishCallback():
        print ("Published LPG Concentration = %s ppm" % MQ6_Sensor, "Methane Concentration = %s ppm" % MQ4_Sensor, "Benzene Concentration = %s ppm" %MQ135_Sensor,
        success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0, on_publish=myOnPublishCallback)
    if not success:
        print("Not connected to IoT")
        time.sleep(10)

    deviceCli.commandCallback = myCommandCallback

# Disconnect the device and application from the cloud
deviceCli.disconnect()

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hbe7ek.internetofthings.ibmcloud.com/dashboard/devices/browse

IBM Watson IoT Platformkavi.1914122@gct.ac.inID: hbe7ek

BrowseActionDevice TypesInterfacesAdd Device+

Device IDStatusDevice TypeClass IDDate Added

123ConnectedESP32DeviceNov 16, 2022 12:04 PM

IdentityDevice InformationRecent EventsStateLogs

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

Event	Value	Format	Last Received
IoTSensor	["LPG":5895,"Methane":8727,"Benzene":574]	json	a few seconds ago
IoTSensor	["LPG":5683,"Methane":5552,"Benzene":242]	json	a few seconds ago

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Python 3.7.0 Shell

File Edit Shell Debug Options Window Help

Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32  
Type "copyright", "credits" or "license()" for more information.  
>>>  
RESTART: C:\Users\Gowtham S\AppData\Local\Programs\Python\Python37\GasLeakageDetectionAndAlerting\IBMIoT\publishSubscribe.py  
2022-11-19 12:19:24,864 ibmiotf.device.Client INFO Connected successfully: d:hbe7ek:ESP32:123  
Published LPG Concentration = 9631 ppm Methane Concentration = 3454 ppm Benzene Concentration = 580 ppm to IBM Watson  
Published LPG Concentration = 2593 ppm Methane Concentration = 9019 ppm Benzene Concentration = 96 ppm to IBM Watson  
Published LPG Concentration = 6541 ppm Methane Concentration = 3569 ppm Benzene Concentration = 281 ppm to IBM Watson  
Published LPG Concentration = 9919 ppm Methane Concentration = 405 ppm Benzene Concentration = 670 ppm to IBM Watson  
Published LPG Concentration = 7212 ppm Methane Concentration = 1850 ppm Benzene Concentration = 136 ppm to IBM Watson  
Published LPG Concentration = 2265 ppm Methane Concentration = 2722 ppm Benzene Concentration = 314 ppm to IBM Watson  
Published LPG Concentration = 1377 ppm Methane Concentration = 1413 ppm Benzene Concentration = 940 ppm to IBM Watson  
Published LPG Concentration = 9342 ppm Methane Concentration = 6678 ppm Benzene Concentration = 660 ppm to IBM Watson  
Published LPG Concentration = 4978 ppm Methane Concentration = 5375 ppm Benzene Concentration = 543 ppm to IBM Watson  
Published LPG Concentration = 3462 ppm Methane Concentration = 5450 ppm Benzene Concentration = 113 ppm to IBM Watson  
Published LPG Concentration = 3619 ppm Methane Concentration = 2670 ppm Benzene Concentration = 768 ppm to IBM Watson  
Published LPG Concentration = 5248 ppm Methane Concentration = 9787 ppm Benzene Concentration = 19 ppm to IBM Watson  
Published LPG Concentration = 5683 ppm Methane Concentration = 5552 ppm Benzene Concentration = 242 ppm to IBM Watson  
Published LPG Concentration = 5895 ppm Methane Concentration = 8727 ppm Benzene Concentration = 574 ppm to IBM Watson  
Published LPG Concentration = 391 ppm Methane Concentration = 2323 ppm Benzene Concentration = 829 ppm to IBM Watson  
Published LPG Concentration = 7322 ppm Methane Concentration = 7700 ppm Benzene Concentration = 705 ppm to IBM Watson  
Published LPG Concentration = 5571 ppm Methane Concentration = 3977 ppm Benzene Concentration = 535 ppm to IBM Watson  
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