

DEVELOP THE PYTHON SCRIPT (PUBLISH DATA TO IBM CLOUD)

Team ID	PNT2022TMID34718
Project Name	Industry-Specific Intelligent Fire Management System

PYTHON CODE

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

#Provide your IBM Watson Device Credentials
organization = "zoieul"
deviceType = "NodeMCU"
deviceId = "12345"
authMethod = "token"
authToken = "12345678"

# Initialize GPIO
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:
    #Get Sensor Data from DHT11

    temp=random.randint(90,110)
    Humid=random.randint(60,100)

    data = { 'temp' : temp, 'Humid': Humid }
    #print data
    def myOnPublishCallback():
        print ("Published Temperature = %s C" % temp, "Humidity = %s %" % Humid, "to IBM Watson")

    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()
```

PUBLISHING

```
Python 3.7.4 Shell
File Edit Shell Debug Options Window Help
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Python/Python37/ibmpublish.py =====
2022-11-16 23:25:06,059 ibmiotf.device.Client INFO Connected successfully: d:zoieul:NodeMCU:12345
Published Temperature = 107 C Humidity = 95 % to IBM Watson
Published Temperature = 97 C Humidity = 86 % to IBM Watson
Published Temperature = 109 C Humidity = 81 % to IBM Watson
Published Temperature = 98 C Humidity = 77 % to IBM Watson
Published Temperature = 100 C Humidity = 63 % to IBM Watson
Published Temperature = 105 C Humidity = 92 % to IBM Watson
Published Temperature = 97 C Humidity = 71 % to IBM Watson
Published Temperature = 104 C Humidity = 73 % to IBM Watson
Published Temperature = 96 C Humidity = 68 % to IBM Watson
Published Temperature = 101 C Humidity = 70 % to IBM Watson
Published Temperature = 108 C Humidity = 94 % to IBM Watson
Published Temperature = 94 C Humidity = 83 % to IBM Watson
Published Temperature = 110 C Humidity = 90 % to IBM Watson
Published Temperature = 98 C Humidity = 61 % to IBM Watson
Published Temperature = 95 C Humidity = 66 % to IBM Watson
Published Temperature = 94 C Humidity = 93 % to IBM Watson
Published Temperature = 101 C Humidity = 70 % to IBM Watson
Published Temperature = 104 C Humidity = 95 % to IBM Watson
Published Temperature = 106 C Humidity = 87 % to IBM Watson
Published Temperature = 103 C Humidity = 74 % to IBM Watson
Published Temperature = 107 C Humidity = 65 % to IBM Watson
Published Temperature = 97 C Humidity = 82 % to IBM Watson
Published Temperature = 92 C Humidity = 75 % to IBM Watson
Published Temperature = 101 C Humidity = 60 % to IBM Watson
Published Temperature = 90 C Humidity = 97 % to IBM Watson
Published Temperature = 96 C Humidity = 60 % to IBM Watson
Published Temperature = 102 C Humidity = 60 % to IBM Watson
```

EVENTS

IBM Watson IoT Platform

?

dahlia.201924@sxce.edu.in

ID: zoleul

Browse

Action

Device Types

Interfaces

Add Device

	Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location																		
<div> <div></div> <div>12345</div> <div>Connected</div> <div>NodeMCU</div> <div>Device</div> <div>Nov 15, 2022 2:10 PM</div> <div>→ ...</div> </div> <div> <div>Identity</div> <div>Device Information</div> <div>Recent Events</div> <div>State</div> <div>Logs</div> <div>×</div> </div> <div> <div>The recent events listed show the live stream of data that is coming and going from this device.</div> <table> <tr> <th>Event</th> <th>Value</th> <th>Format</th> <th>Last Received</th> </tr> <tr> <td>IoTSensor</td> <td>{"temp":96,"Humid":70}</td> <td>json</td> <td>a few seconds ago</td> </tr> <tr> <td>IoTSensor</td> <td>{"temp":98,"Humid":73}</td> <td>json</td> <td>a few seconds ago</td> </tr> <tr> <td>IoTSensor</td> <td>{"temp":93,"Humid":61}</td> <td>json</td> <td>a few seconds ago</td> </tr> <tr> <td>IoTSensor</td> <td>{"temp":104,"Humid":79}</td> <td>json</td> <td>a few seconds ago</td> </tr> <tr> <td>IoTSensor</td> <td>{"temp":95,"Humid":92}</td> <td>json</td> <td>a few seconds ago</td> </tr> </table> </div>	Event	Value	Format	Last Received	IoTSensor	{"temp":96,"Humid":70}	json	a few seconds ago	IoTSensor	{"temp":98,"Humid":73}	json	a few seconds ago	IoTSensor	{"temp":93,"Humid":61}	json	a few seconds ago	IoTSensor	{"temp":104,"Humid":79}	json	a few seconds ago	IoTSensor	{"temp":95,"Humid":92}	json	a few seconds ago
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