PUBLISH DATA TO IBM CLOUD

TEAM ID	PNT2022TMID15984
PROJECT NAME	Hazardous Area Monitoring for Industrial Plant powered by IoT
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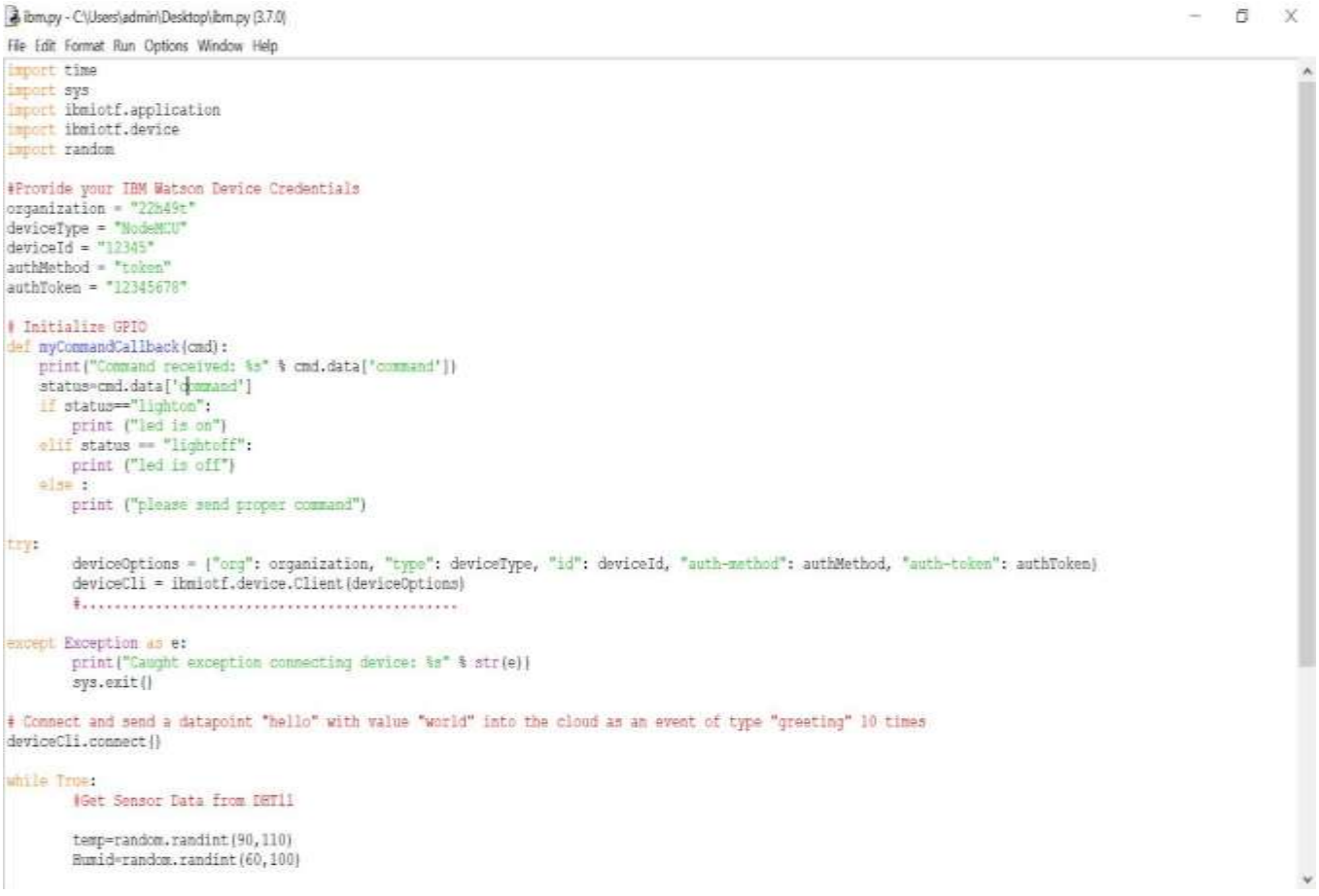
PYTHON CODE:



ibm.py - C:\Users\admin\Desktop\ibm.py (3.7.0)

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

#Provide your IBM Watson Device Credentials
organization = "22b49t"
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 IoTF")
        time.sleep(10)

        deviceCli.commandCallback = myCommandCallback

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

Python 3.7.0 Shell

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```
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\admin\Desktop\ibm.py ==========
2022-11-16 10:23:19,108  ibmiotf.device.Client      INFO    Connected successfully: d:22h49t:NodeMCU:12345
Published Temperature = 93 C Humidity = 81 % to IBM Watson
Published Temperature = 91 C Humidity = 81 % to IBM Watson
Published Temperature = 107 C Humidity = 72 % to IBM Watson
Published Temperature = 100 C Humidity = 64 % to IBM Watson
Published Temperature = 93 C Humidity = 86 % to IBM Watson
Published Temperature = 90 C Humidity = 80 % to IBM Watson
Published Temperature = 92 C Humidity = 97 % to IBM Watson
Published Temperature = 100 C Humidity = 60 % to IBM Watson
Published Temperature = 101 C Humidity = 62 % to IBM Watson
Published Temperature = 106 C Humidity = 84 % to IBM Watson
Published Temperature = 110 C Humidity = 94 % to IBM Watson
Published Temperature = 97 C Humidity = 96 % to IBM Watson
Published Temperature = 107 C Humidity = 97 % to IBM Watson
Published Temperature = 96 C Humidity = 68 % to IBM Watson
Published Temperature = 91 C Humidity = 93 % to IBM Watson
Published Temperature = 91 C Humidity = 83 % to IBM Watson
Published Temperature = 101 C Humidity = 73 % to IBM Watson
Published Temperature = 95 C Humidity = 63 % to IBM Watson
Published Temperature = 92 C Humidity = 88 % to IBM Watson
Published Temperature = 104 C Humidity = 75 % to IBM Watson
Published Temperature = 110 C Humidity = 83 % to IBM Watson
Published Temperature = 103 C Humidity = 61 % to IBM Watson
Published Temperature = 99 C Humidity = 87 % to IBM Watson
Published Temperature = 109 C Humidity = 83 % to IBM Watson
Published Temperature = 104 C Humidity = 71 % to IBM Watson
Published Temperature = 97 C Humidity = 74 % to IBM Watson
Published Temperature = 96 C Humidity = 65 % to IBM Watson
Published Temperature = 108 C Humidity = 65 % to IBM Watson
Published Temperature = 110 C Humidity = 96 % to IBM Watson
Published Temperature = 98 C Humidity = 87 % to IBM Watson
Published Temperature = 93 C Humidity = 60 % to IBM Watson
Published Temperature = 110 C Humidity = 77 % to IBM Watson
Published Temperature = 110 C Humidity = 88 % to IBM Watson
Published Temperature = 91 C Humidity = 94 % to IBM Watson
Published Temperature = 107 C Humidity = 63 % to IBM Watson
Published Temperature = 93 C Humidity = 81 % to IBM Watson
Published Temperature = 92 C Humidity = 89 % to IBM Watson
```

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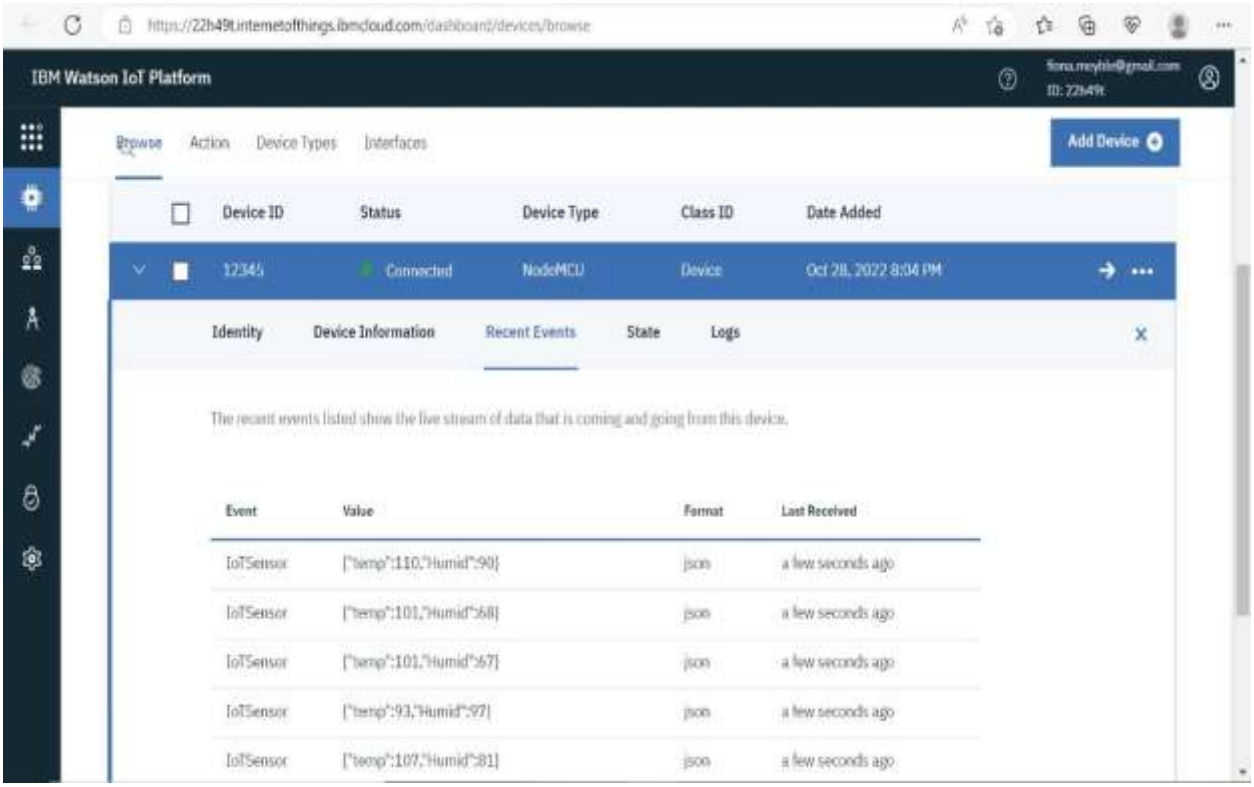
https://22h49t.internetofthings.ibmcloud.com/dashboard/devices/browse
IBM Watson IoT Platform
Browse
Action
Device Types
Interfaces
Add Device
Device ID
Status
Device Type
Class ID
Date Added
12345
Connected
NodeMCU
Device
Oct 28, 2022 8:04 PM
Identity
Device Information
Recent Events
State
Logs
The recent events listed show the live stream of data that is coming and going from this device.
Event
Value
Format
Last Received
IoTSensor
{"temp":110,"Humid":90}
json
a few seconds ago
IoTSensor
{"temp":101,"Humid":68}
json
a few seconds ago
IoTSensor
{"temp":101,"Humid":67}
json
a few seconds ago
IoTSensor
{"temp":93,"Humid":97}
json
a few seconds ago
IoTSensor
{"temp":107,"Humid":81}
json
a few seconds ago