

## Sprint 3

### Python code:

```
import time

import sys

import ibmiotf.application
import ibmiotf.device

import random

#Provide your IBM Watson Device Credentials

organization = "8ahq3z"

deviceType = "SENSORS"

deviceId = "2211"

authMethod = "token"

authToken = "22112001"

# Initialize GPIO

def myCommandCallback(cmd):

    print("Command received: %s" % cmd.data['command'])

    status=cmd.data['command']

    if status=="lighton":

        print ("led is on")

    else :

        print ("led is off")


    #print(cmd)

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(-30,100)
```

```
    Humid=random.randint(10,90)
```

```
    data = { 'temp' : temp, 'Humid': Humid }
```

```
    #print data
```

```
    def myOnPublishCallback():
```

```
        print ("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()
```

Python 3.7.8 Shell

File Edit Shell Debug Options Window Help

Published Temperature = 70 C Humidity = 92 % to IBM Watson

Published Temperature = 68 C Humidity = 50 % to IBM Watson

Published Temperature = 47 C Humidity = 29 % to IBM Watson

Published Temperature = 72 C Humidity = 52 % to IBM Watson

Published Temperature = 50 C Humidity = 58 % to IBM Watson

Published Temperature = 63 C Humidity = 60 % to IBM Watson

Published Temperature = 55 C Humidity = 98 % to IBM Watson

Published Temperature = 74 C Humidity = 27 % to IBM Watson

Published Temperature = 46 C Humidity = 49 % to IBM Watson

Published Temperature = 48 C Humidity = 50 % to IBM Watson

Published Temperature = 25 C Humidity = 30 % to IBM Watson

Published Temperature = 0 C Humidity = 71 % to IBM Watson

Published Temperature = 64 C Humidity = 75 % to IBM Watson

Published Temperature = 88 C Humidity = 99 % to IBM Watson

Published Temperature = 47 C Humidity = 70 % to IBM Watson

Published Temperature = 91 C Humidity = 74 % to IBM Watson

Published Temperature = 32 C Humidity = 41 % to IBM Watson

Published Temperature = 7 C Humidity = 100 % to IBM Watson

Published Temperature = 54 C Humidity = 67 % to IBM Watson

Published Temperature = 12 C Humidity = 65 % to IBM Watson

Published Temperature = 79 C Humidity = 79 % to IBM Watson

Published Temperature = 31 C Humidity = 81 % to IBM Watson

Published Temperature = 8 C Humidity = 22 % to IBM Watson

Published Temperature = 29 C Humidity = 58 % to IBM Watson

Published Temperature = 37 C Humidity = 16 % to IBM Watson

Published Temperature = 8 C Humidity = 74 % to IBM Watson

Published Temperature = 9 C Humidity = 32 % to IBM Watson

Published Temperature = 16 C Humidity = 90 % to IBM Watson

Published Temperature = 35 C Humidity = 78 % to IBM Watson

Published Temperature = 81 C Humidity = 75 % to IBM Watson

Published Temperature = 76 C Humidity = 75 % to IBM Watson

Published Temperature = 55 C Humidity = 52 % to IBM Watson

Published Temperature = 4 C Humidity = 39 % to IBM Watson

Published Temperature = 69 C Humidity = 45 % to IBM Watson

Published Temperature = 74 C Humidity = 61 % to IBM Watson

Published Temperature = 82 C Humidity = 100 % to IBM Watson

Published Temperature = 19 C Humidity = 91 % to IBM Watson

Published Temperature = 11 C Humidity = 24 % to IBM Watson

Published Temperature = 52 C Humidity = 24 % to IBM Watson

Published Temperature = 89 C Humidity = 62 % to IBM Watson

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gdzrgd.internetofthings.ibmcloud.com/dashboard/device...

IBM Watson IoT Platform

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100 gdzrgd

Browser Action Device Types Interfaces Add Device

This recent events listed show the live stream of data that is co

Event	Value
IoT Sensor	[{"temp":89,"humid":62}]
IoT Sensor	[{"temp":62,"humid":24}]
IoT Sensor	[{"temp":11,"humid":24}]
IoT Sensor	[{"temp":49,"humid":44}]
IoT Sensor	[{"temp":62,"humid":100}]