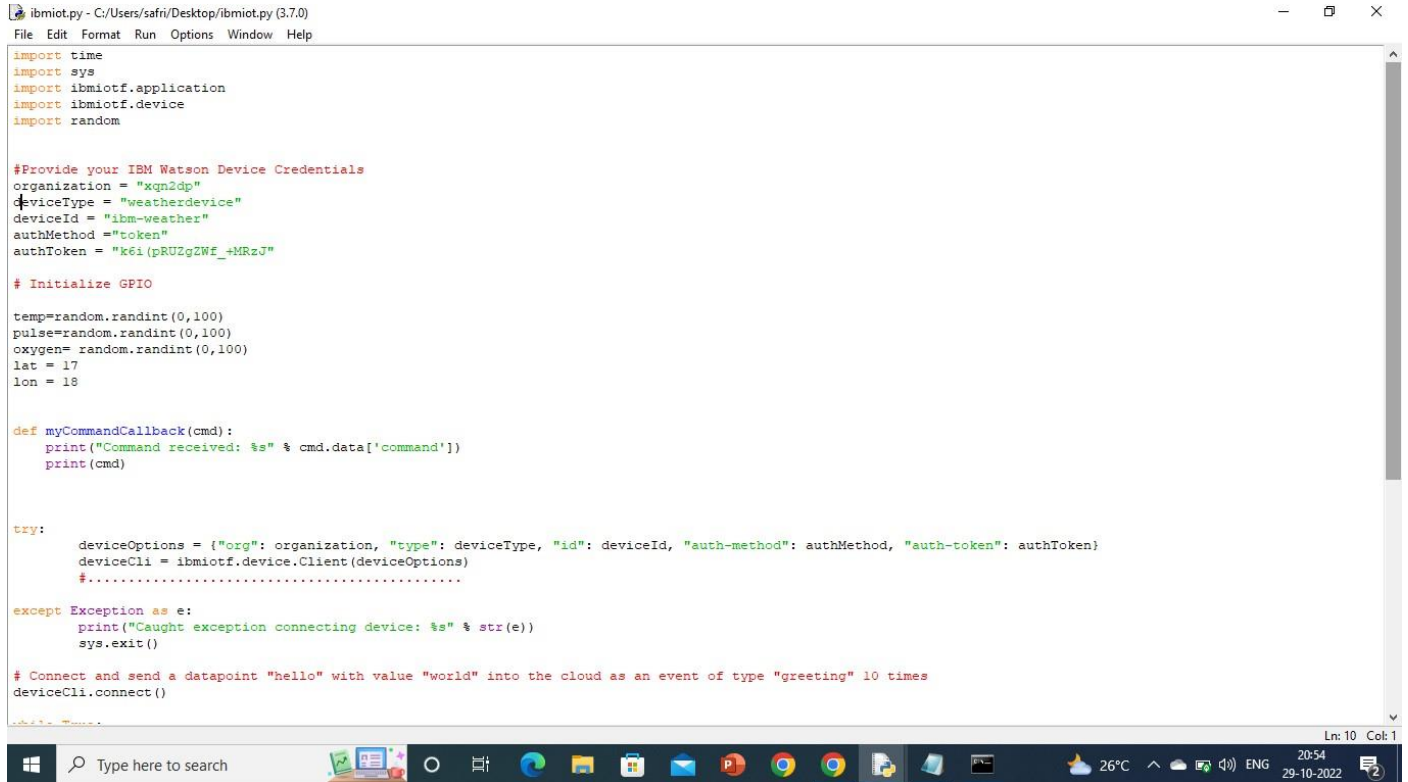


Develop the Python Code

TEAM ID:PNT2022TMID26684



```
ibmiot.py - C:/Users/safri/Desktop/ibmiot.py (3.7.0)
File Edit Format Run Options Window Help

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

#Provide your IBM Watson Device Credentials
organization = "xqn2dp"
deviceType = "weatherdevice"
deviceId = "ibm-weather"
authMethod = "token"
authToken = "k6i(pRUZgZWF_MRzJ"

# Initialize GPIO
temp=random.randint(0,100)
pulse=random.randint(0,100)
oxygen= random.randint(0,100)
lat = 17
lon = 18

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

Ln: 10 Col: 1

```
myCommandCallback = lambda cmd:
    print("Command received: %s" % cmd.data['command'])
    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(0,100)
    pulse=random.randint(0,100)
    oxygen= random.randint(0,100)
    lat = 17
    lon = 18

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

    success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0, on_publish=myOnPublishCallback)
    if not success:
        print("Not connected to IoT")
        time.sleep(1)

    deviceCli.commandCallback = myCommandCallback

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

IoT-B5-5M1E (Evi) x Node-RED: 169... x Service Details - x IBM Watson IoT x IBM x Project Template x Node-RED Dash: x

qxq2dp.internetofthings.ibmcloud.com/dashboard/devices/browse

IBM Watson IoT Platform 960219106117@smartinternz.com ID: xqn2dp

Browse Action Device Types Interfaces Add Device +

ibm-weather Connected weatherdevice Device Oct 10, 2022 6:53 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	{"d":{"temp":32,"pulse":8,"oxygen":58,"lat":17,"l...	json	a few seconds ago
IoTSensor	{"d":{"temp":32,"pulse":8,"oxygen":58,"lat":17,"l...	json	a few seconds ago
IoTSensor	{"d":{"temp":32,"pulse":8,"oxygen":58,"lat":17,"l...	json	a few seconds ago
IoTSensor	{"d":{"temp":32,"pulse":8,"oxygen":58,"lat":17,"l...	json	a few seconds ago
IoTSensor	{"d":{"temp":32,"pulse":8,"oxygen":58,"lat":17,"l...	json	a few seconds ago

0 Simulations running

Python 3.7.0 Shell

```
File Edit Shell Debug Options Window Help
Published Temperature = 32 C Humidity = 8 % to IBM Watson
Published Temperature = 32 C Humidity = 8 % to IBM Watson
Published Temperature = 32 C Humidity = 8 % to IBM Watson
Published Temperature = 32 C Humidity = 8 % to IBM Watson
Published Temperature = 32 C Humidity = 8 % to IBM Watson
Published Temperature = 32 C Humidity = 8 % to IBM Watson
Published Temperature = 32 C Humidity = 8 % to IBM Watson
Published Temperature = 32 C Humidity = 8 % to IBM Watson
===== RESTART: C:/Users/safri/Desktop/ibmiot.py =====
2022-10-29 20:53:32,786 ibmiotf.device.Client INFO Connected successfully: d:xqn2dp:weatherdevice:ibm-weather
Published Temperature = 90 C Humidity = 90 % to IBM Watson
Published Temperature = 50 C Humidity = 72 % to IBM Watson
Published Temperature = 95 C Humidity = 61 % to IBM Watson
Published Temperature = 95 C Humidity = 70 % to IBM Watson
Published Temperature = 75 C Humidity = 84 % to IBM Watson
Published Temperature = 9 C Humidity = 78 % to IBM Watson
Published Temperature = 65 C Humidity = 45 % to IBM Watson
Published Temperature = 11 C Humidity = 65 % to IBM Watson
Published Temperature = 18 C Humidity = 25 % to IBM Watson
Published Temperature = 13 C Humidity = 15 % to IBM Watson
Published Temperature = 80 C Humidity = 63 % to IBM Watson
Published Temperature = 29 C Humidity = 91 % to IBM Watson
Published Temperature = 46 C Humidity = 21 % to IBM Watson
Published Temperature = 94 C Humidity = 90 % to IBM Watson
Published Temperature = 41 C Humidity = 20 % to IBM Watson
Published Temperature = 48 C Humidity = 24 % to IBM Watson
Published Temperature = 46 C Humidity = 59 % to IBM Watson
Published Temperature = 69 C Humidity = 92 % to IBM Watson
Published Temperature = 20 C Humidity = 25 % to IBM Watson
Published Temperature = 27 C Humidity = 87 % to IBM Watson
Published Temperature = 85 C Humidity = 58 % to IBM Watson
Published Temperature = 55 C Humidity = 0 % to IBM Watson
Published Temperature = 94 C Humidity = 13 % to IBM Watson
Published Temperature = 71 C Humidity = 22 % to IBM Watson
Published Temperature = 10 C Humidity = 100 % to IBM Watson
Published Temperature = 15 C Humidity = 85 % to IBM Watson
Published Temperature = 86 C Humidity = 9 % to IBM Watson
Published Temperature = 70 C Humidity = 4 % to IBM Watson
Published Temperature = 98 C Humidity = 6 % to IBM Watson
```