**Python Code:**

```python
# Sprint - 1

# Team ID: PNT2022TMID18315


import time

import sys

import ibmiotf.application

import ibmiotf.device

import random


#Provide your IBM Watson Device Credentials

organization = "lcft5g"

deviceType = "Final"

deviceId = "Hello"

authMethod = "token"

authToken = "8300113450"

 try:

        deviceOptions = {"org": organization, "type": deviceType, "id": deviceId,
"auth-method": authMethod, "auth-token": authToken}

        deviceCli = ibmiotf.device.Client(deviceOptions)

        #………………………………………


except Exception as e:
```

```python
        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)

    Humid=random.randint(0,100)

    Gas=random.randint(0,100)


    data = { 'temp' : temp, 'Humid': Humid,'Gas':gas }

    #print data

    def myOnPublishCallback():

        print ("Published Temperature = %s C" % temp, "Humidity = %s %%" %
Humid, "Gas Concentration = %s"%Gas"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()
```
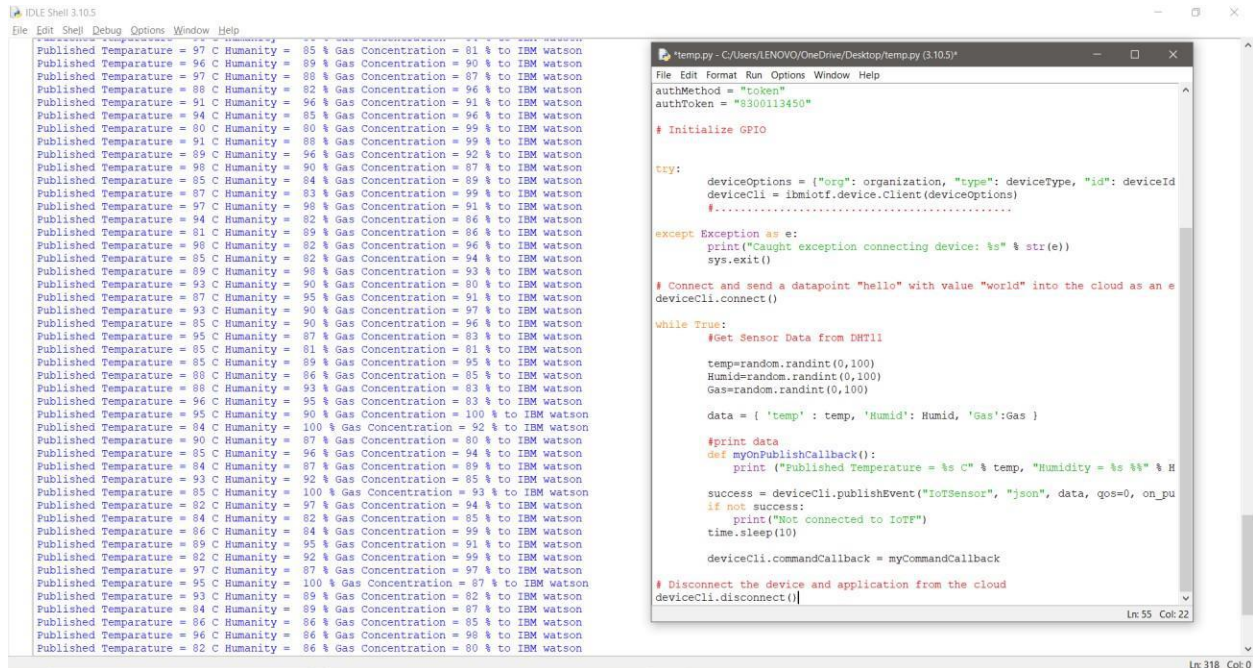
## Output:



IDLE Shell 3.10.5

File  Edit  Shell  Debug  Options  Window  Help

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Published Temparature = 97 C Humanity = 85 % Gas Concentration = 81 % to IBM watson
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Published Temparature = 82 C Humanity = 86 % Gas Concentration = 80 % to IBM watson
```

Ln: 318  Col: 0

*temp.py - C:/Users/LENOVO/OneDrive/Desktop/temp.py (3.10.5)*

File  Edit  Format  Run  Options  Window  Help

```python
authMethod = "token"
authToken = "8300113450"

# Initialize GPIO


try:
    deviceOptions = {"org": organization, "type": deviceType, "id": deviceId
    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 e
deviceCli.connect()

while True:
    #Get Sensor Data from DHT11

    temp=random.randint(0,100)
    Humid=random.randint(0,100)
    Gas=random.randint(0,100)

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

    #print data
    def myOnPublishCallback():
        print ("Published Temperature = %s C" % temp, "Humidity = %s %%" % H

    success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0, on_pu
    if not success:
        print("Not connected to IoTF")
    time.sleep(10)

    deviceCli.commandCallback = myCommandCallback

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

Ln: 55  Col: 22