ROJECT DEVELOPMENT PHASE
Delivery Of sprint 1

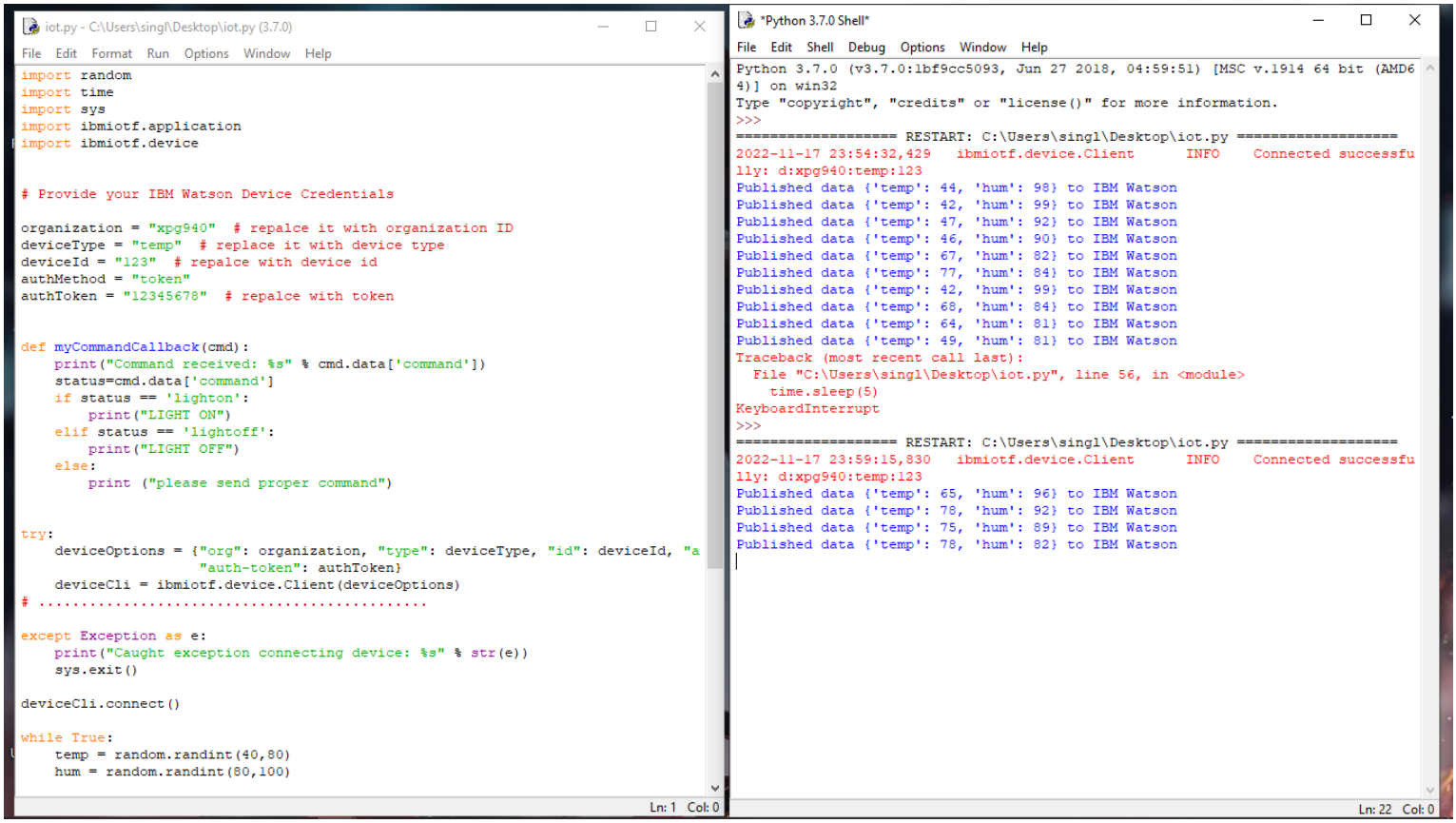
Team ID	PNT2022TMID06971
Project Name	Hazardous Area Monitoring For Industrial Plant Powered By IoT

PROGRAM :

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


# Provide your IBM Watson Device Credentials

organization = "xpg940"  # repalce it with organization ID
deviceType = "temp"  # replace it with device type
deviceId = "123"  # repalce with device id
authMethod = "token"
authToken = "12345678"  # repalce with token


def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
    status=cmd.data['command']
    if status == 'lighton':
        print("LIGHT ON")
    elif status == 'lightoff':
        print("LIGHT 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()

deviceCli.connect()

while True:
    temp = random.randint(40,80)
    hum = random.randint(80,100)

    # Send Temperature & Humidity to IBM Watson
    data = {'temp': temp,"hum":hum}


    # print data
    def myOnPublishCallback():
        print("Published data",data, "to IBM Watson")


    success = deviceCli.publishEvent("event", "json", data, 0, myOnPublishCallback)
    if not success:
        print("Not connected to IoTF")
    time.sleep(5)

    deviceCli.commandCallback = myCommandCallback

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

OUTPUT :



iot.py - C:\Users\singl\Desktop\iot.py (3.7.0)

File Edit Format Run Options Window Help

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


# Provide your IBM Watson Device Credentials

organization = "xpg940"  # repalce it with organization ID
deviceType = "temp"  # replace it with device type
deviceId = "123"  # repalce with device id
authMethod = "token"
authToken = "12345678"  # repalce with token


def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
    status=cmd.data['command']
    if status == 'lighton':
        print("LIGHT ON")
    elif status == 'lightoff':
        print("LIGHT OFF")
    else:
        print ("please send proper command")


try:
    deviceOptions = {"org": organization, "type": deviceType, "id": deviceId, "a
                     "auth-token": authToken}
    deviceCli = ibmiotf.device.Client(deviceOptions)
# ..............................................

except Exception as e:
    print("Caught exception connecting device: %s" % str(e))
    sys.exit()

deviceCli.connect()

while True:
    temp = random.randint(40,80)
    hum = random.randint(80,100)
```

Ln: 1 Col: 0

Python 3.7.0 Shell

File Edit Shell Debug Options Window Help

```
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD6
4)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: C:\Users\singl\Desktop\iot.py ==========
2022-11-17 23:54:32,429   ibmiotf.device.Client      INFO    Connected successfu
lly: d:xpg940:temp:123
Published data {'temp': 44, 'hum': 98} to IBM Watson
Published data {'temp': 42, 'hum': 99} to IBM Watson
Published data {'temp': 47, 'hum': 92} to IBM Watson
Published data {'temp': 46, 'hum': 90} to IBM Watson
Published data {'temp': 67, 'hum': 82} to IBM Watson
Published data {'temp': 77, 'hum': 84} to IBM Watson
Published data {'temp': 42, 'hum': 99} to IBM Watson
Published data {'temp': 68, 'hum': 84} to IBM Watson
Published data {'temp': 64, 'hum': 81} to IBM Watson
Published data {'temp': 49, 'hum': 81} to IBM Watson
Traceback (most recent call last):
  File "C:\Users\singl\Desktop\iot.py", line 56, in <module>
    time.sleep(5)
KeyboardInterrupt
>>>
========== RESTART: C:\Users\singl\Desktop\iot.py ==========
2022-11-17 23:59:15,830   ibmiotf.device.Client      INFO    Connected successfu
lly: d:xpg940:temp:123
Published data {'temp': 65, 'hum': 96} to IBM Watson
Published data {'temp': 78, 'hum': 92} to IBM Watson
Published data {'temp': 75, 'hum': 89} to IBM Watson
Published data {'temp': 78, 'hum': 82} to IBM Watson
```

Ln: 22 Col: 0