Sprint 1 Python Code

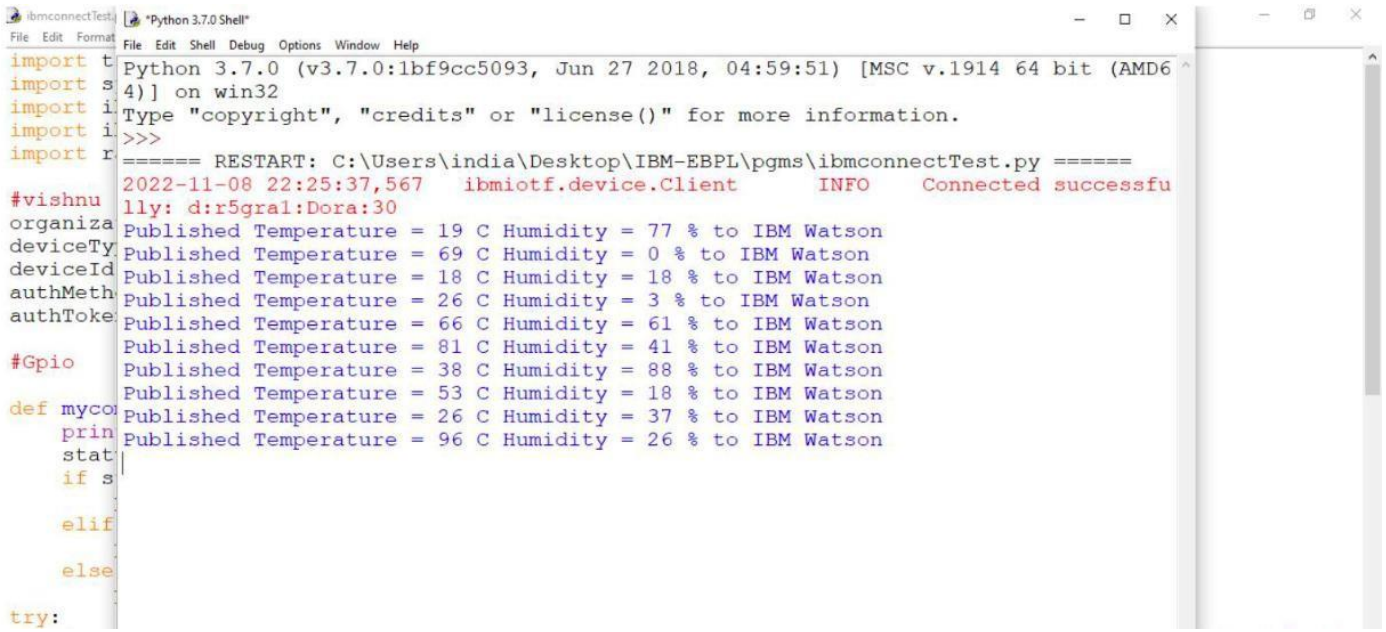
Team ID	PNT2022TMID17581
Project Name	Smart Farmer - IoT enabled smart Farming Application

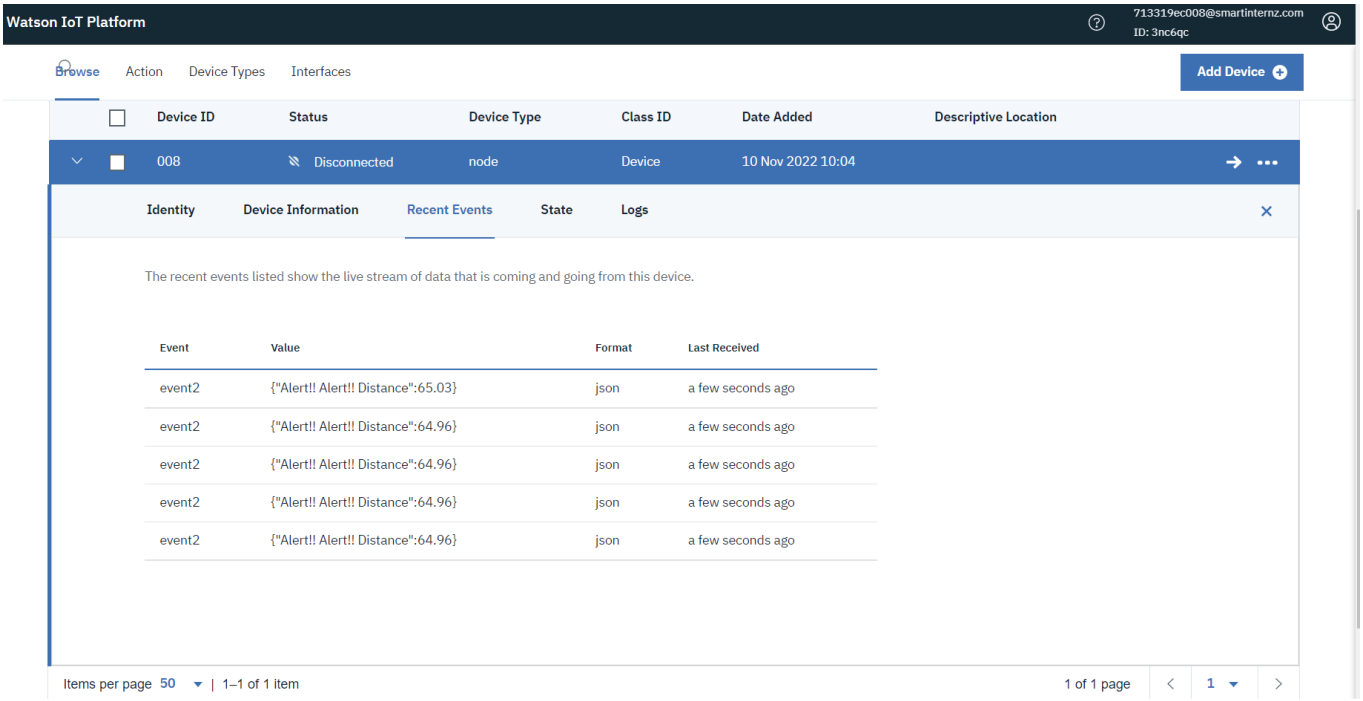
Program Coding:

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

#IBM
organization = "3nc6qc"
deviceType = "node"
deviceId = "008"
authMethod = "use-token-auth"
authToken = "6383637992"

#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()

#CONNECCT
deviceCli.connect()

while True:
        temp=random.randint(0,100)
        hum=random.randint(0,100)
```

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

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

deviceCli.disconnect()
```

Screenshots:




Watson IoT Platform
713319ec008@smartinternz.com
ID: 3nc6qc
Browse
Action
Device Types
Interfaces
Add Device
Device ID
Status
Device Type
Class ID
Date Added
Descriptive Location
008
Disconnected
node
Device
10 Nov 2022 10:04
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
event2
{"Alert!! Alert!! Distance":65.03}
json
a few seconds ago
event2
{"Alert!! Alert!! Distance":64.96}
json
a few seconds ago
event2
{"Alert!! Alert!! Distance":64.96}
json
a few seconds ago
event2
{"Alert!! Alert!! Distance":64.96}
json
a few seconds ago
event2
{"Alert!! Alert!! Distance":64.96}
json
a few seconds ago
Items per page 50
| 1–1 of 1 item
1 of 1 page
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