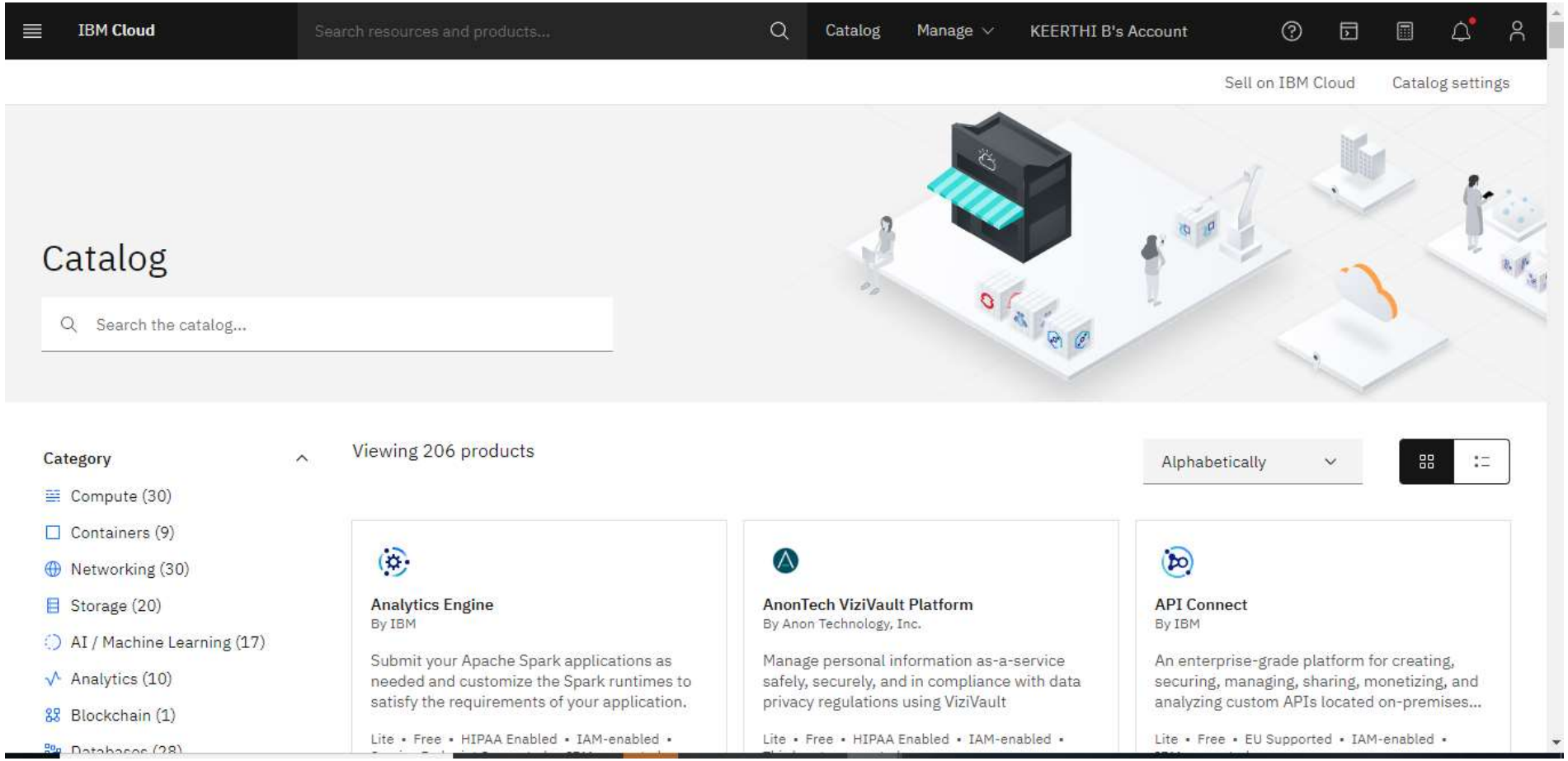
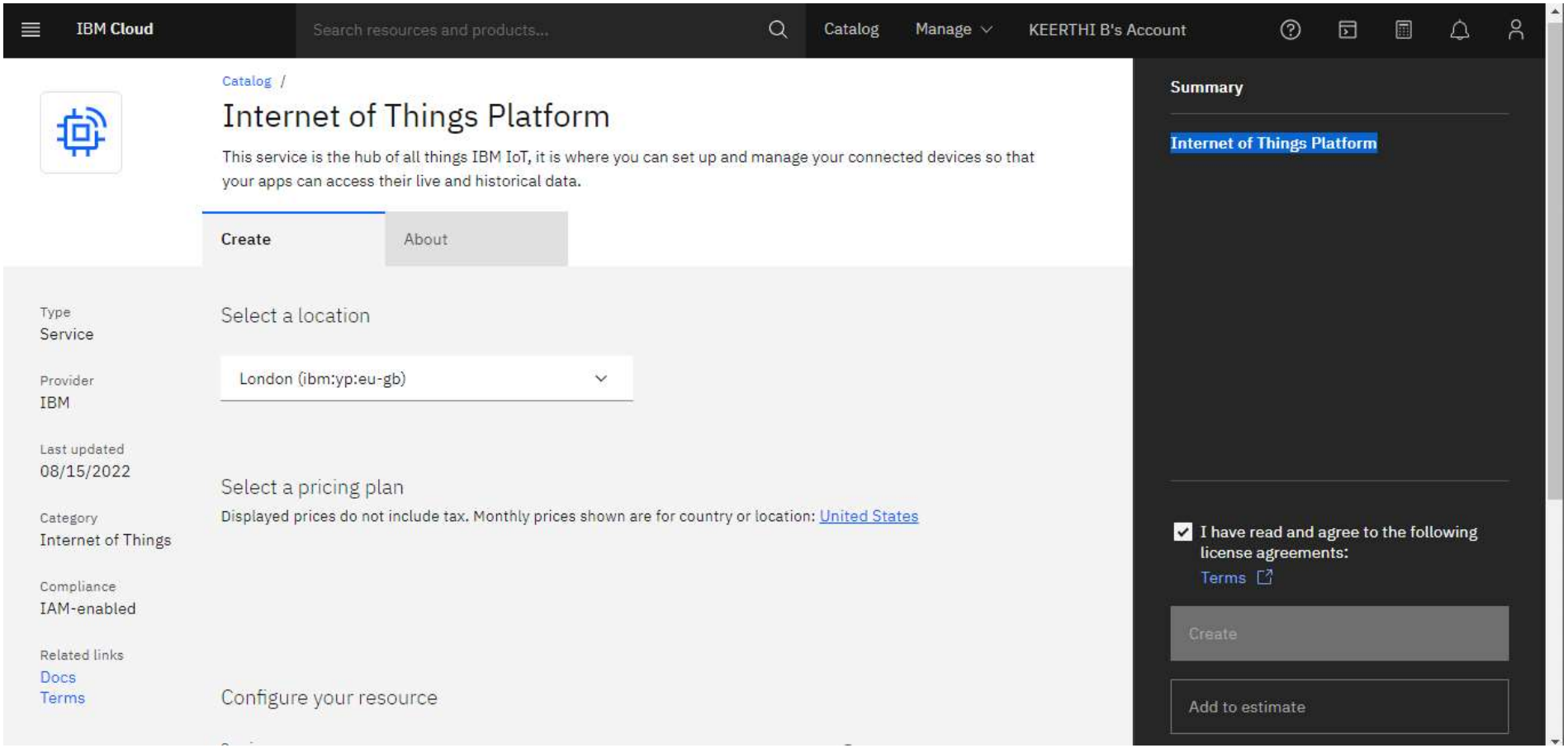
SPRINT 1

Date	28 October 2022
TEAMID	PNT2022TMID36188
ProjectName	IoT Based smart crop Protection system for agriculture
Maximummark	20marks

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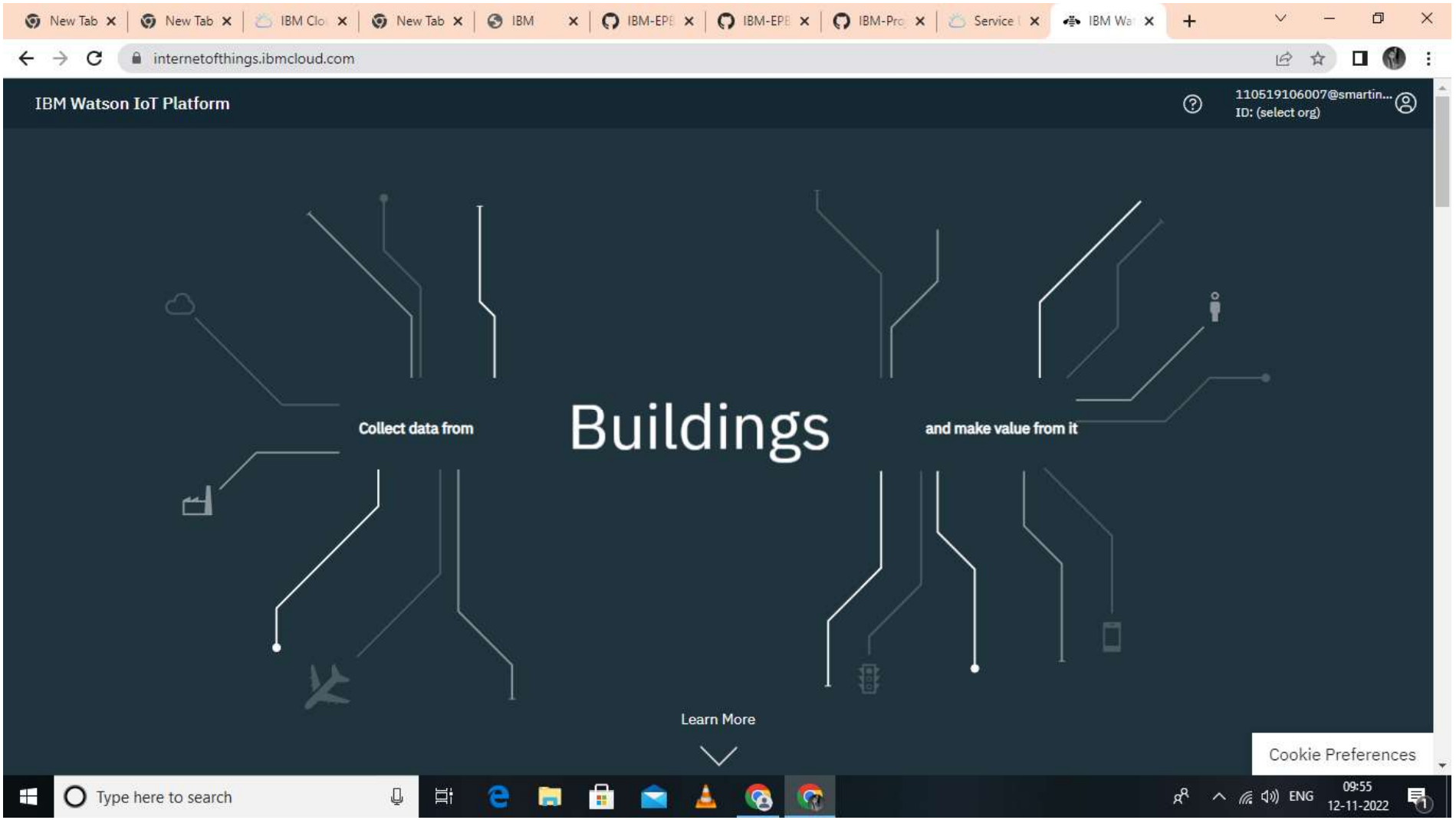
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Collect data from
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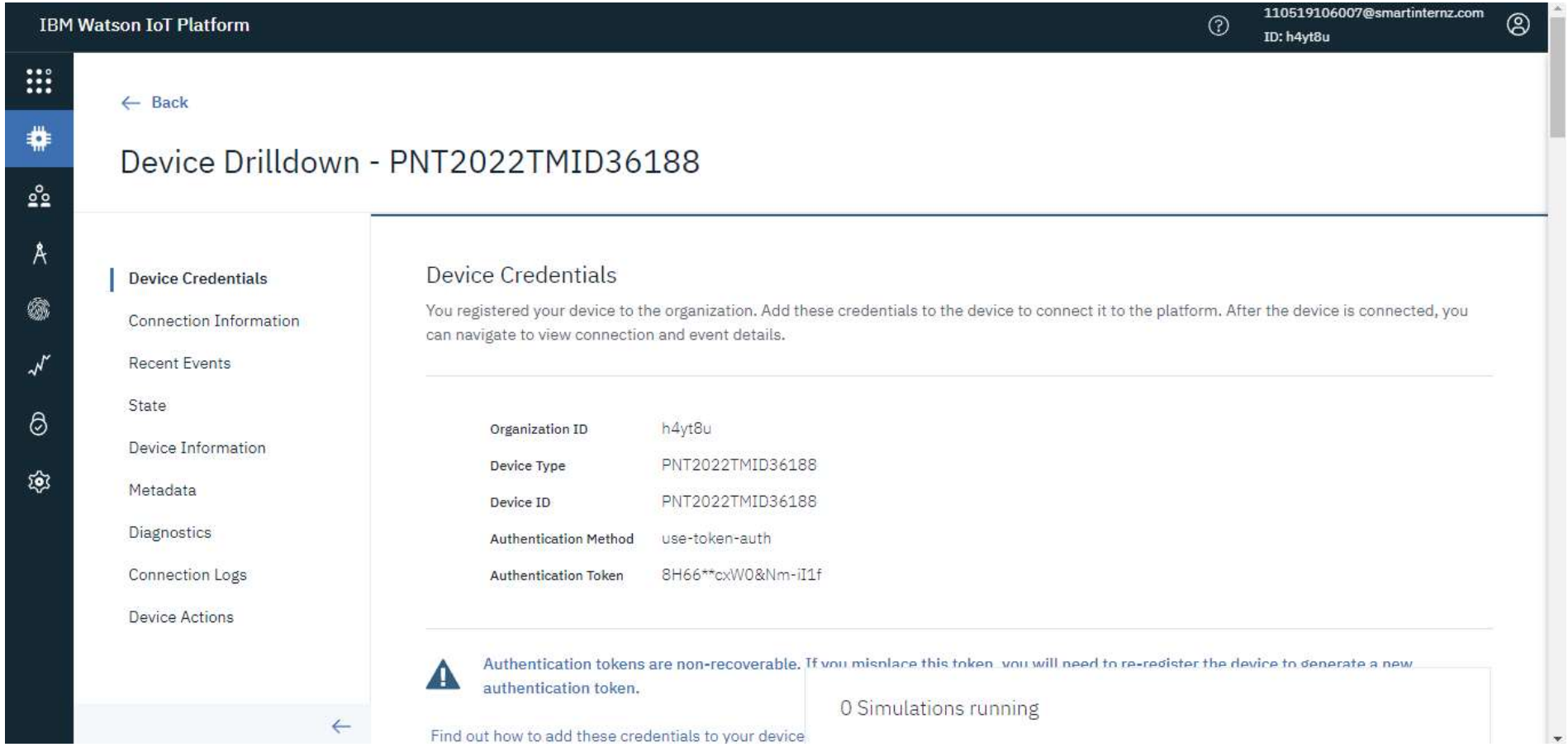
Devicecredentialsinformation



Python Program:

```
import wiotp.sdk.device

import time

import os

import datetime

import random

myConfig = {

"orgId": "h4y8u",

"typeId": "PNT2022TMID36188",

"deviceId": "PNT2022TMID36188",

"auth}:

token": "8H66**cxW0&Nm-iI1f"

}}

client = wiotp.sdk.device.DeviceClient (config=myConfig,logHandlers=None)

client.connect ()
```

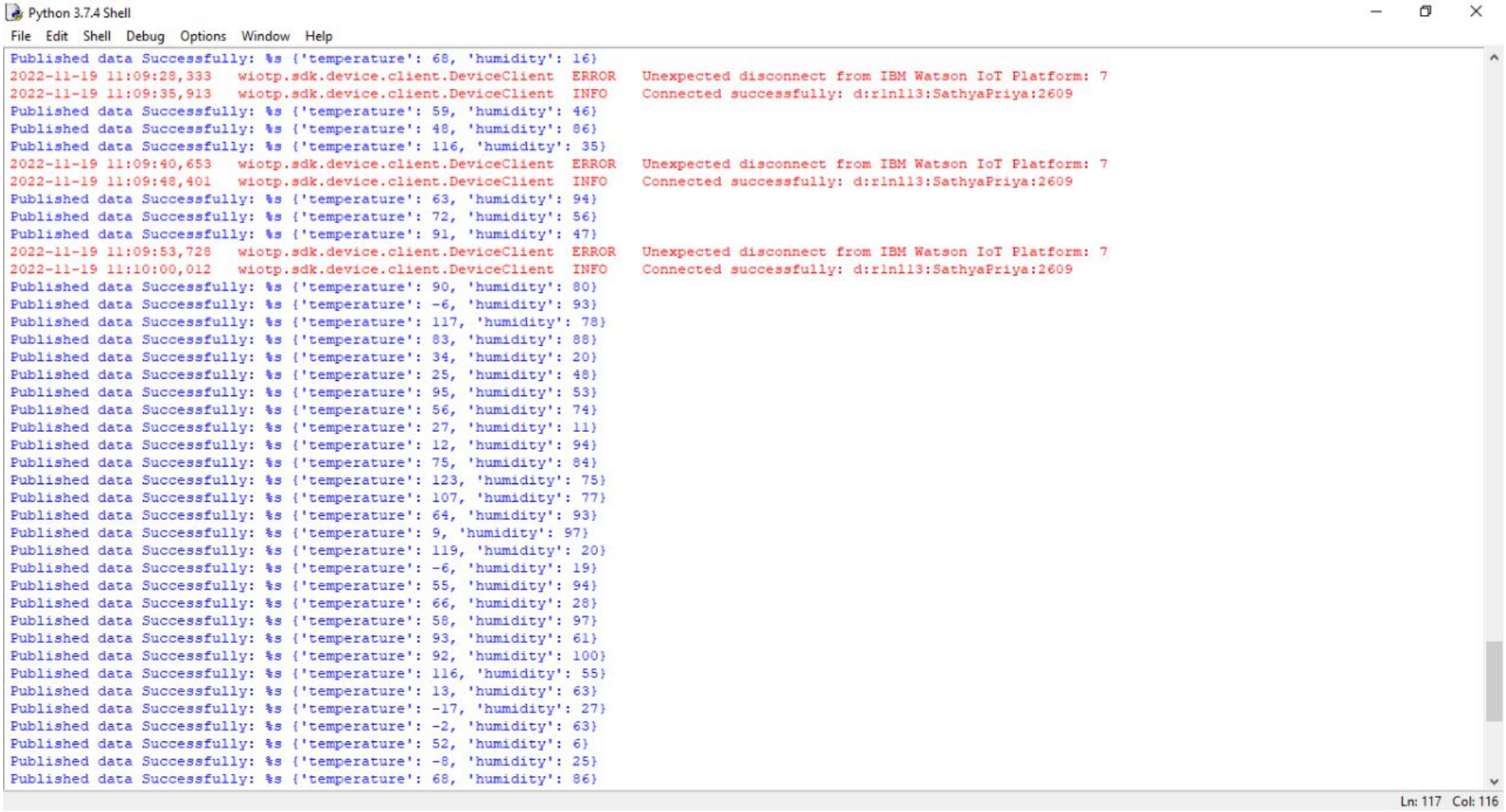
```
    def myCommandCallback (cmd) :
    print("command recevied: %s" % cmd.data
    if cmd.data [‘command’]== ‘MOTOR ON’:
    print("MOTOR ON IS RECEIVED")
    elifcmd.data[‘command’]== ‘MOTOR OFF’:
    print(" MOTOR OFF IS RECEVIED")
    if cmd.command == " set interval":
    if ‘interval’ not in  cmd.data:
print(" Error – command is missing required information: ‘interval’")
    else:
    interval = cmd.data[‘interval’]
    elifcmd.command == "print":
    if ‘ message’ not in cmd.data:
    print("Error – command is missing required information: ‘message’")
    else:
    output=cmd.data[‘message’]
```

```
 print (output)

while True:

soil=random.randint (0,100)

temp=random.randint (-20, 125)

hum=random.randint (0, 100)

myData={'soil moisture': soil, 'temperature':temp, 'humidity':hum}

client.publishEvent (eventId="status", msgFormat="json", data=myData,

qos=0 ,onPublish=None)

print ("Published data Successfully: %s", myData)

time.sleep (2)

client.commandCallback = myCommandCallback

client.disconnect
```

OUTPUT:

Program Output:

```
2022-11-19 11:00:51,934   wiotp.sdk.device.client.DeviceClient  INFO
Published data Successfully: %s {'temperature': 14, 'humidity': 47}
Published data Successfully: %s {'temperature': 109, 'humidity': 95}
2022-11-19 11:00:54,077   wiotp.sdk.device.client.DeviceClient  ERROR
2022-11-19 11:00:56,629   wiotp.sdk.device.client.DeviceClient  INFO
Published data Successfully: %s {'temperature': -19, 'humidity': 8}
Published data Successfully: %s {'temperature': 88, 'humidity': 7}
2022-11-19 11:00:59,397   wiotp.sdk.device.client.DeviceClient  ERROR
2022-11-19 11:01:01,518   wiotp.sdk.device.client.DeviceClient  INFO
Published data Successfully: %s {'temperature': 103, 'humidity': 86}
Published data Successfully: %s {'temperature': 73, 'humidity': 87}
2022-11-19 11:01:04,939   wiotp.sdk.device.client.DeviceClient  ERROR
2022-11-19 11:01:08,827   wiotp.sdk.device.client.DeviceClient  INFO
Published data Successfully: %s {'temperature': 75, 'humidity': 33}
Published data Successfully: %s {'temperature': 113, 'humidity': 84}
2022-11-19 11:01:11,150   wiotp.sdk.device.client.DeviceClient  ERROR
2022-11-19 11:01:13,587   wiotp.sdk.device.client.DeviceClient  INFO
Published data Successfully: %s {'temperature': 10, 'humidity': 85}
Published data Successfully: %s {'temperature': 107, 'humidity': 58}
2022-11-19 11:01:17,117   wiotp.sdk.device.client.DeviceClient  ERROR
2022-11-19 11:01:19,146   wiotp.sdk.device.client.DeviceClient  INFO
Published data Successfully: %s {'temperature': 65, 'humidity': 45}
Published data Successfully: %s {'temperature': 28, 'humidity': 89}
2022-11-19 11:01:22,551   wiotp.sdk.device.client.DeviceClient  ERROR
2022-11-19 11:01:25,863   wiotp.sdk.device.client.DeviceClient  INFO
Published data Successfully: %s {'temperature': 17, 'humidity': 58}
Published data Successfully: %s {'temperature': -12, 'humidity': 54}
2022-11-19 11:01:28,157   wiotp.sdk.device.client.DeviceClient  ERROR
2022-11-19 11:01:30,387   wiotp.sdk.device.client.DeviceClient  INFO
Published data Successfully: %s {'temperature': 13, 'humidity': 58}
2022-11-19 11:01:32,539   wiotp.sdk.device.client.DeviceClient  ERROR
2022-11-19 11:01:36,830   wiotp.sdk.device.client.DeviceClient  INFO
Published data Successfully: %s {'temperature': 12, 'humidity': 36}
2022-11-19 11:01:38,896   wiotp.sdk.device.client.DeviceClient  ERROR
2022-11-19 11:01:40,986   wiotp.sdk.device.client.DeviceClient  INFO
Published data Successfully: %s {'temperature': 65, 'humidity': 71}
Published data Successfully: %s {'temperature': 111, 'humidity': 75}
Published data Successfully: %s {'temperature': 60, 'humidity': 93}
2022-11-19 11:01:45,426   wiotp.sdk.device.client.DeviceClient  ERROR
2022-11-19 11:01:48,767   wiotp.sdk.device.client.DeviceClient  INFO
Published data Successfully: %s {'temperature': 58, 'humidity': 87}
```


Python 3.7.4 Shell
File Edit Shell Debug Options Window Help
Published data Successfully: %s {'temperature': 68, 'humidity': 16}
2022-11-19 11:09:28,333 wiotp.sdk.device.client.DeviceClient ERROR Unexpected disconnect from IBM Watson IoT Platform: 7
2022-11-19 11:09:35,913 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:rlnl13:SathyaPriya:2609
Published data Successfully: %s {'temperature': 59, 'humidity': 46}
Published data Successfully: %s {'temperature': 48, 'humidity': 86}
Published data Successfully: %s {'temperature': 116, 'humidity': 35}
2022-11-19 11:09:40,653 wiotp.sdk.device.client.DeviceClient ERROR Unexpected disconnect from IBM Watson IoT Platform: 7
2022-11-19 11:09:48,401 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:rlnl13:SathyaPriya:2609
Published data Successfully: %s {'temperature': 63, 'humidity': 94}
Published data Successfully: %s {'temperature': 72, 'humidity': 56}
Published data Successfully: %s {'temperature': 91, 'humidity': 47}
2022-11-19 11:09:53,728 wiotp.sdk.device.client.DeviceClient ERROR Unexpected disconnect from IBM Watson IoT Platform: 7
2022-11-19 11:10:00,012 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:rlnl13:SathyaPriya:2609
Published data Successfully: %s {'temperature': 90, 'humidity': 80}
Published data Successfully: %s {'temperature': -6, 'humidity': 93}
Published data Successfully: %s {'temperature': 117, 'humidity': 78}
Published data Successfully: %s {'temperature': 83, 'humidity': 88}
Published data Successfully: %s {'temperature': 34, 'humidity': 20}
Published data Successfully: %s {'temperature': 25, 'humidity': 48}
Published data Successfully: %s {'temperature': 95, 'humidity': 53}
Published data Successfully: %s {'temperature': 56, 'humidity': 74}
Published data Successfully: %s {'temperature': 27, 'humidity': 11}
Published data Successfully: %s {'temperature': 12, 'humidity': 94}
Published data Successfully: %s {'temperature': 75, 'humidity': 84}
Published data Successfully: %s {'temperature': 123, 'humidity': 75}
Published data Successfully: %s {'temperature': 107, 'humidity': 77}
Published data Successfully: %s {'temperature': 64, 'humidity': 93}
Published data Successfully: %s {'temperature': 9, 'humidity': 97}
Published data Successfully: %s {'temperature': 119, 'humidity': 20}
Published data Successfully: %s {'temperature': -6, 'humidity': 19}
Published data Successfully: %s {'temperature': 55, 'humidity': 94}
Published data Successfully: %s {'temperature': 66, 'humidity': 28}
Published data Successfully: %s {'temperature': 58, 'humidity': 97}
Published data Successfully: %s {'temperature': 93, 'humidity': 61}
Published data Successfully: %s {'temperature': 92, 'humidity': 100}
Published data Successfully: %s {'temperature': 116, 'humidity': 55}
Published data Successfully: %s {'temperature': 13, 'humidity': 63}
Published data Successfully: %s {'temperature': -17, 'humidity': 27}
Published data Successfully: %s {'temperature': -2, 'humidity': 63}
Published data Successfully: %s {'temperature': 52, 'humidity': 6}
Published data Successfully: %s {'temperature': -8, 'humidity': 25}
Published data Successfully: %s {'temperature': 68, 'humidity': 86}
Ln: 117 Col: 116