Publish Data to IBM Cloud

TEAM ID	***PNT2022TMID45478***
PROJECT NAME	***PROJECT- SMART WASTE MANGEMENT FOR METROPOLITAN CITIES***

Step 1: In the python script give the IBM credentials like org id, device type, etc. to connect to IBM cloud.
Step2: Open your cloud account and open Watson platform.
Step 3: In the specified Device Type mentioned in python script show connected.
Step 4: Then click on Recent Events and observe the Output data.

Screenshot:

pythondata.py - C:/Users/AK/Desktop/project/pythondata.py (3.7.2)

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```
import time
import sys

import ibmiotf.application
import ibmiotf.device
import random

#Provide your IBM Watson Device Credentials
organization = "ctmv6u"
deviceType = "NodeMCU"
deviceId = "106003"
authMethod = "token"
authToken = "123456789"

# Initialize GPIO

def myCommandcallback (cmd) :
    print ("Command received: %s" % cmd.data[ 'command' ])
    status=cmd.data['command']
    if status=="lighton" :
        print ("led is on")
    else :
        print ("led is off")

# 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 â€œhelloâ€ with value â€œworldâ€ into the cloud as an event of type â€œgreetingâ€ 10 times
deviceCli.connect ()

while True:
    #Get Sensor Data from DET11
    temp=random.randint (0,100)
```

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Type here to search

24°C Partly cloudy

12:27 AM
18-Nov-22

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# Connect and send a datapoint â€œhelloâ€ with value â€œworldâ€ into the cloud as an event of type â€œgreetingâ€ 10 times
deviceCli.connect ()

while True:
    #Get Sensor Data from DET11
    temp=random.randint (0,100)
    Humid=random. randint (0, 100)

    data = { 'temp': temp, 'Humid': Humid }
#print data
    def myonPublishCallback () :
        print ("Published Temperature = %s C" % temp, "Humidity = %s %%"% Humid, "to IBM Watson")
    success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0, on_publish=myonPublishCallback)
    if not success:
        print ("Not connected to IoTF")
    time.sleep(1)

    devicecli.commandcallback = myCommandcallback

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

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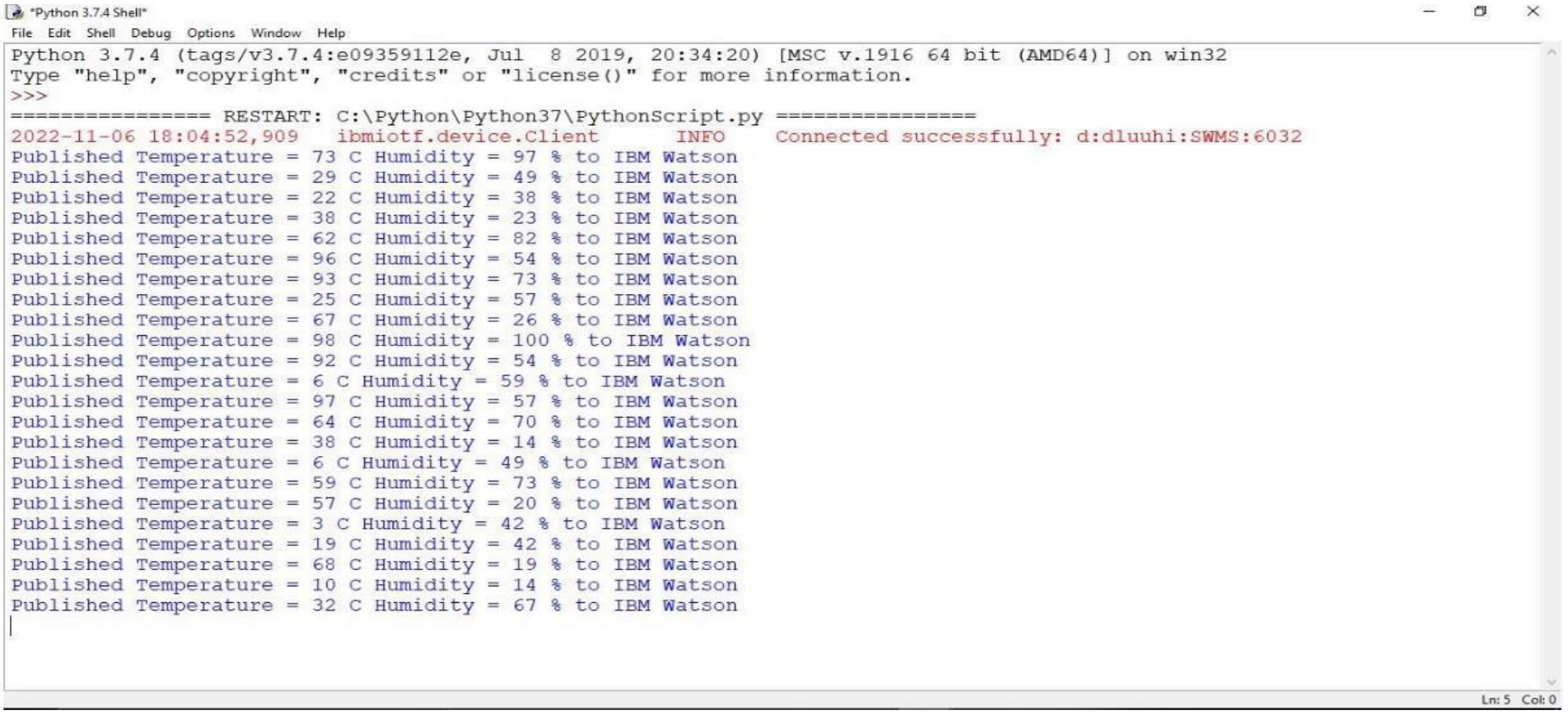
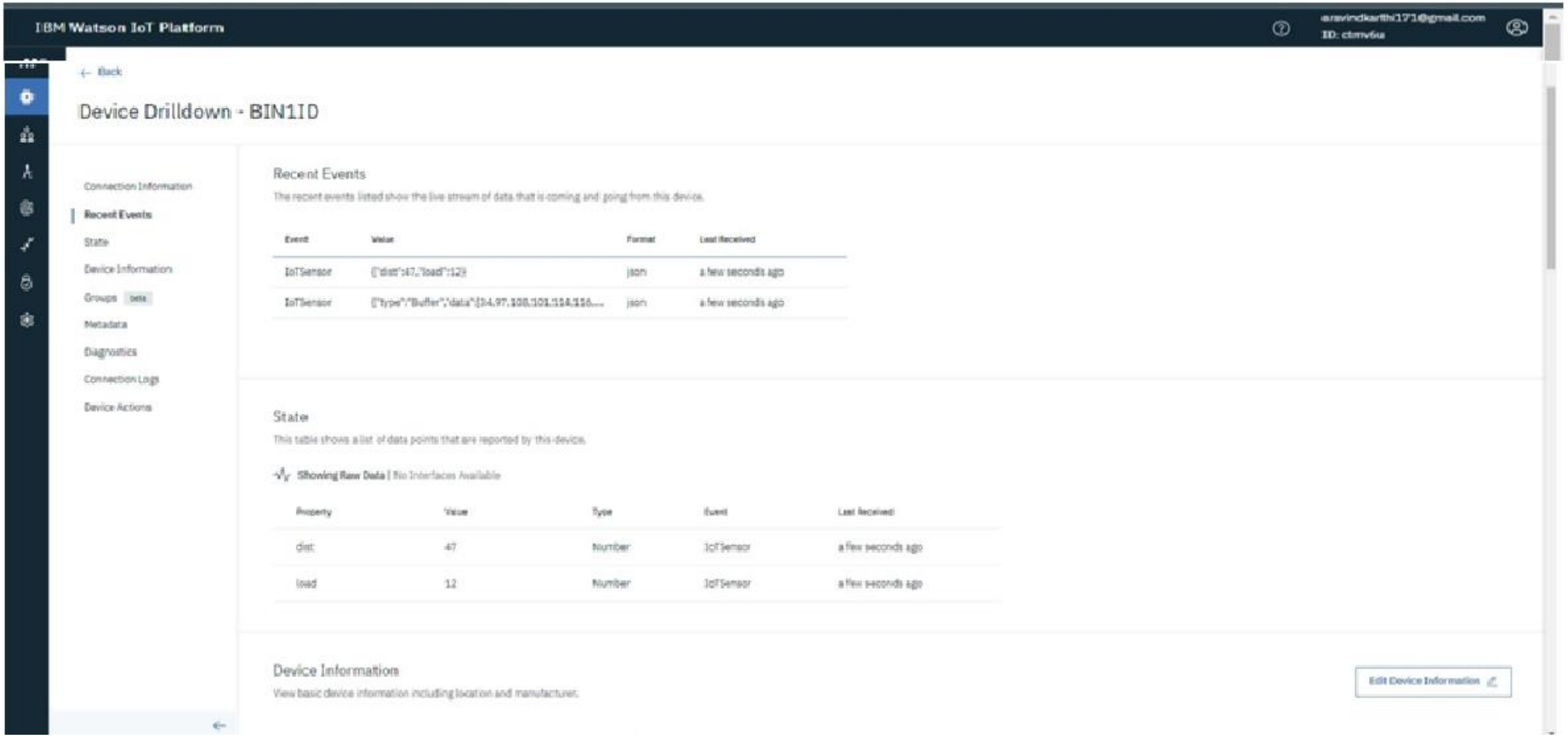
OUTPUT:


Python 3.7.4 Shell
File Edit Shell Debug Options Window Help
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: C:\Python\Python37\PythonScript.py ==========
2022-11-06 18:04:52,909 ibmiotf.device.Client INFO Connected successfully: d:dluuhi:SWMS:6032
Published Temperature = 73 C Humidity = 97 % to IBM Watson
Published Temperature = 29 C Humidity = 49 % to IBM Watson
Published Temperature = 22 C Humidity = 38 % to IBM Watson
Published Temperature = 38 C Humidity = 23 % to IBM Watson
Published Temperature = 62 C Humidity = 82 % to IBM Watson
Published Temperature = 96 C Humidity = 54 % to IBM Watson
Published Temperature = 93 C Humidity = 73 % to IBM Watson
Published Temperature = 25 C Humidity = 57 % to IBM Watson
Published Temperature = 67 C Humidity = 26 % to IBM Watson
Published Temperature = 98 C Humidity = 100 % to IBM Watson
Published Temperature = 92 C Humidity = 54 % to IBM Watson
Published Temperature = 6 C Humidity = 59 % to IBM Watson
Published Temperature = 97 C Humidity = 57 % to IBM Watson
Published Temperature = 64 C Humidity = 70 % to IBM Watson
Published Temperature = 38 C Humidity = 14 % to IBM Watson
Published Temperature = 6 C Humidity = 49 % to IBM Watson
Published Temperature = 59 C Humidity = 73 % to IBM Watson
Published Temperature = 57 C Humidity = 20 % to IBM Watson
Published Temperature = 3 C Humidity = 42 % to IBM Watson
Published Temperature = 19 C Humidity = 42 % to IBM Watson
Published Temperature = 68 C Humidity = 19 % to IBM Watson
Published Temperature = 10 C Humidity = 14 % to IBM Watson
Published Temperature = 32 C Humidity = 67 % to IBM Watson
Ln: 5 Col: 0


IBM Watson IoT Platform
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ID: ctmv6u
← Back
Device Drilldown - BIN1ID
Connection Information
Recent Events
State
Device Information
Groups beta
Metadata
Diagnostics
Connection Logs
Device Actions
Recent Events
The recent events listed show the live stream of data that is coming and going from this device.
Event
Value
Format
Last Received
IoTSensor
{"dist":47,"load":12}
json
a few seconds ago
IoTSensor
{"type":"Buffer","data":[34,97,108,101,114,116,...
json
a few seconds ago
State
This table shows a list of data points that are reported by this device.
Showing Raw Data | No Interfaces Available
Property
Value
Type
Event
Last Received
dist
47
Number
IoTSensor
a few seconds ago
load
12
Number
IoTSensor
a few seconds ago
Device Information
View basic device information including location and manufacturer.
Edit Device Information