Sprint – 1

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Data Generation:

Using random function in python, the required sensor data have been generated and published to IBM Watson IoT Platform.

Python Source Code:

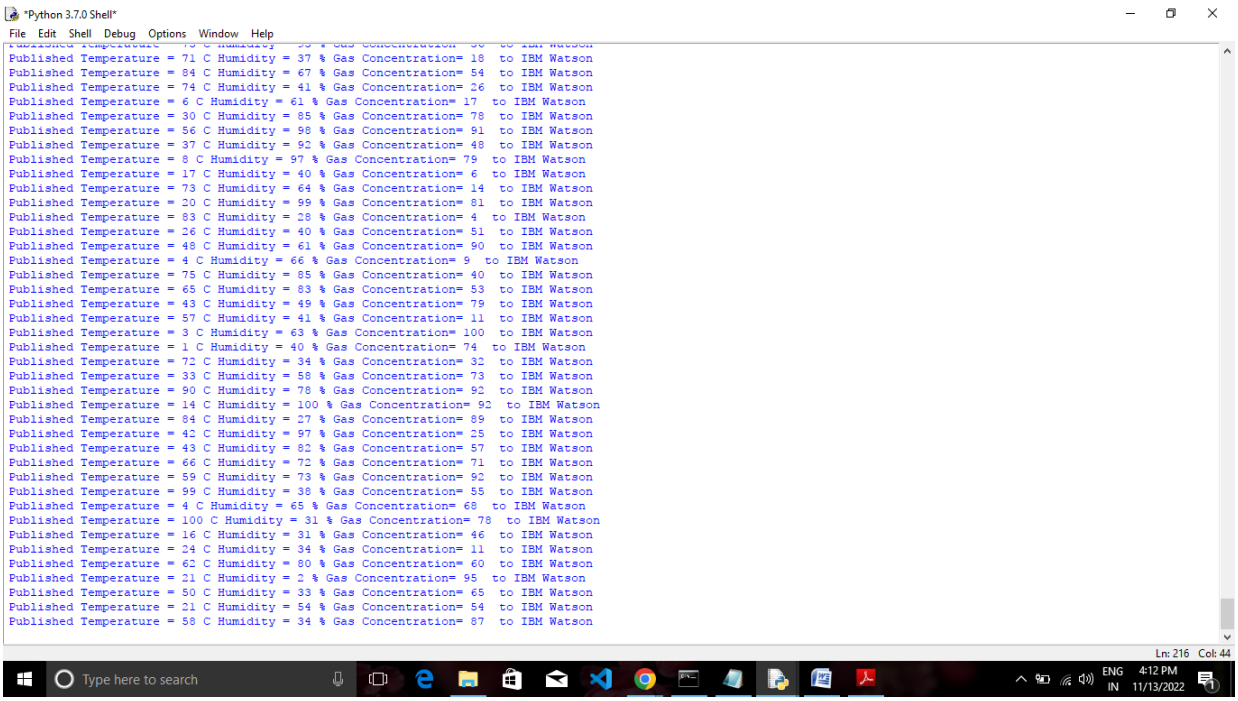
```
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random
# Provide your IBM Watson Device Credentials
organization = "domlyv"
deviceType = "abcd"
deviceId = "12"
authMethod = "token"
authToken = "12345678"

try:

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


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

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

        mydata = {'temp': temp, 'hum': hum, 'gas': gas}

        def on_publish():
            print("Published Temperature = %s C" % temp, "Humidity = %s %%" %
hum, "Gas Concentration = %s" % gas, "to IBM Watson")
            success = deviceCli.publishEvent("IOTSensor", "json", mydata,
        qos=0, on_publish=on_publish)
            if not success:
                print("Not connected to IoTF")
                time.sleep(2)
```

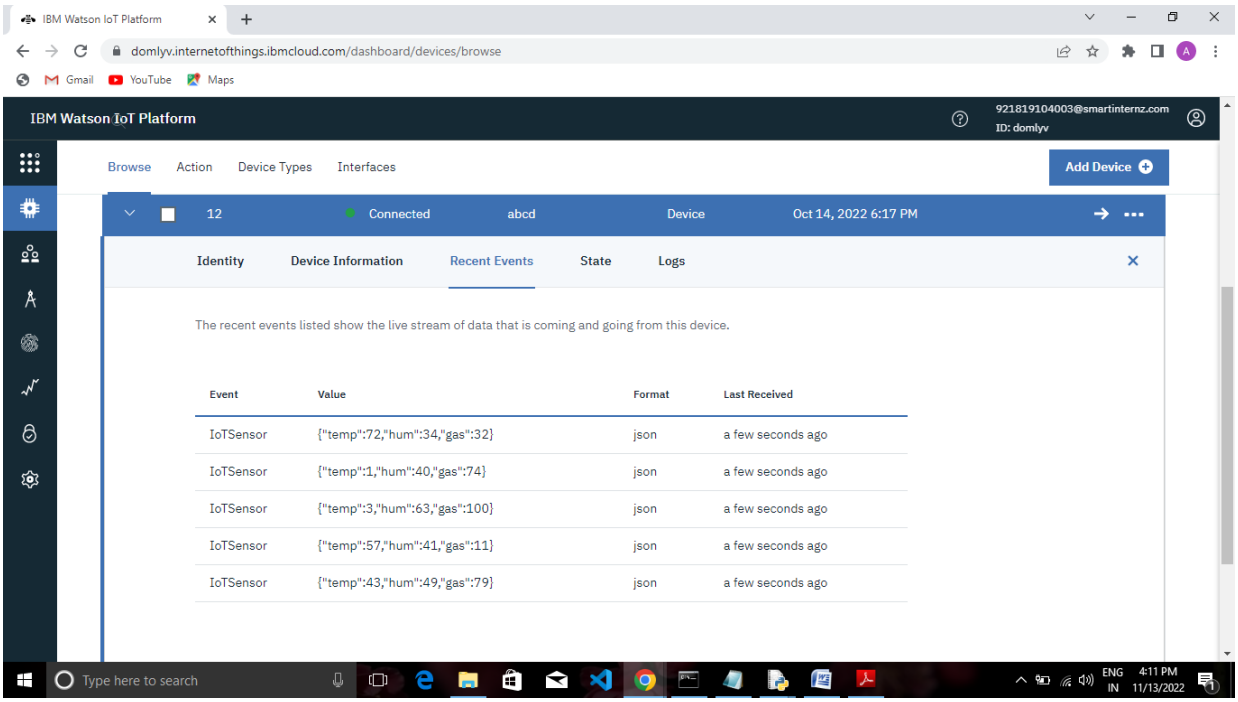
 # Disconnect the device and application from the cloud

```
deviceCli.disconnect()
```

Output:



Output:



Event Generation:

Source code is deployed on IBM Watson IoT platform to generate sensor data.

Source Code:

```
{
"gas": random(0, 100),
"temp": random(0, 100),
"hum": random(0, 100)
}
```

Output: