Sprint-2

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Project Name: IoT Based Smart Crop Protection System for Agriculture

Python code to generate random data and pass it to IBM Watson IoT platform

Source Code:

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

#Provide your IBM Watson Device
Credentials organization = "wu5b55"
deviceType = "crop1" deviceId = "1234"
authMethod = "token"
authToken = "1234567890"

# Initialize GPIO
try:
        deviceOptions = {"org": organization, "type": deviceType, "id": deviceId,
"authmethod": 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 "hello" with value "world" into the cloud as an event of type
"greeting" 10 times
deviceCli.connect()

while True:

    temp=random.randint(0,100)
Hum=random.randint(0,100)
    moisture=random.randint(0,100)

    data = { 'temperature' : temp, 'Humidity': Hum, 'Moisture':moisture }


    def myOnPublishCallback():          print ("Temperature = " + str(temp)+" C
Humidity = " + str(hum)+ " moisture = " + str(moisture) + "to IBM Watson")

    success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0,
```
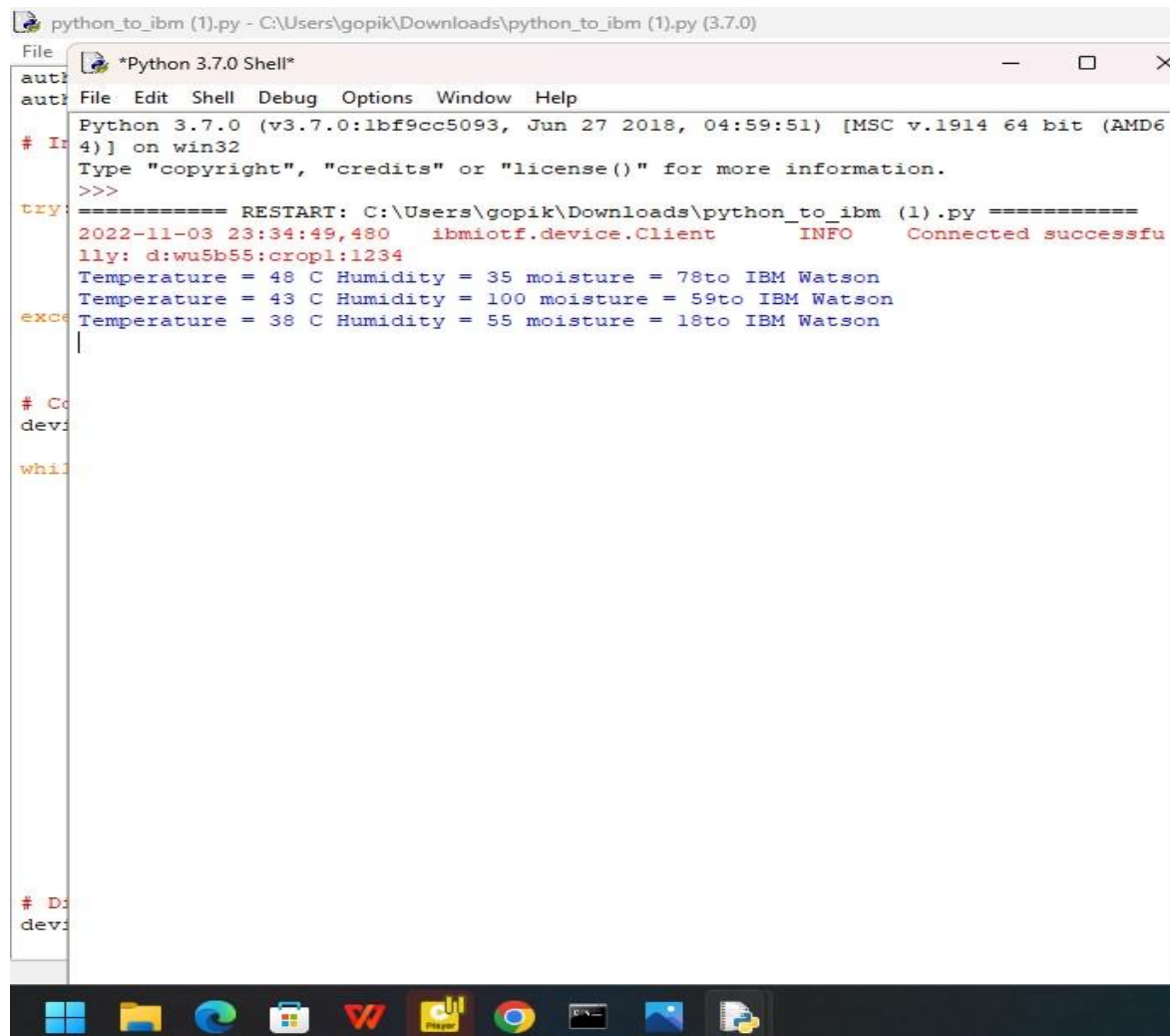
```python
                                    on_publish=myOnPublishCallback)
        if not success:            print("Not
connected to IoTF")
        time.sleep(10)

        deviceCli.commandCallback = myCommandCallback

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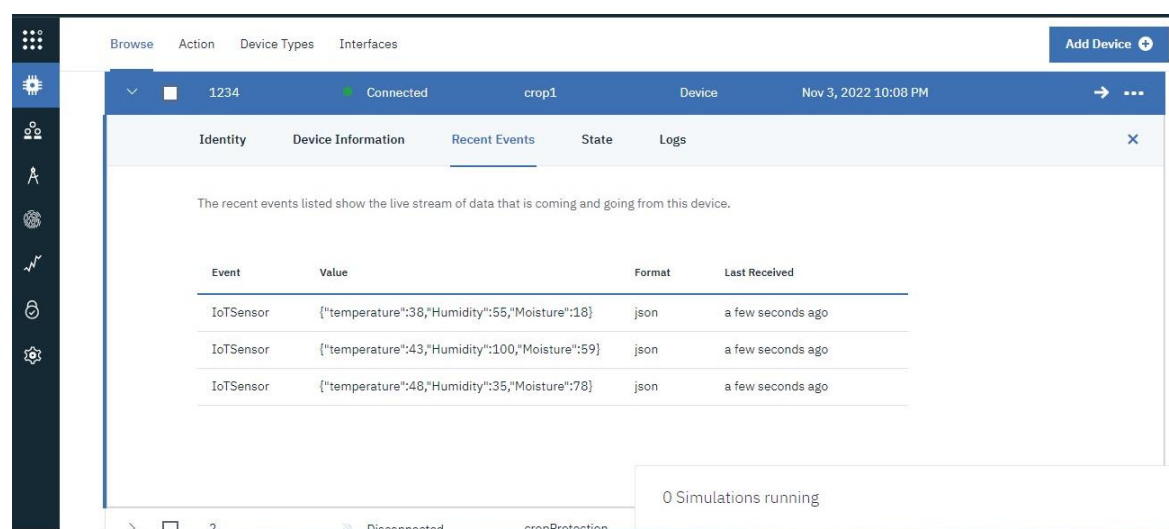
Output: