Sprint-3

DATE	15 NOVEMBER 2022
TEAM ID	PNT2022TMID44579
PROJECT NAME	IOT Based Smart Crop Protection System For Agriculture.
MAXIMU MARKS	20 MARKS

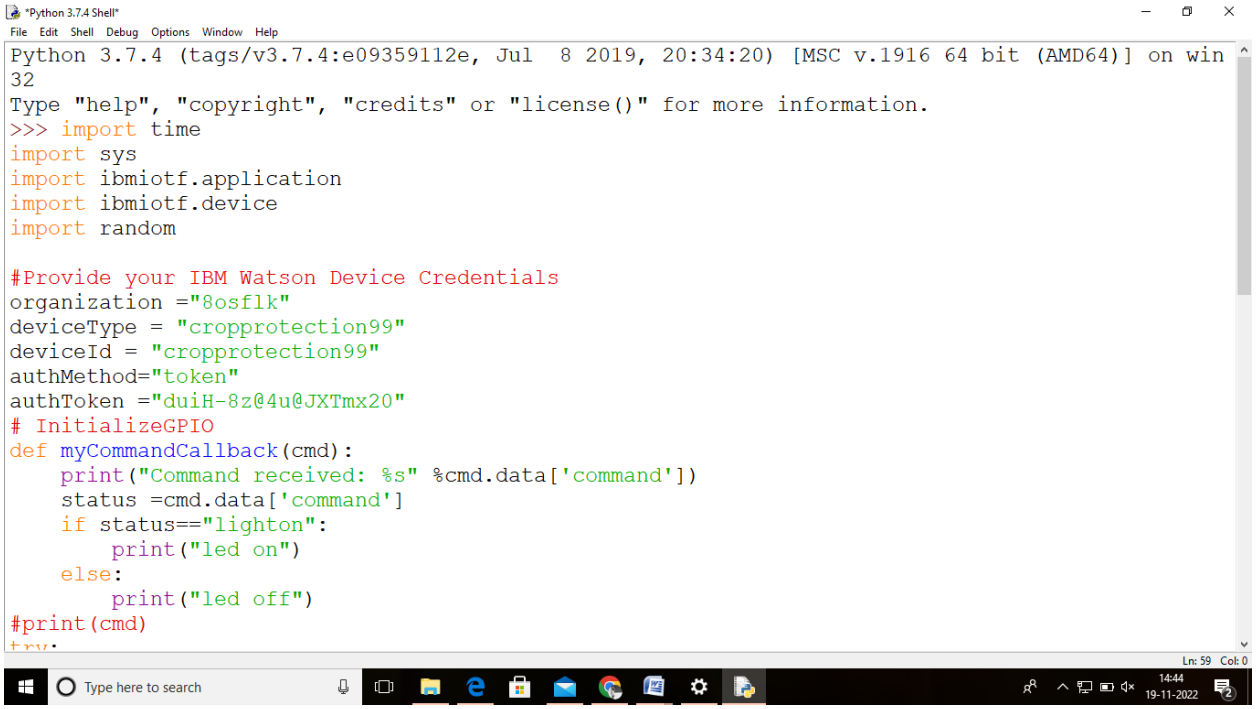
PYTHON CODE:

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


#Provide your IBM Watson Device Credentials
organization ="8osflk"
deviceType = "cropprotection99"
deviceId = "cropprotection99"
authMethod="token"
authToken ="duiH-8z@4u@JXTmx20"
# InitializeGPIO
def myCommandCallback(cmd):
   print("Command received: %s" %cmd.data['command'])
   status =cmd.data['command']
   if status=="lighton":
```

```
        print("led on")
    else:
        print("led 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()


#Connectandsendadatapoint"hello"withvalue"world"intothecloudasaneventtye "greeting"10times
deviceCli.connect()



while True:
    #GetSensorDatafromDHT11


    temp=random.randint(0,100)
    humid=random.randint(0,100)
```

```
   data={'temperature':temp,'humidity':humid}
        #printdata
   def myOnPublishCallback():
     print("Published Temperature=%s C" %temp,"Humidity=%s %%" % humid,"to IBMWatson")

success=deviceCli.publishEvent("IoTSensor","json",data,qos=0,on_publish=myOnPublishCallback)

   if not success:
     print("NotconnectedtoIoTF")
   time.sleep(1)

   deviceCli.commandCallback=myCommandCallback

#Disconnectthedeviceandapplicationfromthecloud
deviceCli.disconnect()
```

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 win
32
Type "help", "copyright", "credits" or "license()" for more information.
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import sys
import ibmiotf.application
import ibmiotf.device
import random
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try:
Ln: 59 Col: 0
Type here to search
14:44
19-11-2022


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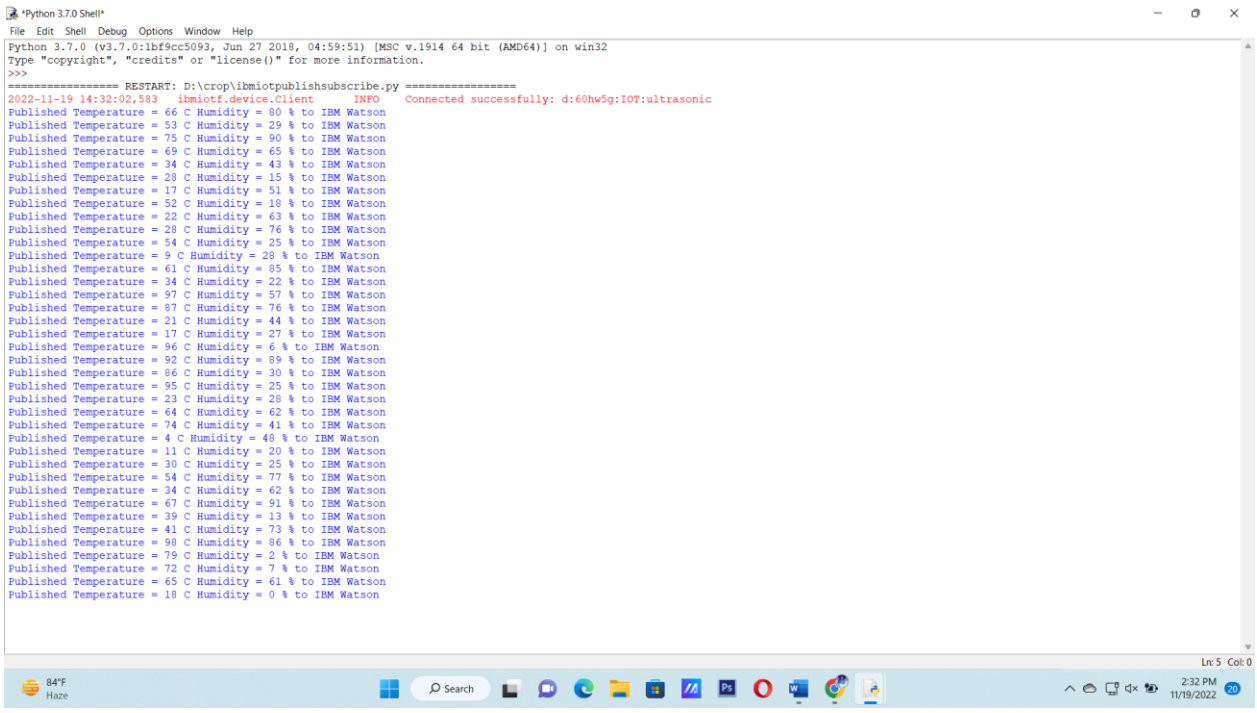
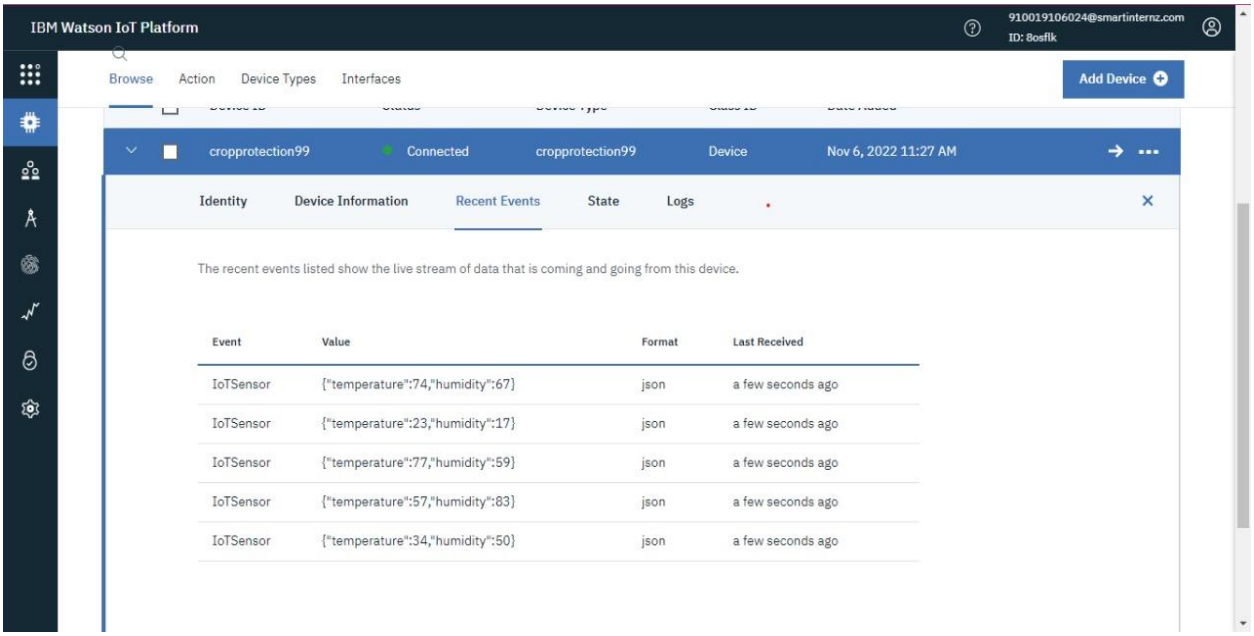


IBM WATSON IOT PLATFORM:


IBM Watson IoT Platform
910019106024@smartinternz.com
ID: 8osflk
Browse
Action
Device Types
Interfaces
Add Device
cropprotection99
Connected
cropprotection99
Device
Nov 6, 2022 11:27 AM
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
IoTSensor
{"temperature":74,"humidity":67}
json
a few seconds ago
IoTSensor
{"temperature":23,"humidity":17}
json
a few seconds ago
IoTSensor
{"temperature":77,"humidity":59}
json
a few seconds ago
IoTSensor
{"temperature":57,"humidity":83}
json
a few seconds ago
IoTSensor
{"temperature":34,"humidity":50}
json
a few seconds ago