

Sprint-3

DATE	16 NOVEMBER 2022
TEAM ID	PNT2022TMID46314
PROJECT NAME	Real time communication system powered by ai speacially abled
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()

#Connect and send a datapoint "hello" with value "world" into the cloud as an event type
"greeting" 10 times
deviceCli.connect()

while True:
    #Get Sensor Data from DHT11

    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=myO
nPublishCallback)

if not success:

    print("NotconnectedtoIoT")
    time.sleep(1)

deviceCli.commandCallback=myCommandCallback

#Disconnectthedeviceandapplicationfromthecloud
deviceCli.disconnect()
```

OUTPUT:

```

ibmiot.py - C:/Users/Latha/AppData/Local/Programs/Python/Python37/ibmiot.py (3.7.0)
File Edit Format Run Options Window Help

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

#Provide your IBM Watson Device Credentials
organization = "80esflk"
deviceType = "cropprotection99"
deviceId = "cropprotection99"
authMethod="token"
authToken = "duiH-8z@4u$XITmx20"
# 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()

#Connectandsenddatapoint"hello"withvalue"world"intothecloudasaneventoftype"greeting"10times
deviceCli.connect()

while True:
    #GetSensorDatafromDHT11

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

    data={'temperature':temp,'humidity':humid}
    #printdata

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()

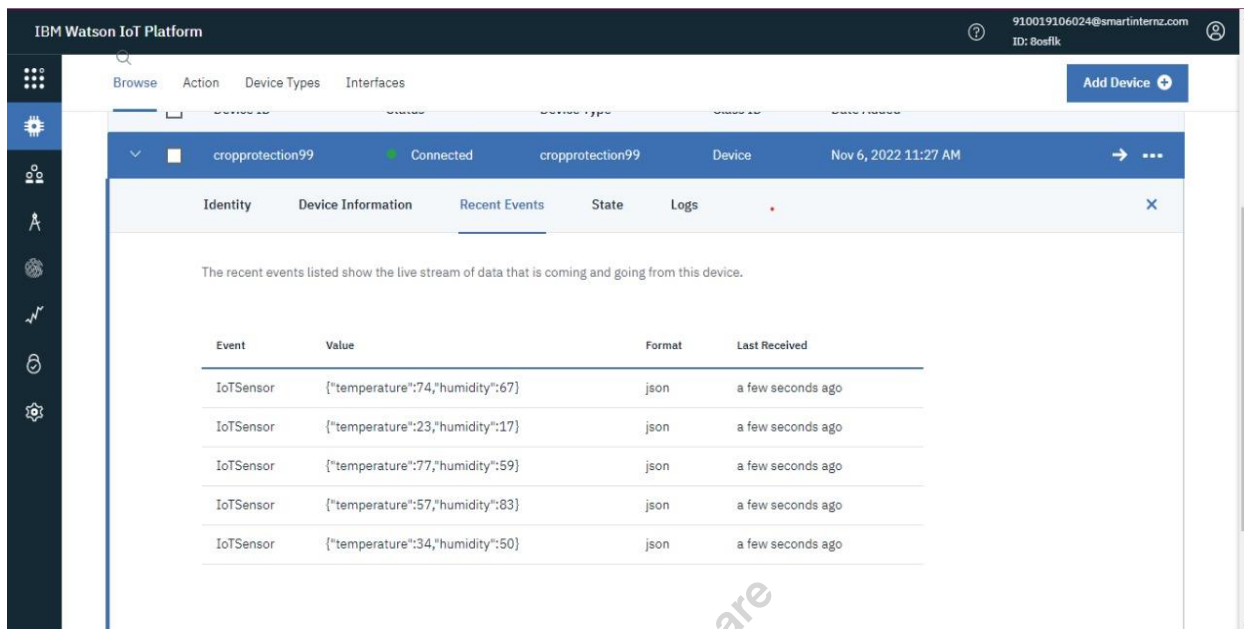
```

Ln: 49 Col: 0

```
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help

Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
== RESTART: C:/Users/Latha/AppData/Local/Programs/Python/Python37/ikmiot.py ==
2022-11-13 22:01:48,939 ikmiotf.device.Client INFO Connected successfully: d:8osflk:cropprotection99:cropprotection99
Published Temperature=9 C Humidity=50 % to IBMWatson
Published Temperature=37 C Humidity=55 % to IBMWatson
Published Temperature=96 C Humidity=60 % to IBMWatson
Published Temperature=4 C Humidity=11 % to IBMWatson
Published Temperature=67 C Humidity=49 % to IBMWatson
Published Temperature=79 C Humidity=13 % to IBMWatson
Published Temperature=83 C Humidity=7 % to IBMWatson
Published Temperature=68 C Humidity=70 % to IBMWatson
Published Temperature=69 C Humidity=68 % to IBMWatson
Published Temperature=61 C Humidity=36 % to IBMWatson
Published Temperature=20 C Humidity=76 % to IBMWatson
Published Temperature=3 C Humidity=93 % to IBMWatson
Published Temperature=41 C Humidity=98 % to IBMWatson
Published Temperature=31 C Humidity=96 % to IBMWatson
Published Temperature=78 C Humidity=22 % to IBMWatson
Published Temperature=65 C Humidity=75 % to IBMWatson
Published Temperature=16 C Humidity=89 % to IBMWatson
Published Temperature=87 C Humidity=95 % to IBMWatson
Published Temperature=7 C Humidity=35 % to IBMWatson
Published Temperature=17 C Humidity=85 % to IBMWatson
Published Temperature=32 C Humidity=74 % to IBMWatson
|
```

IBM WATSON IOT PLATFORM:



The screenshot displays the IBM Watson IoT Platform interface. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. A search bar is present, and a user profile is shown in the top right corner with the email '910019106024@smartinternz.com' and ID '8osfik'. The main content area shows a list of devices, with 'cropprotection99' selected. The device status is 'Connected', and the last update is 'Nov 6, 2022 11:27 AM'. The 'Recent Events' tab is active, showing a table of live stream data.

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