

Sprint-3

DATE	17 NOVEMBER 2022
TEAM ID	PNT2022TMID44688
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"gre
eting"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=myOn
PublishCallback)


if not success:

    print("NotconnectedtoIoTF")

time.sleep(1)


deviceCli.commandCallback=myCommandCallback


#Disconnectthedeviceandapplicationfromthecloud
deviceCli.disconnect()

```

OUTPUT:

ibmiot.py - C:/Users/Latha/AppData/Local/Programs/Python/Python377/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 = "80sfik"
deviceType = "cropprotection99"
deviceId = "cropprotection99"
authMethod="token"
authToken = "duiH-8z@4u$UXTmx20"
# 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
```

Ln: 49 Col: 0

```
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("NotconnectedtoIoT")
    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 (tags/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/ibmiot.py ==
2022-11-13 22:01:48,939 ibmiotf.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:

IBM Watson IoT Platform

910019106024@smartinternz.com
ID: Bosflk

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