Develop A Python Script To Publish & Subscribe To IBM IoT Platform Develop The Python Code

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Project Name	Project : SmartFarmer - IoT Enabled Smart Farming Application

PYTHON CODE:

```
import time

import sys

import ibmiotf.application

import ibmiotf.device

import random


#Provide your IBM Watson Device Credentials

organization = "vo6jfg"

deviceType = "Arduino"

deviceId = "2266"

authMethod = "token"

authToken = "12345678"



# Initialize GPIO
```

```python
def myCommandCallback(cmd):

    print("Command received: %s" % cmd.data['command'])

    status=cmd.data['command']

    if status=="lighton":

        print ("led is on")

    else :

        print ("led is 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 of type "greeting" 10 times

deviceCli.connect()
```

```python
while True:

    #Get Sensor Data from DHT11


    temp=random.randint(90,110)

    Humid=random.randint(60,100)


    data = { 'temp' : temp, 'Humid': Humid }

    #print data

    def myOnPublishCallback():

        print ("Published Temperature = %s C" % temp, "Humidity = %s
%%" % Humid, "to IBM Watson")


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