

DEVELOP A PYTHON SCRIPT TO PUBLISH AND SUBSCRIBE TO IBM IOT PLATFORM

Date	30 October 2022
Team ID	PNT2022TMID02368
Project Name	SMARTFARMER – IoT ENABLED SMART FARMING APPLICATION

PROGRAM :

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

#Provide your IBM Watson Device Credentials
organization = "bxobbs"
deviceType = "b5ibm"
deviceId = "b5device"
authMethod = "token"
authToken = "b55m1eibm"

# Initialize GPIO

'''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()

while True:
    #Get Sensor Data from DHT11

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

    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 IoT")
        time.sleep(1)

    deviceCli.commandCallback =
myCommandCallback

# Disconnect the device and application from the cloud

```

deviceCli.disconnect()