Team Id	PNT2022TMID11481
Project Title	SmartFarmer - IoT Enabled Smart Farming Application

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


#Provide your IBM Watson Device Credentials
organization = "47l2i8"
deviceType = "akk"
deviceId = "2005"
authMethod = "token"
authToken = "Confidential"

# 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 IoTF")
    time.sleep(1)

    deviceCli.commandCallback = myCommandCallback

# Disconnect the device and application from the cloud
deviceCli.disconnect()
```

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


#Provide your IBM Watson Device Credentials
organization = "47l2i8"
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# Initialize GPIO

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    #print(cmd)

try:
        deviceOptions = {"org": organization, "type": deviceType, "id": device
        deviceCli = ibmiotf.device.Client(deviceOptions)
        #...........................................

except Exception as e:
        print("Caught exception connecting device: %s" % str(e))
```

```
Python 3.7.4 (v3.7.4:e09359112e, Jul  8 2019, 14:54:52)
[Clang 6.0 (clang-600.0.57)] on darwin
Type "help", "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: /Users/akkashrao/Desktop/Python IBM run/run.py ==
========
2022-11-09 13:18:22,448  ibmiotf.device.Client    INFO   Connected successfull
y: d:47l2i8:akk:2005
Published Temperature = 38 C Humidity = 61 % to IBM Watson
Published Temperature = 15 C Humidity = 37 % to IBM Watson
Published Temperature = 100 C Humidity = 68 % to IBM Watson
Published Temperature = 98 C Humidity = 32 % to IBM Watson
Published Temperature = 10 C Humidity = 83 % to IBM Watson
Published Temperature = 97 C Humidity = 14 % to IBM Watson
Published Temperature = 15 C Humidity = 97 % to IBM Watson
Published Temperature = 86 C Humidity = 84 % to IBM Watson
Published Temperature = 30 C Humidity = 74 % to IBM Watson
Published Temperature = 41 C Humidity = 93 % to IBM Watson
Published Temperature = 47 C Humidity = 68 % to IBM Watson
Published Temperature = 31 C Humidity = 85 % to IBM Watson
Published Temperature = 76 C Humidity = 90 % to IBM Watson
Published Temperature = 1 C Humidity = 60 % to IBM Watson
Published Temperature = 20 C Humidity = 4 % to IBM Watson
Published Temperature = 48 C Humidity = 88 % to IBM Watson
Published Temperature = 21 C Humidity = 5 % to IBM Watson
Published Temperature = 33 C Humidity = 8 % to IBM Watson
Published Temperature = 38 C Humidity = 40 % to IBM Watson
Published Temperature = 59 C Humidity = 69 % to IBM Watson
Published Temperature = 68 C Humidity = 27 % to IBM Watson
Published Temperature = 39 C Humidity = 67 % to IBM Watson
Published Temperature = 38 C Humidity = 91 % to IBM Watson
Published Temperature = 6 C Humidity = 91 % to IBM Watson
```

Ln: 1   Col: 0   Ln: 6   Col: 0