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

TITLE	Smart Farmer-IOT Enabled Smart
	Farming Application
DOMAIN NAME	INTERNET OF THINGS
TEAM ID	PNT2022TMID23830
Project Name	Smart Farmer - IoT Enabled Smart Farming Application
Leader Name	GOWSALYA L
Team Members Name	DEEPIKA B K MEGAVARSHINI G MONISHA N
MENTOR NAME	THIRUPPATHI M

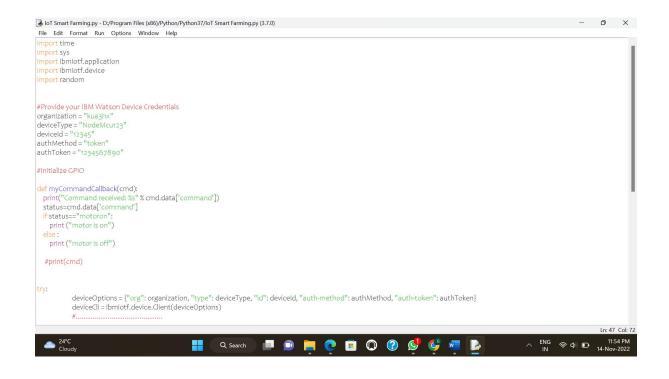
PYTHON CODE:

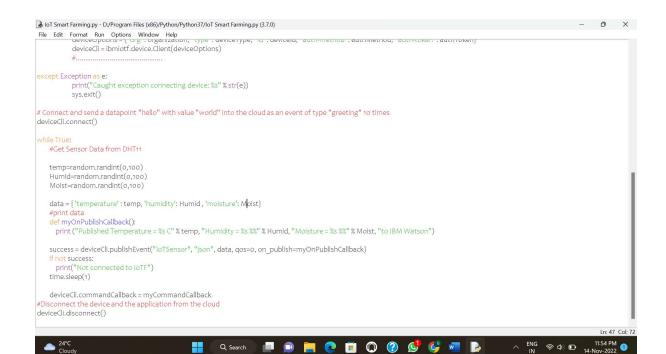
#print(cmd)

import time

```
import sys
import ibmiotf.application
import ibmiotf.device
import random
#Provide your IBM Watson Device Credentials
organization = "kua3hx"
deviceType = "NodeMcu123"
deviceId = "12345"
authMethod = "token"
authToken = "1234567890"
#Initialize GPIO
def myCommandCallback(cmd):
  print("Command received: %s" % cmd.data['command'])
  status=cmd.data['command']
  if status=="Motor ON":
    print ("Motor is ON")
  else:
    print ("Motor is OFF")
```

```
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)
    Moist=random.randint(0,100)
    data = { 'temperature' : temp, 'humidity': Humid, 'moisture': Moist}
    #print data
    def myOnPublishCallback():
       print ("Published Temperature = %s C" % temp, "Humidity = %s %%" % Humid,
"Moisture = %s %%" % Moist, "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 the application from the cloud
deviceCli.disconnect()
```





PUBLISHING AND SUBSCRIBING TO IBM IOT PLATFORM:

