DEVELOP A PYTHON SCRIPT

Team ID	PNT2022TMID50064
Project Name	Hazardous Area Monitoring For Industrial Plant Powered by IoT

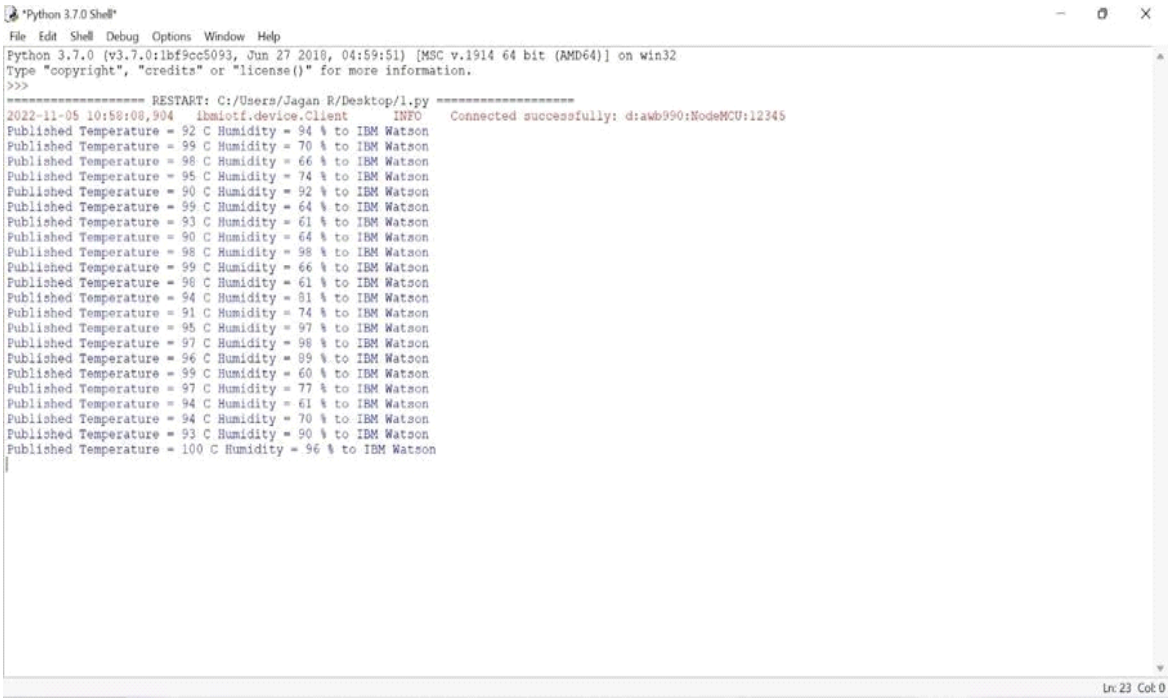
```
import time import sys
importibmiotf.application
import ibmiotf.device import
random



#Provide your IBM Watson Device Credentials
organization = "awb990" deviceType = "NodeMCU"
deviceId = "12345" authMethod = "token" authToken
= "12345678"


# Initialize GPIO



def myCommandCallback(cmd): print("Command received: %s" %
    cmd.data['command']) status=cmd.data['command']
    if
        status=="lighton
```

```
    ":print ("led is
    on")
elif status==
    "lightoff":print
    ("led is off")
else :
    print ("please send proper command")

#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(90,100)
        Humid=random.randint(60,100
        )


        data = { 'temp' : temp, 'Humid': Humid
        }#print data def
        myOnPublishCallback():
            print ("Published Temperature = %s C" % temp, "Humidity = %s %%" % Humid,
"toIBM 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()
```

OUTPUT:


Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (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/Jagan R/Desktop/1.py ==========
2022-11-05 10:58:08,904 ibmiotf.device.Client INFO Connected successfully: d:awb990:NodeMCU:12345
Published Temperature = 92 C Humidity = 94 % to IBM Watson
Published Temperature = 99 C Humidity = 70 % to IBM Watson
Published Temperature = 98 C Humidity = 66 % to IBM Watson
Published Temperature = 95 C Humidity = 74 % to IBM Watson
Published Temperature = 90 C Humidity = 92 % to IBM Watson
Published Temperature = 99 C Humidity = 64 % to IBM Watson
Published Temperature = 93 C Humidity = 61 % to IBM Watson
Published Temperature = 90 C Humidity = 64 % to IBM Watson
Published Temperature = 98 C Humidity = 98 % to IBM Watson
Published Temperature = 99 C Humidity = 66 % to IBM Watson
Published Temperature = 98 C Humidity = 61 % to IBM Watson
Published Temperature = 94 C Humidity = 81 % to IBM Watson
Published Temperature = 91 C Humidity = 74 % to IBM Watson
Published Temperature = 95 C Humidity = 97 % to IBM Watson
Published Temperature = 97 C Humidity = 98 % to IBM Watson
Published Temperature = 96 C Humidity = 89 % to IBM Watson
Published Temperature = 99 C Humidity = 60 % to IBM Watson
Published Temperature = 97 C Humidity = 77 % to IBM Watson
Published Temperature = 94 C Humidity = 61 % to IBM Watson
Published Temperature = 94 C Humidity = 70 % to IBM Watson
Published Temperature = 93 C Humidity = 90 % to IBM Watson
Published Temperature = 100 C Humidity = 96 % to IBM Watson
Ln: 23 Col: 0