

FINAL CODE

TEAM ID	PNT2022TMID28572
PROJECT TITLE	Hazardous area monitoring for industrial plant powered by IoT
DATE	17-11-2022

ALGORITHM:

1. Start
2. Import 3 modules
3. Create the IBM IoT platform device
4. Give device id
5. Connect the device
6. Introducing my command call back function
7. Get a random temperature and humidity values
8. Loop infinitely
9. Print the random temperature and humidity values on console
10. Publish the values to IBM Watson IoT platform
11. Stop

SOURCE CODE:

```
#connecting the python to IBM watson IoT platform
import wiotp.sdk.device
import time
import random
myconfig = {
    "identity":{
        "orgId":"ph99dh",
        "typeId":"NodeMCU",
        "deviceId":"123456"
    },
    "auth":{
        "token":"gkfpv_xfl1FB1)*fvy"
    }
}
```

```

def myCommandCallback(cmd):
    print("Message received from IBM IoT platform: %s" % cmd.data['command'])
    m=cmd.data['command']

client = wiotp.sdk.device.DeviceClient(config=myconfig, logHandlers=None)
client.connect()
while True:
    temp=random.randint(-20,125)
    hum=random.randint(0,100)
    myData={'temperature':temp, 'humidity':hum}
    client.publishEvent(eventId="status",msgFormat="json",data=myData,qos=0,onPublish=None)
    print("Published data Successfully: %s",myData)
    client.commandCallback =myCommandCallback
    time.sleep(2)
client.disconnect()

```

Fig. Screenshot of python code



The screenshot shows a Windows-style code editor window titled "ibmfinalcode.py - C:\Python\Python310\ibmfinalcode.py (3.7.0)". The code is a Python script for connecting to the IBM Watson IoT platform. It includes imports for wiotp.sdk.device, time, and random. A configuration dictionary 'myconfig' is defined with fields for identity (orgId, typeId, deviceId) and authentication (token). A callback function 'myCommandCallback' is defined to print received commands. The main logic connects a DeviceClient, publishes status events with random temperature and humidity data, and enters a loop where it publishes data every 2 seconds. The script ends with a disconnect call. The Windows taskbar at the bottom shows the date as 17-11-2022 and time as 23:58.

```

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File Edit Format Run Options Window Help
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