# Develop A Python Script:

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|---|---|
| Team Id | PNT2022TMID41855 |
| Project Name | Hazardous Area Monitoring for industrial Plant powered by IoT |

```
File  Edit  Format  Run  Options  Window  Help
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random



# Initialize GPIO

#Provide your IBM Watson Device Credentials
organization = "0vbvyp"
deviceType = "hazardous_monitoring"
deviceId = "hazard_report"
authMethod = "token"
authToken = "?jZ6JKfpj!Cq?tTO5M"


def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
    print(cmd)

    if temp>60:
        print("alert")



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)
        oxygen =random.randint(0,100)


        data = { 'temp' : temp, 'humidity': humid ,'oxygen': oxygen}
```

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```
        data = { 'temp' : temp, 'humidity': humid ,'oxygen': oxygen}
        data1 = { 'High temperature' : temp>60}
        #print data
        def myOnPublishCallback():
            print ("Published Temperature = %s C" % temp, "humidity = %s %%" % humid,"alert",   "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()
```

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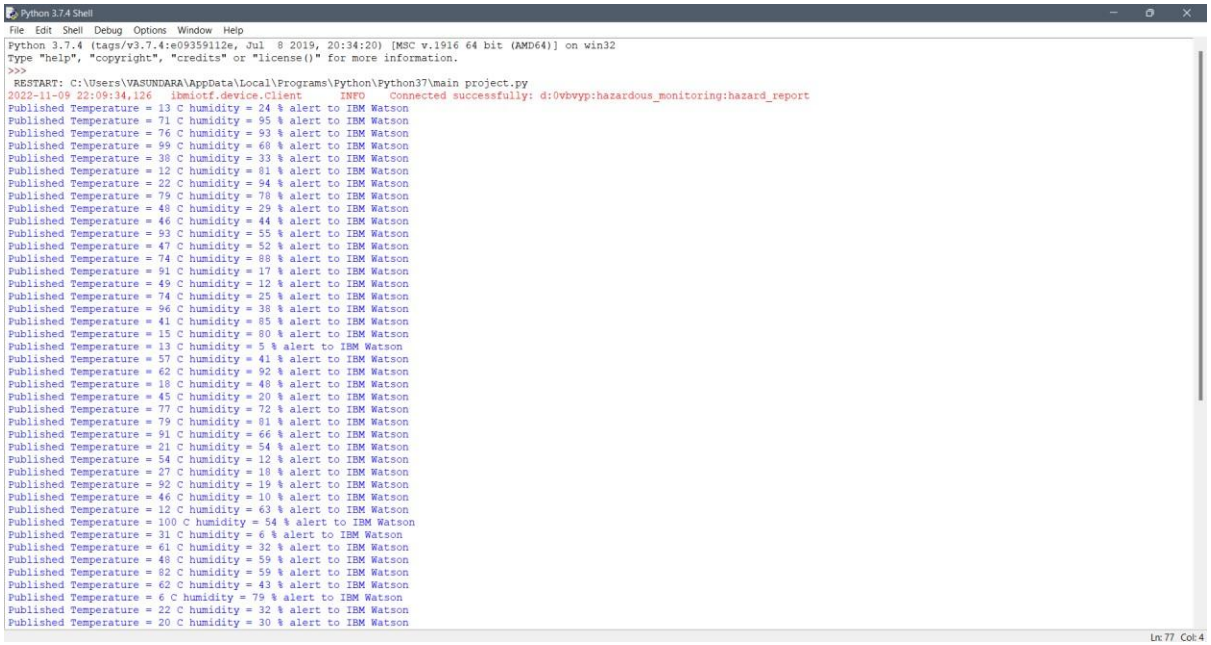
# OUTPUT:


Python 3.7.4 Shell
File Edit Shell Debug Options Window Help
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
RESTART: C:\Users\VASUNDARA\AppData\Local\Programs\Python\Python37\main project.py
2022-11-09 22:09:34,126 ibmiotf.device.Client INFO Connected successfully: d:0vbvyp:hazardous_monitoring:hazard_report
Published Temperature = 13 C humidity = 24 % alert to IBM Watson
Published Temperature = 71 C humidity = 95 % alert to IBM Watson
Published Temperature = 76 C humidity = 93 % alert to IBM Watson
Published Temperature = 99 C humidity = 68 % alert to IBM Watson
Published Temperature = 38 C humidity = 33 % alert to IBM Watson
Published Temperature = 12 C humidity = 81 % alert to IBM Watson
Published Temperature = 22 C humidity = 94 % alert to IBM Watson
Published Temperature = 79 C humidity = 78 % alert to IBM Watson
Published Temperature = 48 C humidity = 29 % alert to IBM Watson
Published Temperature = 46 C humidity = 44 % alert to IBM Watson
Published Temperature = 93 C humidity = 55 % alert to IBM Watson
Published Temperature = 47 C humidity = 52 % alert to IBM Watson
Published Temperature = 74 C humidity = 88 % alert to IBM Watson
Published Temperature = 91 C humidity = 17 % alert to IBM Watson
Published Temperature = 49 C humidity = 12 % alert to IBM Watson
Published Temperature = 74 C humidity = 25 % alert to IBM Watson
Published Temperature = 96 C humidity = 38 % alert to IBM Watson
Published Temperature = 41 C humidity = 85 % alert to IBM Watson
Published Temperature = 15 C humidity = 80 % alert to IBM Watson
Published Temperature = 13 C humidity = 5 % alert to IBM Watson
Published Temperature = 57 C humidity = 41 % alert to IBM Watson
Published Temperature = 62 C humidity = 92 % alert to IBM Watson
Published Temperature = 18 C humidity = 48 % alert to IBM Watson
Published Temperature = 45 C humidity = 20 % alert to IBM Watson
Published Temperature = 77 C humidity = 72 % alert to IBM Watson
Published Temperature = 79 C humidity = 81 % alert to IBM Watson
Published Temperature = 91 C humidity = 66 % alert to IBM Watson
Published Temperature = 21 C humidity = 54 % alert to IBM Watson
Published Temperature = 54 C humidity = 12 % alert to IBM Watson
Published Temperature = 27 C humidity = 18 % alert to IBM Watson
Published Temperature = 92 C humidity = 19 % alert to IBM Watson
Published Temperature = 46 C humidity = 10 % alert to IBM Watson
Published Temperature = 12 C humidity = 63 % alert to IBM Watson
Published Temperature = 100 C humidity = 54 % alert to IBM Watson
Published Temperature = 31 C humidity = 6 % alert to IBM Watson
Published Temperature = 61 C humidity = 32 % alert to IBM Watson
Published Temperature = 48 C humidity = 59 % alert to IBM Watson
Published Temperature = 82 C humidity = 59 % alert to IBM Watson
Published Temperature = 62 C humidity = 43 % alert to IBM Watson
Published Temperature = 6 C humidity = 79 % alert to IBM Watson
Published Temperature = 22 C humidity = 32 % alert to IBM Watson
Published Temperature = 20 C humidity = 30 % alert to IBM Watson
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