

PROJECT DEVELOPMENT PHASE

SPRINT 3

HAZARDOUS AREA MONITORING FOR INDUSTRIAL PLANT POWERED BY IOT

TEAM ID: PNT2022TMID03488

CODE:

```
python.py - C:\Users\91949\AppData\Local\Programs\Python\Python37\python.py (3.7.0)
File Edit Format Run Options Window Help

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

#Provide your IBM Watson Device Credentials
organization = "m22k3n"
deviceType = "abod"
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")

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(90,110)
    Humid=random.randint(60,100)
```

OUTPUT:

```
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help

Published Temperature = 102 C Humidity = 99 % to IBM Watson
Published Temperature = 97 C Humidity = 79 % to IBM Watson
Published Temperature = 93 C Humidity = 91 % to IBM Watson
Published Temperature = 101 C Humidity = 63 % to IBM Watson
Published Temperature = 94 C Humidity = 88 % to IBM Watson
Published Temperature = 95 C Humidity = 84 % to IBM Watson
Published Temperature = 105 C Humidity = 73 % to IBM Watson
Published Temperature = 105 C Humidity = 72 % to IBM Watson
Published Temperature = 97 C Humidity = 68 % to IBM Watson
Published Temperature = 92 C Humidity = 63 % to IBM Watson
Published Temperature = 98 C Humidity = 94 % to IBM Watson
Published Temperature = 109 C Humidity = 73 % to IBM Watson
Published Temperature = 109 C Humidity = 61 % to IBM Watson
Published Temperature = 93 C Humidity = 83 % to IBM Watson

=== RESTART: C:\Users\91949\AppData\Local\Programs\Python\Python37\python.py ===
2022-11-19 12:07:45,948 ibmiotf.device.Client INFO Connected successfully: d:m2k3n:abod:12345
Published Temperature = 97 C Humidity = 82 % to IBM Watson
Published Temperature = 90 C Humidity = 62 % to IBM Watson
Published Temperature = 109 C Humidity = 62 % to IBM Watson
Published Temperature = 97 C Humidity = 90 % to IBM Watson
Published Temperature = 103 C Humidity = 70 % to IBM Watson
Published Temperature = 97 C Humidity = 83 % to IBM Watson
Published Temperature = 110 C Humidity = 91 % to IBM Watson
Published Temperature = 102 C Humidity = 99 % to IBM Watson
Published Temperature = 90 C Humidity = 95 % to IBM Watson
Published Temperature = 106 C Humidity = 78 % to IBM Watson
Published Temperature = 95 C Humidity = 60 % to IBM Watson
Published Temperature = 97 C Humidity = 74 % to IBM Watson
Published Temperature = 91 C Humidity = 61 % to IBM Watson
Published Temperature = 103 C Humidity = 85 % to IBM Watson
Published Temperature = 102 C Humidity = 76 % to IBM Watson
Published Temperature = 102 C Humidity = 94 % to IBM Watson
Published Temperature = 106 C Humidity = 83 % to IBM Watson
Published Temperature = 108 C Humidity = 62 % to IBM Watson
Published Temperature = 103 C Humidity = 95 % to IBM Watson

I
=== RESTART: C:\Users\91949\AppData\Local\Programs\Python\Python37\python.py ===
2022-11-19 12:10:51,914 ibmiotf.device.Client INFO Connected successfully: d:m2k3n:abod:12345
Published Temperature = 108 C Humidity = 74 % to IBM Watson

Ln: 1230 Col: 0
```