

Project Development Phase

Sprint-1

Date	27 Oct 2022
Team ID	PNT2022TMID46726
Project Name	Hazardous Area Monitoring for Industrial Plant Powered by IOT

Python Coding:

```
python3 hazardous.py - C:\Users\pnt2022\Documents\hazardous\hazardous.py (3/1/22)
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 = "fqo6e5"
deviceType = "blesson"
deviceId = "abcd"
authMethod = "token"
authToken = "23456789"

# 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)

    data = { 'temp' : temp, 'Humid': Humid }
    #print data
    def myOnPublishCallback():
        print ("Published Temperature = %s C" % temp, "Humidity = %s %%" % Humid, "to IBM Watson")
    success = deviceCli.publishEvent("Temperature", "temp", data, 0, 0, myOnPublishCallback)
```

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\fvv2t\Downloads\ibmiotpublishsubscribe.py =====
2022-11-19 16:18:44,078 ibmiotf.device.Client INFO Connected successfully: d:fgo6e5:blesson:abcd
Published Temperature = 91 C Humidity = 68 % to IBM Watson
Published Temperature = 94 C Humidity = 86 % to IBM Watson
Published Temperature = 104 C Humidity = 78 % to IBM Watson
```