Sprint 1

Date	19 Nov 2022
Team ID	PNT2022TMID08189
Project Name	Hazardous area monitoring for industrial plant powered by IoT

Python Code

```
import time

import sys

import ibmiotf.application

import ibmiotf.device

import random


#Provide your IBM Watson Device Credentials

organization = "05eb28"

deviceType = "abcd"

deviceId = "1234"

authMethod = "token"

authToken = "12345678"


# Initialize GPIO


def myCommandCallback(cmd):

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

    status=cmd.data['command']

    if status=="Relayon":

        print ("Relay is on")

    elif status=="Relayoff":

        print ("Relay is off")


    #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(80,100)
    Humid=random.randint(60,80)


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


    success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0, on_publish=myOnPublishCallback)
    if not success:
       print("Not connected to IoTF")
    time.sleep(10)


    deviceCli.commandCallback = myCommandCallback
```

Disconnect the device and application from the cloud

deviceCli.disconnect()

Sprint 1 Delivery