CODE LAYOUT, READABILITY, REUSABILITY

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Project name	Hazardous Area Monitoring for Industrial Plant powered by IoT

Code:

```
# Importing a Packages

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


# watson device details


organization = input("Enter a organisation");
devicetype =input("Enter a devicetype");
deviceId = input("Enter a deviceId");
authMethod= input("Enter a authMethod");
authToken= int(input("Enter a authToken"));
```

```
#generate random values for random variables (temperature&humidity)

def myCommandCallback(cmd):
    global a
    print("command recieved:%s" %cmd.data['command'])
    control=cmd.data['command']
    print(control)


try:
        deviceOptions={"org": organization, "type": devicType,"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 "temp" with value integer value into the cloud as a type of event for every 10 seconds
deviceCli.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)


#disconnect the device
deviceCli.disconnect()
```

CODE LAYOUT:

- Importing a packages
- Watson device details
- generate random values for random variables (temperature and humidity)
- Connect and send a datapoint "temp" with value integervalue into the cloud as a type of event for every 10 seconds
- Disconnect the device