

SPRINT-2

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PythonCode

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

#Provide your IBM WatsonDevice
Credentialsorganization

="2melo1"deviceType=
"waste" deviceId = "1234" authMethod
="token"authToken="12345678"

#InitializeGPIO

def
myCommandCallback(cmd):print("Commandreceived:%s
"%cmd.data['command'])status=cmd.data['command']

ifstatus=="wastelevel":

    print("wastelevelmonitored")else:

    print("weightlevelmonitored")
```

```

#print(cmd)
try:
deviceOptions = {"org": organization, "type": deviceType, "id": deviceId, "auth-
method":authMethod,"auth-token":authToken}deviceCli=ibmiotf.device.Client(deviceOptions)
#.....

exceptExceptionase:

    print("Caughtexceptionconnectingdevice:%s"%str(e))sys.exit(
    )

#Connect
andsendadatapoint"hello"withvalue"world"intothecloudasaneventoftype"greeting"10timesdeviceCli.co
nnect()

whileTrue:

    #GetSensorDatafromDHT11

    level=random.randint(0,100)weight=random.randint(0,100)

    data = { 'level' : level, 'weight': weight
    }#printdata

    defmyOnPublishCallback():

        print("PublishedLevel=%s%%"%level,"Weight=%s%%"%weight,"toIBMWatson")

```

```

        success = deviceCli.publishEvent("IoTSensor", "json", data,
qos=0,on_publish=myOnPublishCallback)
        if not success:

```

```

            print("Not connected to IoT")
            time.sleep(20)

```

```

deviceCli.commandCallback=myCommandCallback

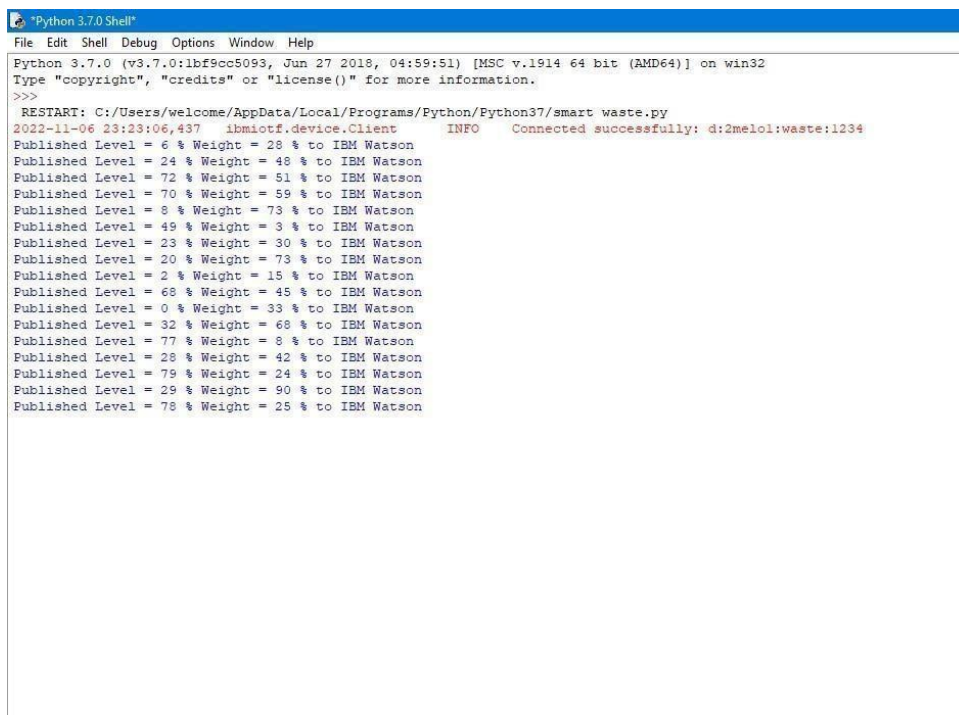
```

```

#Disconnect the device and application from the cloud
deviceCli.disconnect()

```

OUTPUT:

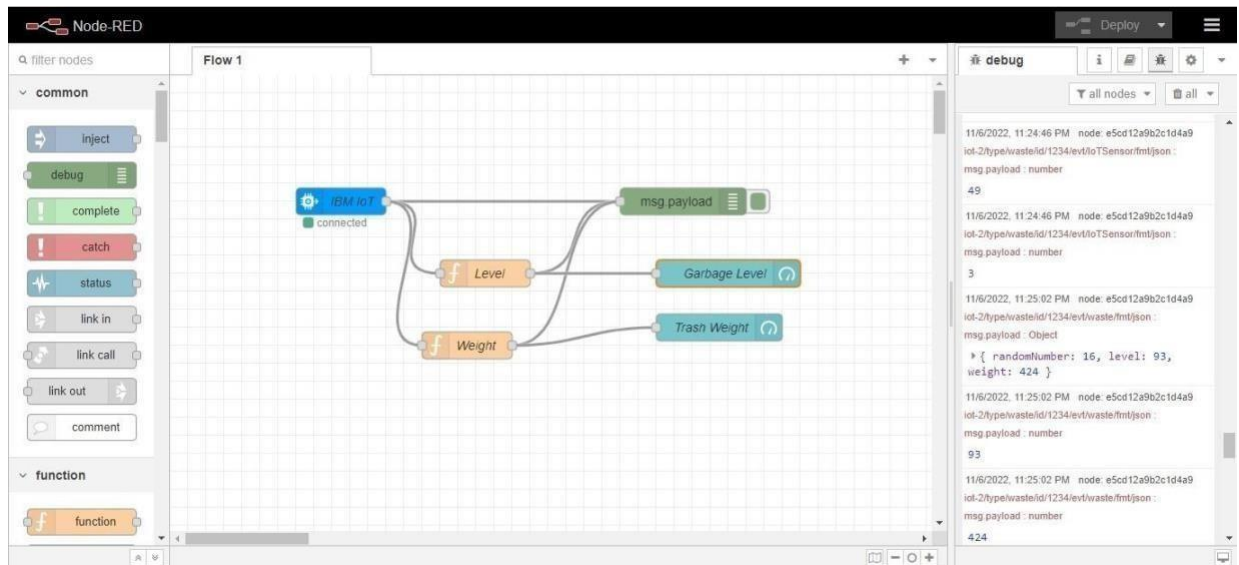


```

Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (tags/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/welcome/AppData/Local/Programs/Python/Python37/smart_waste.py
2022-11-06 23:23:06,437 ibmiotf.device.Client INFO Connected successfully: d:2melol:waste:1234
Published Level = 6 % Weight = 28 % to IBM Watson
Published Level = 24 % Weight = 48 % to IBM Watson
Published Level = 72 % Weight = 51 % to IBM Watson
Published Level = 70 % Weight = 59 % to IBM Watson
Published Level = 8 % Weight = 73 % to IBM Watson
Published Level = 49 % Weight = 3 % to IBM Watson
Published Level = 23 % Weight = 30 % to IBM Watson
Published Level = 20 % Weight = 73 % to IBM Watson
Published Level = 2 % Weight = 15 % to IBM Watson
Published Level = 68 % Weight = 45 % to IBM Watson
Published Level = 0 % Weight = 33 % to IBM Watson
Published Level = 32 % Weight = 68 % to IBM Watson
Published Level = 77 % Weight = 8 % to IBM Watson
Published Level = 28 % Weight = 42 % to IBM Watson
Published Level = 79 % Weight = 24 % to IBM Watson
Published Level = 29 % Weight = 90 % to IBM Watson
Published Level = 78 % Weight = 25 % to IBM Watson

```

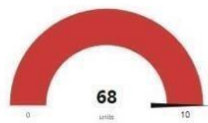
NODEREDINPUTANDOUTPUT:



Smart Waste

Garbage Monitoring

Trash Weight



Garbage Level

