Project Development phase

Date	**09 November 2022**
Team ID	**PNT2022TMID05196**
Project Name	**Project – SMART WASTE MANAGEMENT FOR METROPOLITAN CITIES**
Maximum Marks	**4 Marks**

Delivering of Sprint-2

Python script:

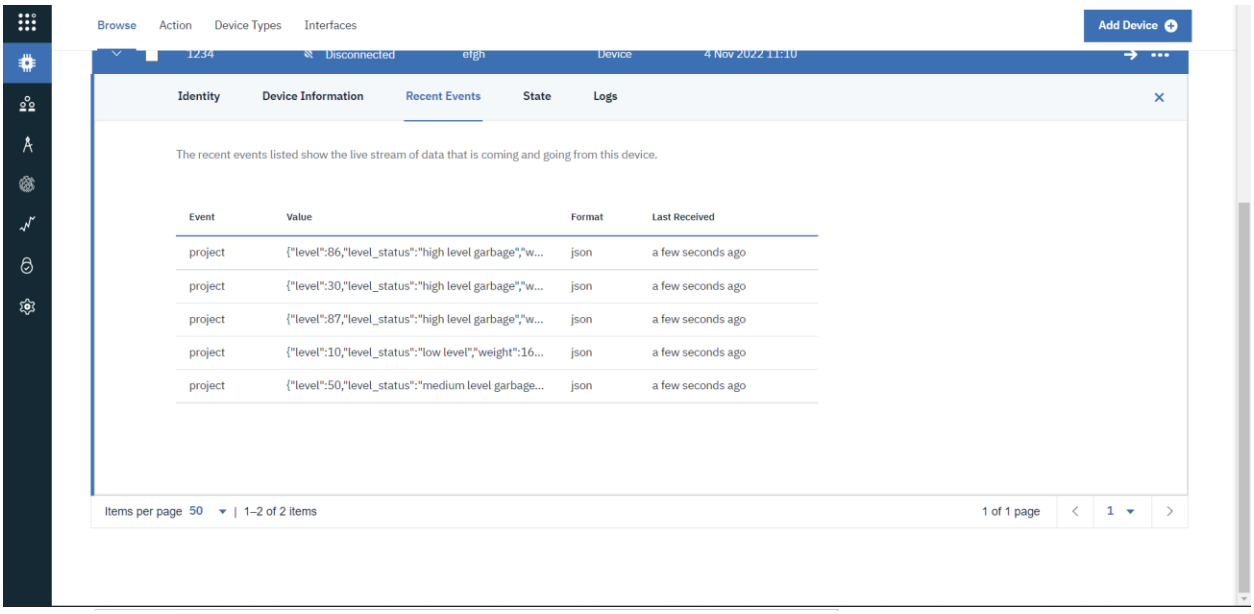
- We create a python code to detect the level, weight of the bin
- Send the status of the bin to the IBM Watson using python script

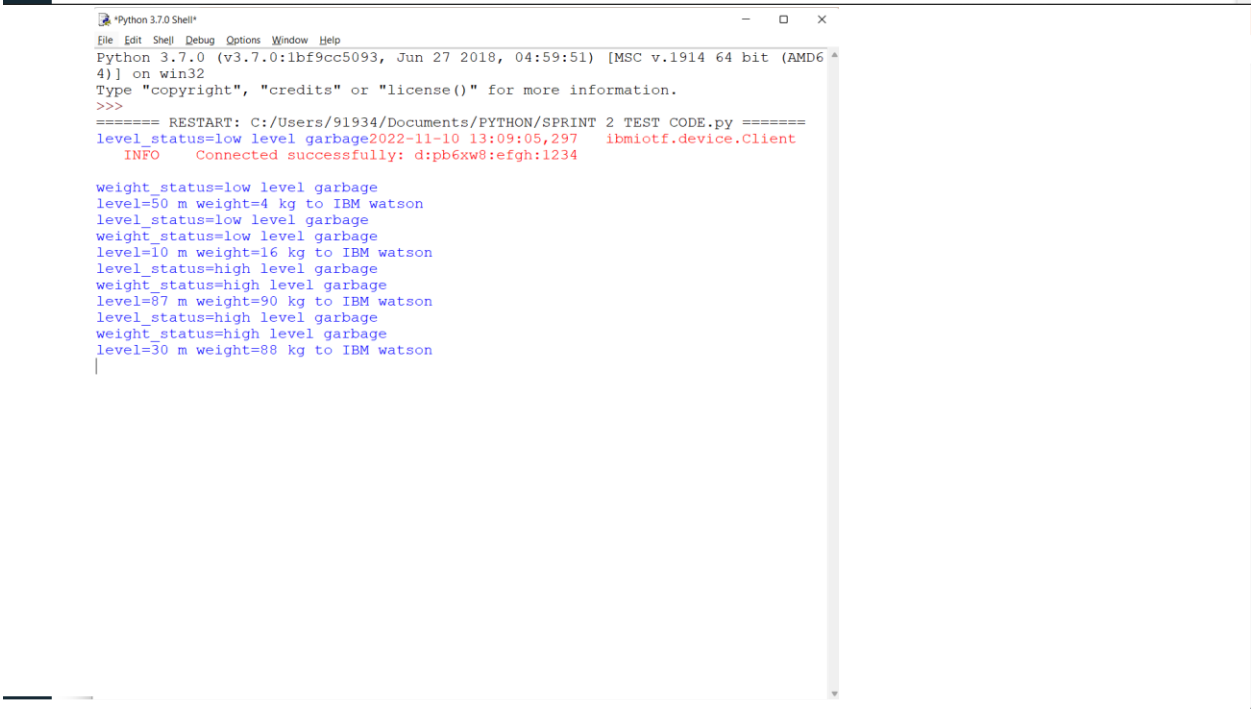
Python code (sending status of the bin):

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


#Provide your IBM Watson Device Credentials
organization = "pb6xw8"
deviceType = "efgh"
deviceId = "1234"
authMethod = "token"
authToken = "12345678"
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:
    level=random.randint(1,100)
    weight=random.randint(1,100)
    if(level<30):
        level_status="low level"
        print("level_status=low level garbage")
    elif(level>30)and(level<80):
        level_status="medium level garbage"
        print("level_status=low level garbage")
    else:
        level_status="high level garbage"
        print("level_status=high level garbage")
    if (weight<30):
        weight_status="low level"
```

```
            print("weight_status=low level garbage")
        elif(weight>30)and(weight<80):
            weight_status="medium level garbage"
            print("weight_status=low level garbage")
        else:
            weight_status="high level garbage"
            print("weight_status=high level garbage")
data={'level':level,'level_status':level_status,'weight':weight,'weight_status':weig
ht_status }
 def myOnpublishCallback():
        print ("level=%s m"%level,"weight=%s kg"%weight , "to IBM watson" )
        success=deviceCli.publishEvent("project", "json", data, qos=0,
on_publish=myOnpublishCallback)
        if not success:
                print("not connection last from sensor to IBM IOT")


        time.sleep(10)
# Disconnect the device and application from the cloud
deviceCli.disconnect()
```


Browse
Action
Device Types
Interfaces
Add Device
1234
Disconnected
efgh
Device
4 Nov 2022 11:10
Identity
Device Information
Recent Events
State
Logs
The recent events listed show the live stream of data that is coming and going from this device.
Event
Value
Format
Last Received
project
{"level":86,"level_status":"high level garbage","w...
json
a few seconds ago
project
{"level":30,"level_status":"high level garbage","w...
json
a few seconds ago
project
{"level":87,"level_status":"high level garbage","w...
json
a few seconds ago
project
{"level":10,"level_status":"low level","weight":16...
json
a few seconds ago
project
{"level":50,"level_status":"medium level garbage...
json
a few seconds ago
Items per page 50
1–2 of 2 items
1 of 1 page
1


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/91934/Documents/PYTHON/SPRINT 2 TEST CODE.py =======
level_status=low level garbage2022-11-10 13:09:05,297 ibmiotf.device.Client
INFO Connected successfully: d:pb6xw8:efgh:1234
weight_status=low level garbage
level=50 m weight=4 kg to IBM watson
level_status=low level garbage
weight_status=low level garbage
level=10 m weight=16 kg to IBM watson
level_status=high level garbage
weight_status=high level garbage
level=87 m weight=90 kg to IBM watson
level_status=high level garbage
weight_status=high level garbage
level=30 m weight=88 kg to IBM watson