Delivery of Sprint – 2

Date	05 November 2022
Team ID	PNT2022TMID49521
Project Name	IOT – Smart Waste Management Systems for Metropolitan Cities
Story Points	20

1. Functional Requirements: Program for harmful setup

User story: USN-3.

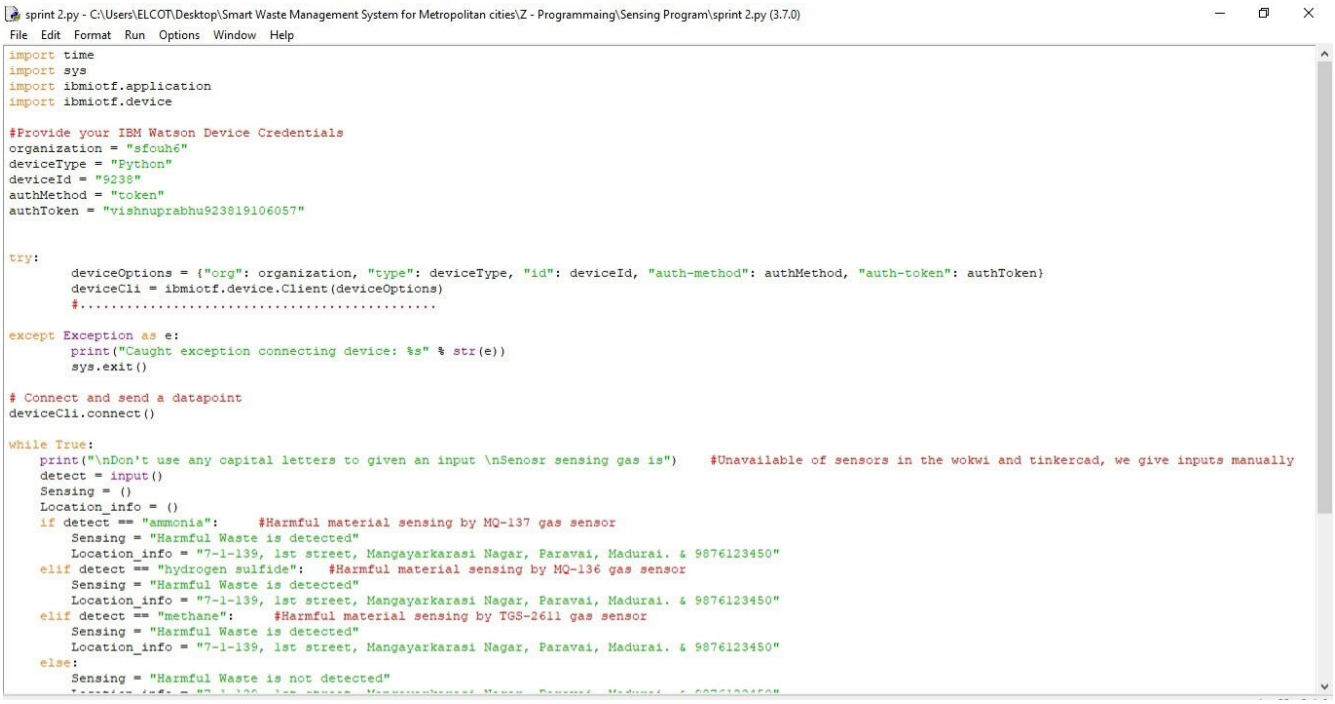
Solution:

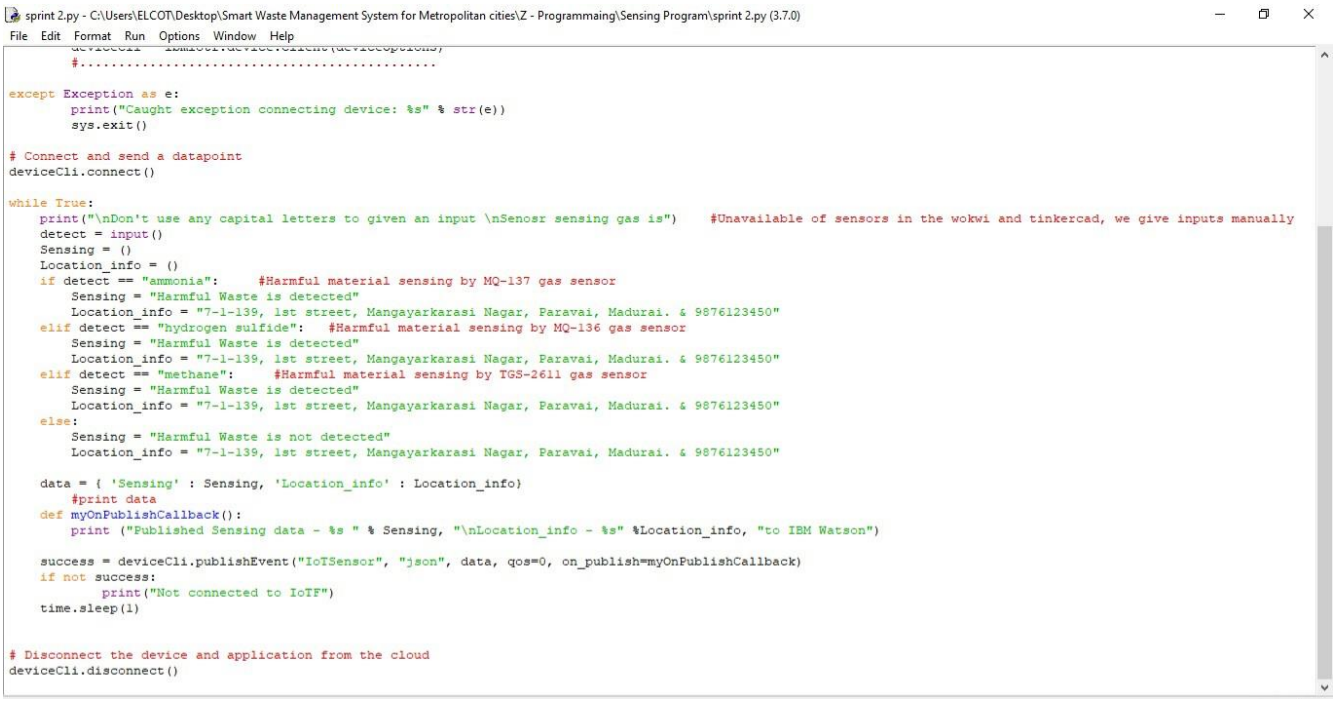
```
import time
import sys
import ibmiotf.application
import ibmiotf.device


#Provide your IBM Watson Device Credentials
organization = "sfouh6"
deviceType = "Python"
deviceId = "9238"
authMethod = "token"
authToken = "vishnuprabhu923819106057"


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()
```

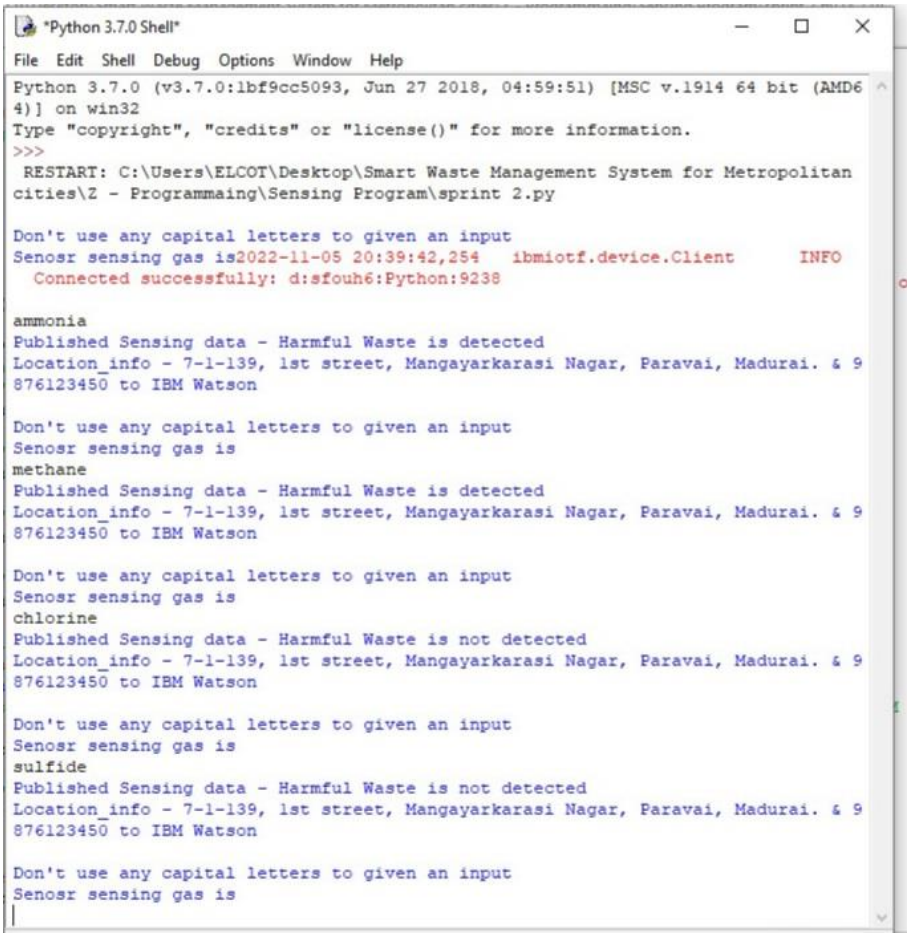
```
# Connect and send a datapoint
deviceCli.connect()


while True:
    print("\nDon't use any capital letters to given an input \nSenosr sensing gas is")    #Unavailable of sensors in the wokwi and tinkercad, we give inputs manually
    detect = input()
    Sensing = ()
    Location_info = ()
    if detect == "ammonia":     #Harmful material sensing by MQ-137 gas sensor
        Sensing = "Harmful Waste is detected"
        Location_info = "7-1-139, 1st street, Mangayarkarasi Nagar, Paravai, Madurai. & 9876123450"
    elif detect == "hydrogen sulfide":   #Harmful material sensing by MQ-136 gas sensor
        Sensing = "Harmful Waste is detected"
        Location_info = "7-1-139, 1st street, Mangayarkarasi Nagar, Paravai, Madurai. & 9876123450"
    elif detect == "methane":     #Harmful material sensing by TGS-2611 gas sensor
        Sensing = "Harmful Waste is detected"
        Location_info = "7-1-139, 1st street, Mangayarkarasi Nagar, Paravai, Madurai. & 9876123450"
    else:
        Sensing = "Harmful Waste is not detected"
        Location_info = "7-1-139, 1st street, Mangayarkarasi Nagar, Paravai, Madurai. & 9876123450"


    data = { 'Sensing' : Sensing, 'Location_info' : Location_info}
        #print data
    def myOnPublishCallback():
        print ("Published Sensing data - %s " % Sensing, "\nLocation_info - %s" %Location_info, "to IBM Watson")


    success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0, on_publish=myOnPublishCallback)
    if not success:
            print("Not connected to IoTF")
    time.sleep(1)
```

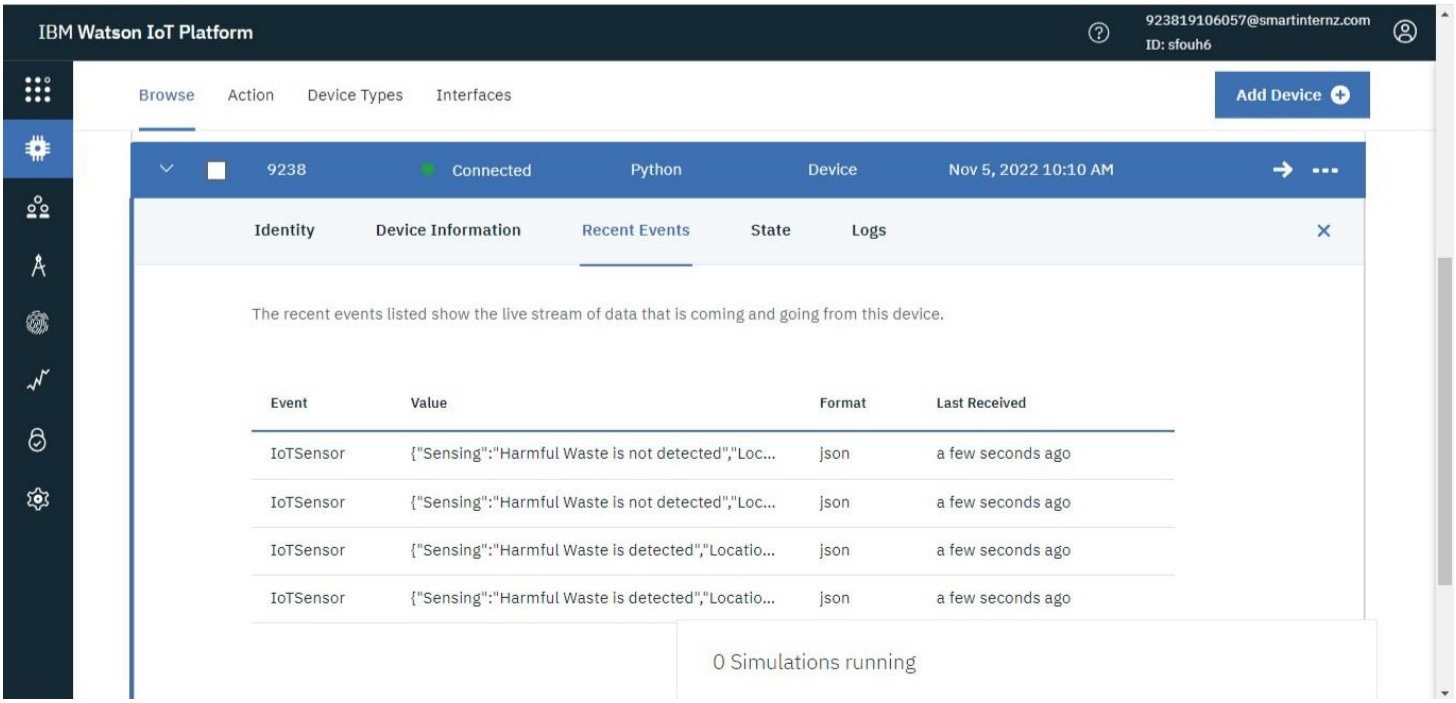
Disconnect the device and application from the cloud

deviceCli.disconnect()






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\ELCOT\Desktop\Smart Waste Management System for Metropolitan cities\Z - Programmaing\Sensing Program\sprint 2.py
Don't use any capital letters to given an input
Senosr sensing gas is2022-11-05 20:39:42,254 ibmiotf.device.Client INFO
Connected successfully: d:sfouh6:Python:9238
ammonia
Published Sensing data - Harmful Waste is detected
Location_info - 7-1-139, 1st street, Mangayarkarasi Nagar, Paravai, Madurai. & 9876123450 to IBM Watson
Don't use any capital letters to given an input
Senosr sensing gas is
methane
Published Sensing data - Harmful Waste is detected
Location_info - 7-1-139, 1st street, Mangayarkarasi Nagar, Paravai, Madurai. & 9876123450 to IBM Watson
Don't use any capital letters to given an input
Senosr sensing gas is
chlorine
Published Sensing data - Harmful Waste is not detected
Location_info - 7-1-139, 1st street, Mangayarkarasi Nagar, Paravai, Madurai. & 9876123450 to IBM Watson
Don't use any capital letters to given an input
Senosr sensing gas is
sulfide
Published Sensing data - Harmful Waste is not detected
Location_info - 7-1-139, 1st street, Mangayarkarasi Nagar, Paravai, Madurai. & 9876123450 to IBM Watson
Don't use any capital letters to given an input
Senosr sensing gas is


IBM Watson IoT Platform
923819106057@smartinternz.com
ID: sfouh6
Browse
Action
Device Types
Interfaces
Add Device
9238
Connected
Python
Device
Nov 5, 2022 10:10 AM
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
IoTSensor
{"Sensing":"Harmful Waste is not detected","Loc...
json
a few seconds ago
IoTSensor
{"Sensing":"Harmful Waste is not detected","Loc...
json
a few seconds ago
IoTSensor
{"Sensing":"Harmful Waste is detected","Locatio...
json
a few seconds ago
IoTSensor
{"Sensing":"Harmful Waste is detected","Locatio...
json
a few seconds ago
0 Simulations running