SPRINT-2

Project : Smart Waste Management System For Metropolitan Cities

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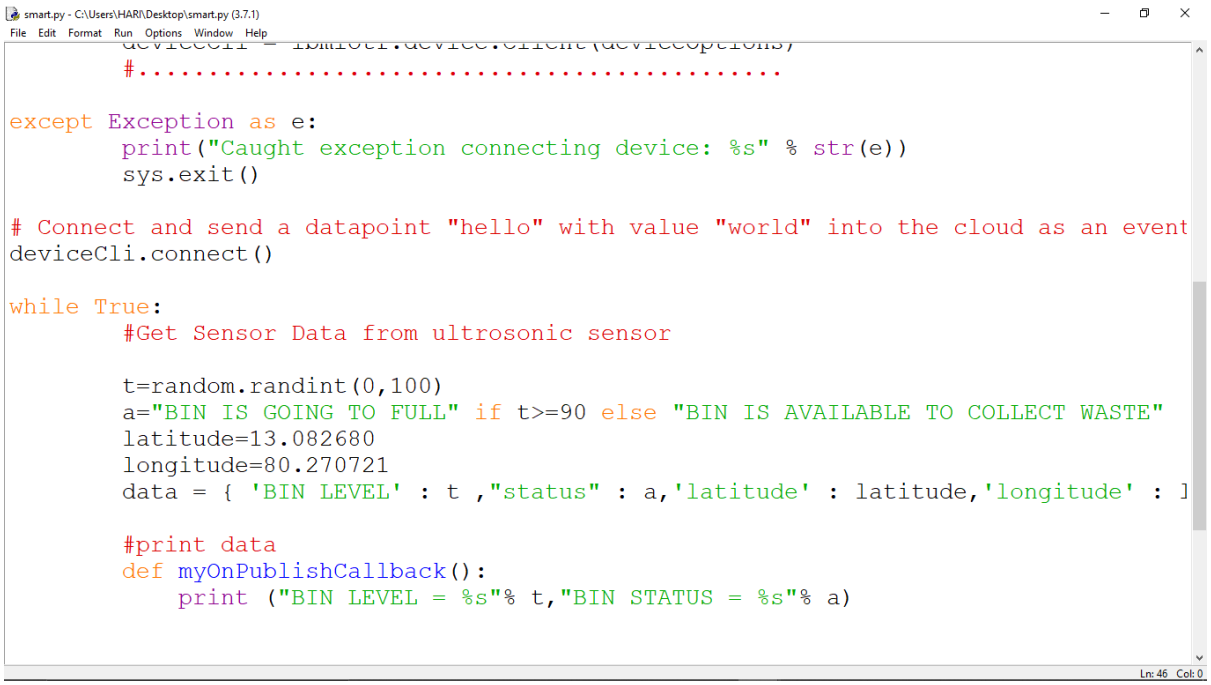
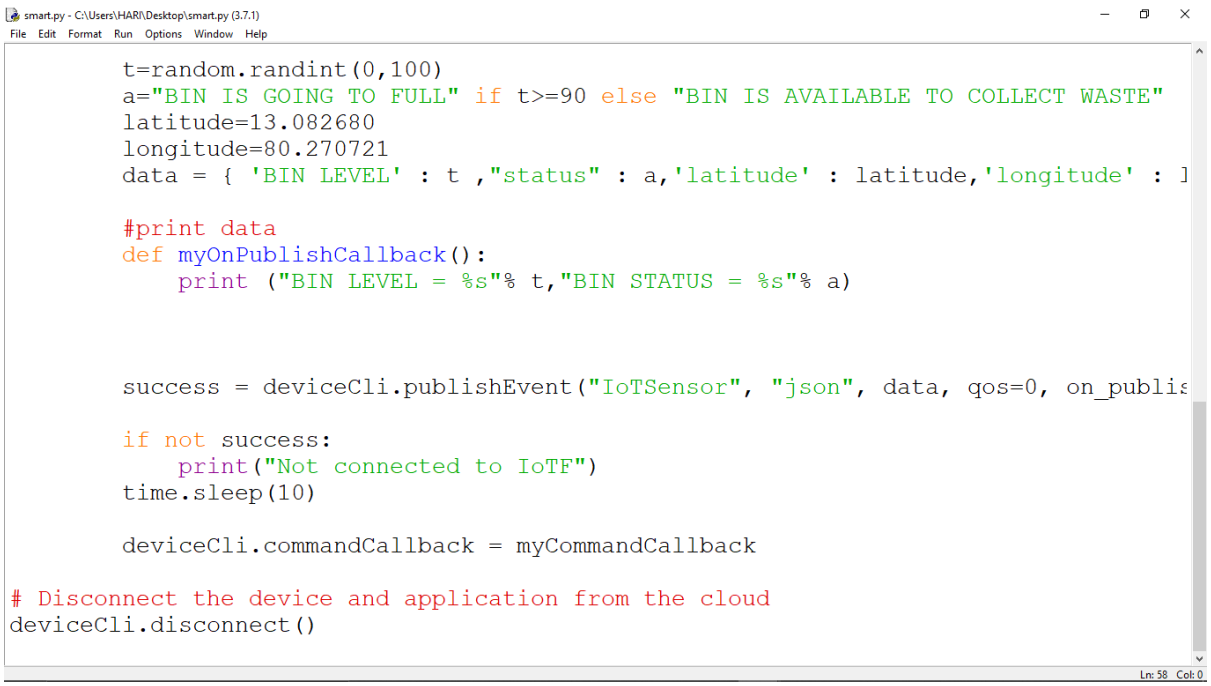
- Python code for smart garbage bin is programmed. The cloud server's libraries are imported into the Python code for the smart waste bin.

- The cloud server is connected to the IOT device in the trash can. Now, the server will receive signals indicating that the trash can is full from the iot device there in trash can.

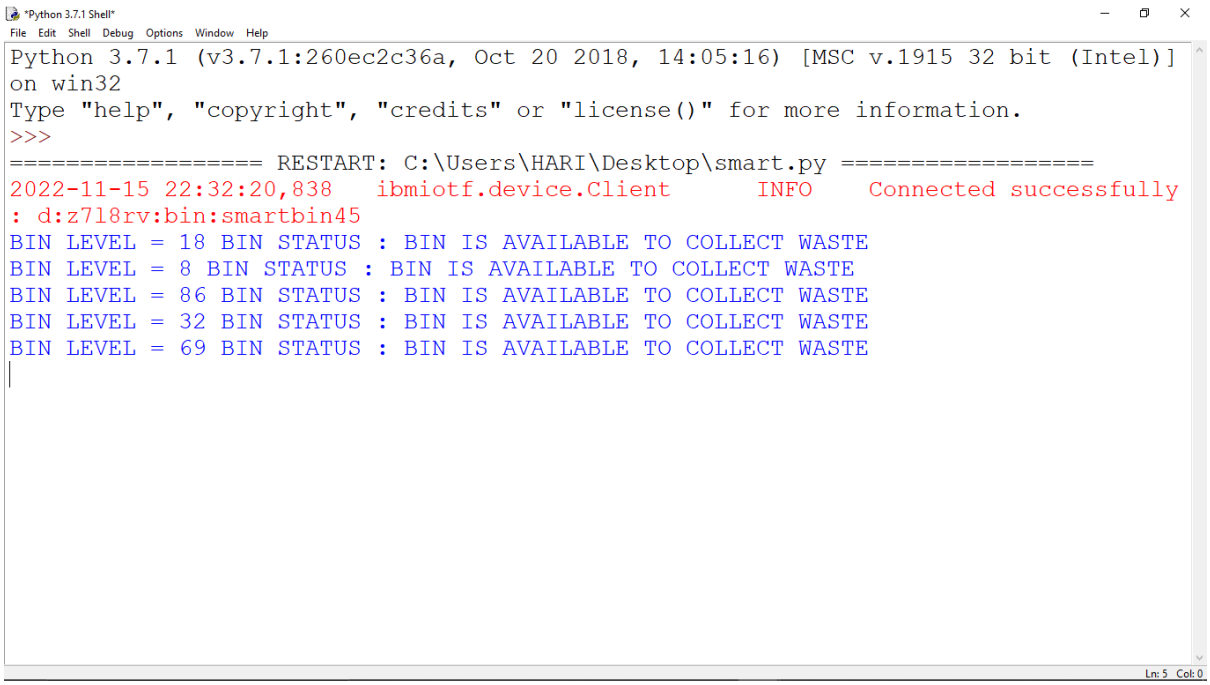


- The status of the bin is checked when the garbage bin levels are constructed using random variables and functions.

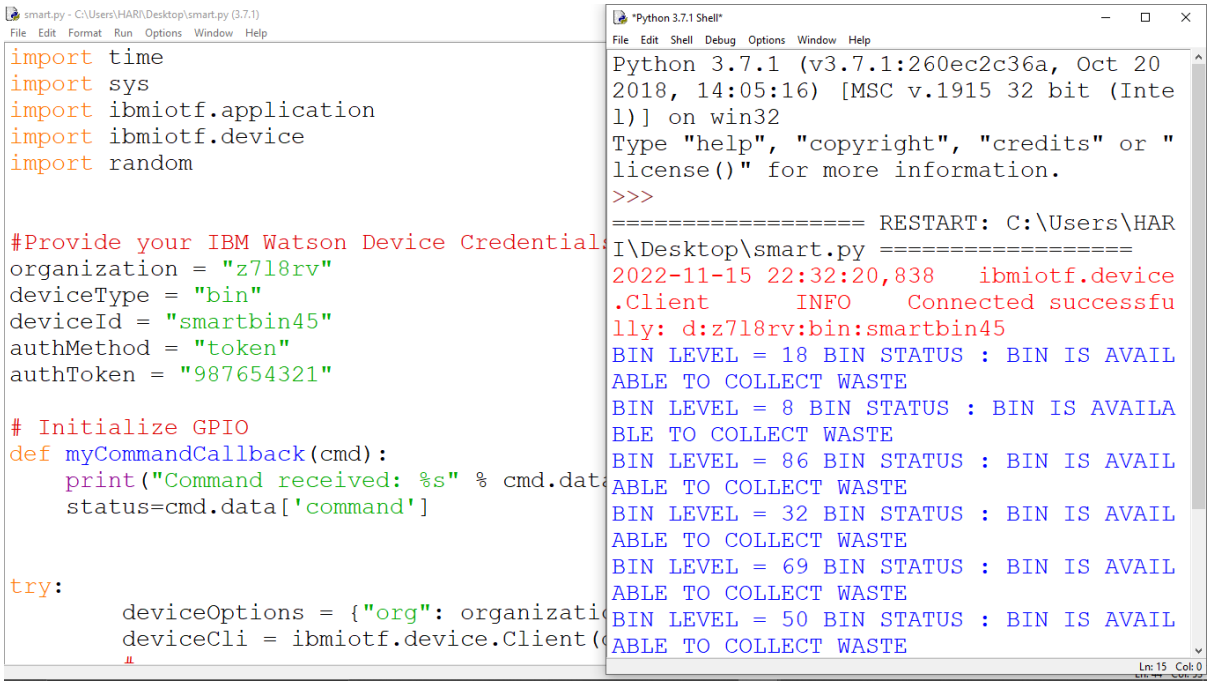


- Connect the trash can to the cloud server and check the garbage can levels to see if they are full or not.

- The cloud will receive a notification that the bin is full and open for garbage collection if the value of the bin is greater than 90. The appropriate authority will be informed of the bin's GPS location.



- Using random variables and functions the level of the garbage bin is found and notified to the server and the appropriate authority will send the GPS location of the garbage can so that the waste can be collected.


smart.py - C:\Users\HARI\Desktop\smart.py (3.7.1)
File Edit Format Run Options Window Help
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random
#Provide your IBM Watson Device Credentials
organization = "z7l8rv"
deviceType = "bin"
deviceId = "smartbin45"
authMethod = "token"
authToken = "987654321"
# Initialize GPIO
def myCommandCallback(cmd):
print("Command received: %s" % cmd.data
status=cmd.data['command']
try:
deviceOptions = {"org": organizati
deviceCli = ibmiotf.device.Client(
Python 3.7.1 Shell
File Edit Shell Debug Options Window Help
Python 3.7.1 (v3.7.1:260ec2c36a, Oct 20 2018, 14:05:16) [MSC v.1915 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: C:\Users\HARI\Desktop\smart.py ==========
2022-11-15 22:32:20,838 ibmiotf.device.Client INFO Connected successfully: d:z7l8rv:bin:smartbin45
BIN LEVEL = 18 BIN STATUS : BIN IS AVAILABLE TO COLLECT WASTE
BIN LEVEL = 8 BIN STATUS : BIN IS AVAILABLE TO COLLECT WASTE
BIN LEVEL = 86 BIN STATUS : BIN IS AVAILABLE TO COLLECT WASTE
BIN LEVEL = 32 BIN STATUS : BIN IS AVAILABLE TO COLLECT WASTE
BIN LEVEL = 69 BIN STATUS : BIN IS AVAILABLE TO COLLECT WASTE
BIN LEVEL = 50 BIN STATUS : BIN IS AVAILABLE TO COLLECT WASTE
Ln: 15 Col: 0