A
Project Report
On

"WASTE DISPOSAL OF CITY"

Submitted By

MISS. SAYLEE SANJAY PATIL

MISS. SAYAMA DILAWAR MUJAWAR

MISS. VAISHNAVI ASHOK PATIL

MISS. SALONEE PRAVIN SHIRSAT

Guided by

Mrs. A. R. Kadve

Department of Computer Science and Engineering

G. K. Gujar Memorial Charitable Trust's
Dr. Ashok Gujar Technical Institute's
Dr. Daulatrao Aher College of Engineering, Karad
Shivaji University, Kolhapur

2021-22

G. K. Gujar Memorial Charitable Trust's

Dr. Ashok Gujar Technical Institute's

Dr. Daulatrao Aher College of Engineering, Karad

CERTIFICATE

This is to certify that,

Miss. Saylee Sanjay Patil,

Miss. Sayama Dilawar Mujawar,

Miss. Vaishnavi Ashok Patil and

Miss. Salonee Pravin Shirsat

have satisfactorily completed the S.E. Project entitled, **"Waste Disposal Of City".** This work is being submitted in partial fulfillment for the Second Year in Computer Science and Engineering of the Shivaji University, Kolhapur, Maharashtra, INDIA for the academic year 2021-2022.

Ms.A.R.Kadve	**Ms.S..Balshetwar**	**External Examiner**
Guide	Head of Department Computer Science and Engineering	

ACKNOWLEDGEMENT

*I express my special thanks to Prof.A.R.Kadave, Project Guide for her sincere efforts and kind guidance in selecting project topic. I am very grateful to Prof.Mrs.S.P.*Kakade*, Head of Computer Science and Engineering Department, for making available all the facilities required for the fulfillment of the project.*

I cannot forget to express my immense sense of thankfulness towards all the teaching and non-teaching staff of Computer Science and Engineering department, and all my friends who offered their helping hands at the time of need.

Name	***Roll No.***	***Signature***
Saylee Sanjay Patil	***22070***	
Sayama Dilawar Mujawar	***22071***	
Vaishnavi Ashok Patil	***22072***	
Salonee Pravin Shirsat	***22076***	

Date: 00/00/2022

Abstract

Waste disposal meaning removing, discarding, recycling or destroying unwanted materials called waste that is produced from agriculture, domestic usage or industrial products. Proper waste management is necessary with steps involving the proper collection of waste and scientific treatments that may contribute less to water pollution, soil pollution and air pollution. Waste can be of numerous types and much of the waste generated today is non-degradable waste. Globalization and industrialization have contributed to this hugely. Waste management is an important term associated with waste disposal and both go hand in hand for maintaining a clean environment. The goal of waste disposal by their categories is to reduce and eliminate the adverse impact of waste materials on human health and the environment to support economic development and superior quality of life.

INDEX

Chapter No	Description	Page No.
1.	**INTRODUCTION**	
1.1	Project Idea	
1.2	Need of project	
1.3	Literature survey	
2.	**PROBLEM STATEMENT & SCOPE**	
2.1	Problem statement	
2.2	Scope	
2.3	Area of project	
2.4	Goals & objectives	
3.	**SOFTWARE REQUIREMENT SPECIFICATION**	
3.1	Software requirement	
3.2	Hardware requirement	
4.	**PROJECT PLAN**	
4.1	Project schedule	
5.	**SOFTWARE DESIGN**	
5.1	Flow chart	
5.2	Architecture	
6.	**IMPLEMENTATION DETAILS**	
6.1	Modules and Their Functionalities	
7.	**TESTING**	
8.	**SNAPSHOTS/ GUI**	
9.	**CONCLUSION**	
10.	**FUTURE SCOPE**	
11	**REFERENCES**	

1. INTRODUCTION

1.1 Project Idea

While analyzing the project, we thought about the importance and significance of waste disposal. We feel that the idea of the project is important for big and complex projects. In any project like recycling, decomposition, segregation, dumping or any other it is useable. In any project when we need to take all types of waste and store the data but the point is not every individual knows the format for each waste disposal. Other case can be if we need to store the data of waste generated per day in that format. We will also display waste to be treated i.e. melting, recycling, decomposing, dumping etc.

1.2 Need of project

By this project waste reduces the effect of waste on the environment, health, and so on. It can also help reuse or recycle resources. Waste is generated in households, factories, construction sites. As the population is increasing, consumption trends are changing. Along with the improvement in lifestyle, it has posed alarming threats to the environment. If waste is not managed properly it can cause serious problems to human health and the environment.

1.3Literature survey

1. Household recycling and consumption work; social and moral:

Consumers are not usually incorporated between the sociological concepts of (Division of Labor) but using the case of household recycling, the book shows why this foundational concept needs to be revised.

2. Handbook of Industrial and hazardous wastes treatment/ edited by Lawrence K. Wang

Presenting effective, practicable strategies modeled from ultramodern technologies and framed by the critical insights of 78 field experts, this vastly expanded Second edition offers 32 chapters of industry and hazardous waste materials- from explosive wastes to landfill leach ate to wastes produced by the pharmaceutical and food industries.

3. Waste management practices: municipal, hazardous, and industrial/ John Pichtel

A practical guide for the identification and management of range of hazardous waste management practices- municipal, hazardous and industrial integrates, technical information including chemistry, microbiology, and engineering with correct regulations.

2. PROBLEM STATEMENT & SCOPE

2.1 Problem Statement

To display the waste generated in city by their category like recycling, dumping, composing etc.

2.2 Project Scope

1) To dispose each kind waste.
2) To store data of waste generated.
3) To display the waste generated.

2.3 Area of project

In this project, we are going to calculate the waste waste generated in the city.. If we give the output of entered waste, the waste is stored in tons. We get the percentage of waste in their categories. The main agenda is to calculate the waste by their category like dumping, recycling, composing etc.

2.3 Goals & objectives

1) The main objective and goal is to dispose each kind of waste.
2) To display the waste generated in the city.

3. SOFTWARE REQUIREMENT SPECIFICATION

3.1 Software Requirements

Software Requirement	Specification
Operating system	Windows 10 and above
Front End	GUI
Back End	File Handling
Tool	Visual Studio 2017

Table 3.1Software Requirements

3.2 Hardware Requirements:

Hardware Requirement	Specification
System	Pentinum IV 2.80 GHz
Hard Disk	25 GB
Monitor	15 VGA Colour
Ram	3 GB

Table3.2 Hardware Requirements

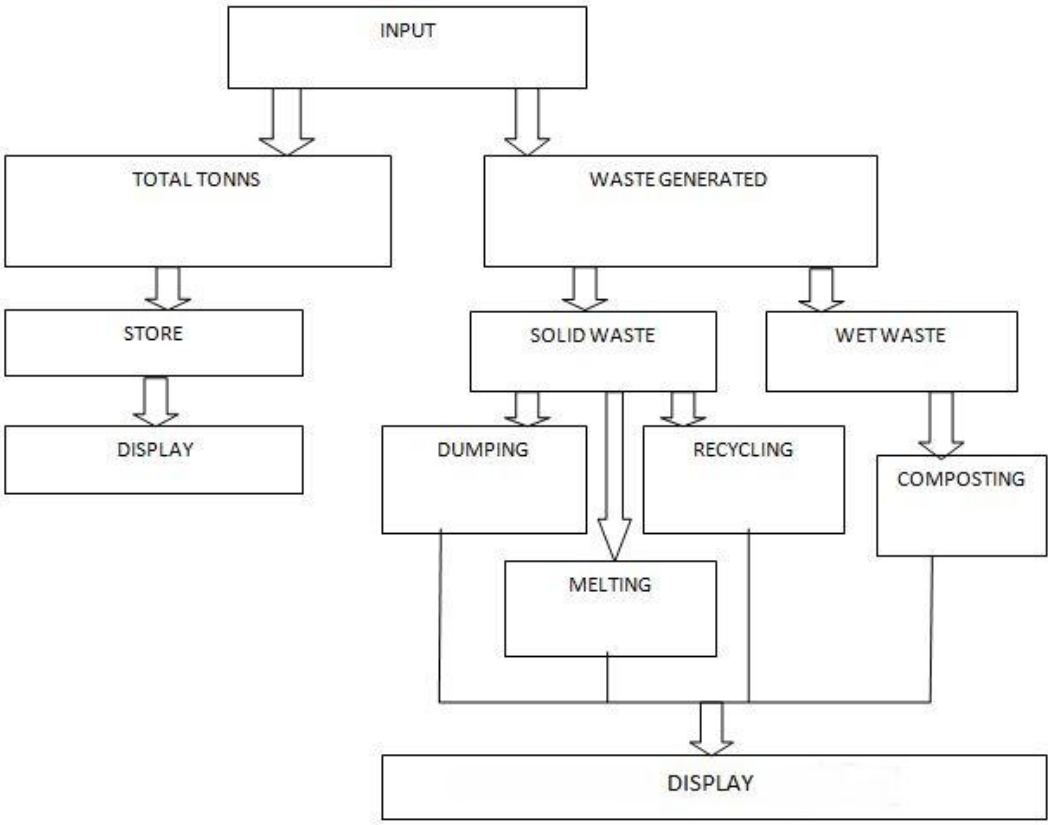
4. PROJECT PLAN

4.1 Project schedule

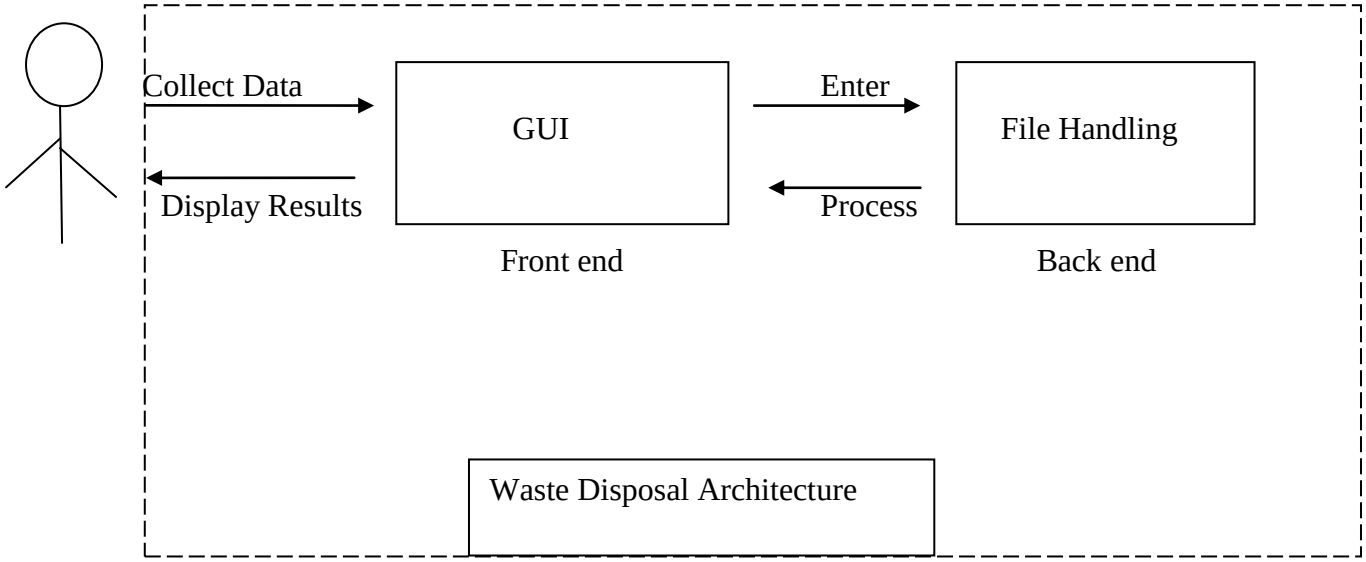
Month	Week 1	Week 2	Week 3	Week 4	Week 5
April	Introduction to mini project	Search the project topic	Collected the related information	Planning the project	Create the synopsis
May	Start working on the project	Design of project	Coding	Coding	Testing
June	Improvement in code	Testing	Report	Report	Final project

5. SOFTWARE DESIGN

5.1 Flow Chart



5.2 Architecture Diagram



6. IMPLEMENTATION DETAILS

6.1 Admin module

a) Registration-Admin can register his name, password, email id, birthdate and get access through password and username to sign in.

b) Sign in-Admin can sign in to the registered account using correct password and username.

c) Add newdata-We can add new information as required, and store it.

d) Report-Using google form the user can report regarding any issue realted to software.

e) About-It display information related to the software.

f) Logout-We can exit from the current account.

g)Clear-The entered data gets clear and we can rewrite the data.

7. TESTING

7.1 INTRODUCTION

The development of software involves a series of production activities where opportunities of injection of human fallibilities are enormous. Error may begin to occur at the very inception of the process.

Testing is the process of executing the program with the intent of finding an error. A good test case is one that which has high probability of finding an as yet undiscovered error. A successful test is one that uncovers an as yet undiscovered error.

a) System Test

System testing ensures that the entire integrated software system meets requirements. It tests a configuration to ensure known and predictable results. An example of system testing is the configuration-oriented system integration test. System testing is based on process descriptions and flows, emphasizing pre-driven process links and integration points.

b) White Box Testing

White Box Testing is a testing in which in which the software tester has knowledge of the inner workings, structure and language of the software, or at least its purpose. It is purpose. It is used to test areas that cannot be reached from a black box level.

c) Black Box Testing

Black Box Testing is testing the software without any knowledge of the inner workings, structure or language of the module being tested. Black box tests, as most other kinds of tests, must be written from a definitive source document, such as specification or requirements document, such as specification or requirements document. The test provides inputs and responds to outputs without considering how the software works.

d) Test Items

This test plan applies to each part of our project as well as overall integration testing. For each module, the input and output will be tested on validity. This will also require that each function supporting the modules be tested similarly. After each module is tested the final project has to be tested.

e) Test Plan

Test planning was planned as soon as the requirement specifications were prepared. Detail definition of test cases was started as soon as the design of components was finished.

The first test plan executed generally focuses on individual components, and then the focus shifts towards the larger components. Module testing will be used for each unit. An overall system test will be executed after integration.

7.2. Types of Testing

1) Unit Testing

Unit testing focuses verification effort on the smallest unit of software design-the software component or module. Using the component-level design description as a guide, important control path is tested to uncover errors within the boundary of module. The relative complexity of test and uncovered errors is limited by the constrained scope established for unit testing. The unit testing is white-box oriented, and the step can be conducted in parallel for multiple components.

2) Integration Testing

Integration testing exercises several units that have been combined to form a module, subsystem or system. Integration testing focuses on the interfaces between units, to make sure the unit together. The nature of this phase is certainly ‘white box’, as we must have certain knowledge of the units to recognize if we have been successfully in fusing then together in the module.

3) Performance testing

In software engineering, performance testing is testing that is performed to determine how fast some aspect of a system performs under a particular workload. This phase includes testing of the entire application as whole in order to ensure that the application function successfully as a coherent unit without errors and breakup points.

4) Item Pass/Fail criteria

- For unit level:

  A unit level test is placed if each module satisfies the following conditions:

  All test cases completed: Each function returns the expected output for given input.

- For integration level:

  All unit level plans completed successfully for all test cases.

  All modules integrated together gives valid result

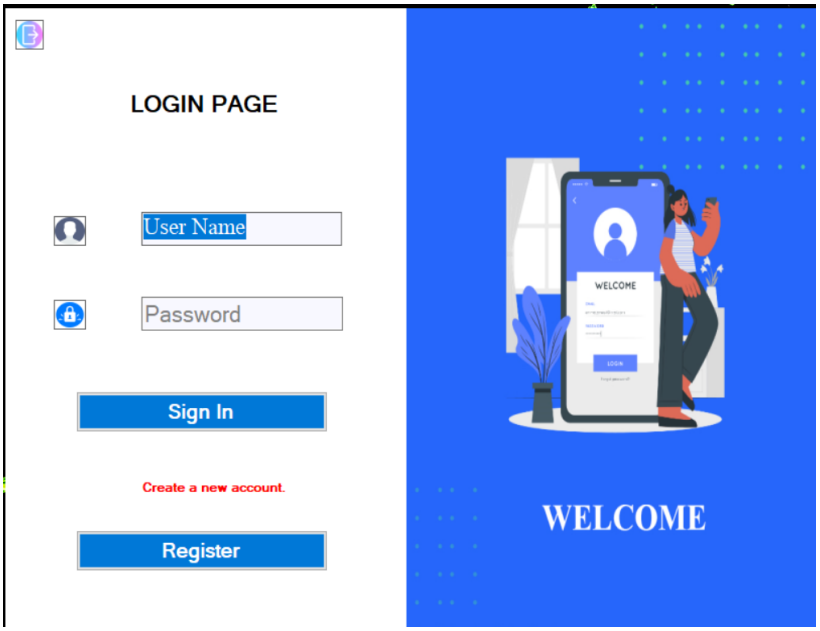
- For performance level:

  The monitoring application as a whole gives valid result for all possible operations.

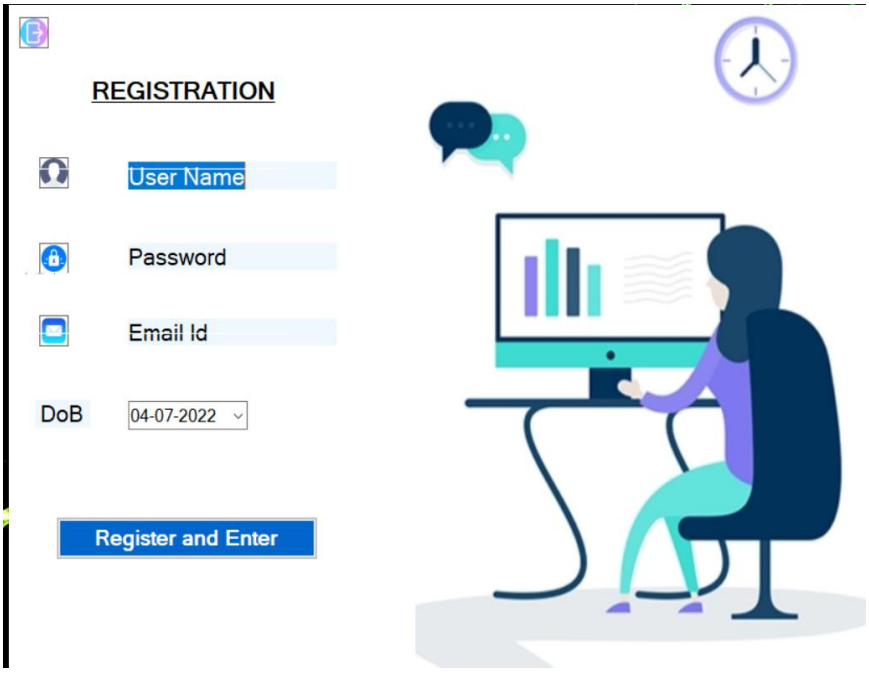
  Performance results for the entire application are within acceptable limits.

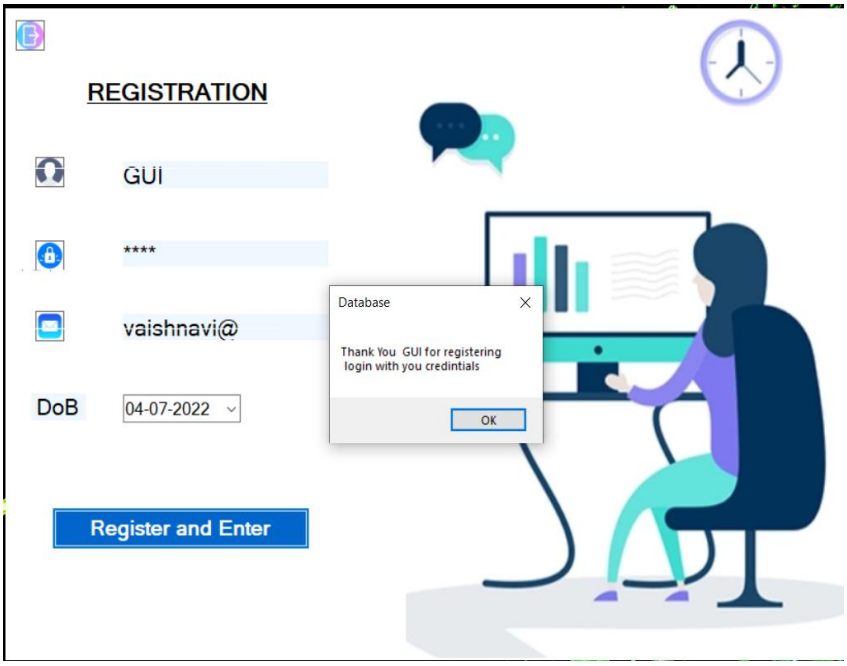
8. SNAPSHOTS/ GUI

1. Home Page

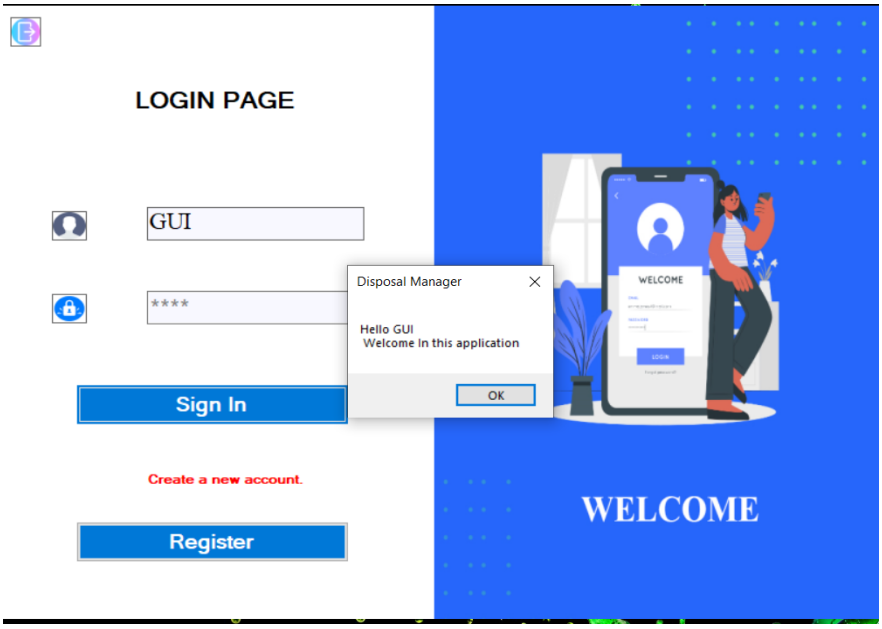


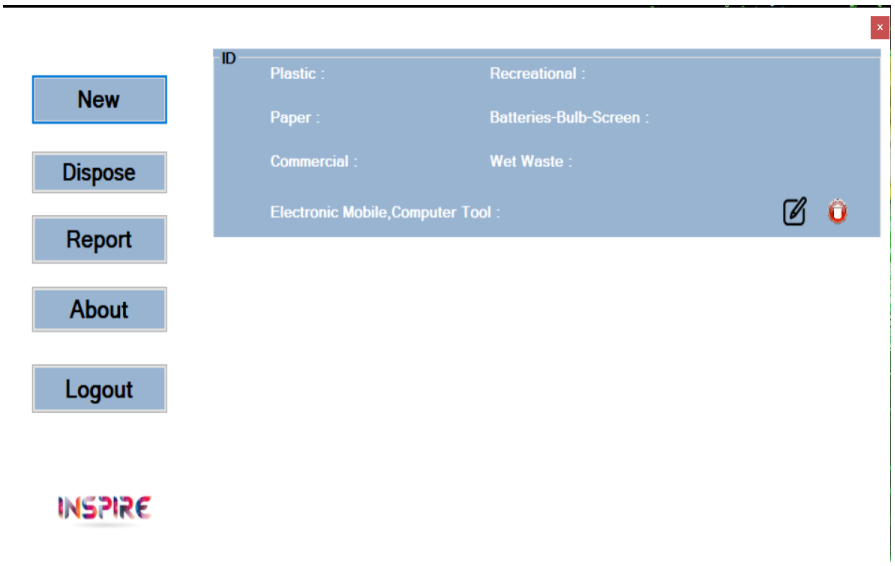
2. Registration



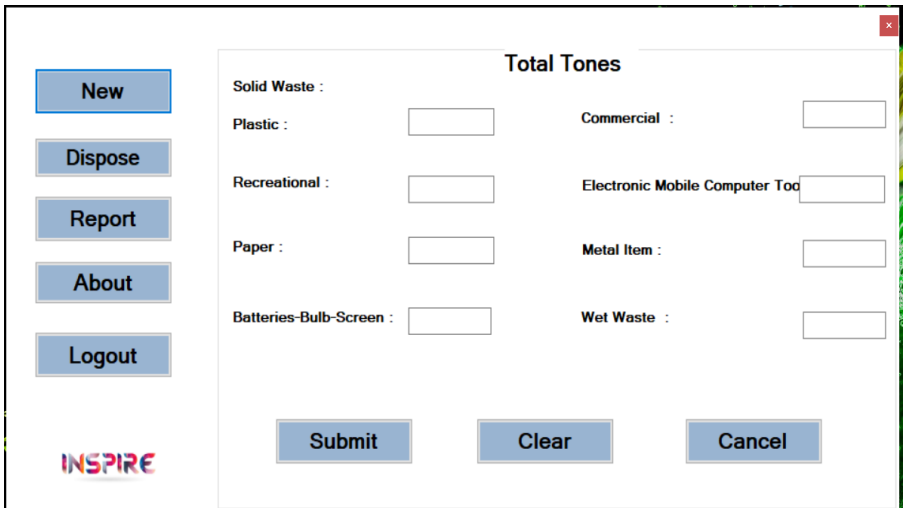


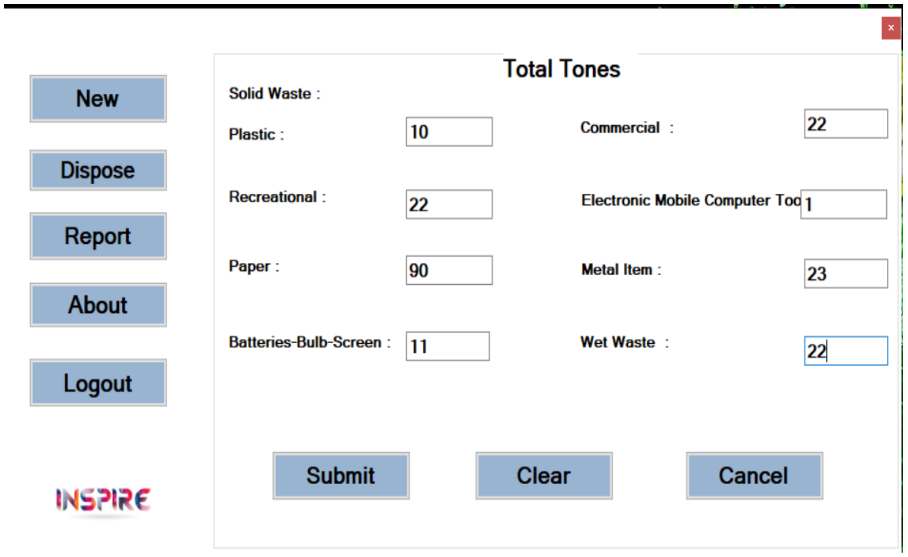
3. Sign


LOGIN PAGE
GUI
****
Sign In
Create a new account.
Register
Disposal Manager
Hello GUI
Welcome In this application
OK
WELCOME
WELCOME

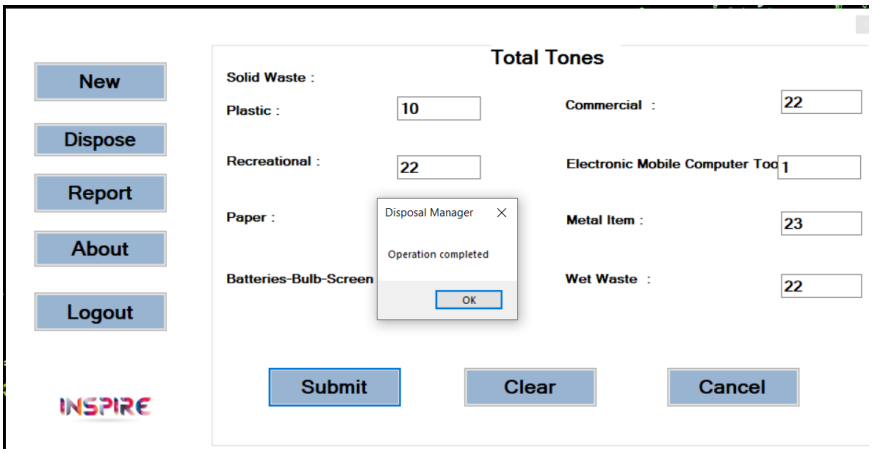

New
Dispose
Report
About
Logout
INSPIRE
ID
Plastic :
Recreational :
Paper :
Batteries-Bulb-Screen :
Commercial :
Wet Waste :
Electronic Mobile,Computer Tool :

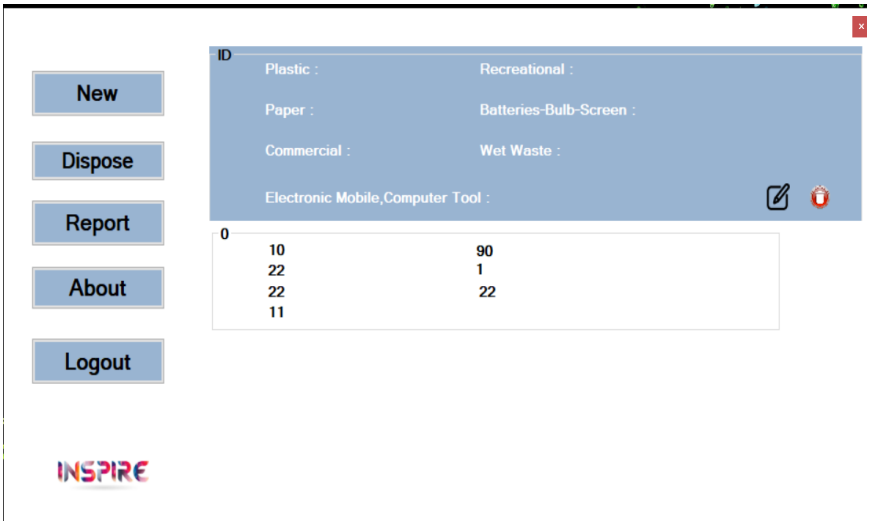
4. New


New
Dispose
Report
About
Logout
INSPIRE
Total Tones
Solid Waste :
Plastic :
Commercial :
Recreational :
Electronic Mobile Computer Too
Paper :
Metal Item :
Batteries-Bulb-Screen :
Wet Waste :
Submit
Clear
Cancel

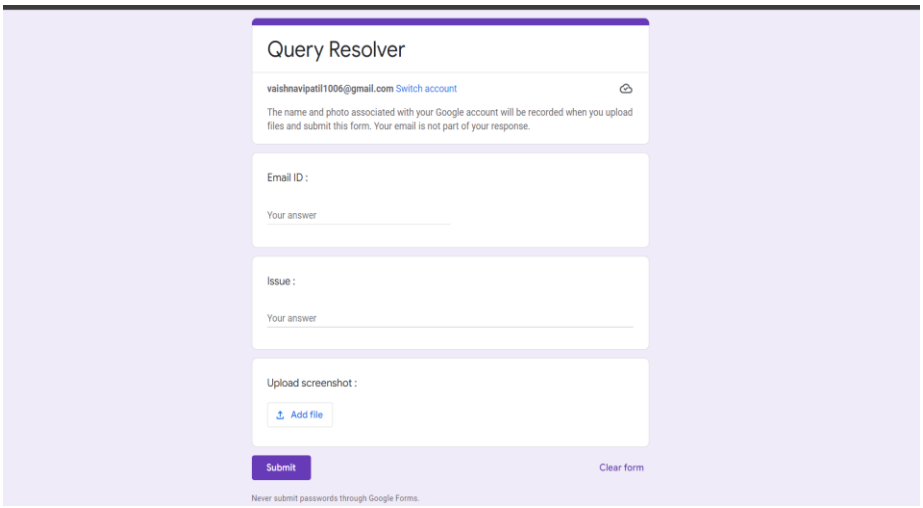

New
Dispose
Report
About
Logout
INSPIRE
Total Tones
Solid Waste :
Plastic : 10
Commercial : 22
Recreational : 22
Electronic Mobile Computer Too 1
Paper : 90
Metal Item : 23
Batteries-Bulb-Screen : 11
Wet Waste : 22
Submit
Clear
Cancel

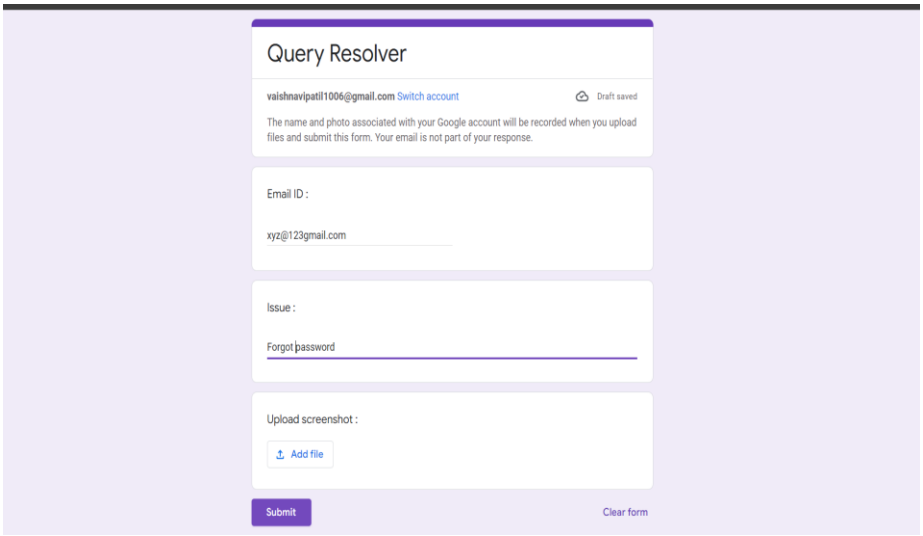
5. Submit

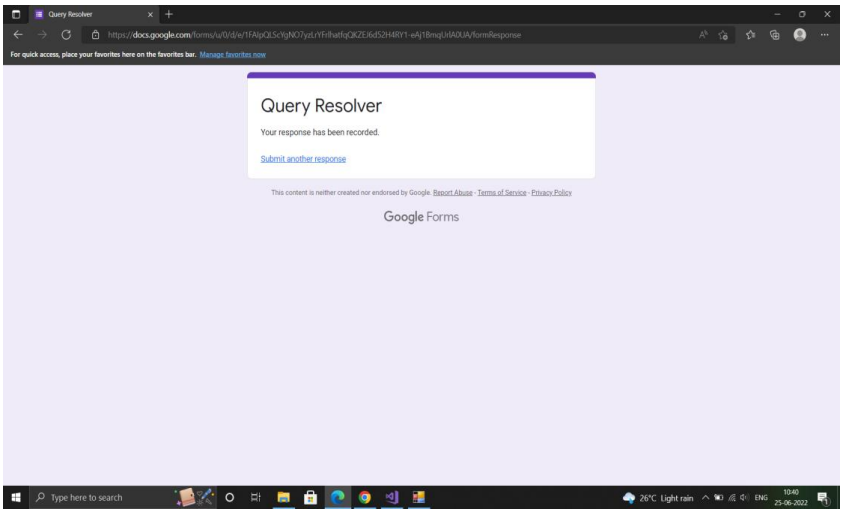

New
Dispose
Report
About
Logout
INSPIRE
Total Tones
Solid Waste :
Plastic :
10
Commercial :
22
Recreational :
22
Electronic Mobile Computer Too
1
Paper :
Metal Item :
23
Batteries-Bulb-Screen
Wet Waste :
22
Disposal Manager
Operation completed
OK
Submit
Clear
Cancel


New
Dispose
Report
About
Logout
INSPIRE
ID
Plastic :
Recreational :
Paper :
Batteries-Bulb-Screen :
Commercial :
Wet Waste :
Electronic Mobile,Computer Tool :
0
10
90
22
1
22
22
11

6. Report


Query Resolver
vaishnavipatil1006@gmail.com Switch account
The name and photo associated with your Google account will be recorded when you upload files and submit this form. Your email is not part of your response.
Email ID :
Your answer
Issue :
Your answer
Upload screenshot :
Add file
Submit
Clear form
Never submit passwords through Google Forms.

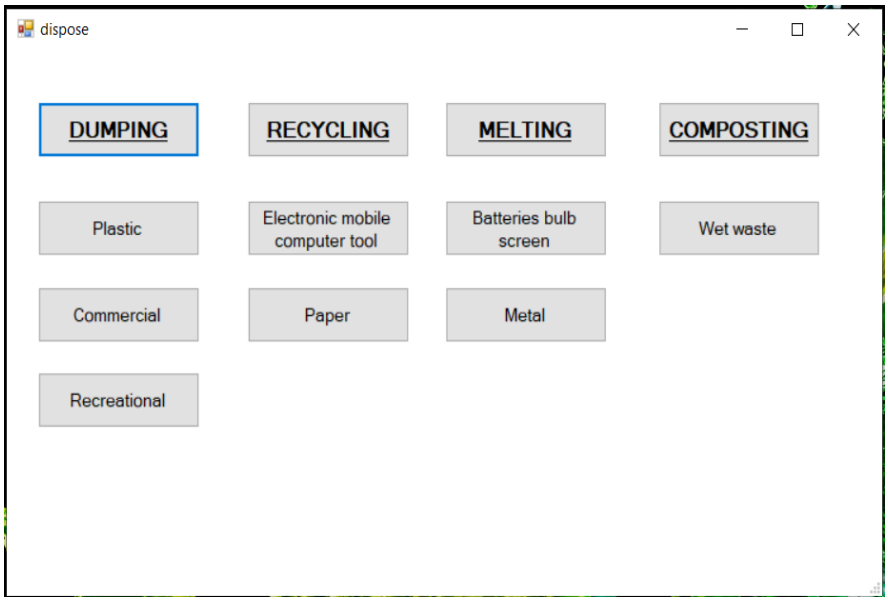

Query Resolver
vaishnavipatil1006@gmail.com Switch account
Draft saved
The name and photo associated with your Google account will be recorded when you upload files and submit this form. Your email is not part of your response.
Email ID :
xyz@123gmail.com
Issue :
Forgot password
Upload screenshot :
Add file
Submit
Clear form


Query Resolver
Query Resolver
Your response has been recorded.
Submit another response
This content is neither created nor endorsed by Google. Report Abuse - Terms of Service - Privacy Policy
Google Forms

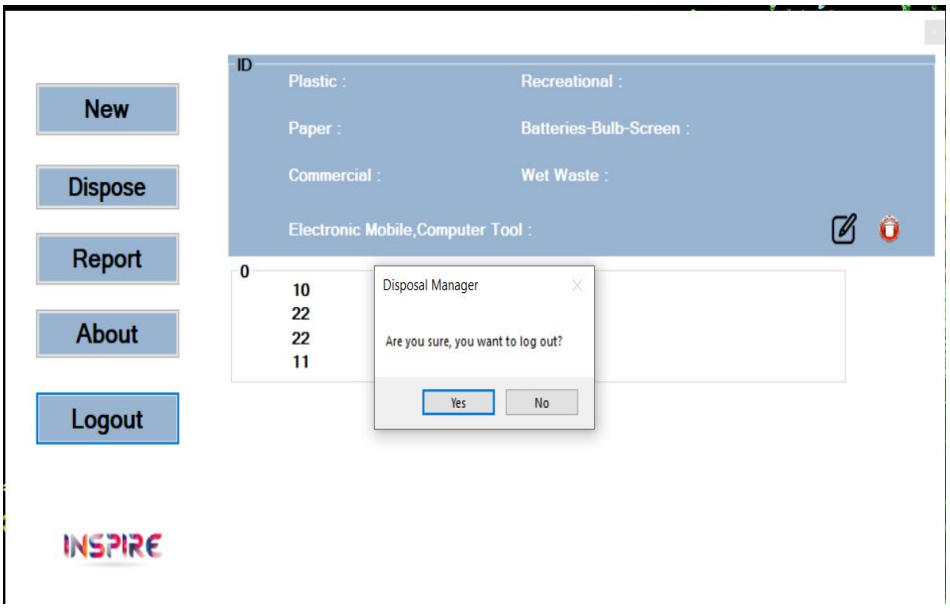
7. About

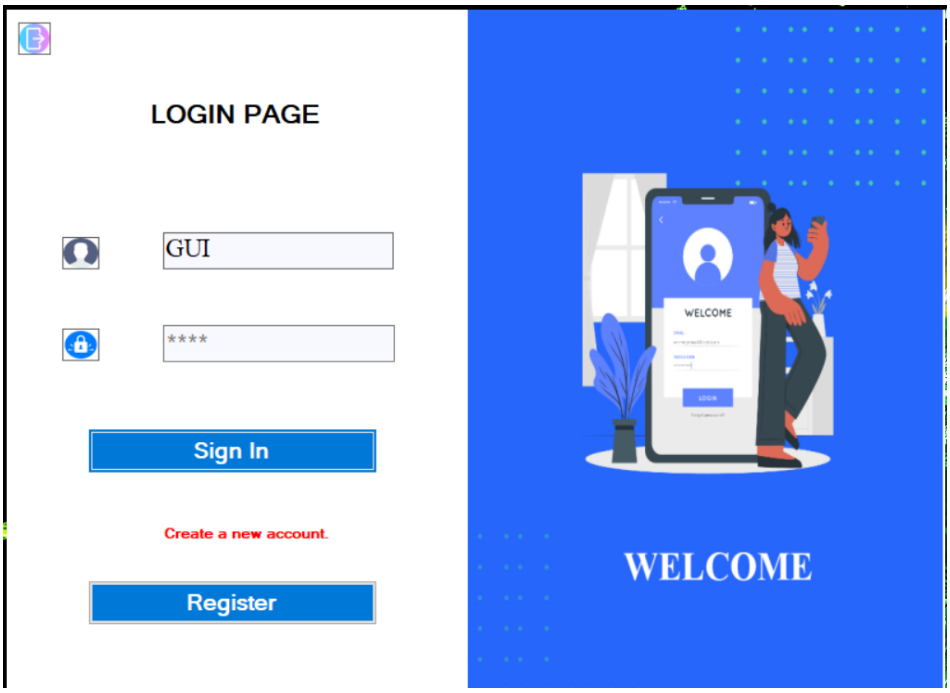
9	**Experimental Setup(If any)**	**Hardware Requirements-** 1) Intel core i3 or above microprocessor 2) 2 GB of ram 3) 100mb of free space in the hard disk **Software Requirements-** 1) C++ compiler
10	**Objective & Scope of Project :**	1) To dispose each kind of waste 2) To store data of waste generated. 3) To get the total percentage of waste generated.
11	**Proposed work**	Initially, create a code to accept data as input from user in the form of tons. – The user may write the categories of waste generated. – Store the data and process it accordingly – generate the waste type to be dispose.- Print the waste generated data.
12	**Motivation for work**	To properly dispose waste generated in city.
13	**Expected Outcome**	It gives the output of entered waste. Also the data of waste stored in tons. And percentage of waste generated after disposing the waste in their categories.
14	**Expected Date of Completion**	30 June ,2022
15	**References**	1)Household recycling and consumption work; social andmoral economies/Kathryn Wheeler, The Open University, UK, Miriam Gluckmann, University of Essex and London School of Economics, UK. 2)Handbook of Industrial and hazardous wastes treatment/edited by Lawrence K. Wang 3)Waste management practices : municipal, hazardous, and industrial/ John Pichtel

8. Dispose

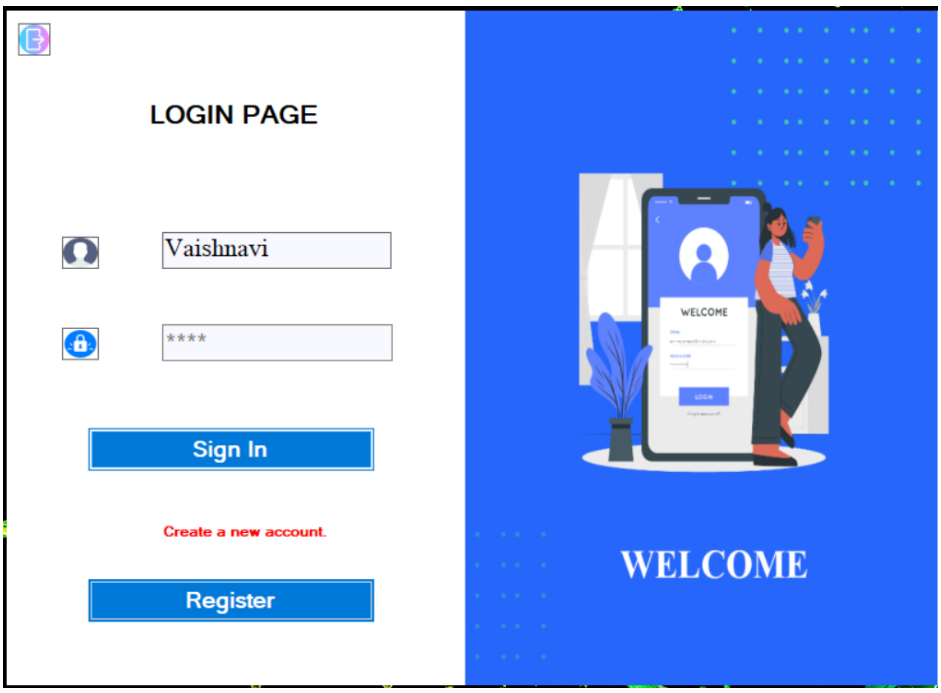

dispose
DUMPING
RECYCLING
MELTING
COMPOSTING
Plastic
Electronic mobile computer tool
Batteries bulb screen
Wet waste
Commercial
Paper
Metal
Recreational

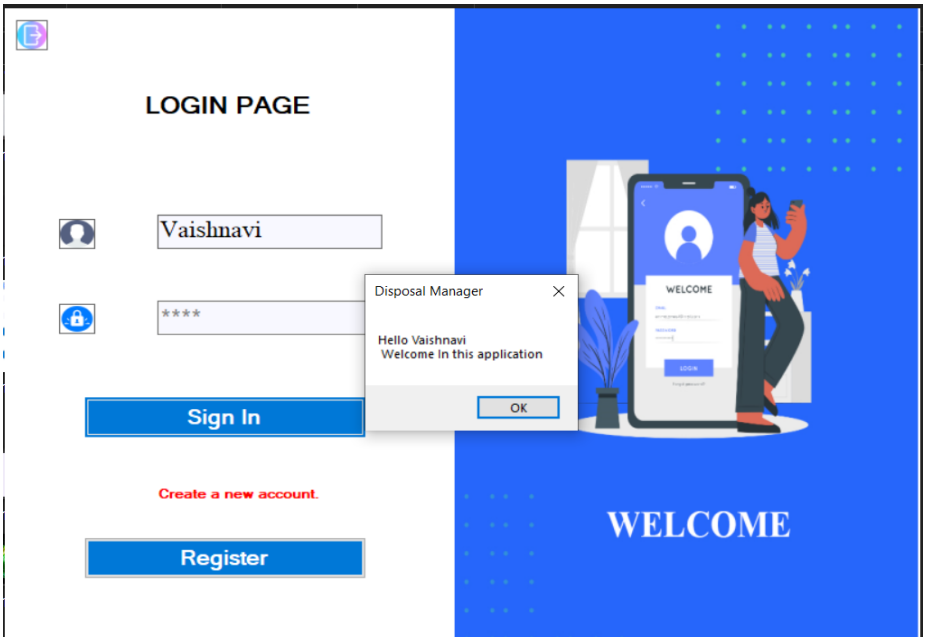
9. Logout

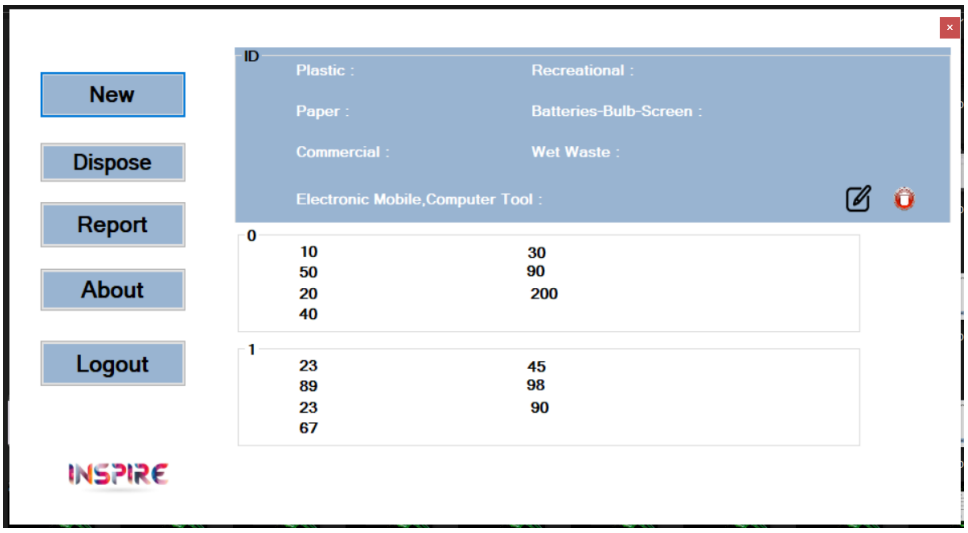

New
Dispose
Report
About
Logout
INSPIRE
ID
Plastic :
Recreational :
Paper :
Batteries-Bulb-Screen :
Commercial :
Wet Waste :
Electronic Mobile,Computer Tool :
0
10
22
22
11
Disposal Manager
Are you sure, you want to log out?
Yes
No


LOGIN PAGE
GUI
****
Sign In
Create a new account.
Register
WELCOME

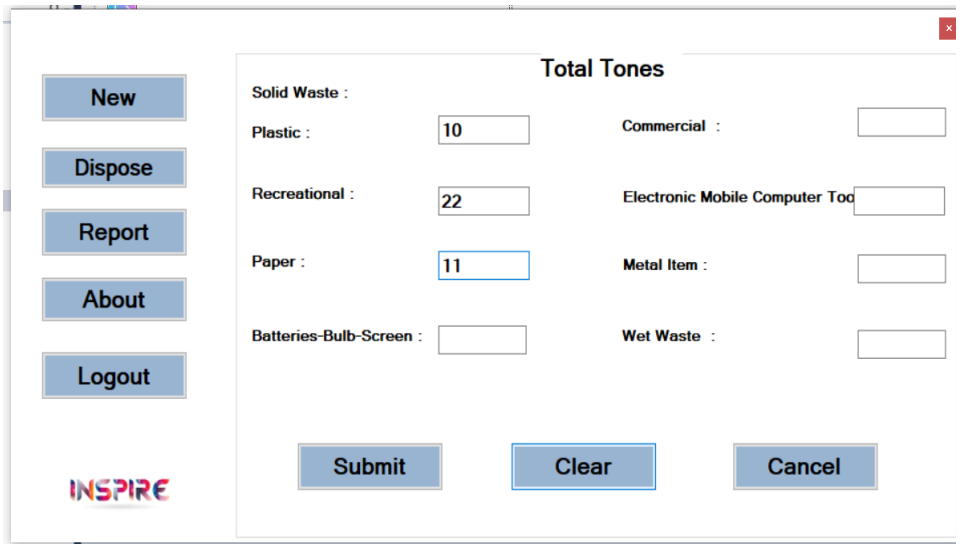
10. Old user (Sign in)

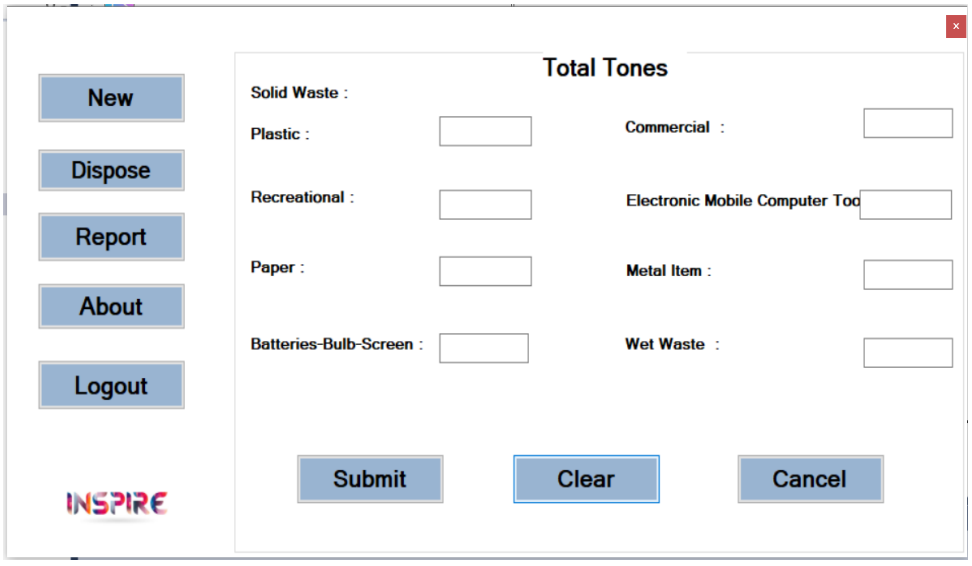




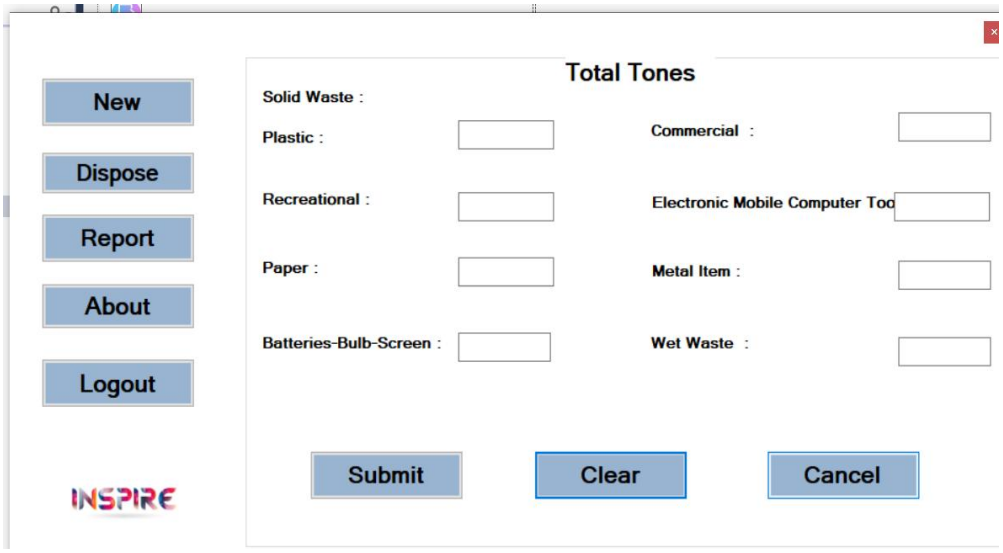

New
Dispose
Report
About
Logout
INSPIRE
ID
Plastic :
Recreational :
Paper :
Batteries-Bulb-Screen :
Commercial :
Wet Waste :
Electronic Mobile,Computer Tool :
0
10
50
20
40
30
90
200
1
23
89
23
67
45
98
90

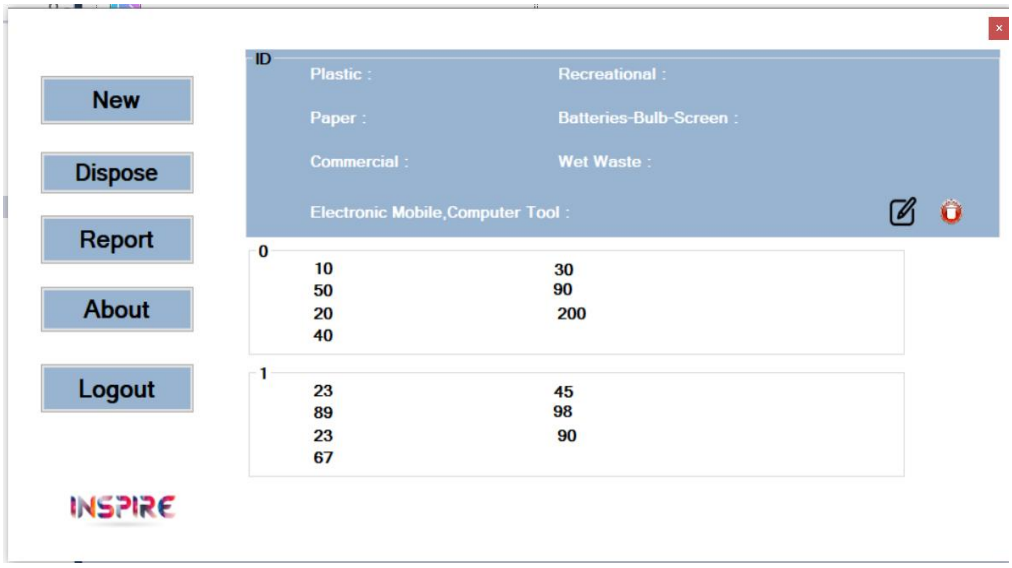
11. Clear


New
Dispose
Report
About
Logout
INSPIRE
Total Tones
Solid Waste :
Plastic :
10
Commercial :
Recreational :
22
Electronic Mobile Computer Too
Paper :
11
Metal Item :
Batteries-Bulb-Screen :
Wet Waste :
Submit
Clear
Cancel


New
Dispose
Report
About
Logout
INSPIRE
Total Tones
Solid Waste :
Plastic :
Commercial :
Recreational :
Electronic Mobile Computer Too
Paper :
Metal Item :
Batteries-Bulb-Screen :
Wet Waste :
Submit
Clear
Cancel

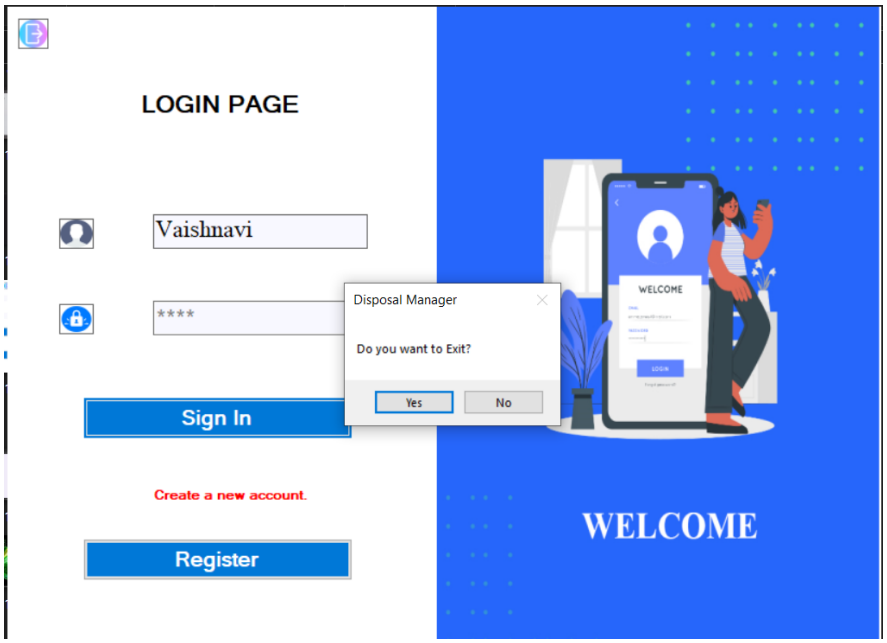
12. Cancel


New
Dispose
Report
About
Logout
INSPIRE
Total Tones
Solid Waste :
Plastic :
Commercial :
Recreational :
Electronic Mobile Computer Too
Paper :
Metal Item :
Batteries-Bulb-Screen :
Wet Waste :
Submit
Clear
Cancel


New
Dispose
Report
About
Logout
INSPIRE
ID
Plastic :
Recreational :
Paper :
Batteries-Bulb-Screen :
Commercial :
Wet Waste :
Electronic Mobile,Computer Tool :
0
10
50
20
40
30
90
200
1
23
89
23
67
45
98
90

s

13. Exit


LOGIN PAGE
Vaishnavi
****
Sign In
Create a new account.
Register
Disposal Manager
Do you want to Exit?
Yes
No
WELCOME
WELCOME

9. CONCLUSION

We have successfully completed project of waste disposal and display the waste in the city and categorizes them.

10. FUTURE SCOPE

1) To dispose the waste that is generated in the city.
2) Waste can be managed by their categories.
3) We can easily sort out the waste, the display it.
4) Proper waste disposal is a part of core services that support citizens health and happiness offered by municipalities.
5) By this project the industry or municipality will become digitalized.

11. REFERENCES

1) Websites-www.researchgate.net/publication.com
2) Handbook of Industrial and hazardous wastes treatment/edited by Lawrence K.Wang.
3) Waste management practices: municipal, hazardous, and industrial/ John Pichtel.