FAKULTI SAINS KOMPUTER DAN MATEMATIK

CSC584 ENTERPRISE PROGRAMMING

GROUP PROJECT:

Community Recycling Collection System

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1.0 INTRODUCTION

The **Community Recycling Collection System (CRCS)** is a web-based platform developed to encourage recycling activities within the community. The system provides an easy way for users to schedule recycling pickups and monitor their recycling contributions. By using a simple and user-friendly interface, CRCS aims to increase public participation in recycling programs and promote environmental sustainability through proper waste management.

2.0 PROJECT BACKGROUND

Recycling plays an important role in reducing waste, conserving natural resources, and protecting the environment. However, many recycling programs face challenges such as low community participation, lack of awareness, and inconvenient collection processes. In many cases, users do not have an efficient way to schedule recycling pickups or track their recycling impact.

The Community Recycling Collection System is developed to address these issues by providing a centralized digital platform for recycling collection management. The system allows users to request recycling pickups, while administrators can manage collection schedules and monitor overall recycling data. By leveraging web technology, CRCS helps improve recycling efficiency, encourages responsible environmental behavior, and supports sustainable community development.

3.0 USER MANUAL

3.1. Introduction

The Community Recycling Collection System (CRCS) is designed to help users manage recycling pickup requests and track their recycling impact. The system supports two main roles: users and administrators. Each role has specific access rights to ensure proper system operation and data security

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3.2. System Objectives

The objectives of CRCS are to:

- Allow users to schedule recycling pickup requests easily
- Enable administrators to manage pickup schedules and recycling records
- Encourage community participation in recycling activities

3.3. System Requirements

The system requires an internet connection, a web browser such as Google Chrome or Mozilla Firefox, and a desktop or mobile device.

3.4. Getting Started

3.4.1 Accessing the System

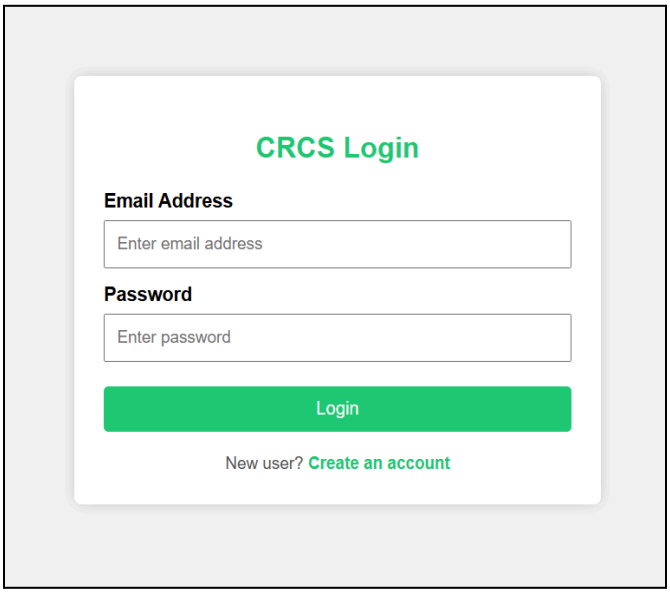

Figure 1: Login page of Community Recycling Collection System (CRCS)

Steps:

1. Open a web browser
2. Enter the portal URL
3. The login page will be displayed.
4. This page is the main entry point of the system. Users can navigate to login or registration pages from here.

3.5. User Module

3.5.1 User Registration

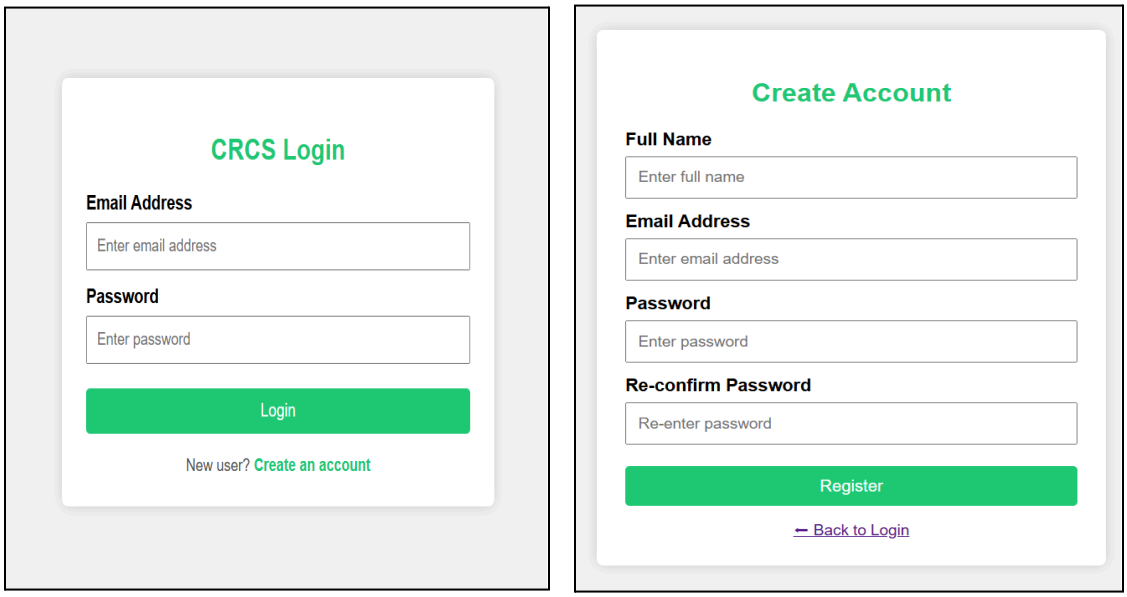

Figure 2: User Registration Page

Steps:

1. Click **"Create an account"**
2. Fill in required user information
3. Click **"Register"**
4. A **"Registration Successful"** message will be displayed

3.5.2 User Login

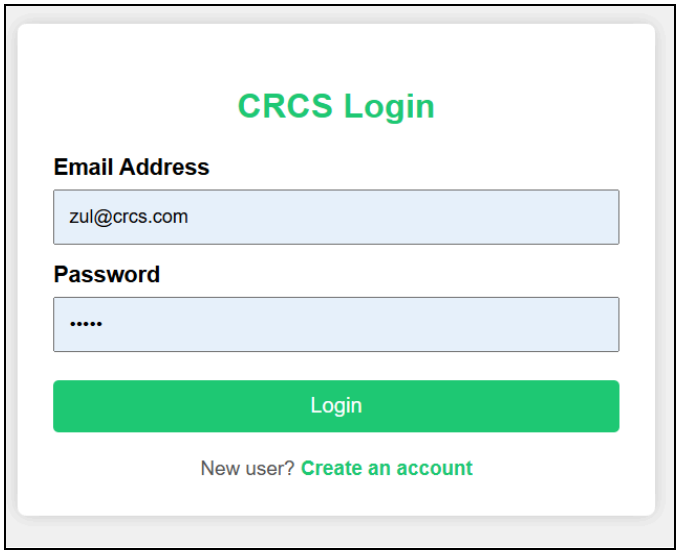

Figure 3: User Login Page

Steps:

1. Enter username and password
2. Click **"Login"**
3. The system redirects the user to the **User Dashboard**

3.5.3 User Dashboard

Figure 4: User Dashboard Page

Description:

The user dashboard displays a clear overview of recycling activities, including pickup status and total recycled materials. It allows users to easily track their recycling progress, schedule pickups, and view reports through a simple and user-friendly interface.

3.5.4 View Recycling Pickup

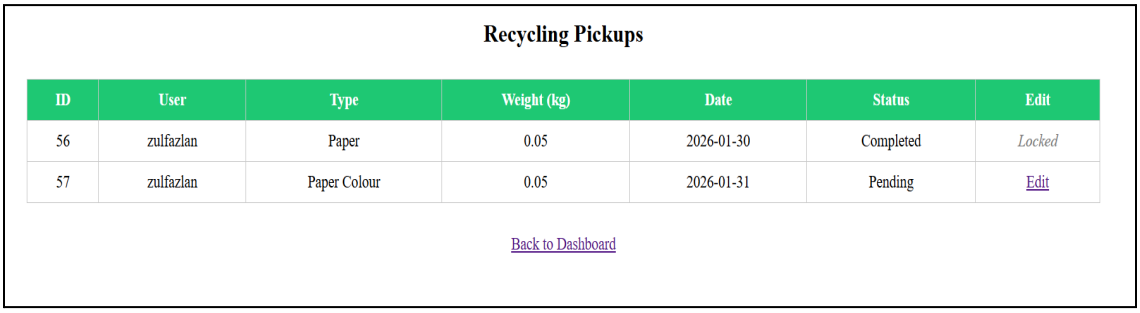

Figure 6: User View Recycling Pickup Page

Steps:

1. Click on **"View Pickup"**
2. User can view and edit recycle item in this page.
3. Then click **"Save"**

3.5.5 Reschedule Recycling Pickup

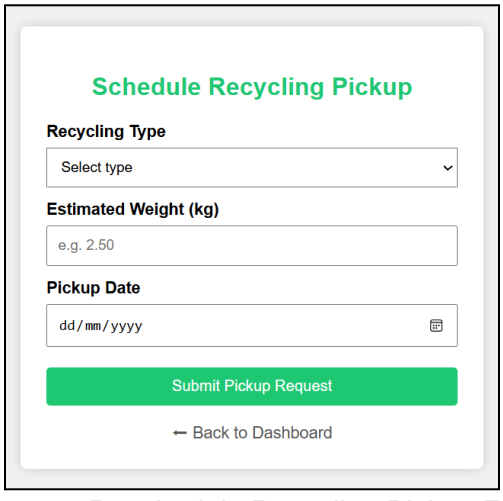

Figure 7: Reschedule Recycling Pickup Form

Steps:

1. Click on **“Schedule Recycling Pickup”**
2. Fill in schedule details
3. Click **“Submit Pickup Request”**
4. Schedule will be recorded in the system

3.5.6 Monthly Recycling Report Page

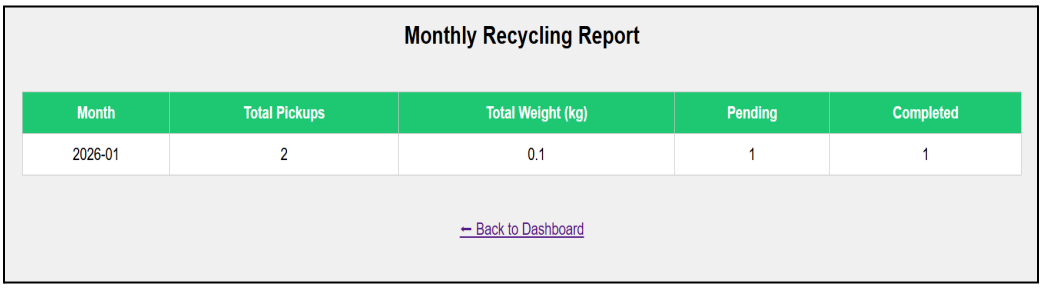

Figure 8: Monthly Report Page

Steps:

1. Click on **“Monthly Recycling Report”**
2. Report details by month will be displayed.

3.6. Admin Module

3.6.1 Admin Login

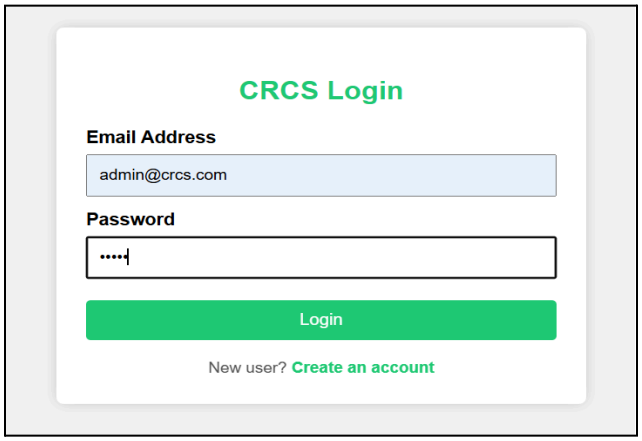

Figure 10: Admin Login Page

Steps:

1. Enter admin username and password
2. Click **“Login”**
3. The system redirects to the **Admin Dashboard**

3.6.2 Admin Dashboard

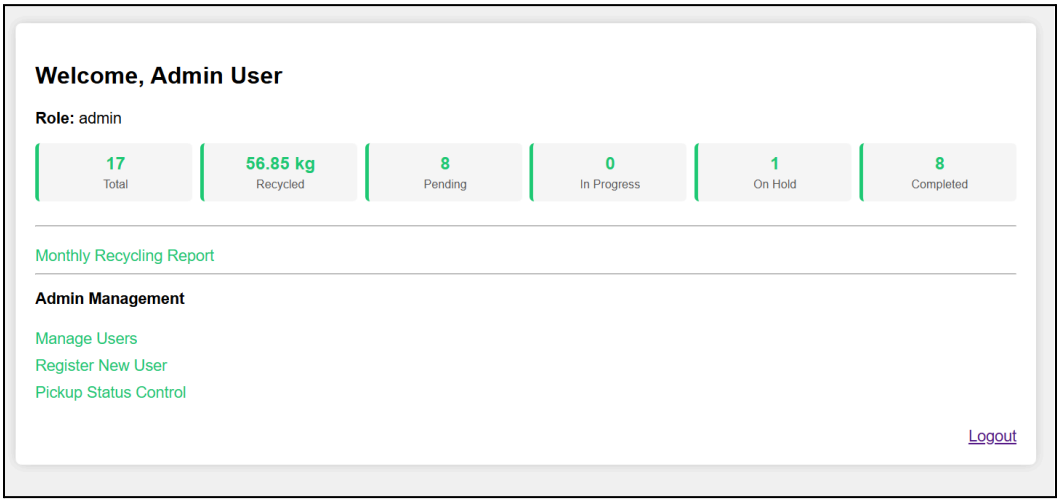

Figure 11: Admin Dashboard Page

Description:

The admin dashboard provides an overview of system performance by displaying key information such as total recycling pickups, recycled weight, and pickup status. It allows administrators to monitor recycling activities efficiently and track overall system progress.

In addition, the dashboard includes management features such as user management, new user registration, and pickup status control. These functions help administrators manage system operations effectively and ensure that recycling collection activities run smoothly.

3.6.3 Monthly Recycling Report (admin)

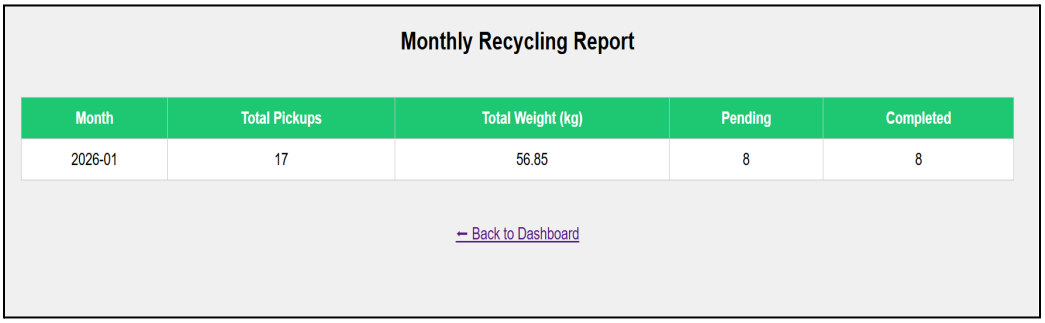

Figure 12: Monthly Recycling Report Page for admin

Steps:

1. Click on **"Monthly Recycling Report"** in admin page
2. Report details by month will be displayed.

3.6.4 Admin Management Page

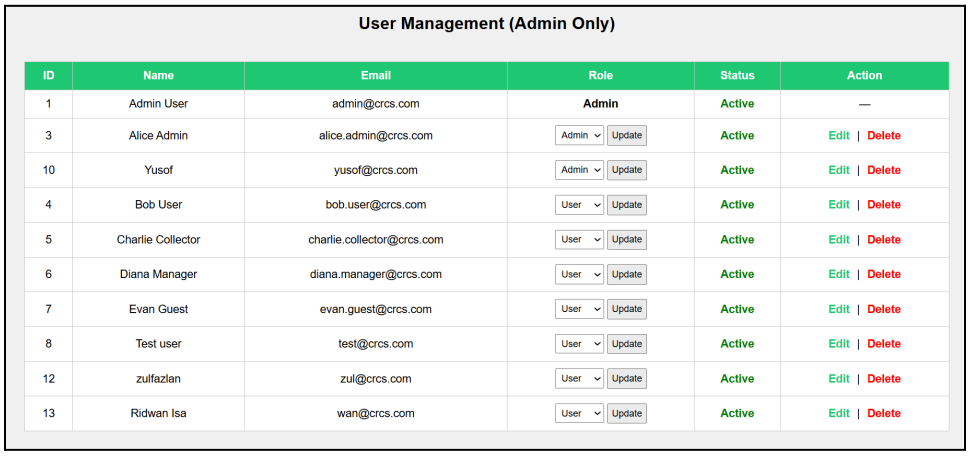

Figure 13: User Management View

Steps:

1. Click **"Manage User"**
2. List of user and admin records will appear
3. Click Action button to manage user and admin

3.6.5 Register New User (admin)

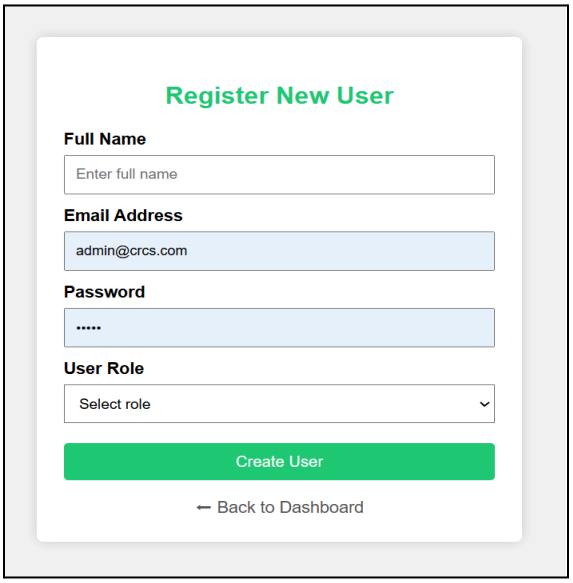

Figure 14: Register New User in Admin Page

Steps:

1. Click **"Register New User"** in admin page
2. Fill in required user information
3. Select User Role
4. Click **"Create User"**
5. A **"Registration Successful"** message will be displayed

3.6.6 Pickup Status Control

Recycling Pickups

ID	User	Type	Weight (kg)	Date	Status	Edit
26	Admin User	Plastic	2.5	2026-01-22	Pending Update	N/A
42	Admin User	Plastic	4.5	2026-01-22	Completed Update	N/A
43	Admin User	Paper	3.2	2026-01-23	Pending Update	N/A
44	Alice Admin	Glass	5.1	2026-01-24	Completed Update	N/A
45	Alice Admin	Metal	2.75	2026-01-25	Pending Update	N/A
46	Bob User	Plastic	6.0	2026-01-22	Completed Update	N/A
47	Bob User	Paper	4.8	2026-01-23	Completed Update	N/A
48	Charlie Collector	Metal	7.25	2026-01-24	Completed Update	N/A
49	Charlie Collector	Glass	3.6	2026-01-26	Pending Update	N/A
50	Diana Manager	Paper	5.9	2026-01-22	Completed Update	N/A
51	Diana Manager	Plastic	4.4	2026-01-25	Pending Update	N/A

Figure 12: Pickup Status Control Page

Steps:

1. Click **“Pickup Status Control”**
2. List request pickup item records will appear
3. Admin can update the status of the request by the user

4.0 TOOLS USED

The development of the **Community Recycling Collection System (CRCS)** involved the use of various tools and technologies to ensure the system operates efficiently, securely, and is easy to use. For front-end development, **HTML** was used to structure the web pages, while **CSS** was applied to enhance the visual appearance and create a clean and user-friendly interface. **JavaScript** was utilized to improve system interactivity, such as form validation, dynamic content updates, and user interaction handling.

On the server side, **PHP** was used to manage system logic, including user authentication, processing recycling pickup requests, handling data submission, and controlling user access based on roles. **MySQL** was implemented as the database management system to store and manage important data such as user profiles, recycling pickup schedules, recycling records, and administrative information. This ensures that data is organized, secure, and easily retrievable when needed.

5.0 CONCLUSION

In conclusion, the **Community Recycling Collection System (CRCS)** was successfully developed as a web-based solution to support and enhance recycling collection management within the community. The system provides an efficient platform that allows users to easily schedule recycling pickup requests, monitor their recycling activities, and track their environmental impact over time. This helps increase public participation in recycling programs and encourages responsible environmental behavior.

From the administrative perspective, the system enables administrators to manage recycling pickup schedules, user information, and recycling records efficiently through a centralized interface. By integrating essential system functions with a user-friendly design, CRCS improves data management, reduces manual work, and enhances coordination between users and recycling collection teams. Overall, the system demonstrates how web technologies can be effectively applied to promote environmental sustainability and improve community-based waste management practices.

6.0 REFERENCES

This project refers to various reliable online sources and official documentation to support the development of the **Community Recycling Collection System (CRCS)**. These references were used to understand web development concepts, system design, database management, and server configuration. Documentation from trusted platforms such as Apache Friends, MySQL, Mozilla Developer Network, and W3Schools provided guidance on implementing front-end and back-end technologies effectively. The use of these references helped ensure that the system follows standard web development practices and functions efficiently.

References (APA Format)

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