

ECO-REVIVE
WEALTH FOR A GREENER FUTURE
A MINI-PROJECT REPORT

Submitted by
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in partial fulfilment of the award of the degree

of

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IN
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RAJALAKSHMI
ENGINEERING COLLEGE
An AUTONOMOUS Institution
Affiliated to ANNA UNIVERSITY, Chennai

RAJALAKSHMI ENGINEERING COLLEGE
AUTONOMOUS, CHENNAI

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BONAFIDE CERTIFICATE

Certified that this mini project “**ECO-REVIVE e-waste management system**”
is the bonafide work of “**MOHNISH M -2201701171**” who
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Submitted for the End semester practical examination to be held on ____

INTERNAL EXAMINER

EXTERNAL EXAMINER

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ABSTRACT

E-waste is now the fastest-growing category of solid waste globally, with everyday tech items like computers, smartphones, and appliances making up a large part of this stream—especially among tech-savvy college students. Improper disposal and recycling of e-waste pose a serious threat to public health and the environment. To combat this growing concern, we have introduced EcoRevive, a forward-thinking initiative aimed at engaging college students and institutions in the safe and responsible management of e-waste.

Our mission is not only to facilitate proper disposal but to create a culture of sustainability within campuses. To encourage student participation, EcoRevive offers incentive-based contributions: students who donate their e-waste receive coupons in return, which can be redeemed for food and drinks at campus canteens or cafés. This initiative transforms e-waste disposal into a rewarding, community-driven effort.

EcoRevive sets out to redefine how we manage e-waste by making eco-friendly actions accessible and incentivized, while raising awareness about the environmental impact of irresponsible disposal. By fostering this mindset among the next generation, we believe EcoRevive can inspire industries and communities beyond academia to adopt greener, more sustainable practices. Through this initiative, we hope to build a foundation for a cleaner, healthier future—one campus, and one student, at a time.

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CHAPTER 1

1.INTRODUCTION

E-waste is rapidly becoming the fastest-growing solid waste stream globally, driven by the constant upgrade and disposal of electronic devices like computers and mobile phones, especially among college students. Improper handling of e-waste poses significant environmental and health risks due to toxic substances like lead and mercury.

EcoRevive aims to tackle this issue by engaging students and institutions in responsible e-waste management. The project introduces e-waste collection points on campuses and incentivizes students through a coupon system redeemable at campus canteens. This initiative promotes sustainable disposal practices while raising awareness about the importance of proper e-waste recycling, setting a new standard for environmental stewardship in educational institutions.

1.1 Background Of E-Waste

In today's technology-driven world, e-waste has become the fastest-growing segment of global solid waste. With the rise in electronic consumption, devices such as mobile phones, computers, and household appliances are constantly being replaced, leading to an enormous accumulation of e-waste. College students, in particular, are a major demographic contributing to this growing problem due to the frequent upgrading of personal gadgets. Improper disposal of these electronics can have severe environmental and health consequences, as they often contain toxic substances like lead, mercury, and cadmium. To address this, proper e-waste management and recycling initiatives are essential.

1.2. Scope of the Work

The scope of this project, EcoRevive, encompasses the development of an e-waste management system that actively engages college students and institutions in responsible e-waste disposal. The project focuses on establishing e-waste collection points within campuses, collaborating with e-waste recyclers, and providing incentives for students who participate in the disposal process. By integrating a coupon-based reward system, the project aims to increase student participation while fostering environmental awareness. The system is designed to be scalable, potentially expanding to other educational institutions and even industries. Furthermore, the platform will feature a user-friendly web interface for both students and administrators to track and manage e-waste contributions.

1.3. Aim and Objectives of the Project

- Aim: To create a comprehensive e-waste management system that encourages proper disposal of electronic waste on college campuses while promoting environmental responsibility through an incentive-driven model.
- Objectives:
 - To establish an efficient e-waste collection system within educational institutions.
 - To collaborate with certified e-waste recyclers for safe disposal or refurbishment of collected items.
 - To design and implement a web platform for tracking, managing, and reporting e-waste contributions.
 - To incentivize student participation through a campus-wide coupon system redeemable at cafés and canteens.

- To raise awareness about the environmental and health impacts of improper e-waste disposal among students and staff.

CHAPTER 2

SYSTEM SPECIFICATIONS

2.1. SOFTWARE SPECIFICATIONS

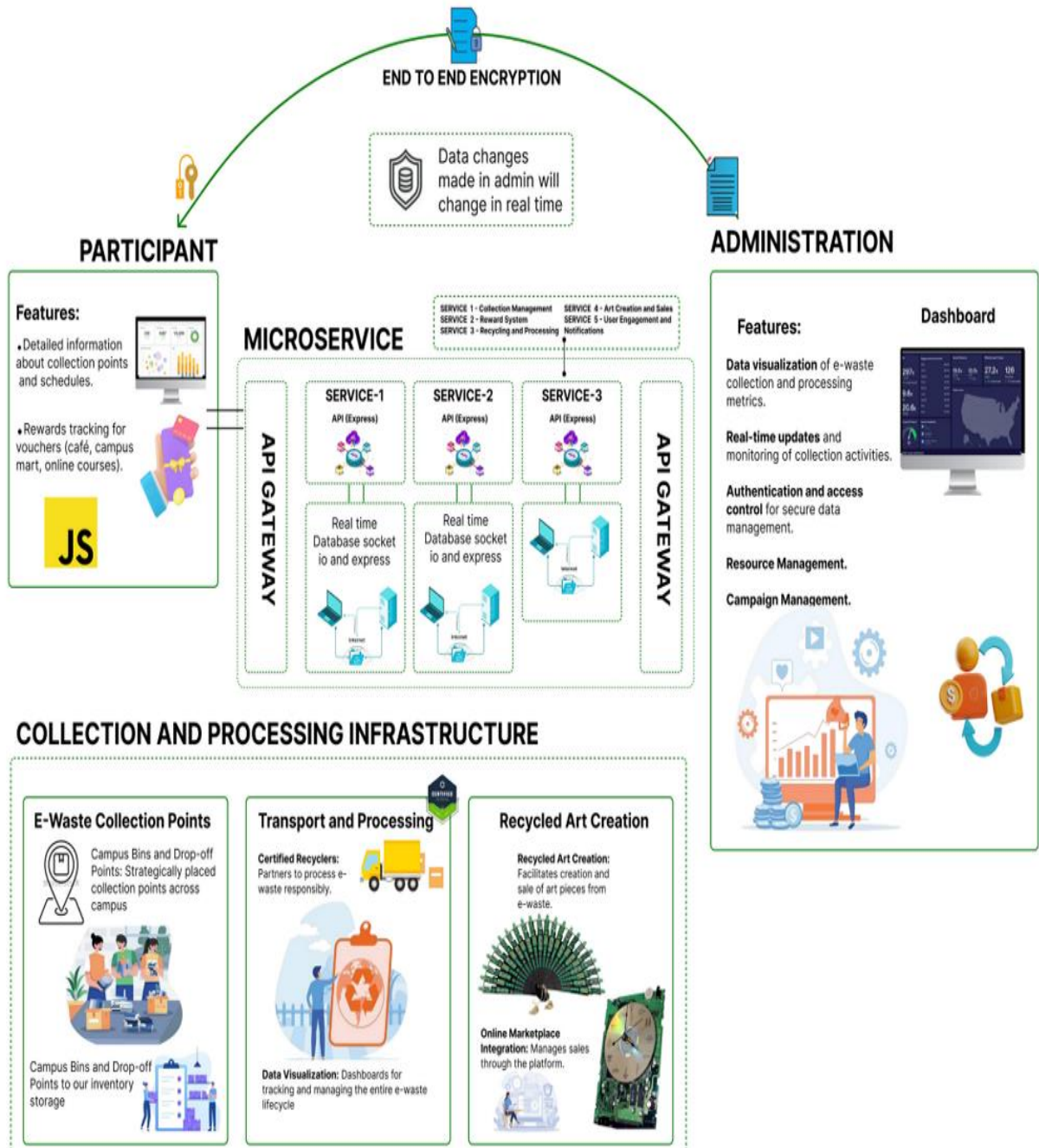
Operating System : WINDOWS 11

Front – End : HTML, CSS, JAVASCRIPT

Back – End : PHP, XAMPP

CHAPTER 3

ARCHITECTURE DIAGRAM



CHAPTER 4

MODULE DESCRIPTION

- **User Registration and Login Module:**

Users register with institutional emails (e.g., @rajalakshmi.edu.in), selecting their role (student, admin, recycler). After secure login, they access role specific dashboards. Users can update their profiles, including personal details and passwords, with encrypted storage for security

- **E-Waste Collection & Drop Off Management:**

Users submit items for donation by filling out a form with item details and uploading images. They choose collection points from a map or schedule pickups for larger items. Notifications are sent for drop-offs or pickups, keeping users updated

- **E-Waste Categorization & Processing:**

Admins or recyclers inspect and categorize items as "working," "refurbished," or "non working." The system tracks item statuses, allowing users to monitor progress. Non-working items are scheduled for recycling, and refurbished items are prepared for reuse

- **Voucher/Reward System:**

The system generates vouchers based on donated items, which users can view and redeem. Different reward levels apply for different items, with bonuses for regular participation. Admins manage the reward structure and partner businesses.

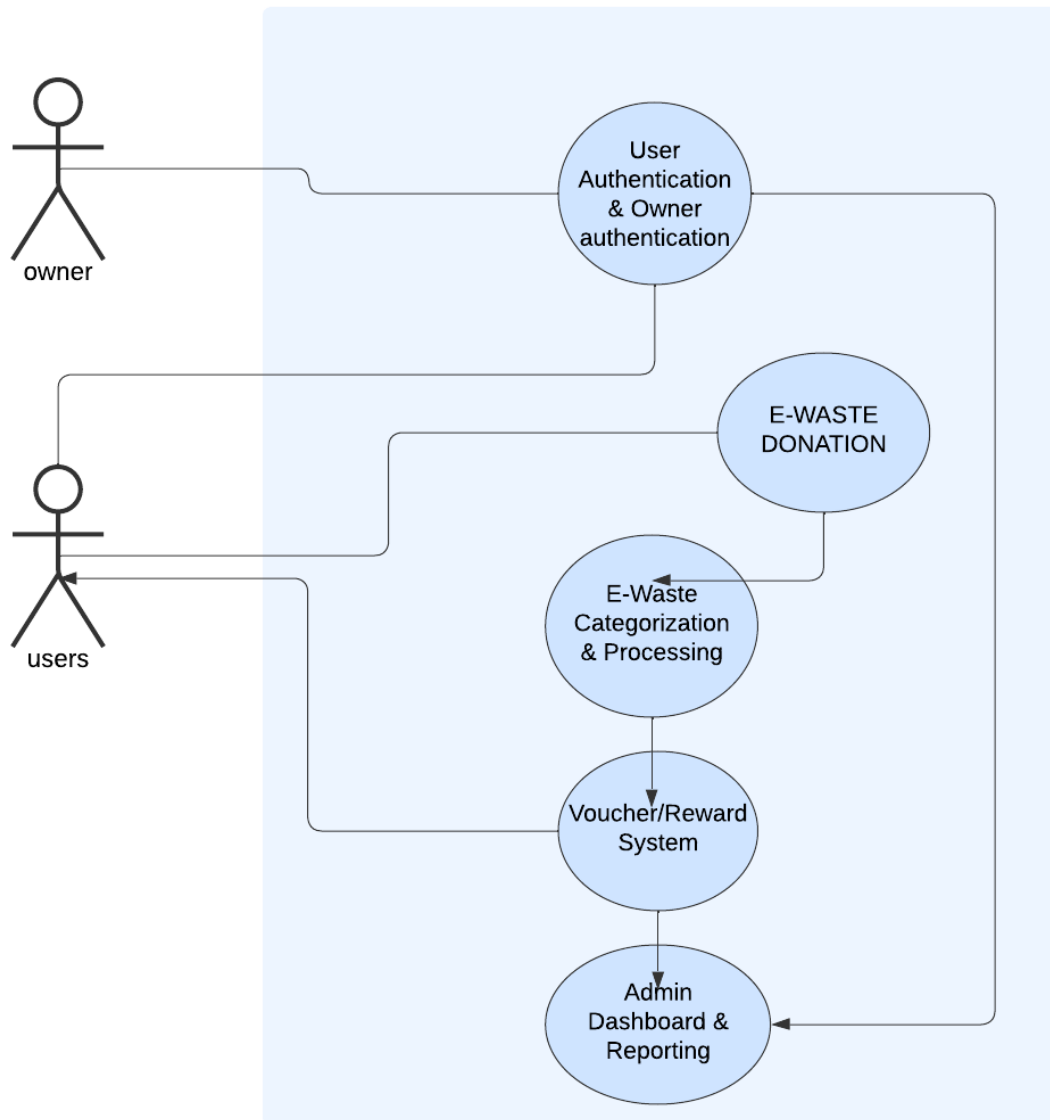
- **Admin Dashboard & Reporting:**

Admins access a dashboard showing users, donations, and e-waste status. They can generate reports on total collection, recycling rates, and user engagement. The system supports filtering by user role and item category, with exportable reports for stakeholders.

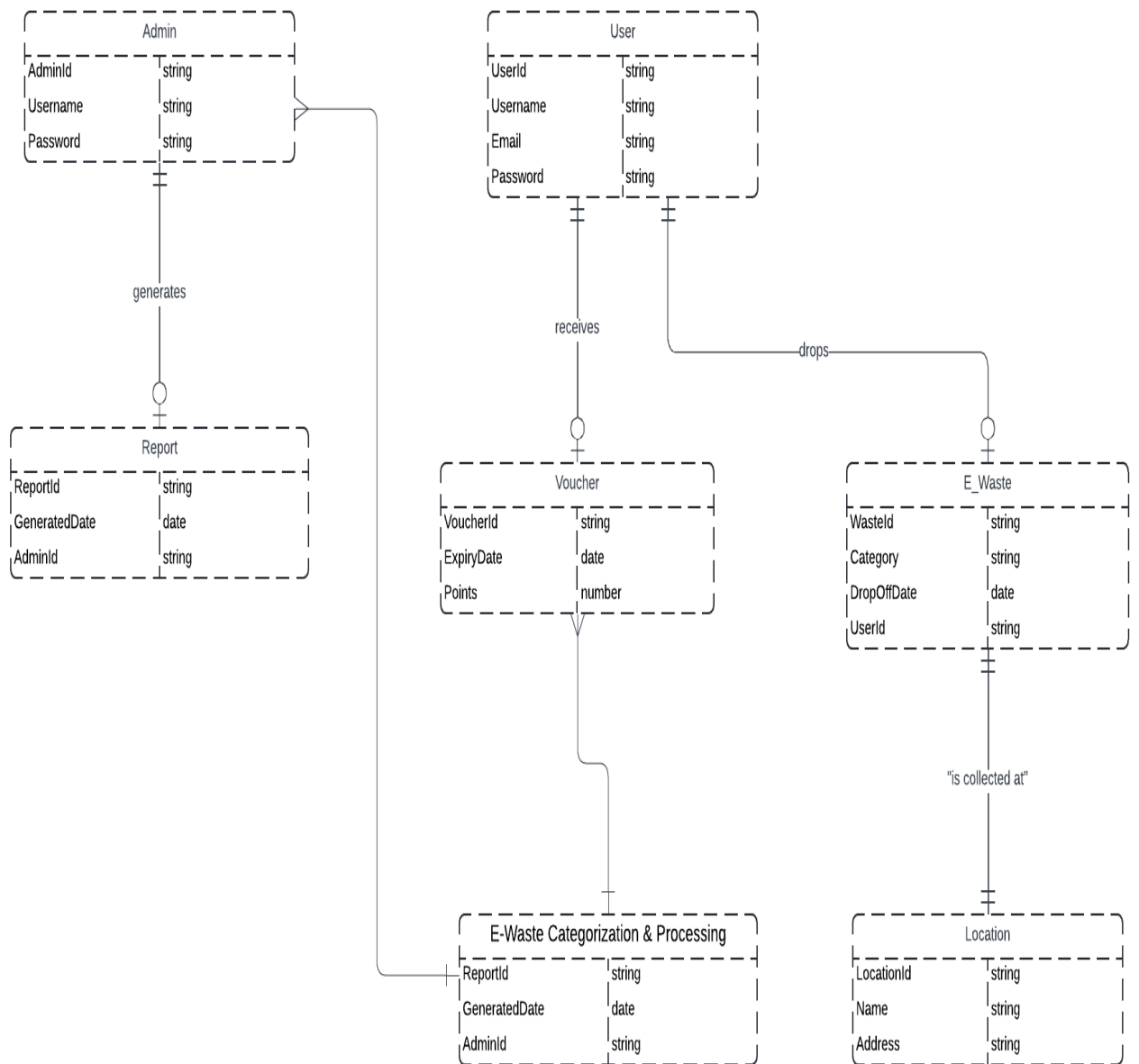
CHAPTER 5

SYSTEM DESIGN

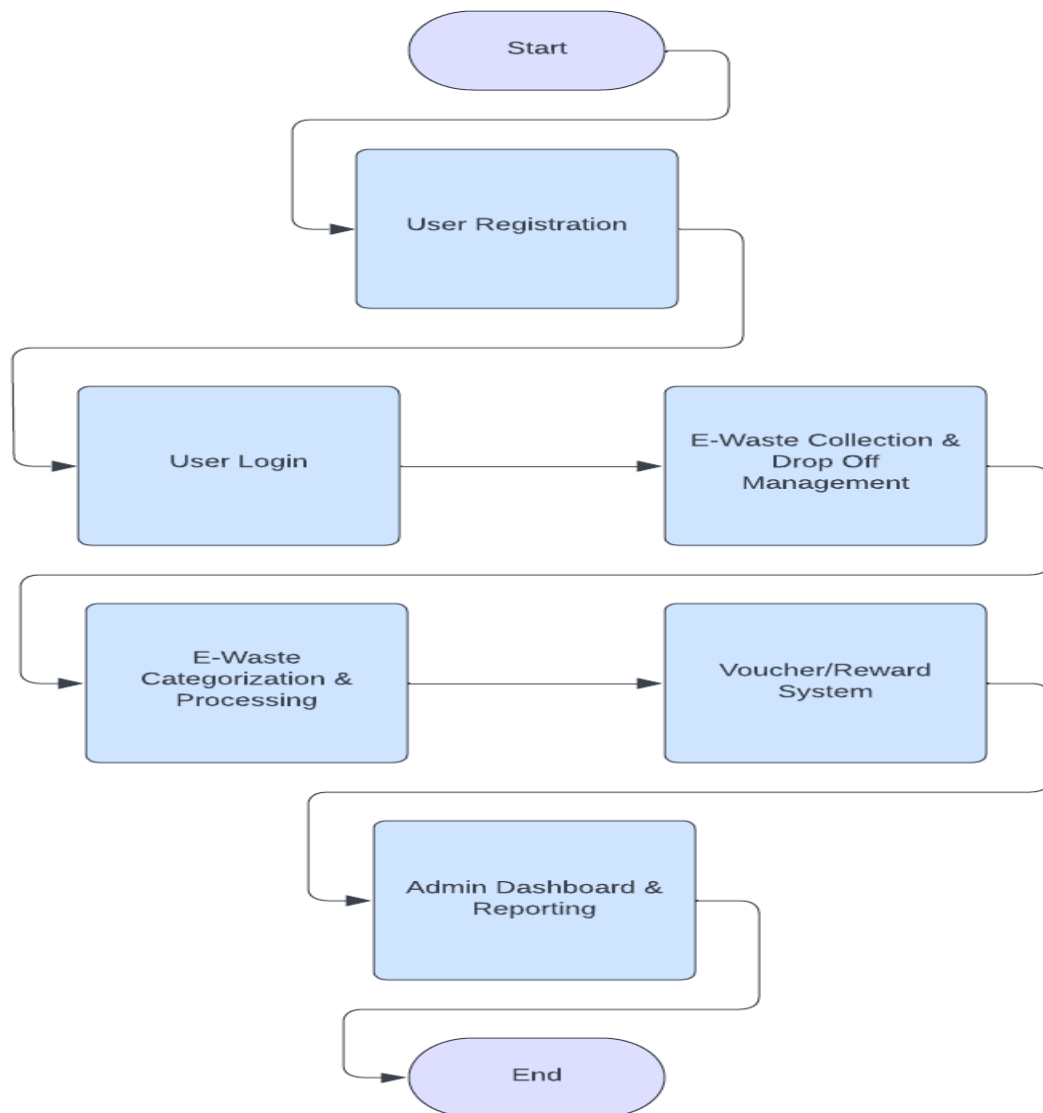
5.1 USE CASE DIAGRAM



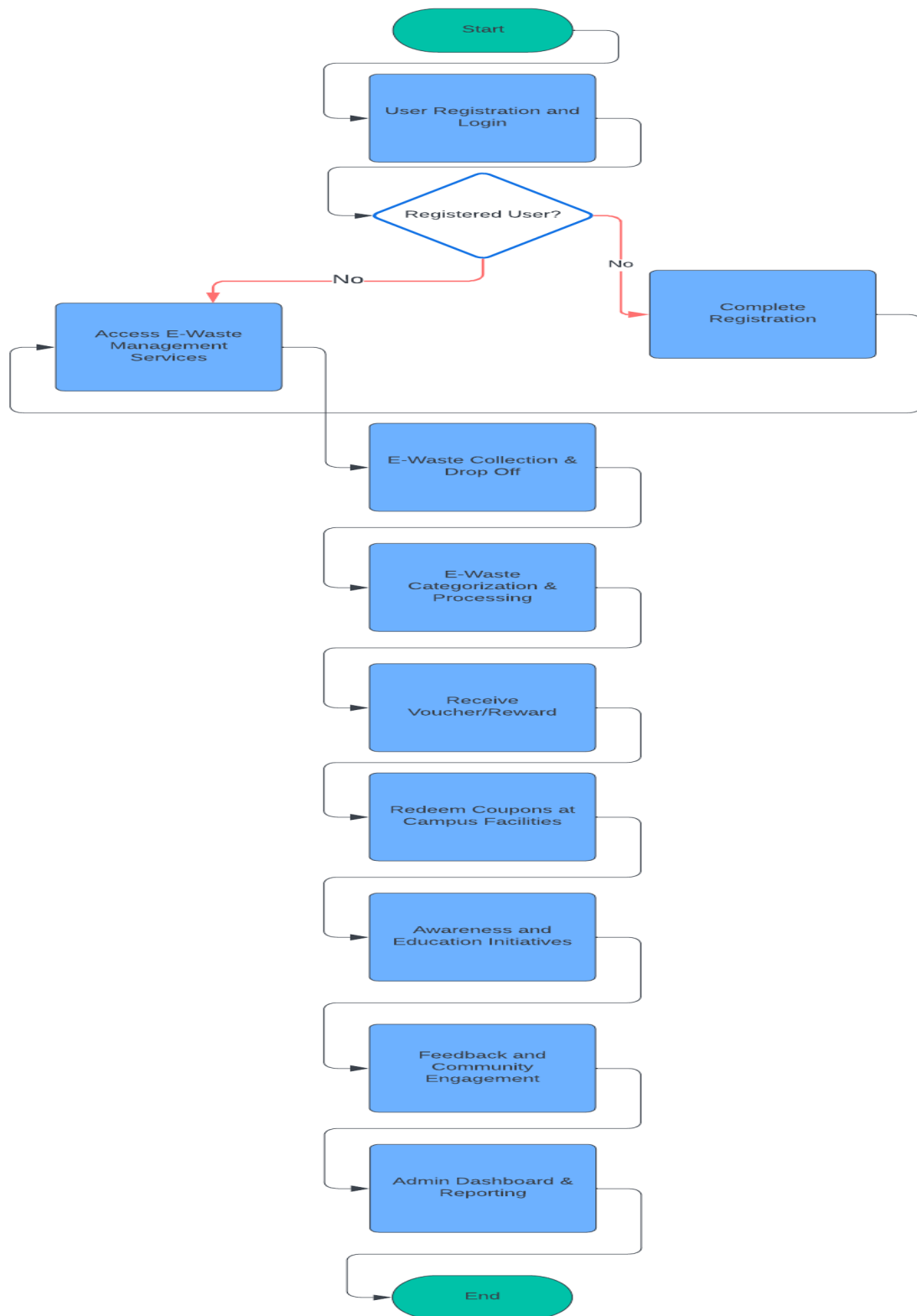
5.2. ER DIAGRAM



5.3 DFD DIAGRAM



5.4.ACTIVITY DIAGRAM



CHAPTER6

SAMPLE CODING

INDEX.HTML

```
<body>
<video class="background-video" autoplay loop muted>
<source src="index.mp4" type="video/mp4">
Your browser does not support the video tag.
</video>
<header>
<h1>Your E-Waste Management System</h1>
</header>
<nav>
<ul>
<li><a href="#home">Home</a></li>
<li><a href="#donate">Donate E-Waste</a></li>
<li><a href="#check-status">Check Status</a></li>
<li><a href="#contact">Contact Us</a></li>
<li><a href="#user-details">Submit Details</a></li>
</ul>
</nav>

<section id="home">
<h2 class="highlight">Welcome to Our E-Waste Management System</h2>
<p class="highlight">Manage your e-waste efficiently and contribute to a
sustainable future.</p>
</section>
```

```
<section id="combined-box">
<div id="donate">
<h2>Donate Your E-Waste</h2>
<form id="donation-form">
<div class="form-group">
<label for="username">Username:</label>
<input type="text" id="username" name="username" required>
</div>
<div class="form-group">
<label for="itemType">Item Type:</label>
<input type="text" id="itemType" name="itemType" required>
</div>
<div class="form-group">
<label for="condition">Condition:</label>
<select id="condition" name="condition" required>
<option value="working">Working</option>
<option value="refurbished">Refurbished</option>
<option value="not-working">Not Working</option>
</select>
</div>
<input type="submit" value="Submit">
</form>
<p id="donation-id-message"></p>
</div>
```

```
<div id="check-status">
<h2>Check Your Donation Status</h2>
<form id="status-form">
<label for="donation-id">Enter Donation ID:</label>
```

```
<input type="text" id="donation-id" name="donation-id" required>
<button type="submit">Check Status</button>
</form>
<div id="status-result">
<!-- Donation status will be displayed here -->
</div>
</div>
</section>
```

```
<section id="user-details">
<h2>Submit Your Details</h2>
<form id="user-form">
<div class="form-group">
<label for="name">Name:</label>
<input type="text" id="name" name="name" required>
</div>
<div class="form-group">
<label for="email">Email:</label>
<input type="email" id="email" name="email" required>
</div>
<div class="form-group">
<label for="phone">Phone:</label>
<input type="tel" id="phone" name="phone">
</div>
<div class="form-group">
<label for="address">Address:</label>
<textarea id="address" name="address"></textarea>
</div>
<button type="submit">Submit</button>
```

```
</form>
</section>
```

```
<footer>
<p>&copy; 2024 Your E-Waste Management System. All rights reserved.</p>
</footer>
```

LOGIN.HTML

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Login - E-Waste Management System</title>
<link rel="stylesheet" href="login.css">
</head>
<body>
<header>
<h1>E-Waste Management System</h1>
</header>

<div class="main-container">


<div class="login-container">
<h2>Login</h2>
<form id="login-form">
<label for="username">Username:</label>
<input type="text" id="username" name="username" required>
```

```
<label for="password">Password:</label>
<input type="password" id="password" name="password" required>

<button type="submit">Login</button>
</form>
<p id="login-error" style="color:red;"></p>
</div>


</div>

<script src="login.js"></script>
</body>
</html>
```

OWNER.HTML

```
<body>

<header>
<h1>Welcome, Owner!</h1>
</header>

<div class="main-container">
<section class="dashboard">
<h2>Dashboard Overview</h2>
<p>Manage all aspects of the E-Waste Management System efficiently from
here.</p>
</section>
```

```
<section class="overview">
```

```
<h2>Overview</h2>
```

```
<p>Here you can find a summary of recent activities and important notifications.</p>
```

```
</section>
```

```
<section class="widgets">
```

```
<div class="widget">
```

```
<h3>Recent Submissions</h3>
```

```
<p>View the latest user submissions and their statuses.</p>
```

```
<button id="view-submissions-button" class="button"
onclick="window.location.href='donation.html'">View Submissions</button>
```

```
</div>
```

```
<div class="widget">
```

```
<h3>Recycler Management</h3>
```

```
<p>Manage the list of authorized recyclers and their details.</p>
```

```
<a id="manage-recyclers-link" href="#" class="button">Manage Recyclers</a>
```

```
</div>
```

```
<div class="widget">
```

```
<h3>Art Recyclers</h3>
```

```
<p>Explore how recycled materials are being used in art projects.</p>
```

```
<a href="/art-recyclers" class="button">Explore Art Recyclers</a>
```

```
</div>
```

```
</section>
```

```
<section id="submissions-section" class="hidden">
```

```
<h2>User Submissions</h2>
```

```
<div id="submissions-list">
```

<!-- User details will be inserted here by JavaScript -->

</div>

</section>

</div>

<footer>

<p>© 2024 Your Website Name. All Rights Reserved.</p>

</footer>

</body>

</html>

CHAPTER7

SCREENSHOTS

E-Waste Management System



Login

Username:

Password:

Login



Fig.7.1 Owner and User login

Your E-Waste Management System

Home Donate E-Waste Check Status Contact Us Submit Details

Welcome to Our E-Waste Management System
Manage your e-waste efficiently and contribute to a sustainable future.

Donate Your E-Waste

Username:

Item Type:

Condition:

Submit

Check Your Donation Status

Enter Donation ID:

Check Status

© 2024 Your E-Waste Management System. All rights reserved.

Fig.7.2 User donation page

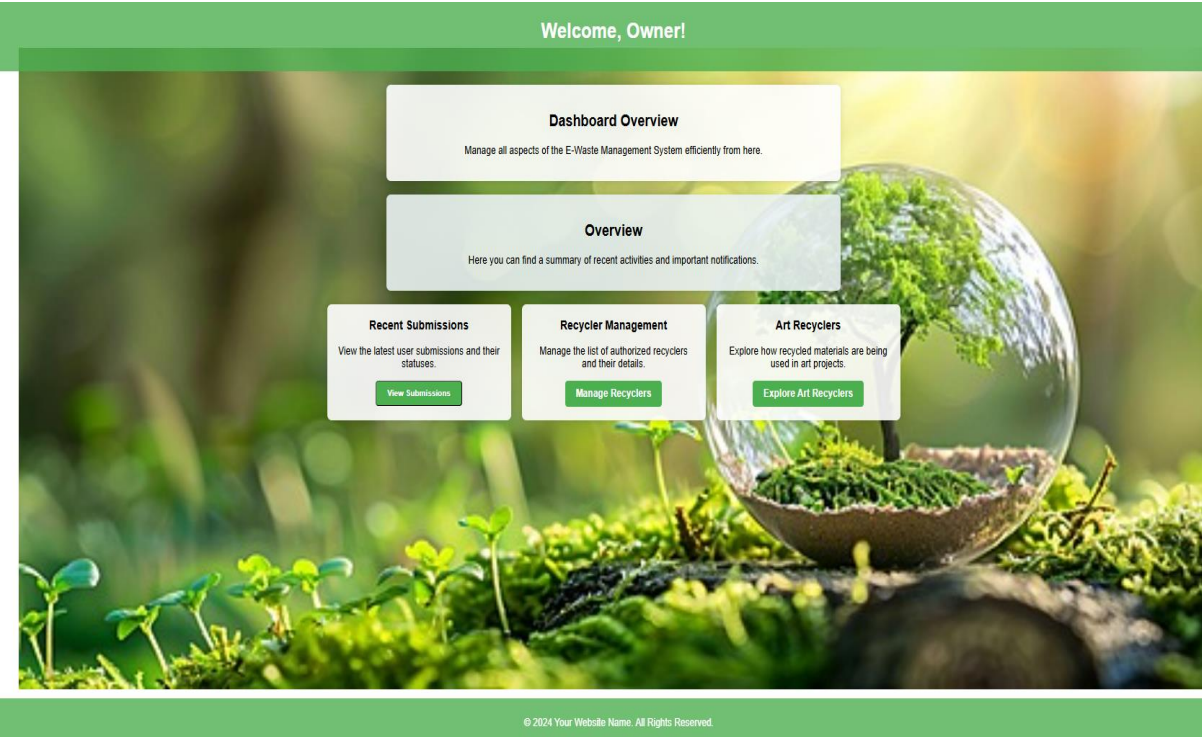


Fig. 7.3 Owner Page

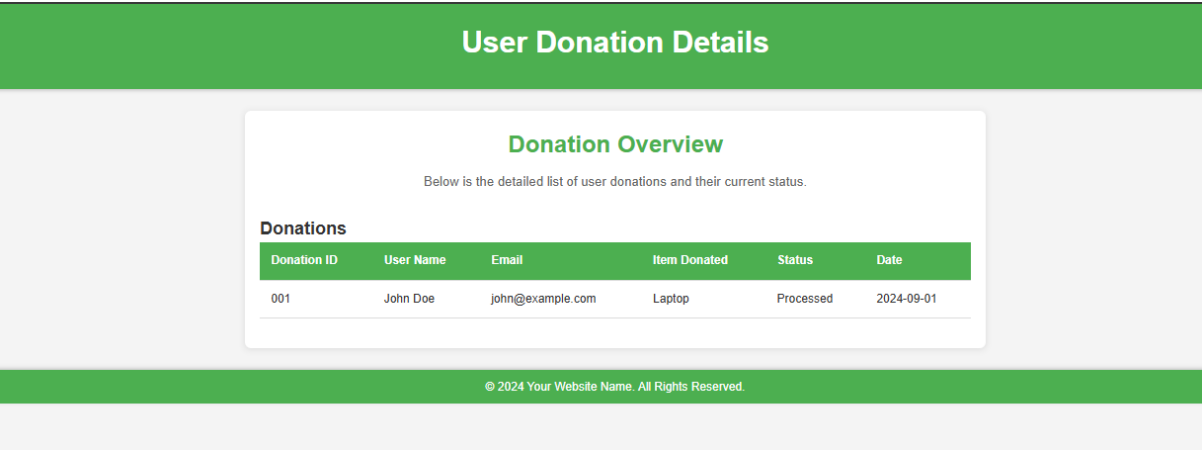


Fig. 7.4 User donation details

CHAPTER 8

CONCLUSION

EcoRevive is more than just an e-waste management initiative—it is a movement aimed at fostering environmental responsibility within college campuses. By empowering students to make eco-friendly choices through education and incentivized participation, it transforms e-waste disposal into a proactive and rewarding community effort.

This initiative not only addresses the growing issue of e-waste but also raises awareness about its environmental impacts, encouraging students to adopt sustainable habits that extend beyond their college years. The coupon rewards system enhances engagement, making the act of recycling an accessible and enjoyable part of campus life.

By inspiring a new generation of environmentally conscious individuals, EcoRevive has the potential to influence broader societal changes. It sets a powerful example of how small, localized efforts can drive larger shifts in attitudes and practices towards sustainability, contributing to a healthier, cleaner future for all.

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