

## RESULT AND DISCUSSION

This chapter explains what systems do after development and testing. Here, researchers show how systems work, what features work well, and how users use it.

### System Design

The website CareConnect shows its features, components, and UI using simple buttons, forms, and tables so it is easy to use. The system is split into eight (8) modules: Dashboard, Barangay Cases, Users Table, Register User, User Logs, Archived Users, Referral Info, and Add New Case for admin side, and four (4) modules: Dashboard, My Cases, New Case, Referrals for desk officers.

#### a. Dashboard displays real-time data to efficiently monitor the cases

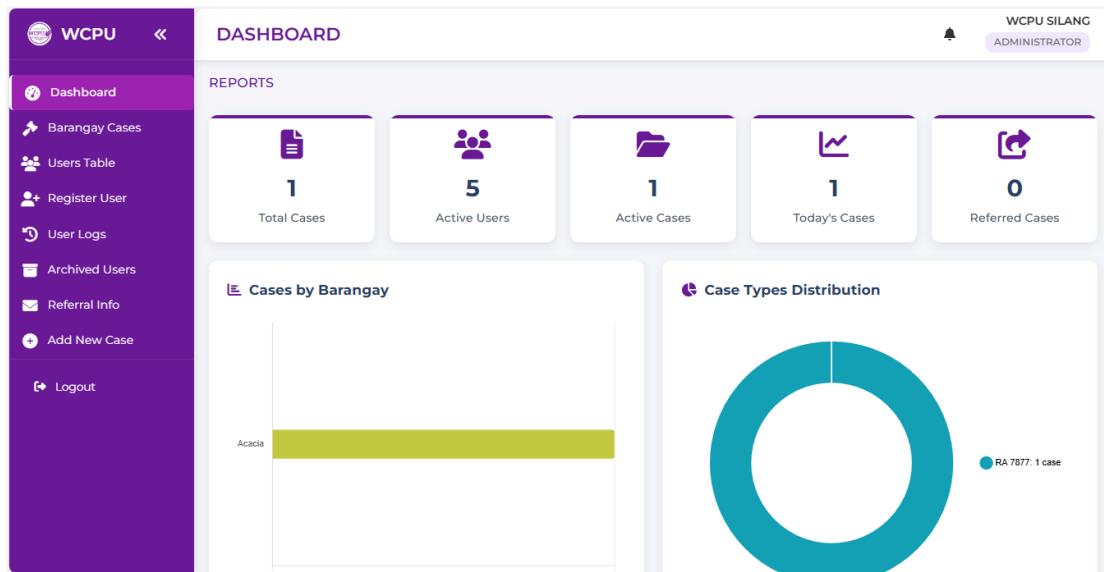


Figure 6. Dashboard for Admin Side

Figure 6 shows the Dashboard for admin, the main page where admin sees everything quickly. It shows total users, total cases, new cases, and recent activities. Admin can also see charts or tables to understand easily. From here, admin can go to other modules like Users Table, Barangay Cases, Register User, or Add New Case. It is like a control center where the admin manages users, checks cases, and monitors the system fast-fast. Make working easy because all important things are in one place.

**Figure 7.** Dashboard for VAWC Desk Officer

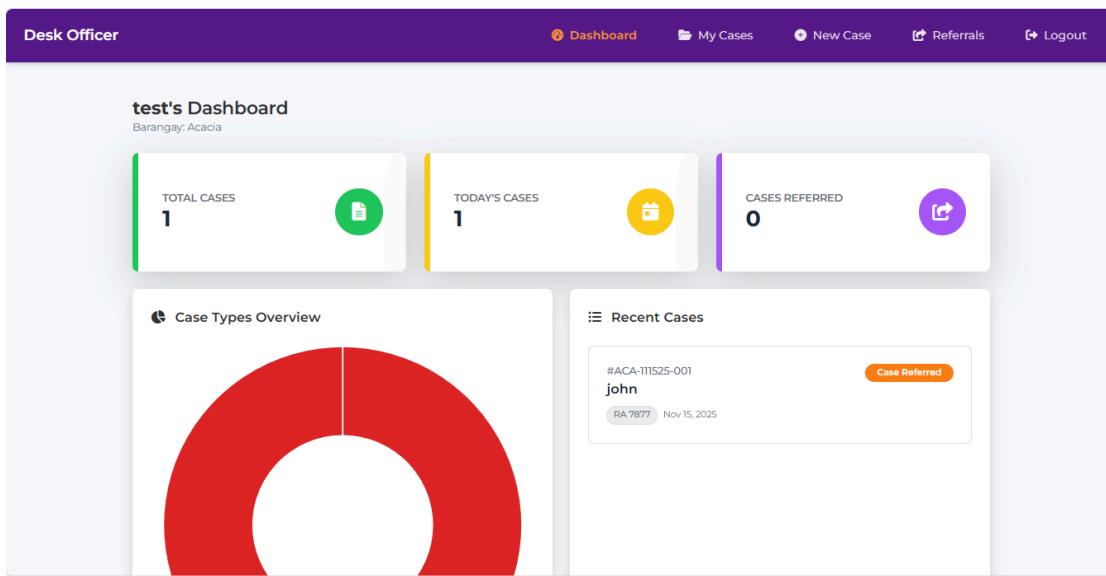
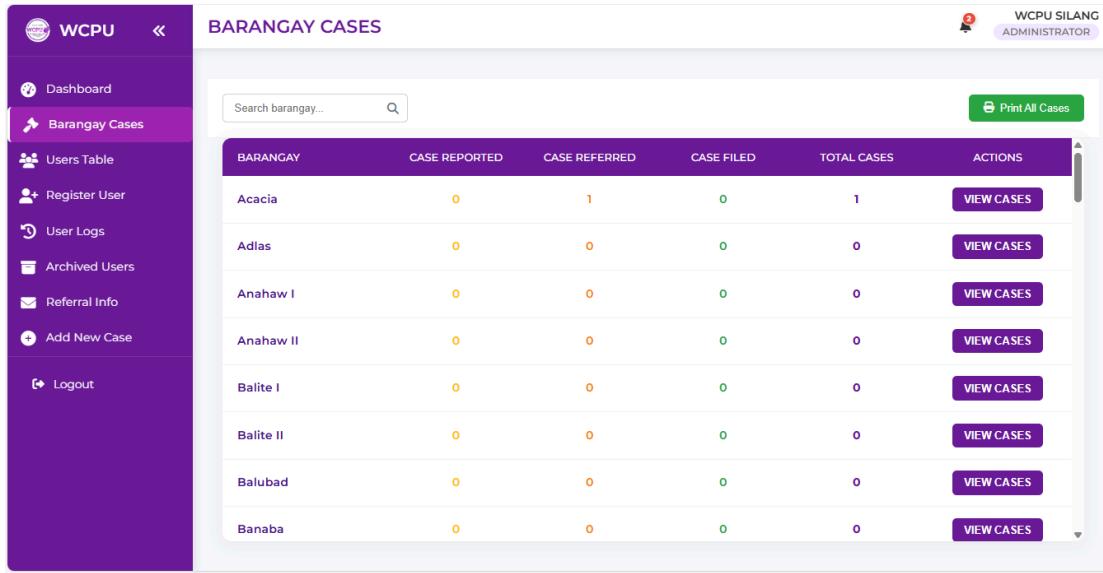


Figure 7 shows the dashboard for desk officers, the main page for desk officers to see quick info about their cases. It shows total cases assigned, new cases, and recent activities. From here, officers can go to My Cases, New Case, or Referrals module. It helps officers track and manage cases fast-fast, see updates, and do tasks without opening many pages. It is like a control center for desk officers, easy to use and check everything in one place

**b. Shows the list of barangays and the number of cases in each barangay**



The screenshot shows the 'BARANGAY CASES' page. At the top right, there is a notification icon with '2' notifications and the text 'WCPU SILANG ADMINISTRATOR'. On the left, a sidebar menu includes 'Dashboard', 'Barangay Cases' (which is selected and highlighted in purple), 'Users Table', 'Register User', 'User Logs', 'Archived Users', 'Referral Info', 'Add New Case', and 'Logout'. The main content area has a search bar 'Search barangay...' and a 'Print All Cases' button. A table lists eight barangays: Acacia, Adlas, Anahaw I, Anahaw II, Balite I, Balite II, Balubad, and Banaba. The table columns are BARANGAY, CASE REPORTED, CASE REFERRED, CASE FILED, TOTAL CASES, and ACTIONS. Each row contains numerical values (mostly 0) and a 'VIEW CASES' button.

BARANGAY	CASE REPORTED	CASE REFERRED	CASE FILED	TOTAL CASES	ACTIONS
Acacia	0	1	0	1	<button>VIEW CASES</button>
Adlas	0	0	0	0	<button>VIEW CASES</button>
Anahaw I	0	0	0	0	<button>VIEW CASES</button>
Anahaw II	0	0	0	0	<button>VIEW CASES</button>
Balite I	0	0	0	0	<button>VIEW CASES</button>
Balite II	0	0	0	0	<button>VIEW CASES</button>
Balubad	0	0	0	0	<button>VIEW CASES</button>
Banaba	0	0	0	0	<button>VIEW CASES</button>

**Figure 8. Barangay Cases for Admin**

Figure 8 shows barangay cases for the admin and the users who have access can see the number of cases in every barangay. It just shows the counts reported, referred, and filed cases so they can know fast which barangay have activity or cases that need checking. When you click the 'View Cases', it will open the details of the cases for that barangay. There is also a 'Print All Cases' button so they can make reports or get copies of all cases quickly when needed.

The screenshot shows the 'Cases Management' section of the VAWC system. At the top, there are navigation links: Dashboard, My Cases, New Case, Referrals, and Logout. Below the header, a search bar says 'Viewing cases for Acacia'. A green button labeled 'Print All Cases' and a purple button labeled '+ New Case' are visible. A 'Filter' dropdown menu is also present. The main area displays a table with one row of data:

Case #	Date Reported	Victim Name	Type of Case	Status	Last Updated	Actions
#ACA-111525-001	Nov 15, 2025	john	RA 7877	Case Referred	Nov 15, 2025	

**Figure 9.** Cases for VAWC Desk Officer

Figure 9 shows where the desk officer can see the cases for the barangay they open. It shows the list of cases with the case number, date it was reported, the victim name, what type of case it is, and also the status. There is only one case showing here, and you can see it was already referred to. The buttons on the right let the user view the case details or edit it if needed. There is also a search bar for looking at the cases faster, and on top they can click 'Print All Cases' or 'New Case' if they want to add another one.

**c. A database that allows WCPU Admin and VAWC Desk Officer to add, view, and manage records for each barangay.**

The screenshot shows the 'ADD NEW CASE' form. On the left, a sidebar menu includes: Dashboard, Barangay Cases, Users Table, Register User, User Logs, Archived Users, Referral Info, Add New Case (which is highlighted in purple), and Logout. The main form has a title 'Add New Case' and a note: 'Note: Fields marked with \* are required to fill.' It is divided into several sections:

- CASE INFORMATION**: Contains fields for 'Case Designation \*' (dropdown: Select Barangay) and 'Case Number \*' (dropdown: Select a barangay to generate case number).
- VICTIM INFORMATION**: Contains fields for 'Full Name \*' (text input: Full Name), 'Victim Age \*' (text input: Age), 'Gender \*' (dropdown: Select), 'Contact Number \*' (text input: Contact Number), and 'Address \*' (text input: Current Address (Street, Barangay, Municipality, Province)).
- ABUSER INFORMATION**: This section is currently empty.

In the top right corner, there is a status indicator: 'WCPU SILANG ADMINISTRATOR' with a bell icon.

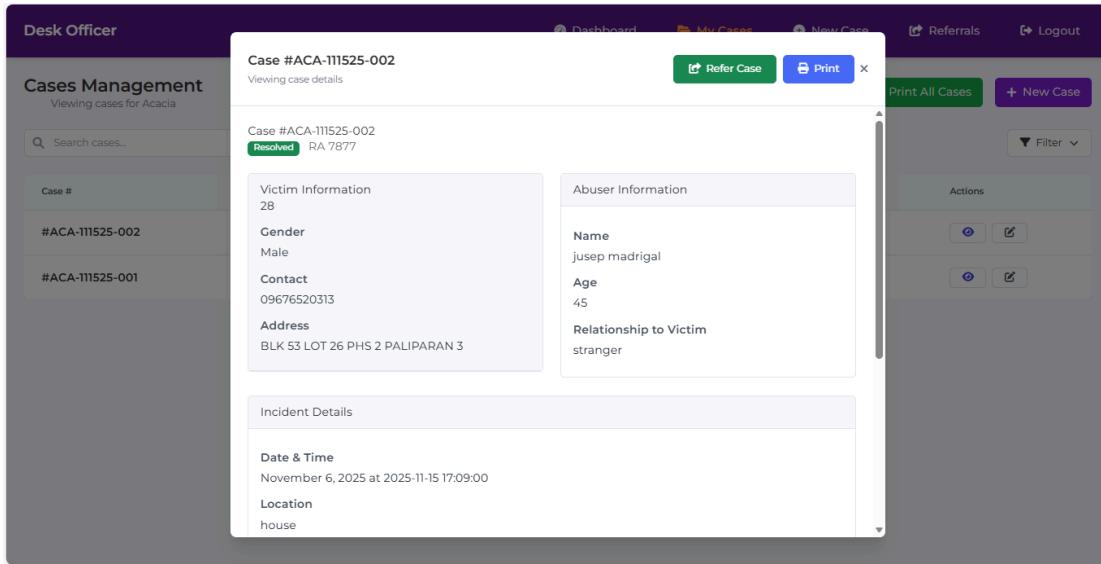
**Figure 10.** Add new cases for Admin

Figure 10 describes where the admin or officer can add a new case in the system. It asks for different information like what barangay the case belongs to, and the case number will show after picking the barangay. Under it, there is the part for the victim details where you need to put the full name, age, gender, contact number, and the address. All fields that have the star mark mean it must be filled up before saving. This form is basically for collecting all needed info so the case can be recorded properly in the system.

The screenshot shows a web-based application interface for adding a new case. At the top, a purple header bar contains the text 'Desk Officer' on the left and navigation links 'Dashboard', 'My Cases', 'New Case' (which is highlighted in orange), 'Referrals', and 'Logout' on the right. Below the header, a white form area has a title 'Add New Case'. A note at the top says 'Note: Fields marked with \* are required to fill.' The form is divided into sections: 'Case Information' (with 'Assigned Barangay' dropdown set to 'Acacia - [ACA]' and a note about auto-assignment) and 'Case Number' (with a note about auto-generation in the format ACA-MMDDYY-XXX). The 'Victim Information' section contains fields for 'Full Name \*' (text input), 'Victim Age \*' (text input), 'Gender \*' (dropdown menu with 'Select' option), 'Contact Number \*' (text input), and 'Address \*' (text input).

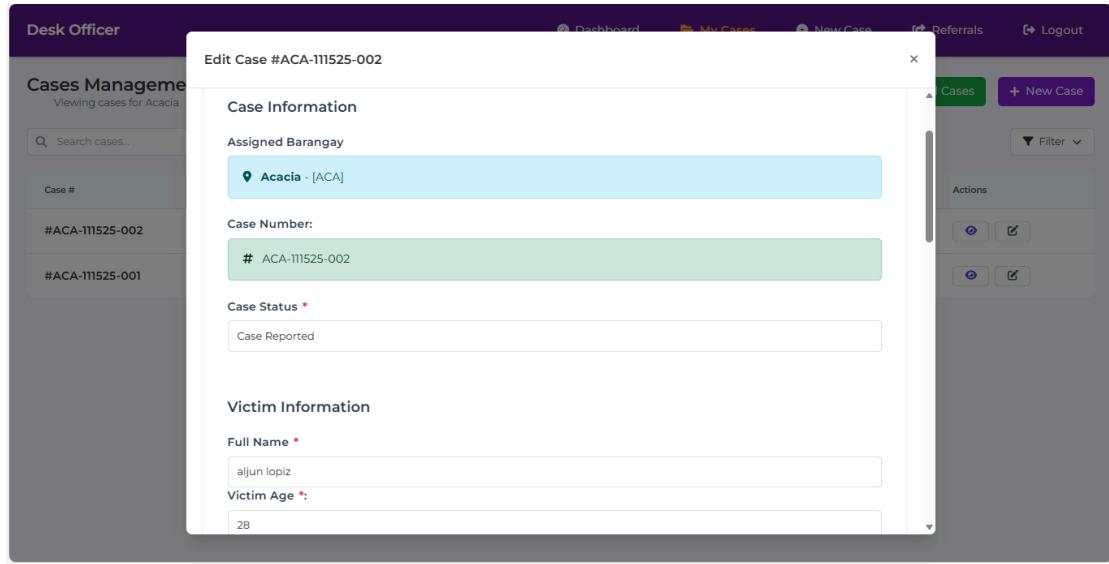
**Figure 11.** Add new cases for VAWC Desk Officer

Figure 11 illustrates that the desk officer can see the cases for their barangay. A list is shown with information like the case number, the date it was reported, the victim's name, the type of case, and its current status. Only one case is visible here, which has already been referred to the proper channel. Buttons on the right side let the user look at the full details of the case or edit the information. There is also a search bar to help find cases faster. At the top, the officer can click 'Print All Cases' to get a hard copy or 'New Case' to add a new one to the list.



**Figure 12.** View case for VAWC Desk Officer

Figure 12 shows the view case of the VAWC desk officer and at the top, you can see which barangay you are viewing and a search bar. The case number is shown clearly, and it says it is for a certain type of violation. Below that, you can see all the details about the person who is the victim, like their name, how old they are, if they are male or female, their contact number, and where they live. Then, it tells you about what happened in the incident, including the date and time it occurred and the place where it happened. There is also a part that gives information about the other person involved, like their name, age, and how the victim knows them. At the bottom of the page, there are buttons to print everything, to send the case to another office, or to log out of the system.



**Figure 13.** Edit case for VAWC Desk Officer

Figure 13 manages the edit case for the VAWC desk officer and the top shows you are viewing Acacia's list with a search bar. Below are two case numbers. The main section is for editing a specific case, showing its assigned barangay, number, and status, currently "Case Reported." The victim's information section displays the pre-filled name and age for editing.

REPUBLIC OF THE PHILIPPINES Province of Cavite Municipality of Bacoor BARANGAY ACACIA Women and Children Protection Unit (WCPU)			
<b>Barangay Case Report</b>			
Official record of reported VAWC incidents --- Confidential			
CASE NUMBER	ACA-111525-002	DATE FILED	November 15, 2025 at 5:04 PM
STATUS	Resolved	TYPE OF ABUSE	RA 7877
<b>VICTIM INFORMATION</b>			
Full Name	aljun lopez		
Age / Gender	28 / Male		
Contact / Email	096765320313		
Address	BLK 53 LOT 26 PHS 2 PALIPARAN 3		
<b>PERPETRATOR INFORMATION</b>			
Full Name	josep madrigal		
Age	45		
Relationship	stranger		
<b>INCIDENT DETAILS</b>			
Date of Incident	November 6, 2025		
Time	05:00 PM		
Location	house		
Details	hulipan		
<b>CASE MANAGEMENT</b>			
Created	November 15, 2025 at 5:04 PM		
Last Updated	November 15, 2025 at 5:08 PM		
Assigned Officer / Created By	test user / test user		
Prepared by:			
Approved by:			

**Figure 14.** Print Case for VAWC Desk Officer

Figure 14 shows this document is a Barangay Case Report. It records a specific incident, showing the case number, filing date, status, and abuse type. The form includes sections for the victim's and perpetrator's personal details, the incident's date, time, location, and a brief description. It also notes the case's creation and update history, the assigned officer, and has signature lines for preparation and approval.

#### d. Management case monitoring of WCPU Admin and VAWC Desk Officer

The screenshot shows a web-based application interface for a 'Case Referral Form'. The top navigation bar is purple and includes links for 'Dashboard', 'My Cases', 'New Case', 'Referrals', and 'Logout'. The main content area has a white background and is titled 'Case Referral Form' with a subtitle 'VAWC Form 2 - Referral for Service'. On the left, there is a sidebar with a blue header 'Case Information' containing fields for 'Case Number' (ACA-111525-002), 'Status' (Resolved), 'Date of Referral' (11/15/2025), and 'Recipient' (Select Recipient). The right side of the form contains sections for 'Referring Party Information', including 'Name' (test user) and 'Designation' (Desk Officer), and 'Address' (WCPU Office, Acacia). At the bottom, there are fields for 'Contact Number' and 'Email'.

**Figure 15.** Referral Form for VAWC Desk Officer

The figure 15 shows the Referral Form. It is used by desk officers to send cases to another office like WCPU, MSWDO, and . The form lets them fill in info about the case, sender, receiver, and notes. It helps make sure cases go to the right place fast and all details stay recorded in the system.

The screenshot shows the 'USERS TABLE' page. The left sidebar has a purple header 'WCPU' and includes links for Dashboard, Barangay Cases, Users Table (selected), Register User, User Logs, Archived Users, Referral Info, Add New Case, and Logout. The main area has a title 'USERS TABLE' and a search bar. A table lists five users:

User	Username	Position	Department	Status	Actions
test user ID: WCP-9	testofficer	Desk Officer	WCPU - SILANG	Active	<button>View</button> <button>Edit</button>
evelyn cuboc ID: VAW-8	evelynsanvicente2	Desk Officer	VAWC	Active	<button>View</button> <button>Edit</button>
test user ID: WCP-7	testuser	Desk Officer	WCPU - SILANG	Active	<button>View</button> <button>Edit</button>
WCPU SILANG ID: WCP-5	wcpusilang@gmail.com	Administrator	WCPU-SILANG	Active	<button>View</button> <button>Edit</button>
Justine Gadil ID: WCP-1	justine.gadil@gmail.com	Administrator	WCPU - SILANG	Active	<button>View</button> <button>Edit</button>

Showing 1 to 5 of 5 entries.

**Figure 16. User table**

Figure 16 shows the User Table. It lists all the users in the system with their info like name, username, role, and status. Admin can put new users, change users, or move users to archive here. This helps handle users and make the system tidy.

The screenshot shows the 'USER ACTIVITY LOGS' page. The left sidebar has a purple header 'WCPU' and includes links for Dashboard, Barangay Cases, Users Table, Register User, User Logs (selected), Archived Users, Referral Info, Add New Case, and Logout. The main area has a title 'USER ACTIVITY LOGS' and a section for 'System Activity Logs'. A table lists activity logs:

Date	Time	Action	User	Actions
Nov 15, 2025	10:30 PM	User logged in	W5 - WCUPU SILANG (Administrator)	<button>View Details</button>
Nov 15, 2025	10:30 PM	User logged out	TU - test user (Desk Officer)	<button>View Details</button>
Nov 15, 2025	10:22 PM	User logged in	TU - test user (Desk Officer)	<button>View Details</button>
Nov 15, 2025	10:22 PM	User logged out	W5 - WCUPU SILANG (Administrator)	<button>View Details</button>
Nov 15, 2025	10:16 PM	User loaded in	W5 - test user (Desk Officer)	<button>View Details</button>

**Figure 17. User Logs**

Figure 17 shows User Logs. It tells all what users do, when they login, and what page they visit. Admin can look here to see if all is okay and safe. This helps keep an eye on users and make sure no wrong happens in the system.

The screenshot shows the WCPU application interface. On the left is a purple sidebar with navigation links: Dashboard, Barangay Cases, Users Table, Register User, User Logs, Archived Users (which is highlighted in blue), Referral Info, Add New Case, and Logout. The main area has a light gray background and is titled "ARCHIVED USERS". At the top right, it says "WCPU SILANG ADMINISTRATOR". Below the title is a section titled "ARCHIVED USERS LIST" with a note: "Archived users are inactive accounts that have been removed from the active users list. These accounts can be restored or permanently deleted." There is a search bar, a filter button, and an "Export List" button. A table follows, with columns: User, Email, Former Role, Barangay, Archive Reason, Archived Date, and Actions. One row is shown: "evelyn cuboc ID: EC-8", "evelynsanvicente2", "Desk Officer", "San Vicente II", "No reason provided", "Nov 15, 2025", and three small icons for restore, delete, and info. At the bottom, it says "Showing 1-1 of 1 archived users" and has navigation arrows. The overall theme is purple and white.

**Figure 18.** Archived User

Figure 18 shows the Archived Users. It shows all users who are not active anymore in the system. Admin can see their info, check when archived, and restore if needed. This helps keep the system organized and make sure only active users appear in main modules.

The screenshot shows the 'Email Recipients Management' section of the WCPU application. The left sidebar has a purple background with white icons and text: Dashboard, Barangay Cases, Users Table, Register User, User Logs, Archived Users, Referral Info (which is highlighted in purple), Add New Case, and Logout. The main area has a white background with a header 'REFERRAL INFO' and a sub-header 'Email Recipients Management'. It says 'Manage referral email recipients for case reports' and has a button '+ Add New Recipient'. Below is a table titled 'Recipients List' with columns: NAME, EMAIL, ROLE, STATUS, CREATED, and ACTIONS. There are three rows of data:

NAME	EMAIL	ROLE	STATUS	CREATED	ACTIONS
Justine D. Gadil	justine.gadil@gmail.com	Test User	ACTIVE	Oct 08, 2025	
Ma. Marjorie O. Suarez	ma.marjoriesuarez@gmail.com	Test User	ACTIVE	Oct 08, 2025	
Mark Ulyses C. Cabales	gustokomakapasa@gmail.com	Test User	ACTIVE	Oct 08, 2025	

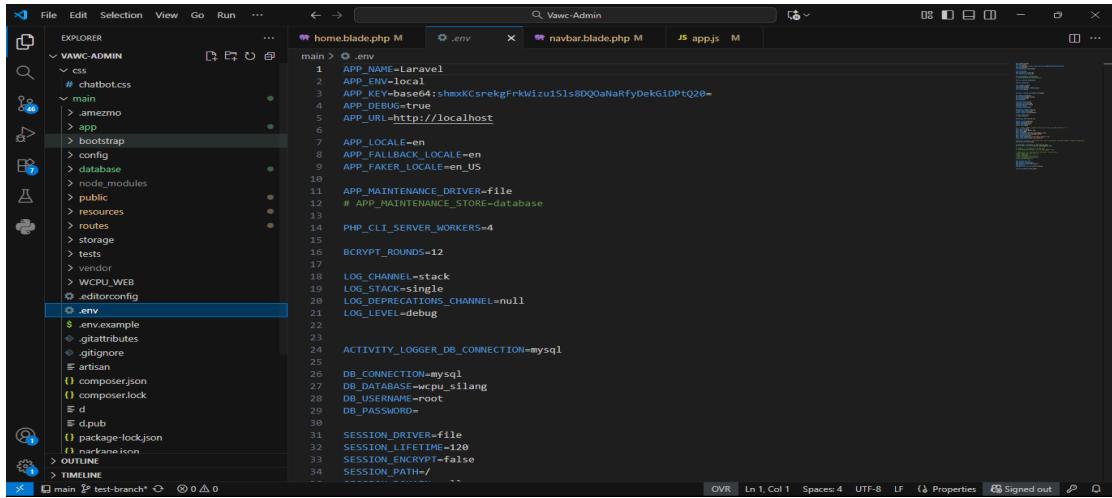
**Figure 19.** Referral Info

Figure 19 This page is the part where the referral info can be seen. It just has a table that lists all the people who will get the referral emails. Every row shows their name, their email, what job they have, if they are active or not, and the date they got put there. On the right side, there are small icons the admin can click to change their info or take them out. Right now there are only three persons in the list who will receive the emails. This page is only handled by the main admin because they control this part in the dashboard.

## System Development

The website CareConnect: Enhancement of Women and Child Protection Unit is made using the Agile model for development. The project is cut to small-small parts so the developers can plan, design, develop, and test one by one only. Like this, every module is checked first before going to next, so less wrong and faster work. The development of the website is illustrated like this:

## a. Visual Studio Code for development of website



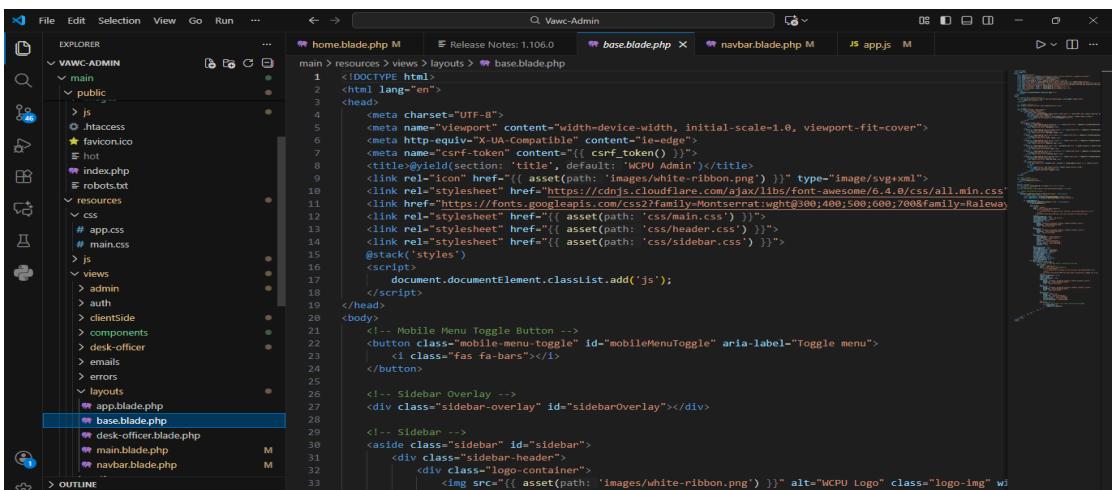
The screenshot shows the Visual Studio Code interface with several tabs open. The tabs include 'home.blade.php', '.env', 'navar.blade.php', and 'app.js'. The left sidebar shows a project structure for 'VAWC-ADMIN' with 'main', 'public', 'resources', 'views', and 'layouts' folders. The 'main' folder contains files like '.env.example', 'gitattributes', 'gitignore', 'artisan', 'composer.json', 'composer.lock', 'd', 'd.php', 'package-lock.json', and 'manifest.json'. The '.env' tab is currently active, displaying environment variables for a Laravel application. The code editor shows configuration for database connections, session drivers, and log levels.

Figure 20. Visual Studio Code

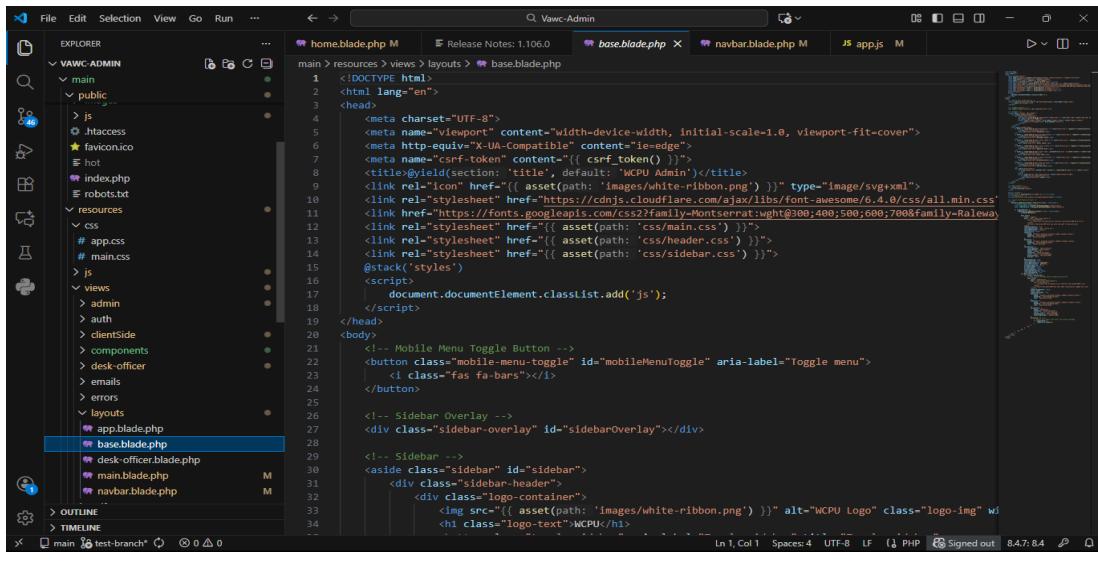
Figure 20 shows the development process of the website using Visual Studio Code. It shows how the application becomes the main place for coding, testing, and putting all the system parts together. Using Visual Studio Code, the developer can make features, change things quick-quick, and check if every module is working with each other. This shows the step-by-step way of the Agile method used in the project.

According to Mitchell & Davis (2025), Visual Studio Code is a widely used code editor because it is lightweight and easy to customize. Developers prefer it because it supports many programming languages, has useful plug-ins, and makes coding more efficient. It is often chosen for system development projects due to its simplicity and flexibility.

## b. HTML and CSS for structure and UX/UI design



The screenshot shows the Visual Studio Code interface with the 'base.blade.php' file open in the code editor. The file is a Blade template for a mobile menu toggle button. It includes HTML for the button, CSS styles for the mobile menu, and JavaScript code to add a 'js' class to the document element. The code editor shows the template tags and asset paths used in the template.



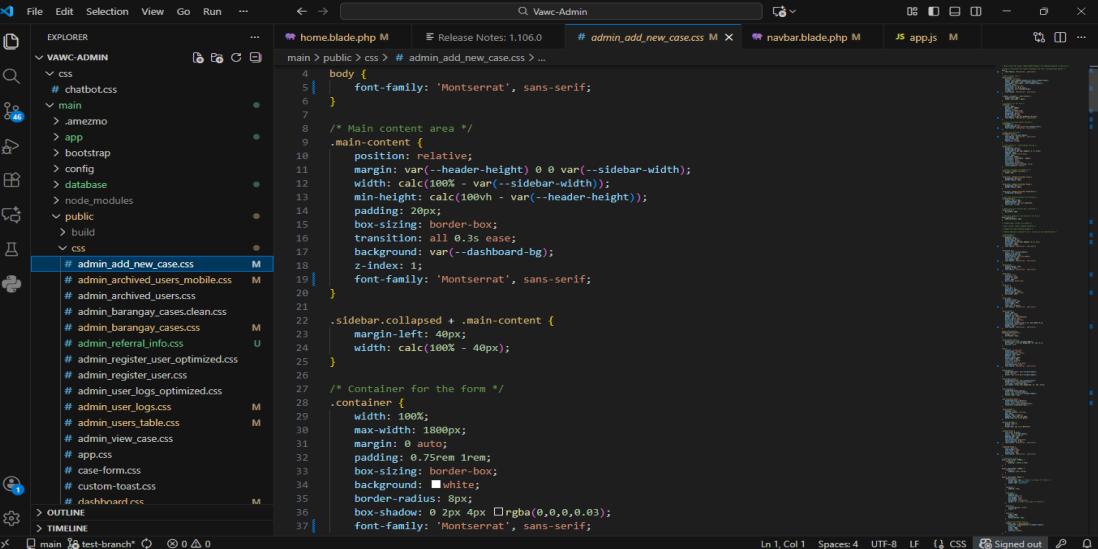
```

<!DOCTYPE html>
<html lang="en">
    <head>
        <meta charset="UTF-8">
        <meta name="viewport" content="width=device-width, initial-scale=1.0, viewport-fit=cover">
        <meta http-equiv="X-UA-Compatible" content="ie=edge">
        <meta name="csrf-token" content="{{ csrf_token() }}>
        <title>WCPU Admin</title>
        <link rel="icon" href="{{ asset(path: 'images/white-ribbon.png') }}" type="image/svg+xml">
        <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.4.0/css/all.min.css" type="text/css">
        <link rel="stylesheet" href="{{ asset(path: 'css/main.css') }}>
        <link rel="stylesheet" href="{{ asset(path: 'css/header.css') }}>
        <link rel="stylesheet" href="{{ asset(path: 'css/sidebar.css') }}>
        @stack('styles')
        <script>
            document.documentElement.classList.add('js');
        </script>
    </head>
    <body>
        <!-- Mobile Menu Toggle Button -->
        <button class="mobile-menu-toggle" id="mobileMenuToggle" aria-label="Toggle menu">
            <i class="fas fa-bars"></i>
        </button>

        <!-- Sidebar Overlay -->
        <div class="sidebar-overlay" id="sidebarOverlay"></div>

        <!-- Sidebar -->
        <aside class="sidebar" id="sidebar">
            <div class="sidebar-header">
                <div class="logo-container">
                    
                    <h1 class="logo-text">WCPU</h1>
                </div>
            </div>
        </aside>
    </body>
</html>

```

```

body {
    font-family: 'Montserrat', sans-serif;
}

/* Main content area */
.main-content {
    position: relative;
    margin: var(--header-height) 0 0 var(--sidebar-width);
    width: calc(100% - var(--sidebar-width));
    min-height: calc(100vh - var(--header-height));
    padding: 20px;
    box-sizing: border-box;
    transition: all 0.3s ease;
    background: var(--dashboard-bg);
    z-index: 1;
    font-family: 'Montserrat', sans-serif;
}

.sidebar.collapsed + .main-content {
    margin-left: 40px;
    width: calc(100% - 40px);
}

/* Container for the form */
.container {
    width: 100%;
    max-width: 1800px;
    margin: 0 auto;
    padding: 0.75rem 1rem;
    box-sizing: border-box;
    background: white;
    border-radius: 8px;
    border: 1px solid #e0e0e0;
    box-shadow: 0 2px 4px rgba(0,0,0,0.03);
    font-family: 'Montserrat', sans-serif;
}

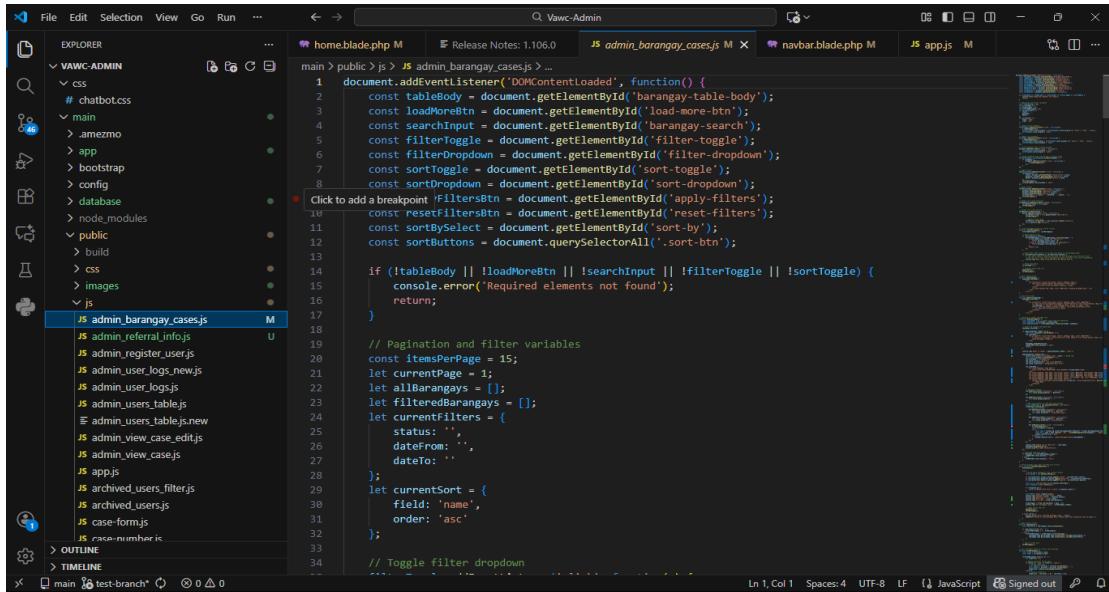
```

**Figure 21. HTML & CSS design**

Figure 21 shows the structure and design of the CareConnect: Enhancement of Women and Child Protection Unit using HTML and CSS. HTML makes the main body of the website, putting the layout and arranging things like navbar, user input, and forms. CSS is the one that makes the design, like the colors, fonts, spaces, and how the page changes when on a different screen. This makes the website look good and easy for the users.

According to Castro and Hyslop (2021), HTML is used to structure webpage content, while CSS is responsible for layout, colors, and visual design. These two work together to create clear and responsive interfaces. Modern HTML and CSS standards support accessibility and mobile-friendly layouts, which are essential for building user-centered web systems.

### c. JavaScript, NodeJS, Tailwind and Bootstrap for programming language and frameworks



```
document.addEventListener('DOMContentLoaded', function() {
    const tableBody = document.getElementById('barangay-table-body');
    const loadMoreBtn = document.getElementById('load-more-btn');
    const searchInput = document.getElementById('barangay-search');
    const filterToggle = document.getElementById('filter-toggle');
    const filterDropdown = document.getElementById('filter-dropdown');
    const sortToggle = document.getElementById('sort-toggle');
    const sortDropdown = document.getElementById('sort-dropdown');

    const filtersBtn = document.getElementById('apply-filters');
    const resetFiltersBtn = document.getElementById('reset-filters');
    const sortBySelect = document.getElementById('sort-by');
    const sortButtons = document.querySelectorAll('.sort-btn');

    if (!tableBody || !loadMoreBtn || !searchInput || !filterToggle || !sortToggle) {
        console.error('Required elements not found');
        return;
    }

    // Pagination and filter variables
    const itemsPerPage = 15;
    let currentPage = 1;
    let allBarangays = [];
    let filteredBarangays = [];
    let currentFilters = {
        status: '',
        dateFrom: '',
        dateTo: ''
    };
    let currentSort = {
        field: 'name',
        order: 'asc'
    };

    // Toggle filter dropdown
    filtersBtn.addEventListener('click', () => {
        if (sortBySelect.classList.contains('open')) {
            sortBySelect.classList.remove('open');
        } else {
            sortBySelect.classList.add('open');
        }
    });

    // Load more button
    loadMoreBtn.addEventListener('click', () => {
        const start = currentPage * itemsPerPage;
        const end = start + itemsPerPage;
        filteredBarangays = allBarangays.slice(start, end);
        renderTable();
    });

    // Search input
    searchInput.addEventListener('input', () => {
        const query = searchInput.value.toLowerCase();
        filteredBarangays = allBarangays.filter(barangay => barangay.name.toLowerCase().includes(query));
        renderTable();
    });

    // Filter toggle
    filterToggle.addEventListener('click', () => {
        if (filterDropdown.classList.contains('open')) {
            filterDropdown.classList.remove('open');
        } else {
            filterDropdown.classList.add('open');
        }
    });

    // Sort toggle
    sortToggle.addEventListener('click', () => {
        if (sortDropdown.classList.contains('open')) {
            sortDropdown.classList.remove('open');
        } else {
            sortDropdown.classList.add('open');
        }
    });

    // Apply filters
    filtersBtn.addEventListener('click', () => {
        const filters = {
            status: currentFilters.status,
            dateFrom: currentFilters.dateFrom,
            dateTo: currentFilters.dateTo
        };
        filteredBarangays = allBarangays.filter(barangay => matchesFilter(barangay, filters));
        renderTable();
    });

    // Reset filters
    resetFiltersBtn.addEventListener('click', () => {
        currentFilters = {
            status: '',
            dateFrom: '',
            dateTo: ''
        };
        filteredBarangays = allBarangays;
        renderTable();
    });

    // Sort buttons
    sortButtons.forEach(button => {
        button.addEventListener('click', () => {
            const sortField = button.getAttribute('data-field');
            const sortOrder = button.getAttribute('data-order');
            currentSort = { field: sortField, order: sortOrder };
            filteredBarangays = allBarangays.sort(sortByField);
            renderTable();
        });
    });

    // Render table
    function renderTable() {
        const tableBody = document.getElementById('barangay-table-body');
        tableBody.innerHTML = '';
        filteredBarangays.forEach(barangay => {
            const row = document.createElement('tr');
            const nameCell = document.createElement('td');
            const addressCell = document.createElement('td');
            const statusCell = document.createElement('td');
            const actionsCell = document.createElement('td');

            nameCell.textContent = barangay.name;
            addressCell.textContent = barangay.address;
            statusCell.textContent = barangay.status;
            const editIcon = document.createElement('span');
            const deleteIcon = document.createElement('span');

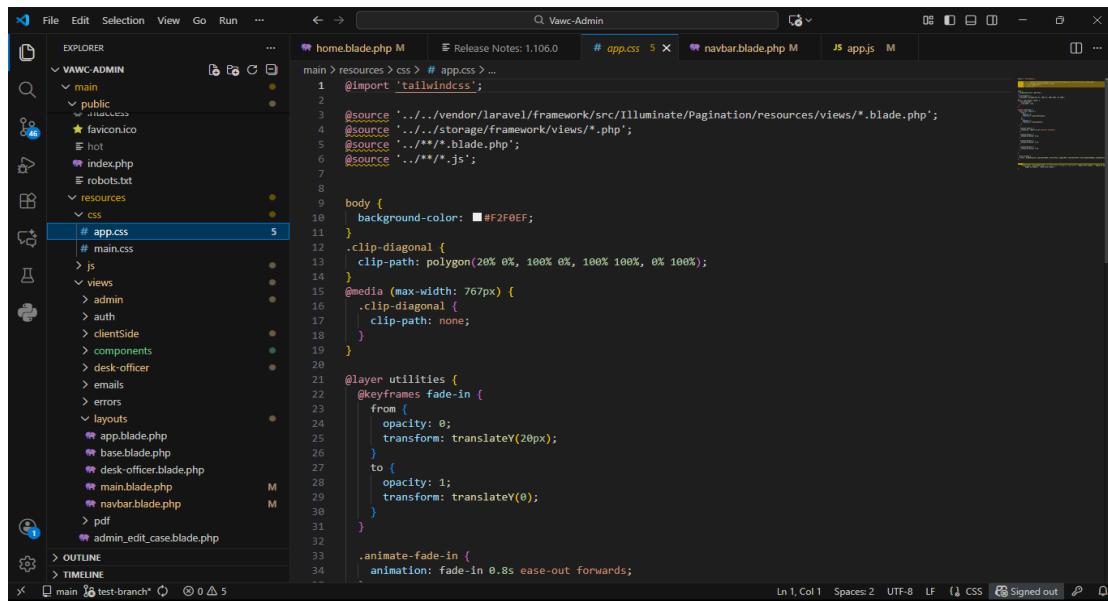
            editIcon.classList.add('material-symbols-outlined');
            editIcon.classList.add('edit-icon');
            editIcon.textContent = 'edit';

            deleteIcon.classList.add('material-symbols-outlined');
            deleteIcon.classList.add('delete-icon');
            deleteIcon.textContent = 'delete';

            actionsCell.appendChild(editIcon);
            actionsCell.appendChild(deleteIcon);

            row.appendChild(nameCell);
            row.appendChild(addressCell);
            row.appendChild(statusCell);
            row.appendChild(actionsCell);
            tableBody.appendChild(row);
        });
    }
});
```

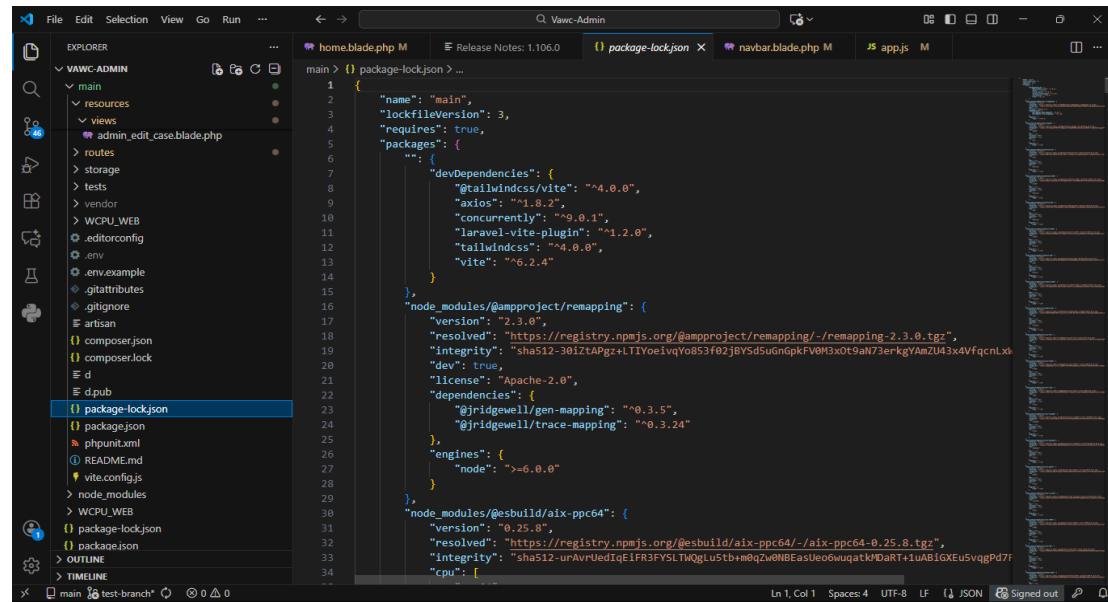
Figure 22. JavaScript



The screenshot shows a code editor interface with multiple tabs open. The active tab is `# app.css`, which contains Tailwind CSS utility imports. The code includes imports for `tailwindcss`, `tailwindcss` from vendor, and `tailwindcss` from the current project's resources. The editor's sidebar shows a file tree for a Laravel application named "VAWC-ADMIN". The `app.css` file is selected in the sidebar.

```
main > resources > css > # app.css > ...
1 @import 'tailwindcss';
2
3 @source './.../vendor/laravel/framework/src/Illuminate/Pagination/resources/views/*.blade.php';
4 @source './.../storage/framework/views/*.php';
5 @source './**/*.blade.php';
6 @source './**/*.js';
7
8 body {
9     background-color: #F2F0EF;
10 }
11 .clip-diagonal {
12     clip-path: polygon(20% 0%, 100% 0%, 100% 100%, 0% 100%);
13 }
14 @media (max-width: 767px) {
15     .clip-diagonal {
16         clip-path: none;
17     }
18 }
19
20 @layer utilities {
21     @keyframes fade-in {
22         from {
23             opacity: 0;
24             transform: translateY(20px);
25         }
26         to {
27             opacity: 1;
28             transform: translateY(0);
29         }
30     }
31 }
32
33 .animate-fade-in {
34     animation: fade-in 0.8s ease-out forwards;
35 }
```

Figure 23. Tailwind



The screenshot shows a code editor interface with multiple tabs open. The active tab is `package-lock.json`, which displays a JSON object representing the project's dependencies. The file lists several packages, including Tailwind CSS, Vite, and various node modules. The editor's sidebar shows a file tree for a Node.js project named "WCPU\_WEB". The `package-lock.json` file is selected in the sidebar.

```
main > package-lock.json ...
1 {
2     "name": "main",
3     "lockfileVersion": 3,
4     "requires": true,
5     "packages": {
6         "":
7             "devDependencies": {
8                 "@tailwindcss/vite": "^4.0.0",
9                 "axios": "^1.8.2",
10                "concurrently": "^9.0.1",
11                "laravel-vite-plugin": "^1.2.0",
12                "tailwindcss": "4.0.0",
13                "vite": "^6.2.4"
14            },
15        "node_modules/@ampproject/remapping": {
16            "version": "2.3.0",
17            "resolved": "https://registry.npmjs.org/@ampproject/remapping/-/remapping-2.3.0.tgz",
18            "integrity": "sha512-3O1ZAPgz+LTIYoeivqYo853f02jBYsd5uGnGpkFV0M3x0t9aN73erkgYAmZU43x4vfqcnLx",
19            "dev": true,
20            "license": "Apache-2.0",
21            "dependencies": {
22                "@jridgewell/gen-mapping": "^0.3.5",
23                "@jridgewell/trace-mapping": "^0.3.24"
24            },
25            "engines": {
26                "node": ">6.0.0"
27            }
28        },
29        "node_modules/@esbuild/aix-ppc64": {
30            "version": "0.25.8",
31            "resolved": "https://registry.npmjs.org/@esbuild/aix-ppc64/-/aix-ppc64-0.25.8.tgz",
32            "integrity": "sha512-urAvrUeIqEiFR3FYSLWQgLuStb+m0qzwNBEasUeo6wqatkMDRT+1uA8igXEuVqgPd7f
33        },
34        "cpu": [
35    ]}
```

Figure 24. Node JS

```

<!DOCTYPE html>
<html lang="en">
    <head>
        <meta charset="UTF-8">
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <meta name="csrf-token" content="{{ csrf_token() }}>
        <title>{{ config(key: 'app.name', default: 'VAWC Admin') }} - @yield(section: 'title')</title>
        <!-- Bootstrap CSS -->
        <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet">
        <!-- Font Awesome -->
        <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.0.0/css/all.min.css">
        <!-- Google Fonts - Montserrat -->
        <link href="https://fonts.googleapis.com/css?family=Montserrat:wght@300;400;500;600;700&display=swap" rel="stylesheet">
    <style>
        /* Custom SweetAlert2 styles */
        .swal2-popup {
            border-radius: 12px;
            box-shadow: 0 10px 25px rgba(0, 0, 0, 0.1);
            font-family: 'Montserrat', sans-serif;
            padding: 2rem;
        }
        .swal2-title {
            font-size: 1.5rem;
            font-weight: bold;
            color: #d3748;
            margin-bottom: 1rem;
        }
        .swal2-html-container {
            font-size: 1rem;
            color: #4a568;
        }
    </style>

```

**Figure 25.** Bootstrap

Figure 22, 23, 24, and 25 show the programming languages and frameworks used to make the CareConnect: Enhancement of Women and Child Protection Unit. JavaScript is the one making actions so the web pages can move-move and react-react. NodeJS is used on the server side so JavaScript can run there too, helping handle backend things like requests and data. Tailwind CSS makes the page look modern and adjust for any screen with many utility classes, while Bootstrap gives ready components and layouts to make development faster and uniform. All of this makes the website work good, look nice, and stay responsive.ready-made components and layout to make the development more fast and the same look. All of these together make the website work good, look nice, and responsive.

Flanagan (2020), JavaScript brings interactivity to websites, and Node.js allows developers to use JavaScript for backend operations. Tailwind CSS makes interface building faster through utility classes, while Bootstrap provides ready-made responsive components. He explains that JavaScript and its supporting tools remain key in developing dynamic and efficient modern applications.

#### d. XAMMP and MySQL for database

The screenshot shows the phpMyAdmin interface for the 'wcpu\_silang' database. The left sidebar lists various databases and the current selection is 'wcpu\_silang'. The main area displays a table of tables with columns: Table, Action, Rows, Type, Collation, Size, and Overhead. The table contains 267 rows, each representing a table in the database. The 'activity\_log' table has 165 rows and a size of 160.0 Kib. Other tables like 'archived\_users', 'barangays', 'cache', 'cache\_locks', etc., have varying numbers of rows and sizes.

Table	Action	Rows	Type	Collation	Size	Overhead
activity_log	Browse Structure Search Insert Empty Drop	165	InnoDB	utf8mb4_unicode_ci	160.0 Kib	-
archived_users	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	80.0 Kib	-
barangays	Browse Structure Search Insert Empty Drop	64	InnoDB	utf8mb4_general_ci	48.0 Kib	-
cache	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 Kib	-
cache_locks	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 Kib	-
cases	Browse Structure Search Insert Empty Drop	15	InnoDB	utf8mb4_unicode_ci	144.0 Kib	-
case_notes	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	64.0 Kib	-
case_statuses	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	32.0 Kib	-
case_types	Browse Structure Search Insert Empty Drop	10	InnoDB	utf8mb4_unicode_ci	32.0 Kib	-
failed_jobs	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	32.0 Kib	-
jobs	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	32.0 Kib	-
job_batches	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 Kib	-
migrations	Browse Structure Search Insert Empty Drop	4	InnoDB	utf8mb4_unicode_ci	16.0 Kib	-
password_reset_tokens	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 Kib	-
report_recipients	Browse Structure Search Insert Empty Drop	4	InnoDB	utf8mb4_unicode_ci	32.0 Kib	-
roles	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	48.0 Kib	-
sessions	Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_unicode_ci	48.0 Kib	-
users	Browse Structure Search Insert Empty Drop	4	InnoDB	utf8mb4_unicode_ci	48.0 Kib	-
user_roles	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	48.0 Kib	-
Console	iae	267	InnoDB	utf8mb4_general_ci	972.0 Kib	0.0

**Figure 26.** Database from MySQL

Figure 26 show the MySQL database used for CareConnect: Enhancement of Women and Child Protection Unit. The figure shows how the database keeps and arranges the important data of the system, like user info, case records, reports, and other case-related details. MySQL gives a simple-simple tool for handling the database. The developers can make, edit, and fix-fix the tables, run the queries, and keep the data safe and not wrong. This database setup helps the website run good-good because it handles and gets the needed information for managing and checking the cases.

According to DuBois (2023), MySQL is a stable and commonly used database system for storing structured data in web applications. It is known for its speed, security, and compatibility with many backend technologies. He noted that MySQL continues to be one of the leading open-source databases due to its reliability and strong performance in real-world systems.

```
CREATE DATABASE IF NOT EXISTS userdb;
USE userdb;

CREATE TABLE users (
    id INT AUTO_INCREMENT PRIMARY KEY,
    first_name VARCHAR(100) NOT NULL,
    last_name VARCHAR(100) NOT NULL,
    email VARCHAR(150) NOT NULL UNIQUE,
    password VARCHAR(255) NOT NULL,
    email_verified_at DATETIME NULL,
    phone_number VARCHAR(20) NULL,
    position VARCHAR(100) NULL,
    department VARCHAR(100) NULL,
    barangay VARCHAR(100) NULL,
    is_active TINYINT(1) DEFAULT 1,
    last_login_at DATETIME NULL,
    last_login_ip VARCHAR(45) NULL,
    created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
    updated_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP
);
```

**Figure 27.** Sample source code from MySQL

Figure 27 shows the MySQL code used to make the user table for CareConnect: Enhancement of Women and Child Protection Unit. It shows how the user data is arranged and saved inside the database in a safe way.

## System Testing

After building the website CareConnect, the researchers tested it thoroughly to make sure all the functions, responsiveness and integration will be working properly. The testing focused on functions, design, responsiveness, how different parts work together, performance, and security. A team of four testers checked the system: one for functionality, one for UI/UX and responsiveness, one for performance, one for integration and one for security. The developers used the feedback to improve the platform and made sure all parts met expectations. The table below shows the testing results with percentages from each tester. The findings will show if the platform really improves access, reliability, and safety of the data for local government units.

**Table 3.** System Environment Testing for CareConnect: Enhancement of Women and Child Protection Unit Record Management

ITEMS FOR CHECKING	FREQUENCY	PERCENT(%)
1. Clear definition of tester roles.	4/4	100%
2. Testing on different web browsers:		
a. Google Chrome	5	100%
b. Microsoft Edge	5	100%
c. Opera Browser	5	100%
3. Testing on different web browsers:		
a. 1080 x 1920	5	100%
b. 480 x 800	5	100%
c. 720 x 1280	5	100%

*N = 5 (numbers of tries/tests)*

Table 3 describes the system environment testing for the CareConnect platform was conducted across multiple roles, browsers, and screen sizes. All assigned tester roles including Functionality, UI/UX, Performance, and Security completed their respective tests successfully, achieving 100% in each category. Testing on Google Chrome, Microsoft Edge, and Opera Browser also scored 100%, indicating smooth operation across all major browsers. Moreover, the system was evaluated on various screen resolutions, including 1080×1920, 480×800, and 720×1280, all receiving perfect scores. These results demonstrate that CareConnect is fully compatible, responsive, and reliable across different devices and environments.

**Table 4.** First Functionality Testing for **Admin** of CareConnect: Enhancement of Women and Child Protection Unit Record Management

CRITERIA	FREQUENCY	PERCENT (%)

---

**A. Dashboard Page for Admin**

1. Displays real-time data	3	60%
2. Monitor statistics	5	100%

**B. Barangay Cases Page for Admin**

1. Shows how admin can view and manage cases	5	100%
2. Shows the 64 different barangays, the number of cases and can search barangay.	5	100%
3. Admin can also update case details.	4	80%

**C. Print Case Module for Admin**

1. Checks if data are correct.	5	100%
2. Check if the print module is working properly.	5	100%

**D. Referral Case Page for Admin**

1. Check if the admin can access the referral form.	5	100%
2. Check if the refer function works properly.	4	80%

**E. User Table Monitoring Page for Admin**

1. Displays all users.	5	100%
2. Check if Admin can search users.	5	100%
3. Allow the Admin to archive user	5	100%

---

**Table 4.** Continued

CRITERIA	FREQUENCY	PERCENT (%)
<b>F. Register User Page for Admin</b>		
1. Check if the admin can register users. 2. Check if the register user button is working properly.	5 5	100% 100%
<b>G. User Logs Monitoring Page for Admin</b>		
1. Allow the admin to view information details. 2. Allow the admin to search, export, and Filter by action.	5 4	100% 80%
<b>H. Archived User Page for Admin</b>		
1. Displays list of archived accounts. 2. Allow the Admin to view, restore, and delete user accounts. 3. Check if the Admin can search archived accounts.	5 5 5	100% 100% 100%
<b>I. Referral Information Page for Admin</b>		
1. Allow admin to add new emails of recipients. 2. Allow admin to edit, search, and delete recipients. 3. Allow admin to make the recipient inactive.	5 5 5	100% 100% 100%

**Table 4.** Continued

CRITERIA	FREQUENCY	PERCENT (%)
<b>J. Add New Case Page for Admin</b>		
1. Allow admin to add new cases.	3	60%
2. Allow admin to view their added cases.	5	100%

*N = 5 (numbers of tries/tests)*

Table 4 summarizes the first functionality testing results for the admin modules of CareConnect. Most features showed full functionality across all five trials. However, a few modules recorded lower frequencies due to specific failed attempts. The Dashboard Page reached only 3 out of 5 tries for displaying real-time data, as two attempts did not update the information immediately. The monitoring of statistics, however, worked perfectly in all trials. For the Barangay Cases Page, viewing and managing cases, and searching barangays were successful in all attempts, but the function for updating case details worked in only 4 out of 5 tries, as one test failed to save the changes properly. The Referral Case Page also showed a minor issue, with the referral function working only 4 out of 5 tries, caused by one instance where the form submission did not process. The User Logs Monitoring Page recorded 4 out of 5 successful tries because one attempt did not allow the tester to use the filter function correctly. The Add New Case Page had the lowest frequency, with only 3 out of 5 tries working. Two attempts failed when the system did not save the newly added case properly, resulting in incomplete testing for those trials.

**Table 5.** First Functionality Testing for **VAWC Desk Officer** of CareConnect: Enhancement of Women and Child Protection Unit Record Management

CRITERIA	FREQUENCY	PERCENT(%)
<b>A. Dashboard Page for Desk Officer</b>		
1. Displays real-time data.		
2. Monitor statistics	3	60%
	5	100%
<b>B. My Cases Page for Desk Officer</b>		
1. Shows how admin can view and manage cases		
2. Shows the assigned barangay and the number of cases.	5	100%
3. Check if the Desk officer can update case details..	5	100%
	3	60%
<b>C. Add New Case Page for Desk Officer</b>		
1. Allow the Desk Officer to add new cases.		
2. Allow the user to view their recorded cases.	4	80%
	5	100%
<b>D. Referral Case Page for Desk Officer</b>		
1. Check if the Desk Officer can access the referral form.		
2. Check if the refer function works properly.	5	100%
	4	80%

**E. Print Case Module Page for  
Desk Officer**

- |   |   |      |
|---|---|------|
| 1. Checks if data are correct.                    | 5 | 100% |
| 2. Check if the print module is working properly. | 5 | 100% |
- 

**Table 5:** Continued

CRITERIA	FREQUENCY	PERCENT(%)
<hr/>		
<b>F. Referral Monitoring Page for Desk Officer</b>		
1. Allow the Desk Officer to view referred cases.	5	100%
2. Allow the Desk Officer to view, print, and download PDF file of referred cases.	5	100%

***N = 5 (numbers of tries/tests)***

Table 5 presents the first functionality testing results for the VAWC Desk Officer module of CareConnect. Most features performed well and reached full scores, but several functions recorded lower frequencies due to specific failed attempts. For the Dashboard Page, only 3 out of 5 tries successfully displayed real-time data. Two attempts did not immediately refresh the information, which lowered the frequency, though monitoring statistics still worked in all trials. On the My Cases Page, viewing cases, checking assigned barangays, and accessing case data worked during all five attempts. However, updating case details only worked in 3 out of 5 tries, as two trials did not save the updated information properly. The Add New Case Page reached 4 out of 5 successful tries, with one attempt failing because the new case did not appear in the

records after submission. For the Referral Case Page, the refer function worked in 4 out of 5 attempts, with one failed submission causing the score to drop.

**Table 6.** Second Functionality Testing for **Admin** of CareConnect: Enhancement of Women and Child Protection Unit Record Management

CRITERIA	FREQUENCY	PERCENT (%)
<b>A. Dashboard Page for Admin</b>		
3. Displays real-time data	5	100%
4. Monitor statistics	5	100%
<b>B. Barangay Cases Page for Admin</b>		
4. Shows how admin can view and manage cases	5	100%
5. Shows the 64 different barangays, the number of cases and can search barangay.	5	100%
6. Admin can also update case details.	5	100%
<b>C. Print Case Module for Admin</b>		
3. Checks if data are correct.	5	100%
4. Check if the print module is working properly.	5	100%
<b>D. Referral Case Page for Admin</b>		
3. Check if the admin can access the referral form.	5	100%
4. Check if the refer function works properly.	5	100%

**E. User Table Monitoring Page for**

**Admin**

4. Displays all users.	5	100%
5. Check if Admin can search users.	5	100%
6. Allow the Admin to archive user	5	100%

---

**Table 6.** Continued

CRITERIA	FREQUENCY	PERCENT (%)
<b>F. Register User Page for Admin</b>		
3. Check if the admin can register users. 4. Check if the register user button is working properly.	5 5	100% 100%
<b>G. User Logs Monitoring Page for Admin</b>		
3. Allow the admin to view information details. 4. Allow the admin to search, export, and Filter by action.	5 5	100% 100%
<b>H. Archived User Page for Admin</b>		
4. Displays list of archived accounts. 5. Allow the Admin to view, restore, and delete user accounts. 6. Check if the Admin can search archived accounts.	5 5 5	100% 100% 100%
<b>II. Referral Information Page for Admin</b>		
4. Allow admin to add new emails of recipients. 5. Allow admin to edit, search, and delete recipients. 6. Allow admin to make the recipient inactive.	5 5 5	100% 100% 100%

**Table 6.** Continued

CRITERIA	FREQUENCY	PERCENT (%)
<b>J. Add New Case Page for Admin</b>		
3. Allow admin to add new cases.	5	100%
4. Allow admin to view their added cases.	5	100%

*N = 5 (numbers of tries/tests)*

Table 6 presents the second functionality testing of CareConnect's administrative modules and all components achieved full functionality. Based on the testers, the Dashboard Page displayed real-time data and monitored statistics with 100% success. The Barangay Cases Page allowed admins to view and manage cases across 64 barangays, search for specific barangays, and update case information, achieving 100%. The Print Case Module verified data accuracy and printing, also scoring 100%. Referral, User Table Monitoring, Register User, User Logs Monitoring, Archived User, Referral Information, and Add New Case modules similarly reached 100%, confirming that all administrative tasks from adding and monitoring cases to managing user accounts and referrals performed effectively and met the required standards.

**Table 7.** Second Functionality Testing for **VAWC Desk Officer** of CareConnect: Enhancement of Women and Child Protection Unit Record Management

CRITERIA	FREQUENCY	PERCENT(%)
<b>A. Dashboard Page for Desk Officer</b>		
3. Displays real-time data.	5	100%
4. Monitor statistics	5	100%
<b>B. My Cases Page for Desk Officer</b>		
4. Shows how admin can view and manage cases	5	100%
5. Shows the assigned barangay and the number of cases.	5	100%
6. Check if the Desk officer can update case details..	5	100%
<b>C. Add New Case Page for Desk Officer</b>		
3. Allow the Desk Officer to add new cases.	5	100%
4. Allow the user to view their recorded cases.	5	100%
<b>D. Referral Case Page for Desk Officer</b>		
3. Check if the Desk Officer can access the referral form.	5	100%
4. Check if the refer function works properly.	5	100%

**E. Print Case Module Page for  
Desk Officer**

3. Checks if data are correct.	5	100%
4. Check if the print module is working properly.	5	100%

---

**Table 7.** Continued

CRITERIA	FREQUENCY	PERCENT(%)
<b>F. Referral Monitoring Page for Desk Officer</b>		
3. Allow the Desk Officer to view referred cases.		
4. Allow the Desk Officer to view, print, and download PDF file of referred cases.	5	100%
5	100%	

***N = 5 (numbers of tries/tests)***

Table 7 shows all functions available to the VAWC Desk Officer were tested by the tester team and achieved perfect results. The Dashboard Page displayed real-time information and monitored statistics accurately. The My Cases Page allowed the officer to view assigned cases, monitor barangay-specific data, and update case details, scoring 100%. Adding new cases, accessing and using the referral form, printing cases, and monitoring referred cases all received full functionality ratings. These results show that Desk Officers can perform their duties efficiently, with all features functioning correctly and meeting operational requirements.

**Table 8.** Portability Testing for the CareConnect: Enhancement of Women and Child Protection Unit Record Management

BROWSER	WORKED PROPERLY	ACTIONS	RESPONSIVE (S)
Google Chrome	100%	Dashboard Page	6s
Microsoft Edge	100%	Barangay Cases Page	6s
Opera Browser	100%	Add New Case Page	6s

Table 8 presents the portability testing assessed how the system performs across different web browsers and key pages. Google Chrome, Microsoft Edge, and Opera Browser all functioned properly, achieving 100% across the tests. Core pages such as the Dashboard, Barangay Cases, and Add New Case pages were tested for responsiveness and loaded within six seconds on all browsers. These findings confirm that the system maintains reliable performance and responsive design across multiple platforms and devices.

**Table 9.** Overall Result of the Functionality Testing for **Admin** of CareConnect: Enhancement of Women and Child Protection Unit Record Management

CRITERIA	RESULTS OF TESTING
A. Dashboard Page for Desk Officer	PASSED
B. Barangay Cases Page for Admin	PASSED
C. Print Case Module for Admin	PASSED
D. Referral Case Page for Admin	PASSED
E. User Table Monitoring Page for Admin	PASSED
F. Register User Page for Admin	PASSED
G. User Logs Monitoring Page for Admin	PASSED
H. Archived User Page for Admin	PASSED
I. Referral Information Page for Admin	PASSED
J. Add New Case Page for Admin	PASSED
K. Add New Case Page for Admin	PASSED

Table 9 presents an overall evaluation of the Admin modules that confirmed that all functionalities worked as intended. The Dashboard Page, Barangay Cases Page, Print Case Module, Referral Case Page, User Table Monitoring, Register User, User Logs Monitoring, Archived User, Referral Information, and Add New Case Page all received a “PASSED” status.

This indicates that every administrative feature is fully functional and meets expected performance standards.

**Table 10.** Overall Result of the Functionality Testing for **VAWC Desk Officer** of CareConnect: Enhancement of Women and Child Protection Unit Record Management

CRITERIA	RESULTS OF TESTING
A. Dashboard Page for Desk Officer	PASSED
B. My Cases Page for Desk Officer	PASSED
C. Add New Case Page for Desk Officer	PASSED
D. Referral Case Page for Desk Officer	PASSED
E. Print Case Module Page for Desk Officer	PASSED
F. Referral Monitoring Page for Desk Officer	PASSED

Table 10 describes the desk officer modules that were also evaluated for overall functionality. The Dashboard, My Cases, Add New Case, Referral Case, Print Case Module, and Referral Monitoring pages all received a “PASSED” result. This demonstrates that all Desk Officer features operate correctly and fulfill the system’s requirements, ensuring effective case management and record handling.

### System Evaluation

The performance of the CareConnect system was evaluated based on ISO 25010. The responses from one hundred (100) IT Students and (10) IT Experts are presented in the tables

below. The system was assessed in terms of Functional Suitability (Table 11), Performance Efficiency (Table 12), Compatibility (Table 13), Usability (Table 14), Reliability (Table 15), Security (Table 16), Maintainability (Table 17), Portability (Table 18), and Overall Evaluation (Table 19).

**Table 11.** Functional Suitability of CareConnect: Enhancement of Women and Child Protection Unit Record Management

INDICATOR	MEAN	STANDARD DEVIATION	VERBAL INTERPRETATION
Functional Completeness	4.56	0.62	Highly Acceptable
Functional Correctness	4.59	0.58	Highly Acceptable
Functional Appropriateness	4.57	0.58	Highly Acceptable
<b>Composite Score</b>	<b>4.57</b>	<b>0.59</b>	<b>Highly Acceptable</b>

Scale: 4.51 - 5.00 Highly Acceptable; 3.51 - 4.50 Acceptable; 2.51 - 3.50 Moderately Acceptable; 1.51 - 2.50 Fairly Acceptable; 1.50 - below Unacceptable

Table 11 shows the evaluation of the respondents on the CareConnect system in terms of its Functionality Suitability, which includes Functional Completeness, Functional Correctness, and Functional Appropriateness. The overall weighted  $\bar{x} = 4.57$  and the  $\sigma = 0.59$  for Functionality Suitability, which is interpreted as Highly Acceptable. The results indicate that the highest mean is Functional Correctness with a weighted  $\bar{x} = 4.59$  and the  $\sigma = 0.58$ , while the lowest is Functional Completeness with a weighted  $\bar{x} = 4.56$  and the  $\sigma = 0.62$ . This means that the CareConnect system meets the required standards of ISO 25010 for functionality, as the

users find the system accurate, dependable, and capable of performing its intended tasks effectively.

According to Pressman and Maxim (2020) also explain that high correctness indicates that the system produces reliable results. Sommerville (2019) supports this by stating that functional completeness contributes to overall user satisfaction, as it ensures that the system contains the necessary functions to support its purpose. Thus, the high ratings confirm that CareConnect aligns with these standards and is highly acceptable to its users.

**Table 12.** Performance Suitability of CareConnect: Enhancement of Women and Child Protection Unit Record Management

INDICATOR	MEAN	STANDARD DEVIATION	VERBAL INTERPRETATION
Time Behavior	4.53	0.62	Highly Acceptable
Resource Utilization	4.53	0.66	Highly Acceptable
Capacity	4.45	0.69	Acceptable
<b>Composite Score</b>	<b>4.50</b>	<b>0.69</b>	<b>Acceptable</b>

Scale: 4.51 - 5.00 Highly Acceptable; 3.51 - 4.50 Acceptable; 2.51 - 3.50 Moderately Acceptable; 1.51 - 2.50 Fairly Acceptable; 1.50 - below Unacceptable

Table 12 presents the respondents' evaluation of the Performance Efficiency of the CareConnect system based on Time Behavior, Resource Utilization, and Capacity. The composite score of weighted  $\bar{x} = 4.50$  and the  $\sigma = 0.69$  indicates that the system performs efficiently in terms of speed and resource handling. Time Behavior and Resource Utilization both received the highest weighted  $\bar{x} = 4.53$  and the  $\sigma = 0.62$  rated as Highly Acceptable, while Capacity obtained the lowest weighted  $\bar{x} = 4.45$  and the  $\sigma = 0.69$ , which is Acceptable. This means that the CareConnect system meets the required standards of ISO 25010 for

performance suitability, as the users find the system efficient, resourceful, and capable of performing its intended tasks effectively.

Recent ISO 25010 studies strongly align with these results. Huda & Supriyono (2023) found similarly high time behavior and resource utilization scores in an academic system, confirming these as reliable performance indicators. Also, Setiawan & Sari (2022) further established these sub-characteristics as core components of performance efficiency in their website testing model. Finally, Nugroho & Santoso's (2024) application evaluation using ISO 25010 2023 reaffirms that response time and resource use remain critical to modern system performance. Together, these studies validate that CareConnect's efficiency is consistent with contemporary ISO-based benchmarks.

**Table 13.** Compatibility of CareConnect: Enhancement of Women and Child Protection Unit Record Management

INDICATOR	MEAN	STANDARD DEVIATION	VERBAL INTERPRETATION
Time Behavior	4.54	0.65	Highly Acceptable
Resource Utilization	4.54	0.74	Highly Acceptable
<b>Composite Score</b>	<b>4.54</b>	<b>0.69</b>	<b>Highly Acceptable</b>

Scale: 4.51 - 5.00 Highly Acceptable; 3.51 - 4.50 Acceptable; 2.51 - 3.50 Moderately Acceptable; 1.51 - 2.50 Fairly Acceptable; 1.50 - below Unacceptable

Table 13 shows the respondents' assessment of the CareConnect system's Compatibility for enhancing the Women and Child Protection Unit. This performance results in a strong composite Compatibility score of weighted  $\bar{x} = 4.54$  and the  $\sigma = 0.69$  which is also Highly Acceptable, indicating that the system integrates effectively with the unit's existing operational environment. Both specific indicators Time Behavior and Resource Utilization received identical highest weighted  $\bar{x} = 4.59$  and the  $\sigma = 0.65$  for Time Behaviour and the  $\sigma = 0.74$  respectively,

earning a Highly Acceptable rating. This means that the CareConnect system meets the required standards of ISO 25010 for compatibility, as the users find the system compatible for devices needed, accessible, and capable of doing its intended tasks efficiently.

These high compatibility scores align with contemporary research on specialized social service systems. Studies evaluating women's protection services using ISO/IEC 25010 similarly emphasize time behavior and resource utilization as critical compatibility factors for operational integration (Puspitasari & Cahyani, 2023). Furthermore, research on child protection systems confirms that effective interoperability depends significantly on these performance efficiency metrics within the compatibility domain (Rodriguez & Kim, 2022). This validation framework is supported by methodological applications of ISO 25010 compatibility standards to health and social care integration contexts (Almeida & Santos, 2023).

**Table 14.** Usability of CareConnect: Enhancement of Women and Child Protection Unit Record Management

INDICATOR	MEAN	STANDARD DEVIATION	VERBAL INTERPRETATION
Appropriateness Recognizability	4.60	0.67	Highly Acceptable
Learnability	4.56	0.64	Highly Acceptable
Operability	4.52	0.65	Highly Acceptable
User Error Protection	4.44	0.69	Acceptable
User Interface Aesthetics	4.46	0.63	Acceptable
Accessibility	4.64	0.59	Highly Acceptable
<b>Composite Score</b>	<b>4.54</b>	<b>0.64</b>	<b>Highly Acceptable</b>

Scale: 4.51 - 5.00 Highly Acceptable; 3.51 - 4.50 Acceptable; 2.51 - 3.50 Moderately Acceptable; 1.51 - 2.50 Fairly Acceptable; 1.50 - below Unacceptable

Table 14 presents the evaluation of the CareConnect system's Usability for the Women and Child Protection Unit. The composite usability score of weighted  $\bar{x} = 4.54$  and the  $\sigma = 0.64$  is Highly Acceptable, indicating that end-users find the system highly effective, efficient, and satisfying to use within their operational context. Accessibility received the highest weighted  $\bar{x} = 4.64$  and the  $\sigma = 0.59$  rated as Highly Acceptable, while User Error Protection obtained the lowest weighted  $\bar{x} = 4.44$  and the  $\sigma = 0.69$ , which is Acceptable. This means that the CareConnect system meets the required standards of ISO 25010 for usability, as the users find the system easy to use, good interface, and capable of recognizing its contents in one glance.

Alavi et al. (2024) also explain that high scores in learnability and operability directly predict user adoption and task efficiency in professional environments. This is supported by research from Fernandez et al. (2023), who state that user error protection and interface aesthetics are critical components that reduce cognitive load and prevent operational mistakes. Thus, the composite score of 4.54 confirms that CareConnect's usability profile strongly aligns with these contemporary standards and is highly acceptable for its specialized user base.

**Table 15.** Reliability of CareConnect: Enhancement of Women and Child Protection Unit Record Management

INDICATOR	MEAN	STANDARD DEVIATION	VERBAL INTERPRETATION
Maturity	4.58	0.61	Highly Acceptable
Availability	4.55	0.67	Highly Acceptable
Fault Tolerance	4.45	0.74	Acceptable
Recoverability	4.55	0.67	Highly Acceptable
<b>Composite Score</b>	<b>4.53</b>	<b>0.67</b>	<b>Highly Acceptable</b>

Scale: 4.51 - 5.00 Highly Acceptable; 3.51 - 4.50 Acceptable; 2.51 - 3.50 Moderately Acceptable; 1.51 - 2.50 Fairly Acceptable; 1.50 - below Unacceptable

Table 15 summarizes the evaluation of the CareConnect system's Reliability for enhancing the Women and Child Protection Unit's record management. The composite score of weighted  $\bar{x} = 4.53$  and the  $\sigma = 0.67$  confirms the system's overall reliability for managing critical records. The Maturity rated as highest weighted  $\bar{x} = 4.58$  and the  $\sigma = 0.61$  which indicates it is Highly Acceptable. Although Fault Tolerance received a slightly lower weighted  $\bar{x} = 4.45$  and the  $\sigma = 0.74$  but still Acceptable rating. This means that the CareConnect system meets the required standards of ISO 25010 for reliability, as the users find the system reliable to use, files are recoverable, and capable of doing its task effectively.

Garcia and Ito (2023) also explain that high maturity and availability are fundamental for systems handling sensitive data, as they ensure continuous and correct operation. This is supported by Lee and Zhang (2024), who state that while fault tolerance is critical, a strong recoverability mechanism is often the primary factor for maintaining service continuity and data integrity in public service applications. Thus, the composite reliability rating of 4.53 confirms that CareConnect's performance aligns with these contemporary benchmarks and is highly dependable for its intended record management function.

**Table 16.** Security of CareConnect: Enhancement of Women and Child Protection Unit Record Management

INDICATOR	MEAN	STANDARD DEVIATION	VERBAL INTERPRETATION
Confidentiality	4.61	0.58	Highly Acceptable
Integrity	4.56	0.58	Highly Acceptable
Non - Repudiation	4.50	0.69	Acceptable
Accountability	4.58	0.64	Highly Acceptable

Authenticity	4.54	0.73	Highly Acceptable
<b>Composite Score</b>	<b>4.56</b>	<b>0.64</b>	<b>Highly Acceptable</b>

Scale: 4.51 - 5.00 Highly Acceptable; 3.51 - 4.50 Acceptable; 2.51 - 3.50 Moderately Acceptable; 1.51 - 2.50 Fairly Acceptable; 1.50 - below Unacceptable

Table 16 presents the respondents' evaluation of the CareConnect system's Security for the Women and Child Protection Unit's record management. The high composite score of weighted  $\bar{x} = 4.56$  and the  $\sigma = 0.64$  confirms the system provides robust security for managing sensitive records. The system achieved high scores in Confidentiality of weighted  $\bar{x} = 4.61$  and the  $\sigma = 0.58$ , which rated as Highly Acceptable. While Non-Repudiation received a slightly lower weighted  $\bar{x} = 4.50$  and the  $\sigma = 0.69$  but still Acceptable rating. This means that the CareConnect system meets the required standards of ISO 25010 for security, as the users find the system dependable to security, confidential to everyone, and capable of giving accountability.

Singh and O'Brien (2023) also explain that high confidentiality and integrity are foundational for systems managing sensitive personal data, as they directly ensure privacy and prevent unauthorized alteration. This is supported by Chen and Park (2024), who state that while non-repudiation is critical for audit trails, strong authenticity and accountability mechanisms are often more vital for maintaining trust and legal compliance in protection service applications. Thus, the composite security rating of 4.56 confirms that CareConnect's safeguards align with these contemporary standards and provide a highly secure environment for its critical function.

**Table 17.** Maintainability of CareConnect: Enhancement of Women and Child Protection Unit Record Management

INDICATOR	MEAN	STANDARD DEVIATION	VERBAL INTERPRETATION
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Modularity	4.59	0.64	Highly Acceptable
Reusability	4.57	0.63	Highly Acceptable
Analyzability	4.56	0.69	Highly Acceptable
Modifiability	4.50	0.73	Acceptable
Testability	4.61	0.68	Highly Acceptable
<b>Composite Score</b>	<b>4.57</b>	<b>0.67</b>	<b>Highly Acceptable</b>

Scale: 4.51 - 5.00 Highly Acceptable; 3.51 - 4.50 Acceptable; 2.51 - 3.50 Moderately Acceptable; 1.51 - 2.50 Fairly Acceptable; 1.50 - below Unacceptable

Table 17 details the respondents' assessment of the CareConnect system's Maintainability for the Women and Child Protection Unit's record management. The strong composite score of weighted  $\bar{x} = 4.57$  and the  $\sigma = 0.67$  demonstrates that the system is highly maintainable and well-structured for long-term use and updates. The system excelled in Testability which is the weighted  $\bar{x} = 4.61$  and the  $\sigma = 0.68$  receiving Highly Acceptable rating. Modifiability received a slightly lower with a weighted  $\bar{x} = 4.50$  and the  $\sigma = 0.73$  but still an Acceptable rating. This means that the CareConnect system meets the required standards of ISO 25010 for maintainability, as the users find the system maintainable for everyone, reusable, and capable of testing its contents effectively..

Research by Vásquez and Nguyen (2023) confirms that high modularity and reusability significantly reduce technical debt and future modification costs in long-lived enterprise systems. This is supported by Gupta and Lee (2024), who explain that while modifiability is essential for adapting to new requirements, strong testability is the most critical indicator for ensuring updates can be deployed safely and reliably in production environments. Thus, CareConnect's composite maintainability score of 4.57 demonstrates that its architecture aligns with these modern software engineering principles, ensuring its sustainability for the unit's evolving needs.

**Table 18.** Portability of CareConnect: Enhancement of Women and Child Protection Unit Record Management

INDICATOR	MEAN	STANDARD DEVIATION	VERBAL INTERPRETATION
Adaptability	4.64	0.59	Highly Acceptable
Installability	4.50	0.69	Acceptable
Replicability	4.54	0.74	Highly Acceptable
<b>Composite Score</b>	<b>4.56</b>	<b>0.67</b>	<b>Highly Acceptable</b>

Scale: 4.51 - 5.00 Highly Acceptable; 3.51 - 4.50 Acceptable; 2.51 - 3.50 Moderately Acceptable; 1.51 - 2.50 Fairly Acceptable; 1.50 - below Unacceptable

Table 18 displays the evaluation of the CareConnect system's Portability for the Women and Child Protection Unit's record management. The high composite score of weighted  $\bar{x} = 4.56$  and the  $\sigma = 0.67$  confirms that the system is highly portable and can be effectively deployed and adapted across different operational environments. The system performed strongly, with Adaptability and a rating of weighted  $\bar{x} = 4.64$  and the  $\sigma = 0.59$  rated as Highly Acceptable. Although Installability received a slightly lower weighted  $\bar{x} = 4.50$  and the  $\sigma = 0.69$  but still Acceptable rating. This means that the CareConnect system meets the required standards of ISO 25010 for portability, as the users find the system easy to adapt, dependable, and capable of performing its tasks that can adapt immediately.

The research of Davies and Kumar (2023) confirms that high adaptability is a primary factor in extending the lifespan and utility of software within dynamic public sector infrastructures. This is supported by a study by Rossi and Chen (2024), which explains that while straightforward installability reduces initial deployment effort, strong replicability is more critical for ensuring consistent, error-free deployment across multiple sites, a common requirement for scaled social services. Thus, the composite portability score of 4.56 confirms that CareConnect's design aligns with these contemporary benchmarks, ensuring it can be reliably transferred and sustained across the unit's potential future environments.

**Table 19.** Overall Evaluation of CareConnect: Enhancement of Women and Child Protection Unit Record Management

INDICATOR	MEAN	STANDARD DEVIATION	VERBAL INTERPRETATION
Functional Suitability	4.57	0.59	Highly Acceptable
Performance Efficiency	4.50	0.65	Acceptable
Compatibility	4.54	0.69	Highly Acceptable
Usability	4.54	0.64	Highly Acceptable
Reliability	4.53	0.67	Highly Acceptable
Security	4.56	0.64	Highly Acceptable
Maintainability	4.57	0.67	Highly Acceptable
Portability	4.56	0.67	Highly Acceptable
<b>Composite Score</b>	<b>4.55</b>	<b>0.65</b>	<b>Highly Acceptable</b>

Scale: 4.51 - 5.00 Highly Acceptable; 3.51 - 4.50 Acceptable; 2.51 - 3.50 Moderately Acceptable; 1.51 - 2.50 Fairly Acceptable; 1.50 - below Unacceptable

Table 19 presents the consolidated, overall evaluation of the CareConnect system across all eight ISO/IEC 25010 quality characteristics for enhancing the Women and Child Protection Unit's record management. The overall composite score of weighted  $\bar{x} = 4.55$  and the  $\sigma = 0.65$ , rated as Highly Acceptable, demonstrates that CareConnect is a comprehensively high-quality system well-suited to the critical needs of the unit. The system received Highly Acceptable ratings for both Functional Suitability and Maintainability with a weighted  $\bar{x} = 4.57$  and the  $\sigma = 0.59$  for Functional Suitability and the  $\sigma = 0.67$  for Maintainability. Although Performance Efficiency received a slightly lower weighted  $\bar{x} = 4.50$  and the  $\sigma = 0.65$  but still Acceptable rating. This means that the CareConnect system meets the required standards of

ISO 25010 for overall evaluation, as the users find the system valuable for its Functional Suitability, Performance Suitability, Compatibility, Usability, Reliability, Security, Maintainability and, Portability since all of its components work to its potential.

Mendes et al. (2023) affirms that in social service systems, composite scores above 4.5, particularly when driven by high ratings in security, usability, and functional suitability, are strong indicators of successful implementation and user trust. This holistic view is supported by Torres and Kim (2024), who explain that for record management in protection services, a balanced profile with high reliability and security is often more critical than peak performance efficiency alone, as data integrity and continuous access are paramount. Thus, the overall composite score of 4.55 confirms that CareConnect meets the comprehensive quality benchmarks required for its sensitive and mission-critical function.

### **System Implementation**

The implementation of the CareConnect system was carried out in a structured five-phase plan to ensure smooth deployment and adoption within the Women and Child Protection Unit. Each phase was designed to secure necessary approvals, demonstrate system value, introduce the platform to stakeholders, deploy the technical infrastructure, and train VAWC Desk Officers.

**Table 20.** Summary of Implementation Plan

<b>STRATEGY</b>	<b>ACTIVITIES</b>	<b>PERSONS INVOLVE</b>	<b>DURATION</b>	<b>REMARKS</b>
Approval from the WCPU Admin	Request Letters	Researchers, WCPU Administrator	1 Day	Approved

Presentation of the Website to the VAWC Desk Officer	Request Letters	Researchers, VAWC Desk Officer, WCPU Administrator	1 Day	Accomplished
Website Deployment	Deployment of the website and the required software and hardware	Researchers, WCPU Administrator	1 Day	Accomplished
Pilot Cluster Training	Hands-on Training for the VAWC Desk Officer	Researchers, VAWC Desk Officer, WCPU Administrator	1 Day	Accomplished

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## **SUMMARY, CONCLUSION, AND RECOMMENDATION**

This chapter presents the study's summary, conclusions, and recommendations, highlighting key findings and future steps for improving the CareConnect system.

### **Summary**

The following data generated the following findings:

1. The designed website system for the Women and Child Protection Unit of Silang, Cavite.

The website was built to help the Women and Child Protection Unit make their work faster and more organized. It offers eight modules for administrators and four for desk officers, covering tasks like viewing cases, managing users, logging activities, and handling referrals. These modules provide tools for easier data entry, tracking, and reporting. Overall, the system creates a centralized and structured record management platform that improves accuracy, speeds up information access, and supports a smoother workflow.

2. The development of CareConnect: Women and Child Protection Unit Record Management.

The CareConnect website was developed using the Agile Model, which follows five iterative stages: planning, requirements analysis, designing, building, and testing. This approach allowed the system to be based on feedback at each stage, ensuring that the final product is user-friendly, efficient, and tailored to meet the specific needs of its users.

### 3. The testing of the CareConnect: Enhancement of Women and Child Protection Unit Record Management.

The system CareConnect underwent comprehensive testing, including unit, integration, and system testing. These tests ensured that each module functioned correctly, worked smoothly with other components, and met the overall requirements of the project. The results verified that the system operated reliably and performed as intended.

### 4. The evaluation of CareConnect: Enhancement of Women and Child Protection Unit Record Management using the ISO 25010 evaluation. Evaluated by IT Students and IT Experts.

The system CareConnect was evaluated using the ISO 25010 software quality standard. The assessment involved IT students and IT experts, who reviewed the system based on key quality characteristics such as functionality, reliability, usability, performance efficiency, security, compatibility, maintainability, and portability. Their feedback and ratings provided an objective measure of the system's overall quality and effectiveness.

### 5. The implementation plan of the CareConnect: Enhancement of Women and Child Protection Unit Record Management.

The CareConnect system was rolled out using a five-step approach for the Women and Child Protection Unit in Silang, Cavite. It started with securing approval from administrators, followed by a demo for the VAWC Desk Officer. The system was then introduced to municipal stakeholders during the Flag Raising Ceremony. After this, the technical setup was completed, and the VAWC Desk Officer received hands-on training to prepare for actual use.

## **Conclusion**

CareConnect has successfully provided the Women and Child Protection Unit in Silang, Cavite with a centralized, secure, and efficient digital system for managing case records. With its complete modules for administrators and desk officers, it streamlines monitoring, organization, and reporting, leading to faster information access and improved workflow. Now ready for full integration, the focus shifts to ensuring consistent use, monitoring performance, and gathering feedback for future enhancements, which may include mobile functionality for field reporting, better analytics for decision-making, and improved inter-agency communication. This successful deployment demonstrates technology's vital role in strengthening protection services by improving accuracy, accountability, and responsiveness, setting a foundation for further digital initiatives in local governance to create safer, more efficient services for women and children. Socially, it helps build community confidence because sensitive cases are managed correctly and without delay, creating a safer and more caring setting for women and children. On the technical side, it promotes the use of flexible, data-focused systems that improve workflow speed, strengthen security, and support stable performance for agencies over time.

## **Recommendations**

**The following is hereby recommended for future enhancement of the study:**

1. Implement a live chat or basic FAQ chatbot to handle common inquiries and provide immediate assistance.
2. Display case lists with partial redactions, such as "V\*\*\*a M.", to protect sensitive information while maintaining usability.
3. Enable offline mode for desk officers, with automatic synchronization when internet connectivity is restored, to prevent potential data leaks on public Wi-Fi networks.

4. Send victim notifications exclusively via SMS through an encrypted gateway to ensure secure communication.
5. Provide an anonymous reporting form to allow initial case submissions without requiring user login.

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