

1. System Overview – brief description and purpose of the system

The system is a **CodeIgniter 4 (CI4) Inventory Product Management** web application. Its main purpose is to let users **log in** and manage product records using **CRUD**. Products can be viewed in a **table layout** (with pagination + search) and a **card layout** (with barcode display).

2. System Architecture – explanation of the CI4 structure (controllers, models, views, modules)

Controllers (app/Controllers)

AuthController

- `loginView()` – loads login page
- `login()` – checks username/password and creates session
- `logout()` – destroys session and redirects to login

ProductController

- `index()` – displays product list (table view) with pagination (5 per page)
- `cards()` – displays product cards view (shows all products)
- `add()` – loads add product form
- `editForm($id)` – loads edit product form with product data
- `create()` – inserts new product then redirects with flash message
- `update($id)` – updates product then redirects with flash message
- `delete($id)` – deletes product then redirects with flash message

Models (app/Models)

UserModel

- Table: users
- Fields: username, password
- Methods:
 - `checkUser($username)` – fetches a user by username
 - `hashPassword($password)` – bcrypt hashing method for password storage

ProductModel

- Table: products
- Fields: product_name, description, price
- CRUD Methods:
 - createProduct(\$data)
 - getProduct(\$id)
 - updateProduct(\$id, \$data)
 - deleteProduct(\$id)

Views (app/Views)

- login.php – login form with Bootstrap + flash messages
- product_view.php – product table list with sidebar, search, pagination, edit/delete
- product_card.php – product card layout with barcode image per product
- add_product.php – add product form (with CSRF)
- edit_product.php – edit product form (with CSRF)

Modules

1. Authentication Module (Login/Logout Session)
2. Product Management Module (CRUD)
3. Product Display Module (Table View + Card View + Barcode)

3. Database Design – ER diagram, table structure, and relationships

ER Diagram

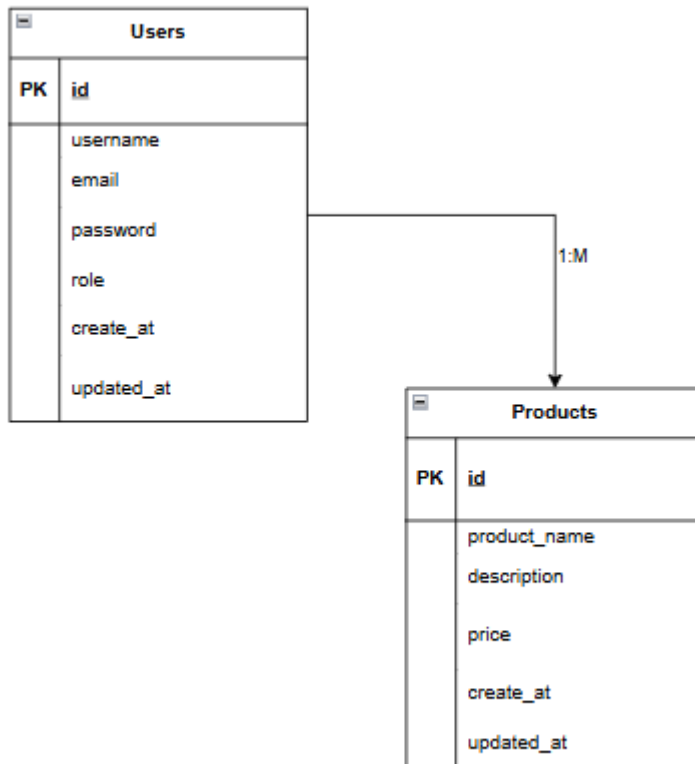


Table Structure

Table: users

- id (Primary Key)
- username
- password (*hashed using bcrypt*)

Table: products

- id (Primary Key)
- product_name
- description
- price
- created_at (*displayed in product table*)
- updated_at (*displayed in product table*)

Relationships

- Current implementation shows **no foreign key relationship** between users and products (products are shared/global once logged in).

4. Authentication Module – brief description of login/logout process and role management

Login Process

1. User opens GET / → login form displayed.
2. User submits credentials via POST /login.
3. System checks username using UserModel::checkUser(\$username).
4. If user exists, password is validated using password_verify().
5. If valid, session is created:
 - isLoggedIn, user_id, username
6. Redirects to /dashboard.

Logout Process

1. User clicks logout (GET /logout).
2. System destroys session via session()->destroy().
3. Redirects to /?logout=1.

Role Management

- Current code does **not include roles** (e.g., admin/staff). It only checks if login is successful.

5. API Integration – description of the API used, sample endpoint(s), and purpose

API Used: Barcode Generator (External API)

In the **Product Cards** view, barcodes are generated using the **bwip-js barcode API**.

Purpose:

To display a **Code128 barcode** based on the product id for easier product identification.

Sample Endpoint Format:

- https://bwipjs-api.metafloor.com/?bcid=code128&text={PRODUCT_ID}&scale=3&height=8&includeText&textsize=10...

Implementation:

The system constructs a barcode URL per product and shows it using an tag in the card layout.

6. System Features / Modules – summary of key CRUD functionalities

Product CRUD Features

- **Create Product**
 - Route: POST products/store
 - Input: product name, description, price
 - Output: flash message “Product created successfully!”
- **Read / View Products**
 - Table View: GET /dashboard (pagination + search UI)
 - Card View: GET /products/cards (all products + barcode)
- **Update Product**
 - Edit page: GET products/edit/{id}
 - Update action: POST products/update/{id}
 - Output: flash message “Product updated successfully!”
- **Delete Product**
 - Route: GET products/delete/{id}
 - Confirmation prompt before delete
 - Output: flash message “Product deleted successfully!”

7. Security Implementation – password hashing and CSRF protection

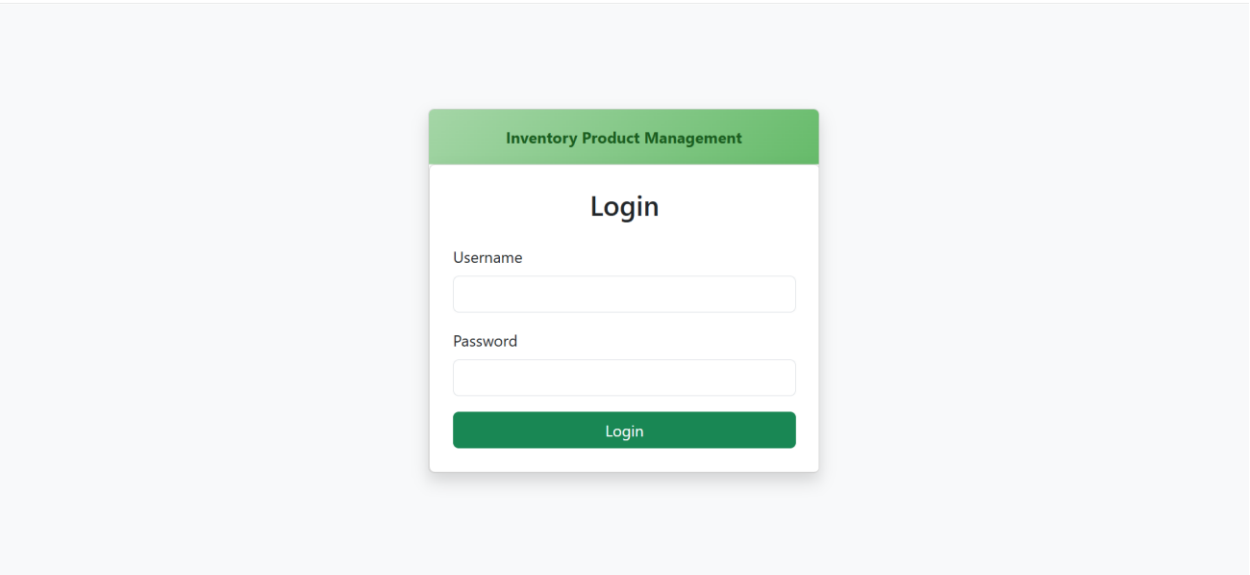
Implemented Security Measures

- **Password verification**
 - Uses password_verify() for checking hashed passwords stored in DB.
- **Password hashing support**

- UserModel::hashPassword() uses bcrypt (PASSWORD_BCRYPT) for secure storage.
- **CSRF Protection**
 - Forms include <?= csrf_field() ?> (seen in add/edit product forms).
- **Basic client confirmation**
 - Logout and delete actions use confirmation dialog (confirm()).

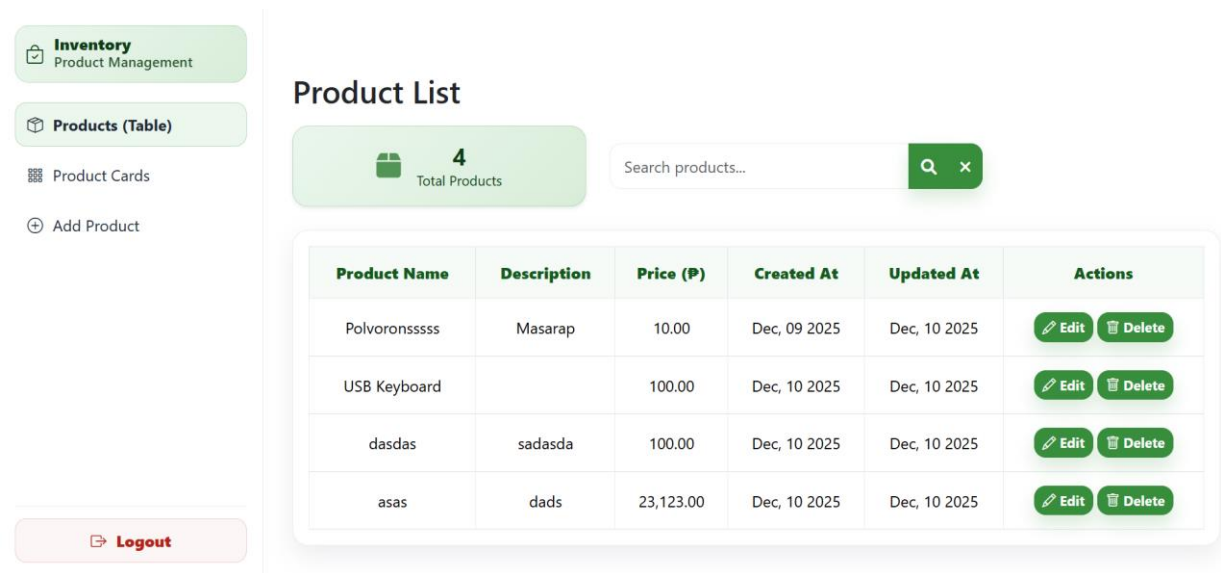
(Optional improvement: protect routes like /dashboard with CI4 Filters to block access when not logged in.)

8. Testing and Validation



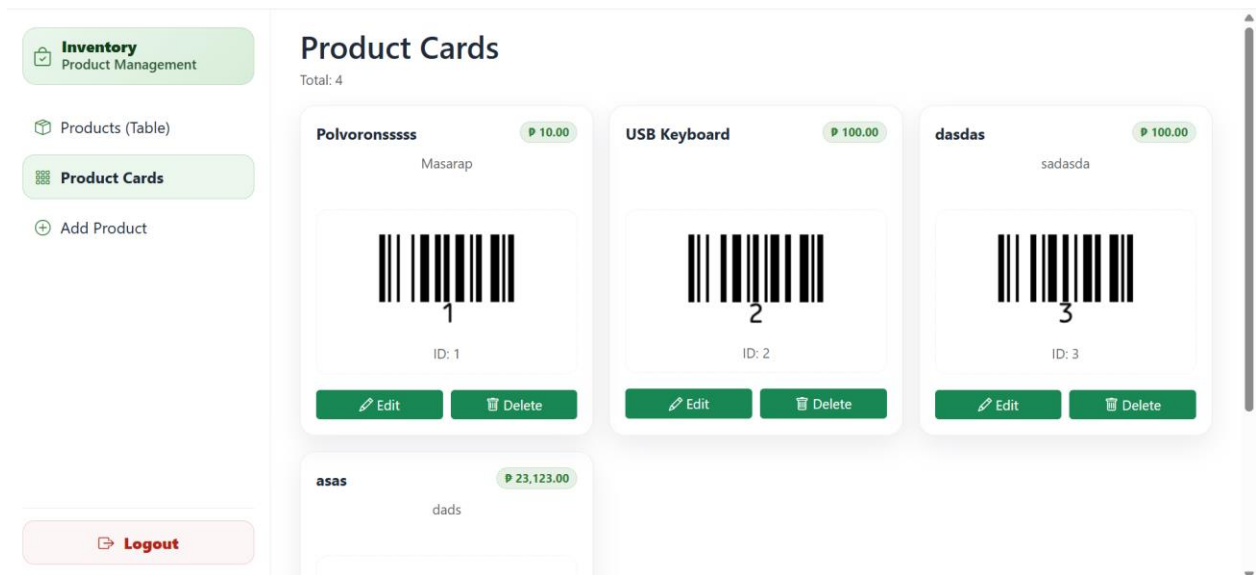
The login page allows the user to enter a username and password, then submits to /login to verify credentials and start a session before redirecting to the dashboard.

Product_View.php



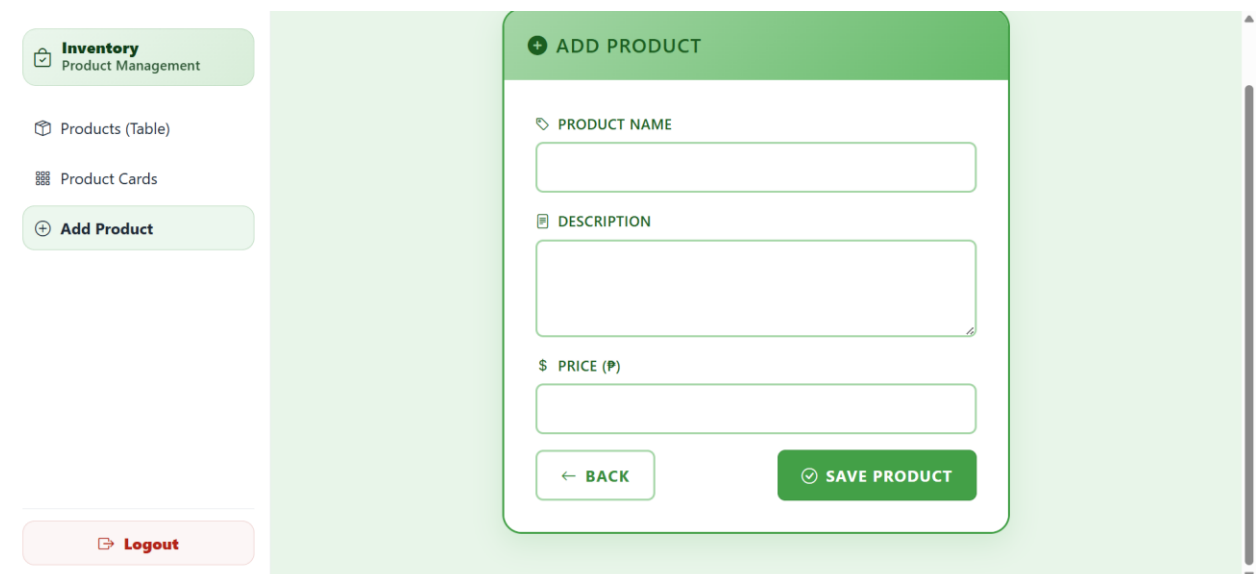
The product view displays all products in a table with search, pagination, and edit/delete actions for managing inventory records.

Product_Cards.php



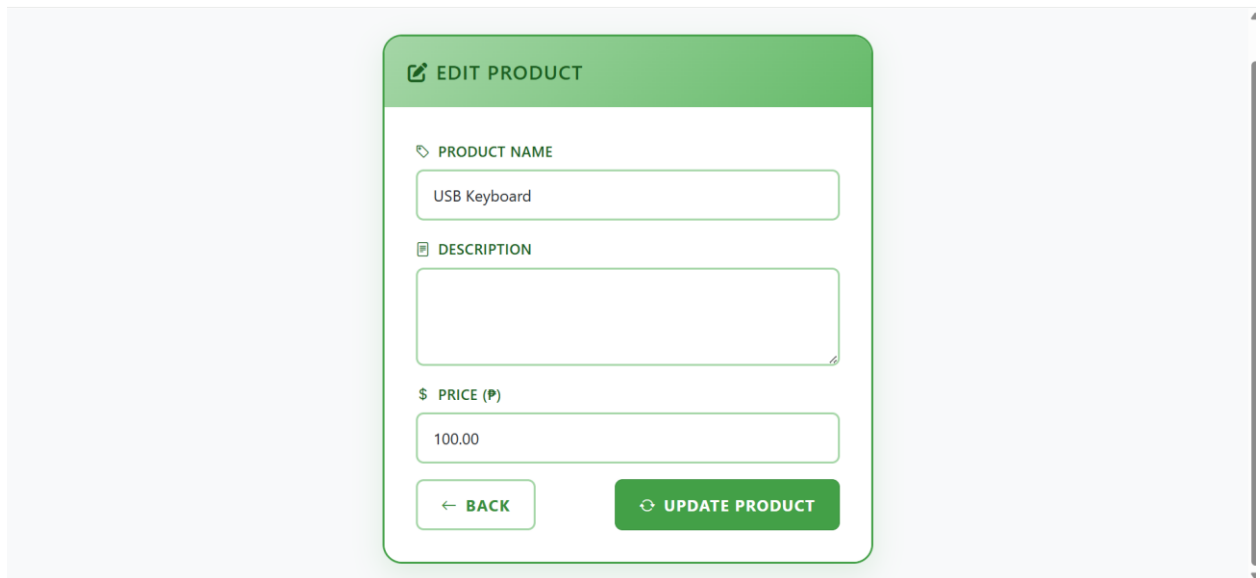
The product card view shows products in a card layout and generates a barcode image for each product using its ID.

Add_Product.php



The add product page provides a form to create a new product (name, description, price) and saves it to the database with CSRF protection.

Edit_Product.php



The screenshot shows a web form titled "EDIT PRODUCT" with a green header bar. The form is set against a light gray background. It contains three input fields: "PRODUCT NAME" with the value "USB Keyboard", "DESCRIPTION" which is empty, and "PRICE (P)" with the value "100.00". At the bottom, there are two buttons: a white "← BACK" button and a green "↻ UPDATE PRODUCT" button.

EDIT PRODUCT

PRODUCT NAME

USB Keyboard

DESCRIPTION

\$ PRICE (P)

100.00

[← BACK](#) [↻ UPDATE PRODUCT](#)

The edit product page loads an existing product's data into a form so the user can update it and save changes back to the database.

9. System Setup Guide – installation steps and dependencies for running the project

Requirements / Dependencies

- PHP (compatible with CodeIgniter 4)
- Composer
- MySQL/MariaDB (or any DB CI4 supports)
- Bootstrap / Icons via CDN (no local install needed)
- Internet connection (for bwip-js barcode API + CDN libraries)

Setup Steps

1. Download / clone the CI4 project.
2. Run: composer install
3. Configure database in .env (DB host/user/pass/name).
4. Create database tables:
 - users
 - products
5. Insert at least one user record with **bcrypt hashed password**.
6. Run the server:
 - php spark serve
7. Open in browser:
 - / login page
 - /dashboard after successful login

10. Conclusion / Future Improvements – limitations and enhancements

Conclusion

This project demonstrates a complete **CI4 MVC CRUD system** with authentication, product management, UI views (table + card), pagination, and barcode integration using an external API.

Future Improvements

- Add **role-based access** (admin vs staff)
- Add **login-required route protection** via CI4 Filters
- Change delete action to **POST/DELETE** instead of GET (more secure)
- Add server-side validation rules (e.g., price must be > 0)
- Link products to users (add user_id FK) for multi-user ownership
- Add import/export features (CSV/PDF) for inventory reporting

Codes:**Views:****Login.php:**

```
<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Login</title>

    <!-- Bootstrap CSS -->

    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css" rel="stylesheet">

</head>

<style>

.form-control:focus{

    border-color: #43a047 !important; /* green border */

    box-shadow: 0 0 0 .2rem rgba(67,160,71,.25) !important; /* green glow */

    outline: 0 !important;

}

</style>

<body class="bg-light d-flex align-items-center justify-content-center vh-100">

<div class="card shadow p-0 overflow-hidden " style="width: 400px;">

    <div class="card-header text-center fw-bold py-3"

        style="background: linear-gradient(135deg,#a5d6a7 0%,#66bb6a 100%); color:#1b5e20; border:0;">

        Inventory Product Management

    </div>

    <div class="card shadow p-4" style="width: 400px;">

        <h3 class="text-center mb-4">Login</h3>

        <!-- Show error message if login fails -->

        <?php if(session()->getFlashdata('error')): ?>

            <div class="alert alert-danger">

                <?= session()->getFlashdata('error') ?>

            </div>

        <?php endif; ?>

        <!-- Show success message if login succeeds or other info -->

        <?php if(session()->getFlashdata('success')): ?>

            <div class="alert alert-success">

                <?= session()->getFlashdata('success') ?>

            </div>

        </?php ?>

    </div>

</div>
```

```

</div>

<?php endif; ?>

<!-- Show logout message as alert if user just logged out (via query param) -->
<?php if (isset($_GET['logout']) && $_GET['logout'] == '1'): ?>

<script>
    window.alert("Successfully Logged Out");
</script>
<?php endif; ?>

<!-- Show validation errors if any -->
<?php if(isset($validation) && $validation->hasError('username')): ?>

<div class="alert alert-danger">
    <?= $validation->getError('username') ?>
</div>
<?php endif; ?>

<?php if(isset($validation) && $validation->hasError('password')): ?>

<div class="alert alert-danger">
    <?= $validation->getError('password') ?>
</div>
<?php endif; ?>

<form action="<?= base_url('/login') ?>" method="post">
    <div class="mb-3">
        <label for="username" class="form-label">Username</label>
        <input type="text" name="username" id="username" class="form-control" required>
    </div>

    <div class="mb-3">
        <label for="password" class="form-label">Password</label>
        <input type="password" name="password" id="password" class="form-control" required>
    </div>

    <button type="submit" class="btn btn-success w-100">Login</button>
</form>
</div>
<?php

?>

</body>
</html>

```

Product_View.php

```
<!-- app/Views/product_view.php -->

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1">

<title>Product List</title>

<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css" rel="stylesheet">

<link href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.0.0/css/all.min.css" rel="stylesheet">

<link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap-icons@1.11.3/font/bootstrap-icons.min.css">


<style>

:root{

--green-700:#2e7d32;

--green-600:#388e3c;

--green-500:#43a047;

--green-100:#eaf6ec;


--border:#e9ecef;

--text:#1f2937;

--muted:#6b7280;


--sidebar-w: 270px;

}


body{

background:#ffffff !important;

color: var(--text);

}


/* ===== Sidebar ===== */

.sidebar{

position: fixed;

top: 0;

left: 0;

height: 100vh;

width: var(--sidebar-w);

background: #fff;

border-right: 1px solid var(--border);

padding: 18px 16px;
```

```
z-index: 1030;

display: flex;

flex-direction: column;

gap: 14px;
}
```

```
.sidebar-brand{

display:flex;

align-items:center;

gap:10px;

padding: 10px 10px;

border-radius: 14px;

background: linear-gradient(135deg, rgba(234,246,236,.95) 0%, rgba(200,230,201,.7) 100%);

border: 1px solid rgba(56,142,60,.22);

color:#0f3d18;

font-weight: 800;

letter-spacing:.2px;
}
```

```
.sidebar-brand i{ color: var(--green-700); font-size: 1.2rem; }
```

```
.sidebar-nav{

margin-top: 6px;

display:flex;

flex-direction: column;

gap: 6px;
}
```

```
.sidebar-link{

display:flex;

align-items:center;

gap:10px;

padding: 10px 12px;

border-radius: 12px;

text-decoration: none;

color: var(--text);

border: 1px solid transparent;

transition: background .12s ease, border-color .12s ease, transform .12s ease;
}
```

```
.sidebar-link i{ color: var(--green-700); }
```

```
.sidebar-link:hover{

background: rgba(234,246,236,.75);

border-color: rgba(56,142,60,.22);
}
```

```
transform: translateY(-1px);
}

.sidebar-link.active{
background: rgba(234,246,236,.9);
border-color: rgba(56,142,60,.28);
font-weight: 700;
}

.sidebar-spacer{ flex: 1; }

.sidebar-logout{
border-top: 1px solid var(--border);
padding-top: 12px;
}

.logout-link{
display:flex;
align-items:center;
justify-content:center;
gap:10px;
padding: 10px 12px;
border-radius: 12px;
text-decoration:none;
font-weight: 800;
color:#b42318;
border: 1px solid rgba(180,35,24,.18);
background: rgba(180,35,24,.04);
transition: transform .12s ease, box-shadow .12s ease;
}

.logout-link:hover{
transform: translateY(-1px);
box-shadow: 0 10px 18px rgba(180,35,24,.10);
}

/* Main content offset for sidebar */
.content{
margin-left: var(--sidebar-w);
padding: 18px 18px 30px;
}

/* Mobile: collapse sidebar */
.sidebar-toggle{
display:none;
```



```
position: fixed;

top: 14px;

left: 14px;

z-index: 1040;

border-radius: 12px !important;

box-shadow: 0 10px 18px rgba(16,24,40,.10);

}
```

```
@media (max-width: 991.98px){

:root{ --sidebar-w: 280px; }
```

```
.sidebar{

  transform: translateX(-105%);

  transition: transform .18s ease;

}

.sidebar.show{

  transform: translateX(0);

}

.content{

  margin-left: 0;

  padding-top: 64px; /* space for toggle */

}

.sidebar-toggle{ display:inline-flex; }

}
```

```
/* ===== Your existing styles (kept) ===== */
```

```
.card{ border-radius:16px !important; }
```

```
.card-green{

  background: linear-gradient(135deg, rgba(234,246,236,.95) 0%, rgba(200,230,201,.7) 100%) !important;

  border: 1px solid rgba(56,142,60,.22) !important;

  color: #0f3d18 !important;

  border-radius: 16px !important;

}
```

```
.card-green .text-white{ color:#0f3d18 !important; }
```

```
.card-green i{ color: var(--green-700) !important; }
```

```
.card.shadow-sm.border-success{

  border:1px solid var(--border) !important;

  box-shadow: 0 10px 26px rgba(16,24,40,.08) !important;

  overflow:hidden;

}
```

```

.btn-green{
  background-color: var(--green-600) !important;
  border-color: var(--green-600) !important;
  color:#fff !important;
  font-weight:700;
  border-radius:12px !important;
  box-shadow: 0 10px 18px rgba(56,142,60,.18);
  transition: transform .12s ease, box-shadow .12s ease;
}

.btn-green:hover{
  background-color: var(--green-700) !important;
  border-color: var(--green-700) !important;
  transform: translateY(-1px);
  box-shadow: 0 12px 22px rgba(56,142,60,.22);
}

.btn-green i,.btn-green .bi,.btn-green .fas{ color:#fff !important; }

```

```

#searchInput{
  border:1px solid var(--border) !important;
  border-radius: 12px 0 0 12px !important;
  padding: .65rem .9rem;
}

#searchInput:focus{
  border-color: rgba(67,160,71,.65) !important;
  box-shadow: 0 0 0 .2rem rgba(56,142,60,.14) !important;
}

#searchBtn{ border-radius:0 !important; }
#clearBtn{ border-radius:0 12px 12px 0 !important; }

```

```

.table{ margin-bottom:0 !important; }

.table-green th{
  background:#f7fbf7 !important;
  color:#145a1f !important;
  border-bottom:1px solid var(--border) !important;
  font-weight:800;
  letter-spacing:.2px;
  padding: 14px 10px;
}

.table td{
  border-color: var(--border) !important;
  padding: 14px 10px;
}

```

```
vertical-align: middle;
}

.table-hover tbody tr:hover{
background: rgba(234,246,236,.75) !important;
}

.alert{
border-radius:14px !important;
border:1px solid var(--border) !important;
box-shadow: 0 8px 18px rgba(16,24,40,.06);
}

.alert-success{
background:#f3fbf4 !important;
color:#145a1f !important;
border-color: rgba(56,142,60,.22) !important;
}

.pagination .page-link{
color: var(--green-600);
border-color: var(--border);
border-radius:12px !important;
margin: 0 4px;
}

.pagination .page-link:hover{
color:#fff;
background: var(--green-500);
border-color: var(--green-500);
}

.pagination .page-link:focus{
color:#fff;
background: var(--green-600);
border-color: var(--green-600);
box-shadow: 0 0 0 .2rem rgba(56,142,60,.14);
}

.pagination .page-item.active .page-link{
color:#fff;
background: var(--green-600);
border-color: var(--green-600);
}

.pagination .page-item.disabled .page-link{
color:#a1a1aa;
background:#fff;
```

```

border-color: var(--border);
}

.fas, .fa, .bi{ color: inherit !important; }

</style>
</head>

<body>

<!-- Mobile toggle -->

<button class="btn btn-green sidebar-toggle" type="button" id="sidebarToggle">

  <i class="bi bi-list"></i>

</button>

<!-- Sidebar -->

<aside class="sidebar" id="sidebar">

  <div class="sidebar-brand">

    <i class="bi bi-bag-check"></i>

    <div>

      <div style="line-height:1;">Inventory</div>

      <div class="small" style="font-weight:600; opacity:.85;">Product Management</div>

    </div>

  </div>

  <nav class="sidebar-nav">

    <!-- Mark active as needed -->

    <a class="sidebar-link active" href="{%= base_url('/dashboard') %}">

      <i class="bi bi-box-seam"></i>

      <span>Products (Table)</span>

    </a>

    <a class="sidebar-link" href="{%= base_url('products/cards') %}">

      <i class="bi bi-grid-3x3-gap"></i>

      <span>Product Cards</span>

    </a>

    <a class="sidebar-link" href="{%= base_url('product/productForm') %}">

      <i class="bi bi-plus-circle"></i><span>Add Product</span>

    </a>

    <!-- Add more links if you want

    <a class="sidebar-link" href="{%= base_url('dashboard') %}">

      <i class="bi bi-speedometer2"></i><span>Dashboard</span>

```


-->

</nav>

<div class="sidebar-spacer"></div>

<!-- Logout moved here -->

<div class="sidebar-logout">

<a href="<?= base_url('/logout')?>"

class="logout-link"

onclick="return confirm('Are you sure you want to logout?');">

<i class="bi bi-box-arrow-right"></i>

Logout

</div>

</aside>

<!-- Main content -->

<main class="content">

<div class="container mt-3 mt-lg-5">

<!-- Header -->

<div class="mb-4">

<h2 class="text-dark mb-3">Product List</h2>

<div class="row align-items-center">

<!-- Total Products Card -->

<div class="col-md-4 mb-3 mb-md-0">

<div class="card shadow-sm border-0 card-green">

<div class="card-body text-center py-3">

<div class="d-flex align-items-center justify-content-center">

<div class="me-3">

<i class="fas fa-box" style="font-size: 1.8rem; opacity: 0.8;"></i>

</div>

<div>

<h4 class="mb-0 fw-bold text-white"><?= \$totalProducts ?></h4>

<p class="mb-0 small opacity-90 text-white">Total Products</p>

</div>

</div>

</div>

</div>

</div>

```
<!-- Search Bar -->

<div class="col-md-5 mb-3 mb-md-0">

  <div class="input-group">

    <input type="text" class="form-control" placeholder="Search products..." id="searchInput">

    <button class="btn btn-green" type="button" id="searchBtn">

      <i class="fas fa-search"></i>

    </button>

    <button class="btn btn-green" type="button" id="clearBtn" title="Clear search">

      <i class="fas fa-times"></i>

    </button>

  </div>

</div>
```

```
<!-- Add Product Button -->

<div class="col-md-3 text-md-end">

  </div>

</div>

</div>
```

```
<!-- Flash Messages -->

<?php if (session()->has('message')): ?>

<div class="alert alert-success alert-dismissible fade show" role="alert">

  <i class="fas fa-check-circle me-2"></i>

  <?= session('message') ?>

  <button type="button" class="btn-close" data-bs-dismiss="alert" aria-label="Close"></button>

</div>

<?php endif; ?>
```

```
<?php if (session()->has('error')): ?>

<div class="alert alert-danger alert-dismissible fade show" role="alert">

  <i class="fas fa-exclamation-circle me-2"></i>

  <?= session('error') ?>

  <button type="button" class="btn-close" data-bs-dismiss="alert" aria-label="Close"></button>

</div>

<?php endif; ?>
```

```
<?php if (session()->has('warning')): ?>

<div class="alert alert-warning alert-dismissible fade show" role="alert">

  <i class="fas fa-exclamation-triangle me-2"></i>

  <?= session('warning') ?>
```

```

        <button type="button" class="btn-close" data-bs-dismiss="alert" aria-label="Close"></button>
    </div>
<?php endif; ?>

<?php if (session()->has('info')): ?>
    <div class="alert alert-info alert-dismissible fade show" role="alert">
        <i class="fas fa-info-circle me-2"></i>
        <?= session('info') ?>
        <button type="button" class="btn-close" data-bs-dismiss="alert" aria-label="Close"></button>
    </div>
<?php endif; ?>

<div class="card shadow-sm border-success">
    <div class="card-body">
        <table class="table table-bordered table-hover text-center">
            <thead class="table-green">
                <tr>
                    <th>Product Name</th>
                    <th>Description</th>
                    <th>Price (₱)</th>
                    <th>Created At</th>
                    <th>Updated At</th>
                    <th>Actions</th>
                </tr>
            </thead>
            <tbody>
                <?php if (!empty($products) && is_array($products)): ?>
                    <?php foreach ($products as $product): ?>
                        <tr>
                            <td><?= esc($product['product_name']) ?></td>
                            <td><?= esc($product['description']) ?></td>
                            <td><?= number_format($product['price'], 2) ?></td>
                            <td><?= date('M, d Y', strtotime($product['created_at'])) ?></td>
                            <td><?= date('M, d Y', strtotime($product['updated_at'])) ?></td>
                            <td>
                                <a href="<?= base_url('products/edit/' . $product['id']) ?>" class="btn btn-green btn-sm">
                                    <i class="bi bi-pencil"></i> Edit
                                </a>
                                <a href="<?= base_url('products/delete/' . $product['id']) ?>" class="btn btn-green btn-sm"
                                    onclick="return confirm('Are you sure you want to delete this product?');">
                                    <i class="bi bi-trash"></i> Delete
                                </a>
                            </td>
                        </tr>
                    </?php endforeach; ?>
                </?php if !empty($products) && is_array($products): ?>
            </tbody>
        </table>
    </div>
</div>

```

```

        </td>

    </tr>

<?php endforeach; ?>

<?php else: ?>

    <tr>

        <td colspan="6" class="text-muted">No products found.</td>

    </tr>

<?php endif; ?>

</tbody>

</table>

<!-- Pagination -->

<?php if ($totalPages > 1): ?>

    <nav aria-label="Product pagination" class="mt-4">

        <ul class="pagination justify-content-center">

            <?php if ($currentPage > 1): ?>

                <li class="page-item">

                    <a class="page-link" href="<?= base_url('?page=' . ($currentPage - 1)) ?>" aria-label="Previous">

                        <span aria-hidden="true">&laquo;</span></a>

                    </a>

                </li>

            <?php else: ?>

                <li class="page-item disabled">

                    <span class="page-link" aria-label="Previous"><span aria-hidden="true">&laquo;</span></span></li>

            </li>

            <?php endif; ?>

            <?php for ($i = 1; $i <= $totalPages; $i++): ?>

                <?php if ($i == $currentPage): ?>

                    <li class="page-item active"><span class="page-link"><?= $i ?></span></li>

                <?php else: ?>

                    <li class="page-item"><a class="page-link" href="<?= base_url('?page=' . $i) ?>"><?= $i ?></a></li>

                <?php endif; ?>

            <?php endfor; ?>

            <?php if ($currentPage < $totalPages): ?>

                <li class="page-item">

                    <a class="page-link" href="<?= base_url('?page=' . ($currentPage + 1)) ?>" aria-label="Next">

                        <span aria-hidden="true">&raquo;</span></a>

                    </a>

                </li>

            </li>

            <?php else: ?>

```



```

        <li class="page-item disabled">

            <span class="page-link" aria-label="Next"><span aria-hidden="true">&raquo;</span></span>

        </li>

    <?php endif; ?>

</ul>

</nav>

<div class="text-center text-muted mt-2">

    <small>

        Showing <?= (($currentPage - 1) * $perPage) + 1 ?> to

        <?= min($currentPage * $perPage, $totalProducts) ?> of

        <?= $totalProducts ?> products

    </small>

</div>

<?php endif; ?>

</div>

</div>

</main>

<script>

document.addEventListener('DOMContentLoaded', function() {

    // Sidebar toggle (mobile)

    const sidebar = document.getElementById('sidebar');

    const toggle = document.getElementById('sidebarToggle');

    if (toggle) {

        toggle.addEventListener('click', () => sidebar.classList.toggle('show'));

    }

    // Your search script (unchanged)

    const searchInput = document.getElementById('searchInput');

    const searchBtn = document.getElementById('searchBtn');

    const clearBtn = document.getElementById('clearBtn');

    const tableRows = document.querySelectorAll('tbody tr');

    const noProductsRow = document.querySelector('tbody tr[colsan]');

    let originalNoProductsMessage = "";

    if (noProductsRow) {

        originalNoProductsMessage = noProductsRow.innerHTML;

    }

}

```

```

function performSearch() {

  const searchTerm = searchInput.value.toLowerCase().trim();

  let visibleRows = 0;

  tableRows.forEach(row => {

    if (row.querySelector('td[colspan]')) return;

    const productName = row.cells[0].textContent.toLowerCase();
    const description = row.cells[1].textContent.toLowerCase();
    const price = row.cells[2].textContent.toLowerCase();

    if (searchTerm === '' ||
        productName.includes(searchTerm) ||
        description.includes(searchTerm) ||
        price.includes(searchTerm)) {
      row.style.display = '';
      visibleRows++;
    } else {
      row.style.display = 'none';
    }
  });

  if (searchTerm !== '' && visibleRows === 0) {
    if (noProductsRow) {
      noProductsRow.innerHTML = 'No products found matching your search.';
      noProductsRow.parentElement.style.display = '';
    }
  } else if (searchTerm === '' || visibleRows > 0) {
    if (noProductsRow) {
      if (searchTerm === '') noProductsRow.innerHTML = originalNoProductsMessage;
      if (visibleRows > 0) noProductsRow.parentElement.style.display = 'none';
    }
  }

  const pagination = document.querySelector('nav[aria-label="Product pagination"]');
  const paginationInfo = document.querySelector('.text-center.text-muted');

  if (searchTerm !== '') {
    if (pagination) pagination.style.display = 'none';
    if (paginationInfo) paginationInfo.style.display = 'none';
  } else {
    if (pagination) pagination.style.display = '';
  }
}

```

```

        if (paginationInfo) paginationInfo.style.display = "";
    }
}

function clearSearch() {
    searchInput.value = "";
    performSearch();
    searchInput.focus();
}

searchBtn.addEventListener('click', performSearch);
clearBtn.addEventListener('click', clearSearch);
searchInput.addEventListener('input', performSearch);

searchInput.addEventListener('keypress', function(e) {
    if (e.key === 'Enter') {
        e.preventDefault();
        performSearch();
    }
});
});
</script>

<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/js/bootstrap.bundle.min.js"></script>
</body>
</html>

```

Product_Card.php

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <title>Product Cards</title>

    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css" rel="stylesheet">
    <link href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.0.0/css/all.min.css" rel="stylesheet">
    <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap-icons@1.11.3/font/bootstrap-icons.min.css">

    <style>
        :root{
            --green-700:#2e7d32; --green-600:#388e3c; --green-500:#43a047; --green-100:#eaf6ec;

```

```

--border:#e9ecef; --text:#1f2937; --muted:#6b7280;

--sidebar-w: 270px;

}

body{ background:#fff !important; color:var(--text); }

/* Sidebar */

.sidebar{

  position:fixed; top:0; left:0; height:100vh; width:var(--sidebar-w);

  background:#fff; border-right:1px solid var(--border);

  padding:18px 16px; z-index:1030; display:flex; flex-direction:column; gap:14px;

}

.sidebar-brand{

  display:flex; align-items:center; gap:10px; padding:10px;

  border-radius:14px; background:linear-gradient(135deg, rgba(234,246,236,.95), rgba(200,230,201,.7));

  border:1px solid rgba(56,142,60,.22); color:#0f3d18; font-weight:800;

}

.sidebar-brand i{ color:var(--green-700); font-size:1.2rem; }

.sidebar-nav{ display:flex; flex-direction:column; gap:6px; margin-top:6px; }

.sidebar-link{

  display:flex; align-items:center; gap:10px; padding:10px 12px; border-radius:12px;

  text-decoration:none; color:var(--text); border:1px solid transparent;

  transition:.12s ease;

}

.sidebar-link i{ color:var(--green-700); }

.sidebar-link:hover{ background:rgba(234,246,236,.75); border-color:rgba(56,142,60,.22); transform:translateY(-1px); }

.sidebar-link.active{ background:rgba(234,246,236,.9); border-color:rgba(56,142,60,.28); font-weight:700; }

.sidebar-spacer{ flex:1; }

.sidebar-logout{ border-top:1px solid var(--border); padding-top:12px; }

.logout-link{

  display:flex; align-items:center; justify-content:center; gap:10px; padding:10px 12px;

  border-radius:12px; text-decoration:none; font-weight:800; color:#b42318;

  border:1px solid rgba(180,35,24,.18); background:rgba(180,35,24,.04);

}

.content{ margin-left:var(--sidebar-w); padding:18px 18px 30px; }

.sidebar-toggle{ display:none; position:fixed; top:14px; left:14px; z-index:1040; border-radius:12px !important; }

@media (max-width: 991.98px){

  :root{ --sidebar-w: 280px; }

  .sidebar{ transform:translateX(-105%); transition:transform .18s ease; }

  .sidebar.show{ transform:translateX(0); }

  .content{ margin-left:0; padding-top:64px; }

}

```

```

.sidebar-toggle{ display:inline-flex; }

}

/* Cards */

.p-card{

border:1px solid var(--border);

border-radius:16px;

box-shadow: 0 10px 26px rgba(16,24,40,.08);

overflow:hidden;

}

.p-card .badge{

background: rgba(56,142,60,.12);

color: var(--green-700);

border: 1px solid rgba(56,142,60,.18);

}

.barcode{

background:#fff;

border:1px dashed var(--border);

border-radius:12px;

padding:10px;

}

</style>

</head>

<body>

<!-- Mobile toggle -->

<button class="btn btn-success sidebar-toggle" type="button" id="sidebarToggle">

<i class="bi bi-list"></i>

</button>

<!-- Sidebar -->

<aside class="sidebar" id="sidebar">

<div class="sidebar-brand">

<i class="bi bi-bag-check"></i>

<div>

<div style="line-height:1;">Inventory</div>

<div class="small" style="font-weight:600; opacity:.85;">Product Management</div>

</div>

</div>

<nav class="sidebar-nav">

<a class="sidebar-link" href="{%= base_url('/dashboard') %}">

```

```
<i class="bi bi-box-seam"></i><span>Products (Table)</span>

</a>
```

```
<a class="sidebar-link active" href="<?= base_url('products/card') ?>"

<i class="bi bi-grid-3x3-gap"></i><span>Product Cards</span>

</a>
```

```
<a class="sidebar-link" href="<?= base_url('product/productForm') ?>"

<i class="bi bi-plus-circle"></i><span>Add Product</span>

</a>

</nav>
```

```
<div class="sidebar-spacer"></div>
```

```
<div class="sidebar-logout">

<a href="<?= base_url('/logout') ?>"

class="logout-link"

onclick="return confirm('Are you sure you want to logout?');">

<i class="bi bi-box-arrow-right"></i>

<span>Logout</span>

</a>

</div>

</aside>
```

```
<main class="content">

<div class="container">

<div class="d-flex align-items-center justify-content-between flex-wrap gap-2 mb-3">

<div>

<h2 class="mb-1">Product Cards</h2>

<div class="text-muted small">Total: <?= esc($totalProducts ?? 0) ?></div>

</div>

</div>
```

```
<div class="row g-3">

<?php if (!empty($products) && is_array($products)): ?>

<?php foreach ($products as $p): ?>

<?php

$barcodeText = (string)($p['id'] ?? '');

$barcodeUrl = 'https://bwipjs-api.metafloor.com/?bcid=code128'

. '&text=' . urlencode($barcodeText)
```

```

        . '&scale=3'
        . '&height=8'
        . '&includetext'
        . '&textsize=10'
        . '&paddingwidth=10'
        . '&paddingheight=5';

    ?>

<div class="col-12 col-md-6 col-lg-4">

    <div class="p-card p-3 h-100">

        <div class="d-flex justify-content-between align-items-start mb-2 text-center">

            <div class="fw-bold"><?= esc($p['product_name'] ?? '') ?></div>

            <span class="badge rounded-pill"><?= number_format((float)($p['price'] ?? 0), 2) ?></span>

        </div>

        <div class="text-muted small mb-3 text-center" style="min-height:42px;">

            <?= esc($p['description'] ?? '') ?>

        </div>

        <div class="barcode text-center mb-3">

            "

                class="img-fluid"

                loading="lazy"

            >

            <div class="small text-muted mt-1">ID: <?= esc($barcodeText) ?></div>

        </div>

        <div class="d-flex gap-2 mt-auto">

            <a href="<?= base_url('products/edit/' . $p['id']) ?>" class="btn btn-success btn-sm w-50">

                <i class="bi bi-pencil"></i> Edit

            </a>

            <a href="<?= base_url('products/delete/' . $p['id']) ?>"

                class="btn btn-success btn-sm w-50"

                onclick="return confirm('Are you sure you want to delete this product?');">

                <i class="bi bi-trash"></i> Delete

            </a>

        </div>

    </div>

</div>

<?php endforeach; ?>

```

```

<?php else: ?>

<div class="col-12">

    <div class="alert alert-light border">No products found.</div>

</div>

<?php endif: ?>

</div>

</div>

</main>

<script>

document.addEventListener('DOMContentLoaded', function () {

    const sidebar = document.getElementById('sidebar');

    const toggle = document.getElementById('sidebarToggle');

    if (toggle) toggle.addEventListener('click', () => sidebar.classList.toggle('show'));

});

</script>

<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/js/bootstrap.bundle.min.js"></script>

</body>

</html>

```

Edit_Product.php

```

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1">

<title>Edit Product</title>

<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css" rel="stylesheet">

<link href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.0.0/css/all.min.css" rel="stylesheet">

<link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap-icons@1.11.3/font/bootstrap-icons.min.css">

<style>

/* Green theme matching Product_View palette */

body {

    background: #e8f5e9 !important;

    color: #1b5e20 !important;

    min-height: 100vh;

    display: flex;

    align-items: center;

    justify-content: center;

}

```



```
.form-container {  
  
  max-width: 500px;  
  
  width: 100%;  
  
  margin: 20px auto;  
  
}
```

```
.card {  
  
  border: 2px solid #43a047 !important;  
  
  border-radius: 20px !important;  
  
  box-shadow: 0 10px 30px rgba(67, 160, 71, 0.15) !important;  
  
  background: #fff !important;  
  
  overflow: hidden;  
  
}
```

```
.card-header {  
  
  background: linear-gradient(135deg, #a5d6a7 0%, #66bb6a 100%) !important;  
  
  color: #1b5e20 !important;  
  
  font-weight: bold;  
  
  text-transform: uppercase;  
  
  letter-spacing: 1px;  
  
  padding: 1.5rem;  
  
  border-bottom: none !important;  
  
}
```

```
.card-body {  
  
  background: #fff !important;  
  
  padding: 2rem !important;  
  
}
```

```
.form-label {  
  
  color: #1b5e20 !important;  
  
  font-weight: 600;  
  
  text-transform: uppercase;  
  
  letter-spacing: 0.5px;  
  
  font-size: 0.9rem;  
  
}
```

```
.form-control {  
  
  border: 2px solid #a5d6a7 !important;  
  
  border-radius: 8px !important;  
  
  padding: 0.75rem 1rem;  
  
  transition: all 0.3s ease;
```

```
}
```

```
.form-control:focus {  
  border-color: #43a047 !important;  
  box-shadow: 0 0 0 0.2rem rgba(56, 142, 60, 0.25) !important;  
  transform: translateY(-1px);  
}
```

```
.btn {  
  font-weight: bold;  
  text-transform: uppercase;  
  letter-spacing: 1px;  
  padding: 0.75rem 1.5rem;  
  border-radius: 8px !important;  
  transition: all 0.3s ease;  
}
```

```
.btn-green, .btn-outline-success, .btn-outline-primary {  
  background: #43a047 !important;  
  color: #fff !important;  
  border-color: #388e3c !important;  
}
```

```
.btn-green:hover, .btn-outline-success:hover, .btn-outline-primary:hover {  
  background: #388e3c !important;  
  border-color: #2e7d32 !important;  
  color: #fff !important;  
  transform: translateY(-2px);  
  box-shadow: 0 5px 15px rgba(67, 160, 71, 0.3) !important;  
}
```

```
.btn-outline-secondary {  
  background: transparent !important;  
  color: #388e3c !important;  
  border: 2px solid #a5d6a7 !important;  
}
```

```
.btn-outline-secondary:hover {  
  background: #a5d6a7 !important;  
  color: #1b5e20 !important;  
  border-color: #a5d6a7 !important;  
  transform: translateY(-2px);  
}
```

```
}
```

```
.fas, .fa, .bi {  
  margin-right: 0.5rem;  
  color: inherit !important;  
}
```

```
h4 {  
  margin: 0 !important;  
  font-size: 1.25rem;  
}
```

```
.table-green th {  
  background-color: #a5d6a7 !important;  
  color: #1b5e20 !important;  
}
```

```
</style>
```

```
</head>
```

```
<body class="bg-light">
```

```
<div class="container mt-5">
```

```
<div class="form-container">
```

```
<div class="card shadow-sm">
```

```
<div class="card-header">
```

```
<h4 class="mb-0"><i class="fas fa-edit me-2"></i>Edit Product</h4>
```

```
</div>
```

```
<div class="card-body">
```

```
<form action="{<%= base_url('products/update/'.$product['id']) %>" method="post">
```

```
<%= csrf_field() %>
```

```
<div class="mb-3">
```

```
<label for="product_name" class="form-label"><i class="bi bi-tag me-2"></i>Product Name</label>
```

```
<input type="text" name="product_name" id="product_name"
```

```
  class="form-control"
```

```
  value="{<%= esc($product['product_name']) %>" required>
```

```
</div>
```

```
<div class="mb-3">
```

```
<label for="description" class="form-label"><i class="bi bi-file-text me-2"></i>Description</label>
```

```
<textarea name="description" id="description" class="form-control" rows="3"><%= esc($product['description']) %></textarea>
```

```
</div>
```

```

<div class="mb-3">

<label for="price" class="form-label"><i class="bi bi-currency-dollar me-2"></i>Price (₹)</label>

<input type="number" step="0.01" name="price" id="price"

    class="form-control"

    value="<? = esc($product['price']) ?>" required>

</div>


<div class="d-flex justify-content-between">

<a href="<? = site_url('/dashboard') ?>" class="btn btn-outline-secondary"><i class="bi bi-arrow-left me-2"></i>Back</a>

<button type="submit" class="btn btn-outline-primary"><i class="bi bi-arrow-repeat me-2"></i>Update Product</button>

</div>

</form>

</div>

</div>

</div>

</div>

</body>

</html>

```

Add_Product.php:

```

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1">

<title>Add Product</title>


<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css" rel="stylesheet">

<link href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.0.0/css/all.min.css" rel="stylesheet">

<link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap-icons@1.11.3/font/bootstrap-icons.min.css">


<style>

:root{

--green-700:#2e7d32;

--green-600:#388e3c;

--green-500:#43a047;

--green-100:#eaf6ec;


--border:#e9ecef;

--text:#1f2937;

--muted:#6b7280;

```

```

--sidebar-w: 270px;
}

body{
  background: #e8f5e9 !important;
  color: #1b5e20 !important;
  min-height: 100vh;
}

/* ===== Sidebar ===== */
.sidebar{
  position: fixed;
  top: 0;
  left: 0;
  height: 100vh;
  width: var(--sidebar-w);
  background: #fff;
  border-right: 1px solid var(--border);
  padding: 18px 16px;
  z-index: 1030;
  display: flex;
  flex-direction: column;
  gap: 14px;
}

.sidebar-brand{
  display: flex;
  align-items: center;
  gap: 10px;
  padding: 10px 10px;
  border-radius: 14px;
  background: linear-gradient(135deg, rgba(234,246,236,.95) 0%, rgba(200,230,201,.7) 100%);
  border: 1px solid rgba(56,142,60,.22);
  color: #0f3d18;
  font-weight: 800;
  letter-spacing: .2px;
}

.sidebar-brand i{ color: var(--green-700); font-size: 1.2rem; }

.sidebar-nav{
  margin-top: 6px;
  display: flex;

```

```
flex-direction: column;

gap: 6px;
}

.sidebar-link{
display:flex;

align-items:center;

gap:10px;

padding: 10px 12px;

border-radius: 12px;

text-decoration: none;

color: var(--text);

border: 1px solid transparent;

transition: background .12s ease, border-color .12s ease, transform .12s ease;
}

.sidebar-link i{ color: var(--green-700); }

.sidebar-link:hover{

background: rgba(234,246,236,.75);

border-color: rgba(56,142,60,.22);

transform: translateY(-1px);
}

.sidebar-link.active{

background: rgba(234,246,236,.9);

border-color: rgba(56,142,60,.28);

font-weight: 700;
}

.sidebar-spacer{ flex: 1; }

.sidebar-logout{

border-top: 1px solid var(--border);

padding-top: 12px;
}

.logout-link{

display:flex;

align-items:center;

justify-content:center;

gap:10px;

padding: 10px 12px;

border-radius: 12px;

text-decoration:none;

font-weight: 800;
```

```
color:#b42318;

border: 1px solid rgba(180,35,24,.18);

background: rgba(180,35,24,.04);

transition: transform .12s ease, box-shadow .12s ease;
}

.logout-link:hover{

transform: translateY(-1px);

box-shadow: 0 10px 18px rgba(180,35,24,.10);
}
```

```
/* Main content offset for sidebar */

.content{

margin-left: var(--sidebar-w);

padding: 18px 18px 30px;

min-height: 100vh;
}
```

```
/* Mobile: collapse sidebar */

.sidebar-toggle{

display:none;

position: fixed;

top: 14px;

left: 14px;

z-index: 1040;

border-radius: 12px limportant;

box-shadow: 0 10px 18px rgba(16,24,40,.10);
}
```

```
@media (max-width: 991.98px){

:root{ --sidebar-w: 280px; }

.sidebar{

transform: translateX(-105%);

transition: transform .18s ease;
}

.sidebar.show{

transform: translateX(0);
}

.content{

margin-left: 0;

padding-top: 64px; /* space for toggle */
}
```

```
.sidebar-toggle{ display:inline-flex; }  
}
```

```
/* ===== Your form styles ===== */
```

```
.form-container {  
  max-width: 520px;  
  width: 100%;  
  margin: 20px auto;  
}
```

```
.card {  
  border: 2px solid #43a047 !important;  
  border-radius: 20px !important;  
  box-shadow: 0 10px 30px rgba(67, 160, 71, 0.15) !important;  
  background: #fff !important;  
  overflow: hidden;  
}
```

```
.card-header {  
  background: linear-gradient(135deg, #a5d6a7 0%, #66bb6a 100%) !important;  
  color: #1b5e20 !important;  
  font-weight: bold;  
  text-transform: uppercase;  
  letter-spacing: 1px;  
  padding: 1.5rem;  
  border-bottom: none !important;  
}
```

```
.card-body { background: #fff !important; padding: 2rem !important; }
```

```
.form-label{  
  color:#1b5e20 !important;  
  font-weight: 600;  
  text-transform: uppercase;  
  letter-spacing: .5px;  
  font-size: .9rem;  
}
```

```
.form-control{  
  border:2px solid #a5d6a7 !important;  
  border-radius:8px !important;  
  padding:.75rem 1rem;
```



```
transition: all .3s ease;
}

.form-control:focus{
border-color:#43a047 !important;
box-shadow: 0 0 0 .2rem rgba(56, 142, 60, 0.25) !important;
transform: translateY(-1px);
}

.btn{
font-weight:bold;
text-transform: uppercase;
letter-spacing: 1px;
padding:.75rem 1.5rem;
border-radius: 8px !important;
transition: all .3s ease;
}

.btn-green{
background:#43a047 !important;
color:#fff !important;
border-color:#388e3c !important;
}

.btn-green:hover{
background:#388e3c !important;
border-color:#2e7d32 !important;
transform: translateY(-2px);
box-shadow: 0 5px 15px rgba(67, 160, 71, 0.3) !important;
}

.btn-outline-secondary{
background:transparent !important;
color:#388e3c !important;
border:2px solid #a5d6a7 !important;
}

.btn-outline-secondary:hover{
background:#a5d6a7 !important;
color:#1b5e20 !important;
border-color:#a5d6a7 !important;
transform: translateY(-2px);
}

.fas, .fa, .bi{ color: inherit !important; }
```

```
h4{ margin:0 !important; font-size:1.25rem; }

</style>

</head>

<body>

<!-- Mobile toggle -->

<button class="btn btn-success sidebar-toggle" type="button" id="sidebarToggle">

  <i class="bi bi-list"></i>

</button>

<!-- Sidebar -->

<aside class="sidebar" id="sidebar">

  <div class="sidebar-brand">

    <i class="bi bi-bag-check"></i>

    <div>

      <div style="line-height:1;">Inventory</div>

      <div class="small" style="font-weight:600; opacity:.85;">Product Management</div>

    </div>

  </div>

  <nav class="sidebar-nav">

    <a class="sidebar-link " href="<?= base_url('/dashboard') ?>">

      <i class="bi bi-box-seam"></i>

      <span>Products (Table)</span>

    </a>

    <a class="sidebar-link" href="<?= base_url('products/cards') ?>">

      <i class="bi bi-grid-3x3-gap"></i>

      <span>Product Cards</span>

    </a>

    <a class="sidebar-link active" href="<?= base_url('product/productForm') ?>">

      <i class="bi bi-plus-circle"></i><span>Add Product</span>

    </a>

  </nav>

  <div class="sidebar-spacer"></div>

  <div class="sidebar-logout">

    <a href="<?= base_url('/logout') ?>"

      class="logout-link"

      onclick="return confirm('Are you sure you want to logout?');">
```

```
<i class="bi bi-box-arrow-right"></i>

<span>Logout</span>

</a>

</div>

</aside>
```

```
<!-- Main Content -->
```

```
<main class="content">
```

```
<div class="container mt-3 mt-lg-5">
```

```
<div class="form-container">
```

```
<div class="card shadow-sm">
```

```
<div class="card-header">
```

```
<h4 class="mb-0"><i class="fas fa-plus-circle me-2"></i>Add Product</h4>
```

```
</div>
```

```
<div class="card-body">
```

```
<form action="{<?= site_url('products/store') ?>}" method="post">
```

```
<?= csrf_field() ?>
```

```
<div class="mb-3">
```

```
<label for="product_name" class="form-label"><i class="bi bi-tag me-2"></i>Product Name</label>
```

```
<input type="text" name="product_name" id="product_name" class="form-control" required>
```

```
</div>
```

```
<div class="mb-3">
```

```
<label for="description" class="form-label"><i class="bi bi-file-text me-2"></i>Description</label>
```

```
<textarea name="description" id="description" class="form-control" rows="3"></textarea>
```

```
</div>
```

```
<div class="mb-3">
```

```
<label for="price" class="form-label"><i class="bi bi-currency-dollar me-2"></i>Price (฿)</label>
```

```
<input type="number" step="0.01" name="price" id="price" class="form-control" required>
```

```
</div>
```

```
<div class="d-flex justify-content-between">
```

```
<a href="{<?= site_url('/dashboard') ?>}" class="btn btn-outline-secondary">
```

```
<i class="bi bi-arrow-left me-2"></i>Back
```

```
</a>
```

```
<button type="submit" class="btn btn-green">
```

```
<i class="bi bi-check-circle me-2"></i>Save Product
```

```
</button>
```

```
</div>
```

```
</form>
```

```
    </div>

  </div>

</div>

</div>

</main>


<script>

document.addEventListener('DOMContentLoaded', function () {

  const sidebar = document.getElementById('sidebar');

  const toggle = document.getElementById('sidebarToggle');

  if (toggle) toggle.addEventListener('click', () => sidebar.classList.toggle('show'));

});

</script>


<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/js/bootstrap.bundle.min.js"></script>

</body>

</html>
```

Models:

UserModel.php

```
<?php

namespace App\Models;

use CodeIgniter\Model;

class UserModel extends Model

{

    protected $table = 'users';

    protected $primaryKey = 'id';


    protected $allowedFields = ['username', 'password'];


    // Method to check user credentials

    public function checkUser($username)

    {

        return $this->where('username', $username)->first();

    }


    // Hash password using bcrypt

    public function hashPassword($password)

    {

        return password_hash($password, PASSWORD_BCRYPT);

    }

}
```

ProductModel.php:

```
<?php

namespace App\Models;

use CodeIgniter\Model;

class ProductModel extends Model {

    protected $table = 'products';

    protected $primaryKey = 'id';

    protected $allowedFields = ['product_name', 'description', 'price'];

    // Createa

    public function createProduct($data) {

        return $this->insert($data);

    }

}
```

```

// Read

public function getProduct($id) {

return $this->find($id);

}

// Update

public function updateProduct($id, $data) {

return $this->update($id, $data);

}

// Delete

public function deleteProduct($id) {

return $this->delete($id);

}

}

```

ProductController.php:

```

<?php

namespace App\Controllers;

use App\Models\ProductModel;

class ProductController extends BaseController
{

    public function index()
    {

        $model = new ProductModel();

        // Get the current page from the URL (default to 1 if not specified)
        $page = $this->request->getGet('page') ?? 1;

        $perPage = 5; // 5 items per page

        // Calculate offset
        $offset = ($page - 1) * $perPage;

        // Get products with pagination
        $data['products'] = $model->findAll($perPage, $offset);

        // Get total count for pagination calculation

```

```

$data['totalProducts'] = $model->countAll();

$data['currentPage'] = $page;

$data['perPage'] = $perPage;

$data['totalPages'] = ceil($data['totalProducts'] / $perPage);

return view('product_view', $data);
}

public function cards(){

    $model = new ProductModel();

    // "all the cards" = show all products
    $data['products'] = $model->findAll();

    $data['totalProducts'] = $model->countAll();

    return view('product_card', $data);

}

public function add()

{

    return view('add_product');

}

public function editForm($id)

{

    $model = new ProductModel();

    $data['product'] = $model->getProduct($id);

    return view('edit_product', $data);

}

public function create()

{

    $model = new ProductModel();

    $data = [

        'product_name' => $this->request->getPost('product_name'),

        'description' => $this->request->getPost('description'),

        'price' => $this->request->getPost('price')

    ];

    $model->createProduct($data);

    session()->setFlashdata('message', 'Product created successfully!');

    return redirect()->to('/dashboard');

```

```

    }

    public function edit($id)
    {
        $model = new ProductModel();

        $data['product'] = $model->getProduct($id);

        return view('edit_product', $data);
    }

    public function update($id)
    {
        $model = new ProductModel();

        $data = [

            'product_name' => $this->request->getPost('product_name'),

            'description' => $this->request->getPost('description'),

            'price' => $this->request->getPost('price')

        ];

        $model->updateProduct($id, $data);

        session()->setFlashdata('message', 'Product updated successfully!');

        return redirect()->to('/dashboard');
    }

    public function delete($id)
    {
        $model = new ProductModel();

        $model->deleteProduct($id);

        session()->setFlashdata('message', 'Product deleted successfully!');

        return redirect()->to('/dashboard');
    }
}

```

Home.php

```
<?php
```

```
namespace App\Controllers;
```

```
class Home extends BaseController
```

```

{

    public function index(): string
    {

        return view('welcome_message');
    }
}

```



```
}  
}
```

BaseController.php

```
<?php
```

```
namespace App\Controllers;
```

```
use CodeIgniter\Controller;
```

```
use CodeIgniter\HTTP\CLIRequest;
```

```
use CodeIgniter\HTTP\IncomingRequest;
```

```
use CodeIgniter\HTTP\RequestInterface;
```

```
use CodeIgniter\HTTP\ResponseInterface;
```

```
use Psr\Log\LoggerInterface;
```

```
/**
```

```
 * Class BaseController
```

```
 *
```

```
 * BaseController provides a convenient place for loading components
```

```
 * and performing functions that are needed by all your controllers.
```

```
 * Extend this class in any new controllers:
```

```
 * class Home extends BaseController
```

```
 *
```

```
 * For security be sure to declare any new methods as protected or private.
```

```
 */
```

```
abstract class BaseController extends Controller
```

```
{
```

```
    /**
```

```
     * Instance of the main Request object.
```

```
     *
```

```
     * @var CLIRequest|IncomingRequest
```

```
     */
```

```
    protected $request;
```

```
    /**
```

```
     * An array of helpers to be loaded automatically upon
```

```
     * class instantiation. These helpers will be available
```

```
     * to all other controllers that extend BaseController.
```

```
     *
```

```

* @var list<string>

*/

protected $helpers = [];


/**
 * Be sure to declare properties for any property fetch you initialized.
 * The creation of dynamic property is deprecated in PHP 8.2.
 */

// protected $session;


/**
 * @return void
 */

public function initController(RequestInterface $request, ResponseInterface $response, LoggerInterface $logger)
{
    // Do Not Edit This Line

    parent::initController($request, $response, $logger);


    // Preload any models, libraries, etc, here.


    // E.g.: $this->session = service('session');
}
}

```

AuthController.php

```
<?php
```

```
namespace App\Controllers;
```

```
use App\Models\UserModel;
```

```
use CodeIgniter\Controller;
```

```
class AuthController extends Controller
```

```

{
    // Show login page (optional if you have a view)

    public function loginView()
    {
        return view('login');
    }
}

```

```

// Handle login

public function login()
{
    $userModel = new UserModel();

    $username = $this->request->getPost('username');
    $password = $this->request->getPost('password');

    // Check if username exists
    $user = $userModel->checkUser($username);

    if ($user && password_verify($password, $user['password'])) {
        // Set session data
        session()->set([
            'isLoggedIn' => true,
            'user_id' => $user['id'],
            'username' => $user['username']
        ]);

        return redirect()->to('/dashboard'); // redirect to dashboard after login
    }

    return redirect()->back()->with('error', 'Invalid username or password.');
```

Routes:

```
<?php
```

```
use CodeIgniter\Router\RouteCollection;
```

```
/**
```

```
* @var RouteCollection $routes
```

```
*/
```

```
$routes->get('/', 'AuthController::loginView');
```

```
$routes->post('/login', 'AuthController::login');
```

```
$routes->get('/logout', 'AuthController::logout');
```

```
$routes->get('/products/cards', 'ProductController::cards');
```

```
$routes->get('/dashboard', 'ProductController::index');
```

```
$routes->get('product/productForm', 'ProductController::add');
```

```
$routes->post('products/store', 'ProductController::create');
```

```
$routes->get('products/edit/{:num}', 'ProductController::editForm/$1');
```

```
$routes->post('products/update/{:num}', 'ProductController::update/$1');
```

```
$routes->get('products/delete/{:num}', 'ProductController::delete/$1');
```

Video Link:

<https://www.facebook.com/jhomel.natividad.2024/videos/1179391254319764/?fs=e&mibextid=wwXlfr&rdid=bljBLJntNpwNPRIq#>