**Project Report**

**Title: E-Commerce Website using HTML, CSS, and JavaScript**

**Internship Domain: Web Development Intern**

**Intern Name: SHAIK NAJEER SULTHAN**

**Duration: 06/06/2025 – 07/07/2025**

**Supervisor/Company: Brainwave matrix solutions**

**1. Introduction**

The purpose of this project was to design and develop a fully functional e-commerce website using basic web development technologies such as **HTML**, **CSS**, and **JavaScript**. The website simulates a real-world online shopping platform, providing users the ability to browse products, add them to a shopping cart, and proceed to checkout.

**2. Objective**

* To understand the structure and layout of e-commerce websites.
* To develop a responsive and interactive front-end interface using HTML, CSS, and JavaScript.
* To implement features such as product listing, cart system, and checkout functionality.

**3. Tools & Technologies Used**

| **Tool/Technology** | **Purpose** |
| --- | --- |
| **HTML5** | Structure of the website |
| **CSS3** | Styling and layout |
| **JavaScript (ES6)** | Interactivity and logic |
| **VS Code** | Code editor |
| **Git/GitHub** | Version control and deployment (optional) |
| **Browser (Chrome/Firefox)** | Testing and debugging |

**4. Features Implemented**

* ✅ Product listing page with image, price, and "Add to Cart" button
* ✅ Shopping cart system with item details and total cost
* ✅ Responsive layout for desktop and mobile devices
* ✅ Checkout simulation
* ✅ Basic styling and hover effects
* ✅ Cart item counter in the navbar

**5. Project Structure**

swift

CopyEdit

ecommerce-website/

├── index.html // Main HTML file

├── style.css // CSS styling

├── script.js // JavaScript logic

├── /images/ // Product images

**6. 1. index.html**

**html**

**CopyEdit**

**<!DOCTYPE html>**

**<html lang="en">**

**<head>**

**<meta charset="UTF-8" />**

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

**<title>ShopEasy - E-commerce Website</title>**

**<link rel="stylesheet" href="style.css" />**

**</head>**

**<body>**

**<header>**

**<h1>ShopEasy</h1>**

**<nav>**

**<button onclick="viewCart()">🛒 Cart (<span id="cart-count">0</span>)</button>**

**</nav>**

**</header>**

**<main id="product-list"></main>**

**<div id="cart" class="hidden">**

**<h2>Your Cart</h2>**

**<ul id="cart-items"></ul>**

**<p>Total: ₹<span id="total">0</span></p>**

**<button onclick="checkout()">Checkout</button>**

**<button onclick="closeCart()">Close</button>**

**</div>**

**<script src="script.js"></script>**

**</body>**

**</html>**

**🎨 2. style.css**

**css**

**CopyEdit**

**body {**

**font-family: Arial, sans-serif;**

**margin: 0;**

**padding: 0;**

**background: #f5f5f5;**

**}**

**header {**

**background-color: #333;**

**color: white;**

**padding: 1rem;**

**display: flex;**

**justify-content: space-between;**

**align-items: center;**

**}**

**nav button {**

**padding: 0.5rem 1rem;**

**background-color: #007bff;**

**color: white;**

**border: none;**

**cursor: pointer;**

**}**

**main {**

**display: grid;**

**grid-template-columns: repeat(auto-fill, minmax(220px, 1fr));**

**gap: 1rem;**

**padding: 1rem;**

**}**

**.product {**

**background: white;**

**padding: 1rem;**

**border-radius: 5px;**

**box-shadow: 0 0 5px rgba(0,0,0,0.1);**

**text-align: center;**

**}**

**.product img {**

**max-width: 100%;**

**height: 150px;**

**object-fit: cover;**

**}**

**button {**

**background: #28a745;**

**color: white;**

**padding: 0.5rem;**

**margin-top: 0.5rem;**

**border: none;**

**cursor: pointer;**

**}**

**button:hover {**

**background: #218838;**

**}**

**#cart {**

**position: fixed;**

**right: 0;**

**top: 0;**

**background: white;**

**width: 300px;**

**height: 100%;**

**padding: 1rem;**

**border-left: 2px solid #ccc;**

**overflow-y: auto;**

**box-shadow: -2px 0 8px rgba(0,0,0,0.1);**

**}**

**.hidden {**

**display: none;**

**}**

**🧠 3. script.js**

**javascript**

**CopyEdit**

**const products = [**

**{ id: 1, name: "T-shirt", price: 499, image: "images/shirt.jpg" },**

**{ id: 2, name: "Sneakers", price: 1499, image: "images/shoes.jpg" },**

**{ id: 3, name: "Jeans", price: 899, image: "images/jeans.jpg" }**

**];**

**let cart = [];**

**function loadProducts() {**

**const list = document.getElementById("product-list");**

**products.forEach(p => {**

**const item = document.createElement("div");**

**item.className = "product";**

**item.innerHTML = `**

**<img src="${p.image}" alt="${p.name}">**

**<h3>${p.name}</h3>**

**<p>₹${p.price}</p>**

**<button onclick="addToCart(${p.id})">Add to Cart</button>**

**`;**

**list.appendChild(item);**

**});**

**}**

**function addToCart(id) {**

**const product = products.find(p => p.id === id);**

**cart.push(product);**

**document.getElementById("cart-count").innerText = cart.length;**

**}**

**function viewCart() {**

**document.getElementById("cart").classList.remove("hidden");**

**const items = document.getElementById("cart-items");**

**items.innerHTML = "";**

**let total = 0;**

**cart.forEach(p => {**

**const li = document.createElement("li");**

**li.textContent = `${p.name} - ₹${p.price}`;**

**items.appendChild(li);**

**total += p.price;**

**});**

**document.getElementById("total").innerText = total;**

**}**

**function closeCart() {**

**document.getElementById("cart").classList.add("hidden");**

**}**

**function checkout() {**

**alert("Thank you for your purchase!");**

**cart = [];**

**document.getElementById("cart-count").innerText = 0;**

**closeCart();**

**}**

**loadProducts();**

**7. Working of the Website**

1. The user lands on the homepage and sees a list of products.
2. Each product has an image, name, price, and an "Add to Cart" button.
3. The cart icon shows the number of items added.
4. Clicking on the cart icon opens the cart sidebar with details and total.
5. Users can click on "Checkout" to simulate purchase (currently with a thank-you alert).

**8. Screenshots**

*(Add screenshots of the homepage, product list, and cart view here)*  
Use PrtScn or tools like Snipping Tool or Lightshot to capture and paste here.

**9. Challenges Faced**

* Making the website fully responsive for mobile and tablet views.
* Managing dynamic updates in the cart using plain JavaScript.
* Optimizing image loading and layout issues.

**10. Future Enhancements**

* Add product search and category filters
* Use LocalStorage or Firebase to store cart data persistently
* Implement login/register functionality
* Integrate a payment gateway (like Razorpay or Stripe)
* Create an admin panel to add/edit products

**11. Conclusion**

Through this project, I learned how to build an interactive and responsive e-commerce site using HTML, CSS, and JavaScript from scratch. This experience has enhanced my understanding of frontend development principles, DOM manipulation, and user interface design.

**12. References**

* [MDN Web Docs](https://developer.mozilla.org)
* [W3Schools](https://www.w3schools.com/)
* [NewsAPI.org](https://newsapi.org/) (if APIs are later used)
* [Unsplash](https://unsplash.com/) – Free product images