

# PROJECT DOCUMENTATION

**Project Title:**

## **Responsive E-Commerce Website with Login and Signup System**

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**Submitted By:**

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**Project Guide:**

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## **1. Introduction**

This project titled “**Responsive E-Commerce Website with Login and Signup System**” is a front-end web development project developed using HTML, CSS, and JavaScript. The website simulates a basic online shopping platform where users can browse products, add items to a cart, register, login, and proceed to checkout.

The project demonstrates essential web development concepts including responsive design, dynamic content handling, form validation, local storage usage, and interactive user interface development.

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## **2. Objective of the Project**

The primary objectives of this project are:

- To design a responsive E-Commerce website interface.
- To implement Login and Signup functionality.
- To develop a dynamic shopping cart system.
- To use JavaScript for interactivity and data handling.
- To understand client-side storage using local Storage.
- To enhance front-end development skills.

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## 3. Tools and Technologies Used

- **HTML5** – Structure of web pages
  - **CSS3** – Styling and responsive design
  - **JavaScript (script.js)** – Dynamic functionality and logic
  - **Visual Studio Code (VS Code)** – Development environment
  - **Web Browser** – Testing and execution
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## 4. Project Description

The project is a complete front-end E-Commerce website consisting of multiple interconnected pages:

### 4.1 Home Page (index.html)

- Displays website introduction.
- Provides navigation to products, login, and signup pages.
- Contains featured products section.

### 4.2 Products Page (products.html)

- Displays all available products dynamically.
- Includes search functionality.
- Allows filtering by category.
- Allows sorting by price and name.
- Provides “Add to Cart” option.

### 4.3 Cart Page (cart.html)

- Displays selected products.
- Allows quantity update.
- Allows product removal.
- Automatically calculates subtotal, tax, shipping, and total.

### 4.4 Checkout Page (checkout.html)

- Collects shipping and payment details.
- Displays order summary.
- Simulates order placement.
- Clears cart after successful order.

### 4.5 Login & Signup Page (loginpage.html / Signup.html)

- Allows user authentication.

- Stores username in local storage.
  - Provides toggle between login and signup forms.
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## 5. Explanation of script.js File

The **script.js** file is the core logic of the website. It controls all dynamic behaviour and user interactions.

### Key Functionalities Implemented in script.js:

#### 5.1 Shopping Cart Management

- Add products to cart
- Remove products from cart
- Update product quantity
- Store cart data in **local Storage**
- Update cart counts dynamically

#### 5.2 Product Display

- Dynamically loads product data from `products-data.js`
- Displays products in grid layout
- Show ratings, price, and description

#### 5.3 Filtering and Searching

- Search products by name or description
- Filter by category
- Sort products by:
  - Name
  - Price (Low to High)
  - Price (High to Low)

#### 5.4 Cart Summary Calculation

- Calculates:
  - Subtotal
  - Shipping charges
  - Tax (10%)
  - Total amount
- Updates summary dynamically

#### 5.5 Checkout Handling

- Validates required form fields
- Simulates order placement
- Displays confirmation message

- Clears cart after successful order

## 5.6 Login and Signup Handling

- Stores username in local Storage
- Validates password confirmation
- Redirects user after login/signup
- Toggles between login and signup forms

The script ensures smooth navigation and dynamic interaction across all pages of the website.

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## 6. Features of the Project

- Fully responsive layout
  - Dynamic product listing
  - Shopping cart functionality
  - Local storage integration
  - Login and signup system
  - Product filtering and sorting
  - Checkout simulation
  - Clean and modern UI design
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## 7. Project Structure

The project consists of the following files:

- `index.html` – Home page
  - `products.html` – Product listing page
  - `cart.html` – Shopping cart page
  - `checkout.html` – Checkout page
  - `loginpage.html` – Login system
  - `Signup.html` – Signup page
  - `products-data.js` – Product data storage
  - `script.js` – Core functionality logic
  - `style.css` – Website styling
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## 8. Learning Outcomes

Through this project, I have learned:

- Structuring multi-page websites
- Implementing dynamic JavaScript functionality

- Using local Storage for data persistence
  - Designing responsive layouts
  - Managing DOM manipulation
  - Creating interactive UI components
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## 9. Conclusion

The “Responsive E-Commerce Website with Login and Signup System” project successfully demonstrates the practical implementation of HTML, CSS, and JavaScript in developing a functional front-end web application.

It provides a strong foundation in web development concepts such as dynamic content rendering, user authentication simulation, cart management, and responsive UI design.

This project enhanced my technical knowledge, logical thinking, and real-world development skills