

## SVU Day-14 Assignment

28/02/2025

### Assignment: E-Commerce Store with Cart, Sorting, Filtering & Checkout




#### Overview:

In this assignment, students will build a complete e-commerce shopping experience with product listing, cart management, sorting, filtering, a dynamic search bar, and a checkout page where users can enter details before placing an order.






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#### Features to Implement:

##### 1 Pages to Create:

-  index.html - Product Listing Page
  -  cart.html - Shopping Cart Page
  -  checkout.html - Checkout Page
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##### 2 Features in index.html (Product Listing Page):

-  Display Products Dynamically:
  - Store product data in an array and display it using JavaScript.
  - Each product should have an image, name, price, category, rating, and an "Add to Cart" button.
-  Sorting:
  - Allow sorting by price (low to high, high to low) and rating.
-  Filtering:
  - Implement category-based filtering (e.g., Electronics, Clothing, Accessories).
  - Implement price range filtering (e.g., below ₹5000, ₹5000-₹10000, above ₹10000).
-  Search Bar:
  - Add a search bar where users can type product names.
  - The product list should update dynamically as users type. (Use debouncing to improve performance).
-  Cart Management:
  - Clicking the "Add to Cart" button should store the product in localStorage.
  - Cart data should persist even after a page refresh.

- Show a notification when a product is added to the cart.

✔ Button to Navigate to Cart Page.

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### 3 Features in cart.html (Shopping Cart Page):

- ✔ Retrieve and Display Cart Items from localStorage.
  - ✔ Increase & Decrease Quantity for Each Item.
  - ✔ Remove Items from Cart.
  - ✔ Calculate and Display Total Price Dynamically.
  - ✔ Show "Cart is Empty" Message if No Items Exist.
  - ✔ Button to Proceed to Checkout Page.
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### 4 Features in checkout.html (Checkout Page):

✔ Form for User Details:

- Name
- Email
- Address
- Payment Method (Dropdown with "Cash on Delivery" & "UPI Payment")

✔ Order Summary:

- Display all cart items with quantity and price.
- Show total price at the bottom.

✔ Place Order Button:

- On clicking "Place Order", clear the cart and show a success message.
  - Redirect back to the product page after a few seconds.
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### 5 Additional Enhancements:

- ✔ Loading Spinner When Fetching Products.
  - ✔ Toast Notification on Adding/Removing Products.
  - ✔ Mobile-Friendly UI.
  - ✔ Dark Mode Toggle for UI Customization.
  - ✔ Coupon Code Feature to Apply Discounts.
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🎯 Bonus Challenges:

- ◆ **Wishlist Feature:** Allow users to save items for later.
- ◆ **Local Storage Persistence:** Ensure sorting, filtering, and cart data persist even after closing the browser.
- ◆ **Stock Availability Indicator:** Show "In Stock" or "Out of Stock" based on availability.