SVU Day-13 Assignment
27/02/2025

🛒 **Full Stack Development Assignment: E-Commerce Cart System** 🛍️

📌 **Assignment Overview**

In this assignment, you will create a **simple e-commerce cart system** using **HTML, CSS, and JavaScript**. The system will display a list of products, allow users to **add products to the cart**, and provide sorting & filtering functionality. The cart data should persist using **Local Storage** to remain even after the page refreshes.

📁 **Project Structure**

- **index.html** → Displays product listing with "Add to Cart" functionality

- **cart.html** → Displays cart items with purchase functionality

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📜 **Task Breakdown**

🔷 **Page 1: index.html (Product Listing Page)**

1 **Create a list of hardcoded products** (at least 10) with the following details:

- 🏷️ **Product Name**

- 💰 **Price**

- 📝 **Description**

- 📦 **Category** (e.g., Electronics, Clothing, Books, Accessories)

- 🖼️ **Product Image**

2 **Dynamically display products** using **JavaScript forEach()** to loop through the hardcoded data and create product cards.

3 **Add an "Add to Cart" button** for each product:

- Clicking the button should **store the product details in Local Storage** with a unique identifier.

- Show a **notification (alert or toast message)** confirming that the item has been added to the cart.

4 **Sorting & Filtering Features** (Important!):

- 🔍 **Sort products** by **Price (Low to High / High to Low)**

- 🔍 **Filter products** by **Category**

- 🔍 **Search bar** to find products by name

5 **Cart Navigation Button**:

- Add a **"Go to Cart"** button to navigate to **cart.html**.

- 🔷 **Page 2: cart.html (Shopping Cart Page)**

1 **Retrieve cart data from Local Storage** and display it in a table format with:

- ⌨ Product Name

- 💰 Price

- 📦 Category

- 🖼 Image

- 🔄 Quantity Selector (+/- buttons)

- 🗑 Remove Button

2 **Cart Functionalities**:

- ✅ Users should be able to **increase or decrease quantity**.

- ✅ Users should be able to **remove products from the cart** (and update Local Storage).

- ✅ If the cart is empty, display **"Your cart is empty! Add some products!"**.

3 **Final Purchase Button**:

- When clicked, clear the cart and show a **"Thank you for your purchase!"** message.

4 **Back to Products Button**:

- Redirects users to **index.html**.

💡 **Bonus Features (Optional but Fun!)**

🔥 Add a **wishlist feature** where users can save products for later.
🔥 Show a **total cart amount** that updates dynamically based on quantity.
🔥 Create a **dark mode toggle** for better UI experience.
🔥 Use CSS animations to make UI more interactive.
🔥 Implement a **rating system** where users can rate products.

📌 **Key Concepts Covered in This Assignment**

✔ **HTML Structure & Forms**
✔ **CSS Styling & Layout**
✔ **JavaScript DOM Manipulation**

- ✔ **Local Storage for Data Persistence**
- ✔ **Sorting & Filtering Data**
- ✔ **Event Handling (Click, Change, etc.)**
- ✔ **Dynamic Content Rendering using forEach()**

Note:- Products data will be shared with you separately.