

Assignment Requirements – Simple E-Commerce Webpage

Project Goal

Build a **simple but functional e-commerce webpage** that allows users to browse products, view product details, manage a cart, manage a wishlist, and add new products. The project should be **pretty, responsive, validated, and user-friendly**.

Tech Stack & Rules

- **Languages:** HTML, CSS, JavaScript
 - **CSS Framework:** Any is allowed, but **Tailwind CSS is preferred**
 - **Backend/API:**
 - Using an API is **not required but highly preferred**
 - Recommended: [DummyJSON Products API](#)
 - **Design:**
 - Must be **pretty and colorful**
 - Must be **responsive (mobile, tablet, desktop)**
 - Must include **hover effects & animations** for interactions
 - **Code Restrictions:**
 - **✗ No ready templates**
 - **✗ No AI code generation** (strictly forbidden, will be checked)
 - **✓ Code must be written by you only**
 - **GitHub:**
 - Must create a **GitHub repository** for the project
 - Commit changes regularly with meaningful commit messages
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Functional Requirements

Product List

- Display a list of products from data (either from API or static array).
- **Search bar** to filter products in real-time.
- (Optional) **Switch button** to toggle product layout:
 - Grid view (multiple items per row)
 - Row view (one item per row with more details)

- Each product card must include:
 - Thumbnail image
 - Title
 - Price
 - Stock status:
 - If `stock = 0` → show “**No Stock**” label, and product cannot be ordered.
 - Heart icon (wishlist toggle):
 - Default: outline
 - When clicked → turns filled and adds product to wishlist
 - If clicked again → removes product from wishlist
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Product Details Dialog

- Clicking a product opens a dialog.
 - Dialog contains:
 - Left side: main image + thumbnails (click to change main image).
 - Right side:
 - Title, description, price, rating (optional)
 - Stock availability
 - Quantity selector (+ / -) with limits (cannot exceed stock)
 - **Add to Cart button** → adds product with chosen quantity to cart
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Cart Dialog

- Opens when user clicks **cart icon** in navbar.
 - Must display:
 - Each product in cart with:
 - Name, quantity, price per unit, subtotal
 - Final **total price** at the bottom
 - Cart icon in navbar must show total item count as badge.
 - Quantity cannot exceed stock.
 - Allow increasing/decreasing quantities directly from cart.
 - **Empty state:** If the cart is empty, show an icon or image with friendly text (e.g., “Your cart is empty”).
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Wishlist Dialog

- Opens when user clicks **wishlist icon** in navbar.

- Displays wishlist items as cards (one per row).
 - Must include a search bar to filter wishlist items.
 - Clicking heart again removes product from wishlist.
 - **Empty state:** If wishlist is empty, show an icon or image with friendly text (e.g., “No items in your wishlist yet”).
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+ Add Product Dialog

- A button “**Add Product**” should exist (location is up to you).
 - When clicked → show dialog with a form:
 - Required fields: **Name, Price, Stock (quantity)**
 - Optional fields: description, category, brand, etc.
 - Image URLs input:
 - Can add multiple image URLs dynamically (user clicks “Add” to add another URL field).
 - When saved:
 - New product is added to the product list.
 - If stock = 0 → product shows “**No Stock**” label and cannot be ordered.
 - Validation:
 - Required inputs must not be empty
 - Stock must be ≥ 0
 - Price must be > 0
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Optional Features

- **Toggle Layouts:** Add a switch button to toggle between grid and row views.
- **Edit Product:** Each product card shows an **edit button** → opens the same dialog as “Add Product” but pre-filled with that product’s data.