

1. General Requirements

1.1 Supported Technologies

- HTML(5) for semantic structure and content.
 - CSS3 for styling, layout, animations, responsiveness.
 - JavaScript (jQuery) for client-side logic.
 - Optional frameworks/libraries (if allowed by the project):
 - JavaScript: Vanilla JS.
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2. Site Structure Requirements

2.1 Required Pages

The site must include, at minimum, the following pages:

1. Login Page
2. Home Page
3. Product Listing / Category Pages
4. Product Detail Page (PDP)
5. Shopping Cart Page (only when logged in)
6. Checkout Page (Front-end only; no real payments) (only when logged in)
7. Order Confirmation Page (selected Product data) (only when logged in)
8. User Account Pages (*front-end only*)
 - Login
 - Register (demo only)
 - Profile (static mock data) (only when logged in)
9. About / Contact Page
10. Error Page (404, generic fallback)

2.2 Global Navigation Components

- Header with:

- Logo
 - Main navigation menu
 - Search bar
 - Cart icon with item count badge
 - Account icon or link
 - Footer with:
 - Category links
 - Contact information
 - Newsletter signup field (no backend)
 - Social media icons
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3. Functional Requirements (Front-End Behavior)

3.1 Home Page

- Display product categories.
- Display featured products (carousel or grid).
- Interactive hero section (image slider or promotional banner).

3.2 Product Listing Page (PLP)

- Dynamically rendered list of products (JSON mock data).
- Sorting options:
 - Price (low-high, high-low)
- Filters:
 - Category
 - Price range slider
- Pagination or infinite scroll.

3.3 Product Detail Page (PDP)

- Product image.
 - Product title, description, price, SKU, availability.
 - Quantity selector.
 - "Add to Cart" button (JavaScript functionality required).
 - Display related or recommended products.
 - Reviews section (static or mock data; JS rendering).
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4. Shopping Cart & Checkout (only when logged in)

4.1 Cart Page

- Product list with:
 - Image
 - Title
 - Price
 - Quantity selector
 - Remove button
- Real-time updates:
 - Subtotal
 - Tax (fixed percentage simulated)
 - Total price
- "Continue shopping" link.
- "Proceed to checkout" button.

4.2 Checkout Page (Front-End Only)

- Form fields (no backend submission):
 - Name, email, phone
 - Shipping address
 - Delivery options
- Validate input fields using JavaScript.

- Display Cart Summary.
- Fake "Place Order" button that directs to confirmation page.

4.3 Order Confirmation Page

- Show mock order number.
 - Display order summary.
 - "Return to Home" link.
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5. User Account Pages (Front-End Mock Only)

5.1 Login Page

- Use `https://reqres.in` for login API
- Email & password fields.
- Front-end validation only.
- Login behavior (authentication through JSON).
- Save token to cookie if successful

5.2 Register Page

- Use `https://reqres.in` for register API
- Basic fields: name, email, password, confirm password.
- JavaScript validation.
- Mock success page or redirect.

5.3 Profile Page

- Use `https://reqres.in` for profile data API
 - Static display of example user data.
 - Editable fields (changes saved only to cookie).
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6. Search Functionality Requirements

- Search bar must support:
 - Live suggestions
 - Search results page (list of matched items from mock JSON data)
 - Highlight search keywords in results.
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7. UI/UX Requirements

7.1 Layout & Styling

- Semantic HTML structure.
- Accessible contrast ratios.

7.2 Navigation & Interactions

- Sticky header on scroll.
- Smooth scroll for internal links.
- Hover and focus states for buttons and links.

7.3 Animations (CSS or JS)

- Fade/slide transitions for modals and menus.
 - Smooth carousel transitions.
 - Button hover effects.
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8. JavaScript Requirements

8.1 Data Handling

- All products stored in JSON format (local or fetched via front-end).
- Cart stored in:
 - cookie

8.2 API Simulation (Optional)

- Use AJAX to load files for:
 - Products
 - Categories
 - Reviews
 - Login
 - Registration
 - Profile
- Simulate loading states with skeleton screens.

8.3 Modularity

- Organize JS for:
 - Cart management
 - Product rendering
 - Filters & sorting
 - Form validation
 - Search logic
 - UI components (modals, sliders, menus)
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9. Accessibility Requirements

- Where possible:
 - Keyboard navigability
 - Alt text for all images
 - Proper labeling for forms
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10. Validation Requirements

10.1 HTML Validation

- Pass HTML validation standards.

10.2 JavaScript Validation

- Avoid console errors.
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11. Enhancements

- Dark mode (CSS toggling).
- Product comparison feature.
- Wishlist (cookies).
- Breadcrumb navigation.