MERN Stack Training
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Training Duration: 6 Months
Days: 77

Objective of the Day

The objective of Day 77 was to design and implement the Checkout page of the GadgetShop platform. This involved connecting the Checkout interface with the existing cart data, presenting order summary details, calculating totals, and enabling users to proceed with placing orders. The page was structured to depend on authentication checks and ensure that only validated users could access or initiate checkout.

Overview of the Task

Checkout development required strategically connecting the cart and checkout flows. The tasks included:

- Setting up a dedicated Checkout page and routing path.
- Structuring form fields for capturing delivery and billing information.
- Connecting cart state to generate a real-time total price.
- Designing a user-friendly layout for confirming the order before final submission.
- Maintaining consistency with Cart component behavior.

Work Done on Day 77

1. Creating the Checkout Component

A new file `Checkout.jsx` was created in the component library. The component includes sections for user information input, delivery and billing form, selected cart item list, and order summary.

The structure is as follows:

- Header: Checkout Title
- Section 1: Delivery Address Details
- Section 2: Payment Method Placeholder
- Section 3: Order Summary with Total Price
- Section 4: Confirm Order button

This structure aligns with industry UI standards for e-commerce checkout systems.

2. User Data Form Setup

Form fields were designed to collect necessary delivery information including:

- Full Name
- Mobile Number
- Email Address (auto-filled if already present)
- Delivery Address
- City, State
- Postal Code

Form validation was embedded for empty fields, incorrect number format, and logical value checks. This prevents invalid or incomplete submissions before proceeding.

3. Price Calculation Module

A subtotal and grand total calculator was added to combine all price values from the cart. This prepares the structure for future integration with tax calculation, delivery charges, discount systems, and promotional codes.

4. Authentication Requirement Enforcement

An authentication redirection check was built into the Checkout component. If the user is not logged in, the page immediately redirects to the login page. Additionally, if the cart is empty, navigation redirects to the shop page.

5. User Interface and Styling

UI design was managed through Tailwind CSS for a responsive layout. The form section and order summary section are aligned using a flex container in desktop view and stacked in tablet/mobile view.

Styling elements include:

- Input fields with border and padding
- Submit button with distinct visual highlight
- Summary sidebar with border background shading
- Page margin distribution for readable spacing

6. Cartridge Flow Validation

A final flow test was performed to verify:

Product Listing → Add to Cart → View Cart → Proceed to Checkout

The transition was consistent and did not break component communication.

Hands-on Practice

Examples of user-triggered practical tests:

- Entering form data incorrectly to validate warnings
- Checking summary update on adding/removing items from the cart prior
- Testing mobile responsive UI design
- Verifying route redirection for unauthorized users

Conclusion

Day 77 successfully delivered a functional Checkout page deeply interconnected with cart data and user authentication checks. The system now supports a clean transition from browsing to purchasing flow, setting the base for payment gateway integration and backend order storage in upcoming phases.