Marketplace Dynamic Frontend Components- Layers

Contents

1. Functional Deliverables

Product Listing with Dynamic Data:

- o   Products are fetched from an endpoint and displayed dynamically.

- o   Includes filters to sort products by category, price, color, and size.

- o   A search bar allows users to find products based on keywords in the name or description.

- o   Displays a friendly message if no matching products are found.

Dynamic Product Detail Page:

- o   Individual product pages are generated using dynamic routing with slugs.

- o   Accurate rendering of product details, including descriptions, images, and reviews.

User Authentication and Dashboard:

- o   Users can register and log in using Clerk.

- o   Personalized dashboard showing order status, wishlist, and cart items.

Checkout Process:

- o   Secure checkout using Stripe for payments.

- o   Integrated with ShipEngine for shipping and tracking.

- o   Users can add, remove, or modify cart items during checkout.

Additional Features:

- o   Wishlist functionality.

- o   Dynamic breadcrumb navigation.

- o   "You Might Also Like" product recommendations.

- o   Product review submission and display.

2. Reusable Components

- Product Cards: Displays product information such as image, name, and price.

- Breadcrumb: Dynamic breadcrumbs for easy navigation.

- Review Section: Allows users to submit and view product reviews.

- Similar Products Section: Displays related products based on subcategories.

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3. API Integrations

- Clerk: Handles user authentication securely.

- Stripe: Manages payment transactions during checkout.

- ShipEngine: Provides shipping rates, order tracking, and delivery status.

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4. Technical Summary

Steps Taken:

- Implemented dynamic data fetching for products.

- Developed product detail pages using dynamic routing with slugs.

- Integrated Clerk for authentication and personalized dashboards.

- Set up Stripe and ShipEngine for secure checkout and shipping.

Challenges Faced:

- Encountered an error with data fetching using params.

- **Resolution:** Resolved the issue by treating params as a promise in the product details component.

Best Practices Followed:

- Developed modular and reusable components.

- Ensured secure handling of user data with Clerk and Sanity CMS.

- Followed consistent coding standards for maintainability.

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5. Future Plans for Improvement

New Features:

- o Admin dashboard for managing orders and inventory.

- o Advanced product recommendation algorithms.

Performance Enhancements:

- o Optimizing API calls and improving page load times.

UI/UX Improvements:

- o Refining design elements for better user engagement.

- o Introducing dark mode and customizable themes.

Integration of Additional Services:

- o Adding new payment options.

- o Incorporating analytics tools for better insights.