DAY 4 - DYNAMIC FRONTEND COMPONENTS

Introduction

This report highlights the key features and functionalities I developed for my e-commerce website. The project is built using **Next.js** for the frontend, **ShadCN** for enhanced UI components, and **Sanity CMS** for content management and API integration. The website focuses on **furniture and interior design**, aiming to deliver a seamless shopping experience.

Here's a detailed outline for your report content, including descriptions of each feature and how you implemented them:

Report on My E-Commerce Website Development

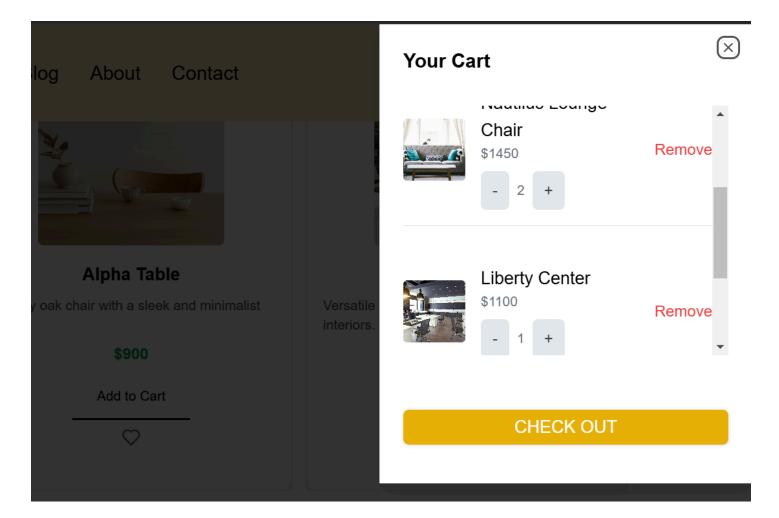
Introduction

This report highlights the key features and functionalities I developed for my e-commerce website. The project is built using **Next.js** for the frontend, **ShadCN** for enhanced UI components, and **Sanity CMS** for content management and API integration. The website focuses on **furniture and interior design**, aiming to deliver a seamless shopping experience.

1. Cart Functionality

The cart functionality allows users to add, remove, and view products in their shopping cart. Key highlights include:

- **State Management**: Implemented using **Zustand** for efficient and scalable state management.
- **Dynamic Updates**: Products added or removed from the cart are reflected in real-time, ensuring a smooth user experience.
- **Integration with Sanity**: Product data, including pricing and stock levels, is fetched dynamically from Sanity CMS.
- Responsive UI: The cart design is responsive, offering optimal usability across devices.



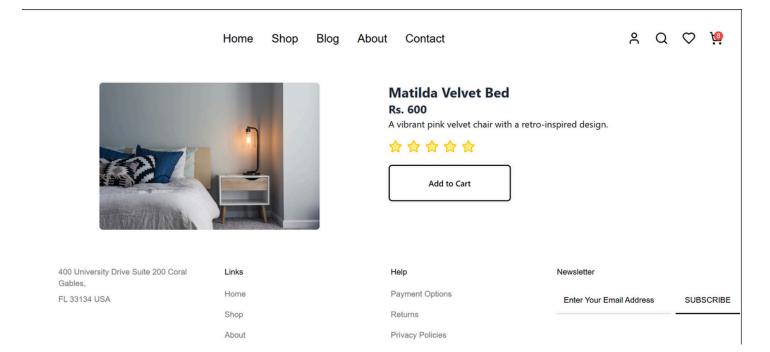
2. Dynamic Routing

Dynamic routing was implemented to create product-specific pages and handle navigation seamlessly. Key aspects include:

- [Dynamic Routes]: Used Next.js dynamic route generation ([slug].js) to display individual product details.
- **Enhanced SEO**: Routes are optimized for search engines, ensuring better visibility for products.
- **User-Friendly Navigation**: Each product page includes clear breadcrumbs for better navigation.

Example URL Structure:

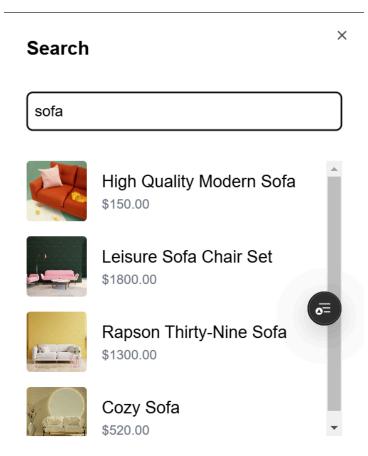
- /products/modern-sofa
- /products/vintage-lamp



4. Search Functionality

A search icon and functionality were added to help users quickly find products. Key highlights include:

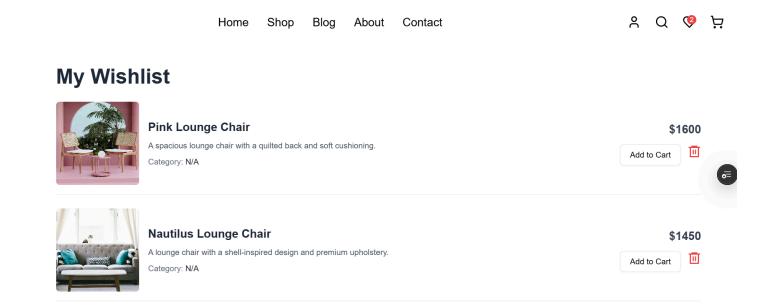
- **Search Bar Integration**: Integrated a search bar in the header to provide users with quick access to their desired products.
- **Real-Time Results**: Search results are updated dynamically as users type.
- **Efficient Filtering**: Products are filtered based on their name, category, or description using API queries.
- **User Feedback**: Added a "no results" message to enhance user interaction when no matching items are found.



4. Wishlist Functionality

The wishlist functionality allows users to save their favorite products for future reference. Key highlights include:

- State Management: Zustand is used to manage the wishlist state efficiently.
- Add and Remove Items: Users can add products to their wishlist and remove them when desired.
- **Integration with Sanity**: Product details, such as name, price, and images, are dynamically fetched from Sanity CMS.
- **Persistent Storage**: Wishlist data is saved in localStorage, ensuring that items remain saved even after the page is refreshed.
- **User-Friendly UI**: A dedicated wishlist page provides an overview of saved products, with quick links to their respective product pages.



5. Flowchart for Zustand State Management

Below is the flowchart illustrating how Zustand manages the Cart, Wishlist, and Search functionalities:

