

Day 4 - Building Dynamic Frontend Components

Prepared By: Ummefizza

Prepared For: Temp4-Furniture-Store

Objective:

The primary objective of Day 4 is to design and develop dynamic frontend components to display marketplace data fetched from Sanity CMS or external APIs. The focus is on modularity, reusability, and applying real-world practices to build scalable and responsive web applications.

Task Overview:

1. Build a Product Listing Component to dynamically display product data.
2. Implement features like Search Bar, Filter Panel, and Product Detail Pages.
3. Ensure modular and reusable component design.
4. Focus on responsive design using Tailwind CSS.

Product Listing Component

The Product Listing Component dynamically displays products in a responsive grid layout. Each card includes details such as product name, price, image, and stock status. The grid layout adapts to all screen sizes using Tailwind CSS.

Search Bar and Filter Panel

A responsive search bar filters products by name or tags in real-time. The Filter Panel enables users to refine product views based on categories (e.g., Chairs, Sofas).

Product Detail Component

Dynamic routing is used to create individual product detail pages. Each page displays detailed information about the product, including its description, price, category, and reviews. Add to Cart and Buy Now buttons enhance the user experience.

Wishlist and Cart Components

Users can save products to a wishlist and manage their cart with features like quantity updates, subtotal calculations, and total price updates. Local storage ensures data persistence across page refreshes.

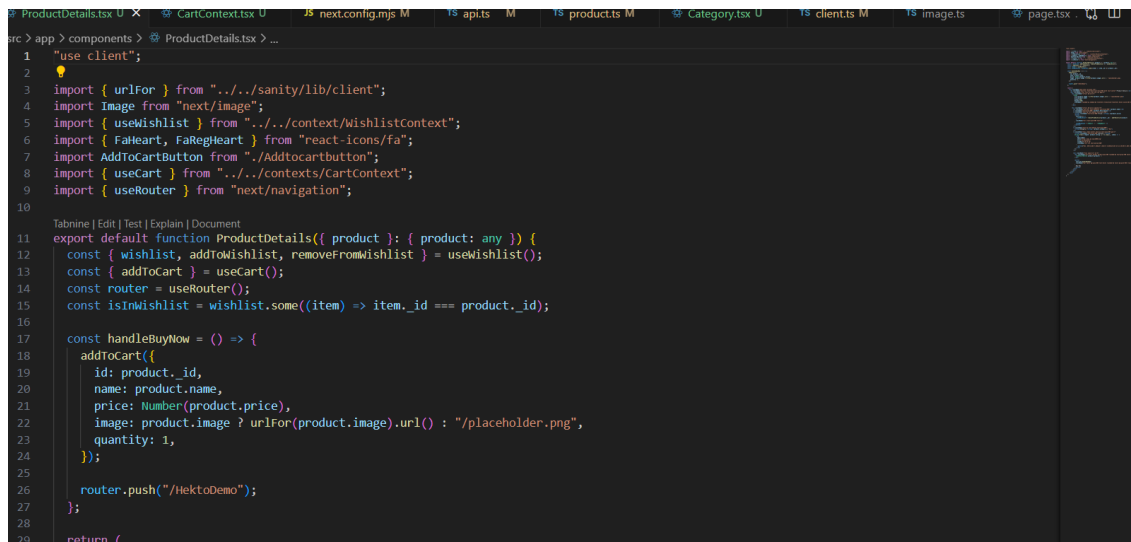
Checkout and Payment

A multi-step checkout form allows users to complete purchases. A mock payment gateway is integrated to simulate transactions.

Technical Challenges and Solutions

1. Deployment Errors on Vercel: Fixed by updating environment variables and API configurations.
2. Wishlist and Cart Data Reset: Resolved using local storage for data persistence.
3. Dynamic Routing Issues: Validated routes and tested with placeholder IDs.

Screenshots



```
src > app > components > ProductDetails.tsx > ...
1  "use client";
2
3  import { urlFor } from "../../sanity/lib/client";
4  import Image from "next/image";
5  import { useWishlist } from "../../context/wishlistContext";
6  import { FaHeart, FaRegHeart } from "react-icons/fa";
7  import AddToCartButton from "../AddtoCartButton";
8  import { useCart } from "../../contexts/CartContext";
9  import { useRouter } from "next/navigation";
10
11  Tabnine | Edit | Test | Explain | Document
12  export default function ProductDetails({ product }: { product: any }) {
13    const { wishlist, addToWishlist, removeFromWishlist } = useWishlist();
14    const { addToCart } = useCart();
15    const router = useRouter();
16    const isInWishlist = wishlist.some((item) => item._id === product._id);
17
18    const handleBuyNow = () => {
19      addToCart({
20        id: product._id,
21        name: product.name,
22        price: Number(product.price),
23        image: product.image ? urlFor(product.image).url() : "/placeholder.png",
24        quantity: 1,
25      });
26      router.push("/HektoDemo");
27    };
28
29    return (
```



```
src > app > products > [id] > page.tsx > ...
1  import { getProductId } from "../../sanity/lib/api";
2  import ProductDetails from "../../components/ProductDetails";
3
4  Tabnine | Edit | Test | Explain | Document
5  export default async function ProductDetailsPage({ params }: { params: { id: string } }) {
6    const product = await getProductId(params.id);
7
8    if (!product) {
9      return <div className="text-center text-red-500">Product not found</div>;
10    }
11
12    return <ProductDetails product={product} />;
13  }
```

```

    </Link>
  </div>

  /* Search Bar */
  <form
    onSubmit={handleSearch}
    className="sm:flex items-center space-x-2"
  >
    <input
      type="text"
      value={searchTerm}
      onChange={(e) => setSearchTerm(e.target.value)}
      placeholder="Search products..."
      className="border border-gray-300 p-2 text-sm rounded-md lg:w-52 md:44 sm:w-32 w-44 focus:outline-none focus:ring-2 focus:ring-pink-500"
    />
    <button
      type="submit"
      className="bg-pink-500 text-white p-2 rounded-md hover:bg-pink-600 transition"
    >
      <FaSearch />
    </button>
  </form>
  <button
    className="sm:hidden flex items-left"
  >

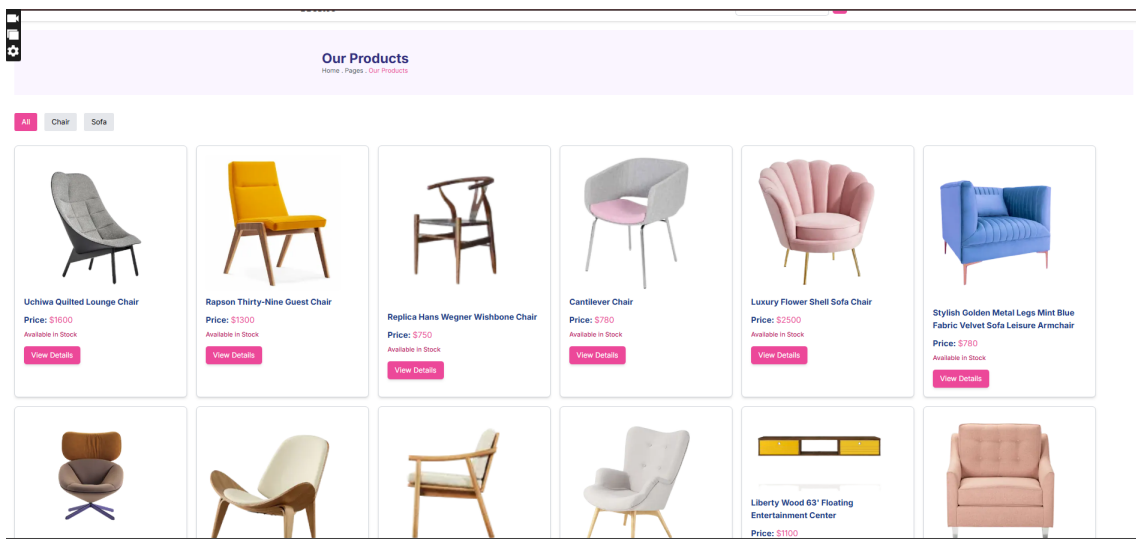
```

Tabnine | Edit | Test | Explain | Document

```

36 async function importData() {
37   try {
38     console.log('Fetching Product Data From API ...');
39
40     const response = await axios.get("https://next-ecommerce-template-4.vercel.app/api/product")
41     const products = response.data.products;
42
43     for (const item of products) {
44       console.log(`Processing Item: ${item.name}`);
45
46       let imageRef = null;
47       if (item.imagePath) {
48         imageRef = await uploadImageToSanity(item.imagePath);
49       }
50
51       const sanityItem = {
52         type: 'product'

```



Product Details



Luxury Flower Shell Sofa Chair

A luxurious shell-shaped chair with gold brass metal legs.

Price: \$2500 

Category: Sofa

Reviews: 

Add to Cart

Buy Now



Our Products

[Home](#) / [Pages](#) / [Our Products](#)

All

Chair

Sofa



Luxury Flower Shell Sofa Chair

Price: \$2500

Available in Stock