Name: Noor Ul Sehar Roll Number: 00349943 Class: Friday (9 am to 12 pm)

Day 4 - Building Dynamic Frontend Components for our Marketplace

Overview:

On Day 3, I focused on building dynamic frontend components to display marketplace data fetched from **Sanity CMS**. The goal was to create a modular, reusable, and responsive frontend that aligns with real-world professional workflows. Below is a detailed breakdown of the tasks completed.

Key Objectives:

- 1. Build dynamic frontend components to display data from Sanity CMS.
- 2. Implement reusable and modular components.
- 3. Apply state management techniques.
- 4. Ensure responsive design and UX/UI best practices.
- 5. Replicate professional workflows for real-world client projects.

Key Components Built:

1. Product Listing Component:

- **Description:** Rendered product data dynamically in a grid layout.
- Fields Displayed: Product Name, Price, Image, Stock Status.
- **Implementation:** Make a ProductCard component to display each product. Fetched data from Sanity CMS using mockApi.

Screenshot:

```
my-app > src > app > products > ∰ page.tsx > ...
          17
                export default function AllProducts() {
          18
                  const { wishlist, addToWishlist, removeFromWishlist } = useWishlist();
          19
                  const [products, setProducts] = useState<Product[]>([]);
          20
                  const [loading, setLoading] = useState(true);
          21
                  const [error, setError] = useState<string | null>(null);
          22
          23
                  // Fetch products from API
          24
                  useEffect(() => {
          25
                    const fetchProducts = async () => {
          26
          27
                        const response = await fetch('https://677ff2a50476123f76a8dd73.mockapi.io/product');
          28
          29
                        if (!response.ok) {
                        throw new Error("Failed to fetch products");
          30
          31
                        const data = await response.json();
          32
                       setProducts(data);
          33
                      } catch (error) {
          34
                      setError(error instanceof Error ? error.message : "Failed to fetch products");
          35
                      } finally {
          36
                        setLoading(false);
          37
          38
          39
                    };
          40
                    fetchProducts();
          41
          42
                  }, []);
          12
                                                                                             Find Link Store Help Sign in
                 New & Featured Men Women Kids Sale SNKRS
                                                                                 Search products...
500)
                                                                                       All Products List
as
Shirts
                                                        0
rts
& Tights
```

2. Product Detail Component:

- Description: Created individual product detail pages using dynamic routing in Next.js.
- Fields Displayed: Product Description, Price, Available Colors.
- **Implementation:** Used Next.js dynamic routing (/product/[id]) to fetch and display product details based on the product ID.
- Screenshot:

```
export default function Product() {
   <div className="grid grid-cols-1 md:grid-cols-2 gap-8 p-6 rounded-lg">
     <div className="flex justify-center items-center">
        className="w-full h-auto object-contain rounded-lg shadow-lg"
        src={selectedProduct.img}
        alt={selectedProduct.title}
     </div>
     <div className="flex flex-col justify-center space-y-6 px-4 md:px-8 lg:px-16">
      <h1 className="font-bold text-2xl sm:text-3xl md:text-4xl ■text-gray-800 text-center md:text-left">
        {selectedProduct.title}
      <h2 className="text-xs sm:text-sm md:text-base font-semibold  text-gray-500 text-center md:text-left">
        {selectedProduct.title2}
      <h4 className="text-xs sm:text-sm md:text-base  text-[#9E3500] justify-between">Color: {selectedProduct.color.join(', ')}</h4>
      {selectedProduct.description}
      {selectedProduct.price}
       {successMessage && (
        <div className=" text-green-500 text-sm text-center md:text-left">
          {successMessage}
        </div>
        onClick={() => addToCart(selectedProduct)]
        className="mt-6 px-6 py-2 ■bg-blue-600 □text-white font-semibold rounded-lg ■hover:bg-blue-700 focus:outline-none focus:ring-2 ■focus
        Add to Cart
```



Nike Air Max 97 SE

Women's Shoes

Color: Red, White

A timeless silhouette meets contemporary flair in the Nike Air Max 97 SE Men's Shoes. With its sleek, futuristic design, premium materials, and responsive Air cushioning, this iconic model ensures all-day comfort while making a bold statement in both style and performance. Whether you're hitting the streets or heading to the gym, the Nike Air Max 97 SE combines versatility and modern design, making it the perfect addition to any wardrobe.

₹ 13,995



Add to Cart

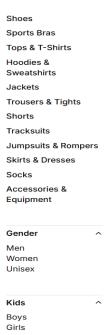
3. Category Component:

- Description: Displayed categories dynamically fetched from Sanity CMS.
- Functionality: Enabled filtering of products by selected categories.
- Implementation: Used a dropdown menu to filter products based on categories.
- Screenshot:

```
{/* Sidebar 
<section
   className={ flex flex-col max-w-[200px] mt-10 fixed lg:static left-0 top-24 Dbg-white z-40 transform transition-transform duration-300
   ease-in-out shadow-lg ${
      isSidebarVisible ? "translate-x-0" : "-translate-x-full"
  } lg:translate-x-0`}
   <h1 className="font-semibold text-sm md:text-2xl">New(500)</h1>
   <div className="font-medium text-[9px] lg:text-sm max-w-[150px] space-y-2 mt-6 flex flex-col">
     <Link href={"/shoes"} className=" hover:text-red-500"\Shoes</link>
<Link href={"/sports"} className=" hover:text-blue-500"\Sports Bras</Link>
      <Link href={"/top&tshirts"} className=" hover:text-green-500">Tops & T-Shirts</Link>
     clink href={"/hoodies"} className=" lnover:text-green-joo ylops a f-shifts/(Link)
clink href={"/hoodies"} className=" lnover:text-yellow-500">Hoodies & Sweatshirts</Link>
clink href={"/jackets"} className=" lnover:text-purple-500">Jackets</Link>
clink href={"/frosers"} className=" lnover:text-pink-500">Trousers & Tights</Link>
clink href={"/shorts"} className=" lnover:text-indigo-500">Shorts</Link>
clink href={"/tracksuits"} className=" lnover:text-teal-500">Tracksuits</Link>

<
      <Link href={"/accesories"} className=" hover:text-amber-500">Accessories & Equipment</Link>
   </div>
     <hr />
<h1 className="font-semibold flex justify-between items-center text-sm mt-1">
         ≺span>
            <IoIosArrowUp />
         </span>
      </h1>
      <div className="mt-2 text-[9px] lg:text-sm">
         <h1 className="flex gap-2 items-center">Men</h1>
<h1 className="flex gap-2 items-center">Men</h1>
<h1 className="flex gap-2 items-center">Women</h1>
<h1 className="flex gap-2 items-center">Unisex</h1>
```

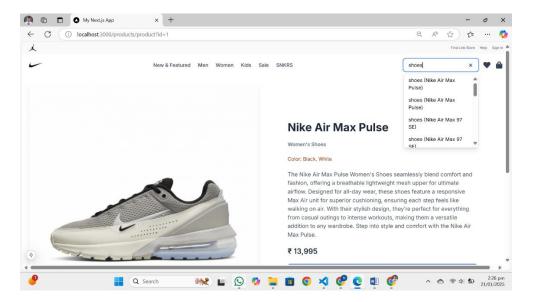
New(500)



4. Search Bar:

- **Description:** Implemented search functionality to filter products by name or tags.
- **Implementation:** Used a search input field to filter products dynamically as the user types.
- Screenshot:

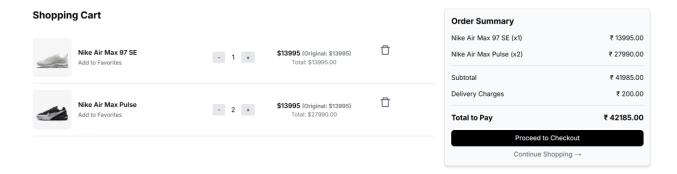
```
const SearchBar: React.FC = () => {
    kinput
      type="search"
      placeholder="Search products..."
      onChange={handleChange}
      onFocus={handleFocus}
      onBlur={handleBlur}
      value={searchInput}
      className="w-full px-4 py-2 border □border-gray-300 rounded-lg focus:outline-none focus:ring-2 □focus:ring-blue-500 focus:border-transpar
    {/* Dropdown List */}
    {isFocused && (
      {loading ? (
         <div className="px-4 py-2  text-red-500">{error}</div>
       ) : filteredProducts.length === 0 ? (
         <div className="px-4 py-2  text-gray-500">No products found.</div>
       ):(
         {filteredProducts.map((product) => (
            li
              key={product.id}
              className="px-4 py-2 □hover:bg-gray-50 cursor-pointer"
             onClick={() => handleProductClick(product.title)} // Update search input with product title
               href={`/products/product?id=${product.id}`}
               className="block w-full h-full
               {product.type} ({product.title})
```



5. Cart Component:

- **Description:** Displayed added items, quantity, and total price.
- State Management: Used React Context API to manage cart items globally.
- **Implementation:** Added functionality to add/remove items and update quantities.
- Screenshot:

```
ny-app > s/ C:\Users\Dell\Desktop\sehar hakaton2\my-app\src\app\Cart\page.tsx • 1 problem in this file •
     co Untracked
       {cart.map((item) => (
L40
153
L54
           {/* Title */}
           {item.title}
155
L56
           {/* Quantity Section */}
157
           <div className="flex items-center justify-center space-x-2">
159
              onClick={() => handleQuantityChange(item.id, "decrease")}
              className="px-3 py-1 □bg-gray-200 text-sm rounded"
L61
163
             </button>
             {item.quantity}
L65
              onClick={() => handleQuantityChange(item.id, "increase")}
167
              className="px-3 py-1 □bg-gray-200 text-sm rounded"
169
             </button>
171
           </div>
L73
           {/* Price Section */}
           ${cleanPrice(item.price)}
175
L76
L77
           {/* Remove Button */}
           <button
             onClick={() => handleDeleteItem(item.id)}
179
             className="■text-red-600 text-sm underline"
181
             Remove
           </button>
183
         </div>
L85
       ))}
     </div>
```

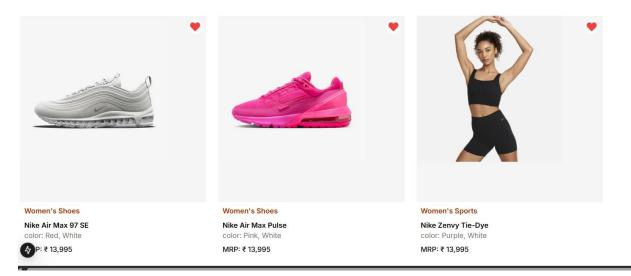


6. Wishlist Component:

- **Description:** Allowed users to save products for future reference.
- **State Management:** Used local storage to persist wishlist data.
- Implementation: Added a "Add to Wishlist" button on each product card.
- Screenshot:

```
</div>
   )}
     </div>
      ))}
        </div>
          </div>
            </button>
             Remove from Wishlist
             <FaHeart className="mr-1" />
             className="mt-2 ■text-red-600 text-sm underline flex items-center"
             onClick={() => handleRemoveFromWishlist(item.id)}
            ${cleanPrice(item.price)}
           {item.title}
          <div className="mt-4">
           className="w-full h-48 object-cover rounded-lg"
            alt={item.title}
            src={item.img}
        <div key={item.id} className="border rounded-lg p-4 shadow-md">
      {wishlist.map((item) => (
    <div className="grid grid-cols-1 md:grid-cols-2 lg:grid-cols-3 gap-6">
   ):(
    Your wishlist is empty!
   {wishlist.length === 0 ? (
   <h1 className="text-2xl font-bold mb-6">Your Wishlist</h1>
 <div className="p-6 mt-11">
return (
```

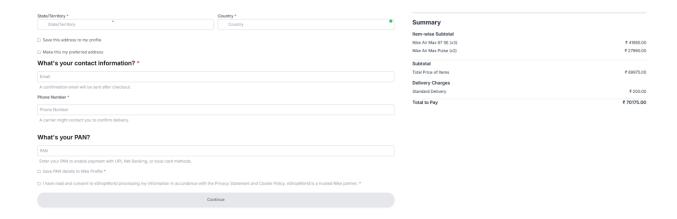
Your Wishlist



7. Checkout Flow Component:

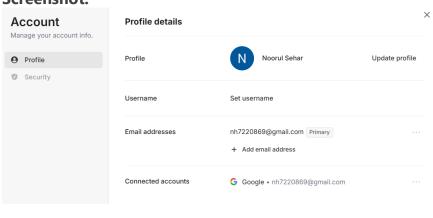
- **Description:** Created a multi-step form for checkout.
- **Fields Included:** Billing and shipping address, payment details (mock implementation).
- Implementation: Used a multi-step form with validation for each step.
- Screenshot:

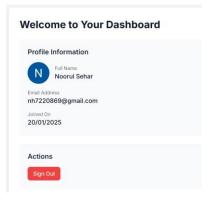
How would you like to get your order? Customs regulation for India require a copy of the recipient's KYC. The address on the KYC needs to match the shipping address. Our courier will contact you via SMS/email to obtain a copy of your KYC. The KYC will be stored securely and used solely for the purpose of	Free Delivery Applies to orders of ₹ 14,000.00 or more. <u>View Details</u>		
clearing customs (including sharing it with customs officials) for all orders and returns. If your KYC does not match your shipping address, please click the link for more information. Learn More	Bag		
Enter your name and address: First Name • First Name	Nike Air Max 97 SE Vlomen's Shoes Size: Quantity: 3 Mill?: 13995.00 ☑ Ⅲ		
Last Name Last Name Address Line 1* Address Line 1 We do not ship to P.O. boxes Address Line 2	Nike Air Max Pulse Men's Shoes Size: Quantity: 2 MRP-₹ 13995.00 □		



8. User Profile Component:

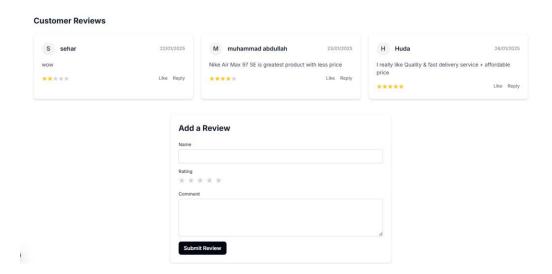
- Description: Displayed user-specific details like name, email & orderetc.
- **Implementation:** Fetched user data from the backend and displayed it in a profile page which is mine dashboard but I used clerk.
- Screenshot:





9. Reviews and Ratings Component:

- **Description:** Allowed users to view and submit reviews for products.
- **Implementation:** Displayed average ratings and individual reviews dynamically fetched from Sanity CMS.
- Screenshot:



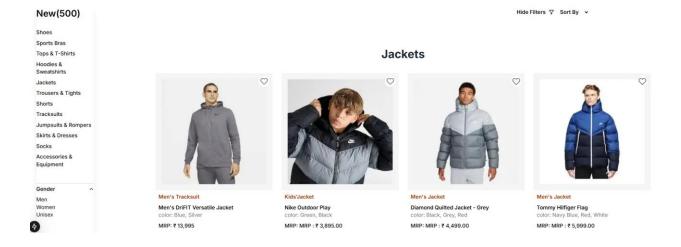
10. Pagination Component:

- **Description:** Broke down large product lists into manageable pages.
- **Implementation:** Added previous and next buttons for navigation between pages. Make a separate components.
- Screenshot:



11. Filter Panel Component:

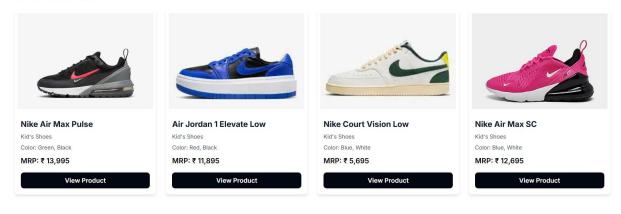
- **Description:** Provided advanced filtering options like price range sliders, brand selection, and availability toggles.
- Implementation: Used sliders and checkboxes to filter products dynamically.
- Screenshot:



12. Related Products Component:

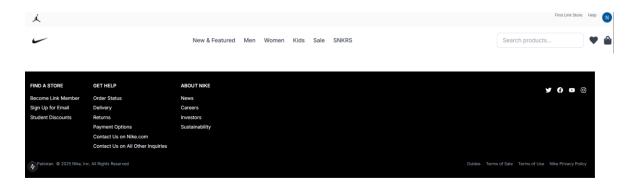
- Description: Suggested similar or complementary products on the product detail page.
- Implementation: Fetched related products based on tags or categories.
- Screenshot:

Related Products



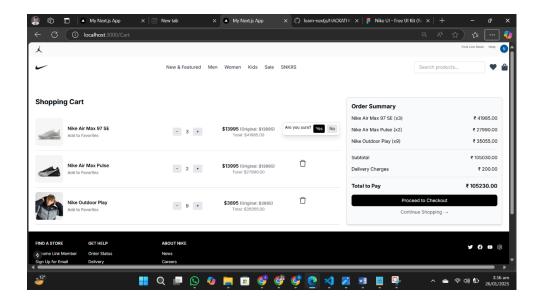
13. Footer and Header Components:

- **Description:** Built consistent navigation and branding elements.
- **Implementation:** Included links to key pages (e.g., Home, About, Contact) and ensured responsiveness.
- Screenshot:



14. Notifications Component:

- **Description:** Showed real-time alerts for actions like adding to cart, errors, or successful purchases.
- Implementation: Used email notifications to display alerts.
- Screenshot:



15.Analytics Dashboard Component:

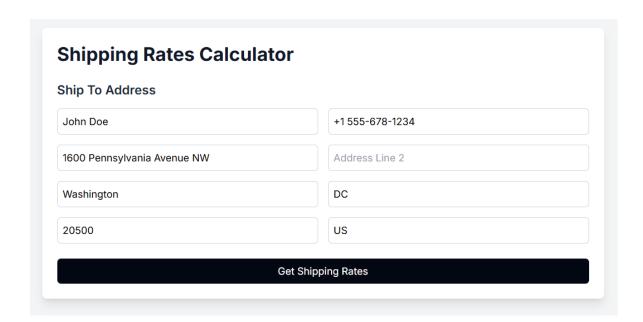
- **Description:** Showed our success story, performance or successful purchases.
- Implementation: Used grapgh to display progress.
- Screenshot:

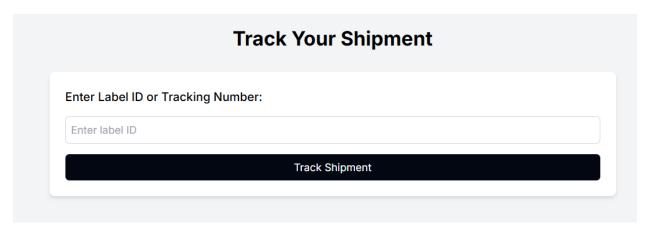




16. Order Tracking Component::

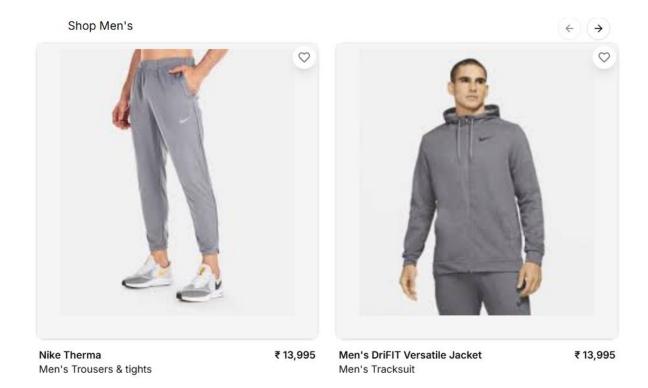
- **Description:** Track order like delivered, hold, shipped etc.
- Implementation: Used shipengine to implement this...
- Screenshot:





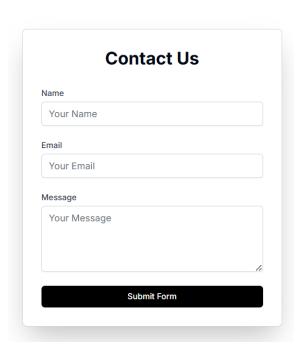
17. Carousel Component:

- **Description:** Move on next product using arrows .
- **Implementation:** Used Carousel from components/ui/carousel to implement this.
- Screenshot:



18. Contact Us Component:

- **Description:** Contact page for users .
- Implementation: Used Email Api to receive users messeges .
- Screenshot:



```
async function handleSubmit(event: React.FormEvent<HTMLFormElement>) {
    event.preventDefault();
    const form = event.currentTarget; // Get the form element
    const formData = new FormData(form);

formData.append("access_key", "c2fb6e2e-1a04-4190-9aab-3e853b4604e1");

const object = Object.fromEntries(formData);
    const json = JSON.stringify(object);

try {
    const response = await fetch("https://api.web3forms.com/submit", {
    method: "POST",
    headers: {
        "Content-Type": "application/json",
        Accept: "application/json",
        Accept: "application/json",
```

Conclusion:

This documentation marks the culmination of Day 4, where I successfully built and implemented **18 dynamic frontend components** for our marketplace application. Each component was designed with modularity, reusability, and responsiveness in mind, ensuring a seamless user experience across devices. By leveraging **Sanity CMS** for data management, **Next.js** for dynamic routing, and **React Context API** for state management, I was able to replicate real-world professional workflows and deliver a robust frontend solution.

From **product listings** and **dynamic filtering** to **user profiles** and **order tracking**, every component was meticulously crafted to align with modern UX/UI best practices. The integration of features like **search functionality**, **cart management**, **wishlists**, and **checkout flows** ensures that the marketplace is not only functional but also user-friendly and intuitive.

The use of **Clerk** for authentication, **ShipEngine** for order tracking, and **email APIs** for notifications further enhances the application's professionalism and readiness for real-world deployment. Additionally, the inclusion of **analytics dashboards** and **carousel components** adds a layer of interactivity and engagement for users.

This project has been an incredible learning experience, allowing me to apply theoretical knowledge to practical, real-world scenarios. I am proud of the progress made and look forward to refining these components further as I continue to grow as a developer.

Thank you for following along with this journey.