DAY4 DYNAMIC FRONTEND COMPONENTS

E-Commerce (HELLO NIKE)

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1. Introduction:

☐ Briefly describe the project:

"This assignment focuses on building dynamic frontend components for a marketplace using modern web development practices. The goal is to create responsive, reusable, and scalable components that fetch data dynamically and provide a seamless user experience."

2. Objectives:

- ❖ To create a user-friendly platform for browsing and purchasing shoes.
- ❖ To implement robust search and filtering mechanisms for better product discoverability.
- ❖ To enhance user engagement with wishlist and order confirmation features.
- ❖ To ensure secure and efficient checkout processes.
- ❖ To provide a responsive design that works seamlessly across all devices.

3. Required Components:

Product Listing Component:

Displays all products in a grid layout, ensuring users can view multiple items at a glance.

Product Detail Component:

Dynamically displays individual product details, including images, descriptions, and pricing.

· Search Bar:

Allows users to search for specific products and filter results for quicker navigation.

Category Component:

Filters products by categories, enabling users to refine their search results efficiently.

Wishlist Component:

Enables users to save favorite products for later purchases, improving the overall user experience.

Order Confirmation Component:

Confirms the user's order details post-checkout, including order number and summary.

Cart Component:

Tracks added products and displays the cart summary, including total price and item count.

Checkout Component:

A multi-step form guiding users through the purchasing process, from entering shipping details to completing payment.

4. Features and Functionalities:

1. Dynamic Frontend Components:

Wishlist, Order Confirmation, and Filter by Category functionalities.

Interactive and responsive UI with tailored components.

2. User Account Management:

Secure login and registration system.

Profile dashboard with order history and saved items.

3. Product Management:

Add, update, or remove products with ease through an admin panel.

4. Search and Filters:

Search bar with real-time suggestions.

Filters for categories, brands, and price range.

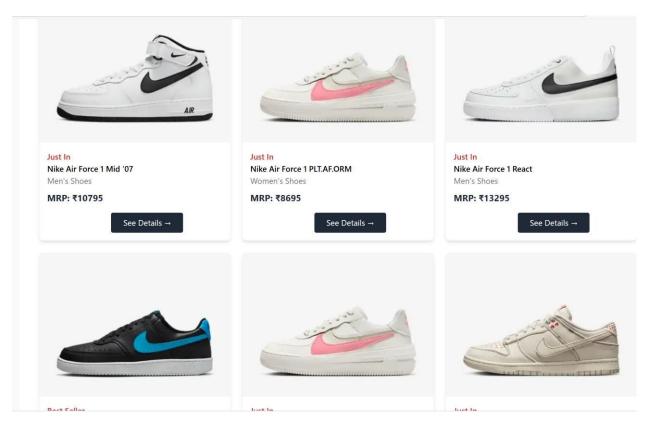
5. Cart and Checkout:

Intuitive cart management with editable quantities.

Smooth checkout with payment gateway integration.

6. Screenshots of Components:

Product Listing Page.



Product Detail Page.

```
interface Product {
    _id: string;
    productName: string;
    _type: "product";
    image?: {
        asset: {
            _ref: string;
            _type: "image";
        };
        price: number;
        description?: string;
        colors: string;
        status: string;
        category: string;
}
```

```
<div className="max-w-4xl mx-auto py-8 px-4 grid grid-cols-1 lg:grid-cols-2 gap-8">
 <div className="flex justify-start">
  {product.image && (
    <Image</pre>
     src={urlFor(product.image).url()}
     alt={product.productName}
     width={500}
     height={500}
     className="w-full h-auto object-contain"
 <div className="flex flex-col justify-start">
  <h1 className="text-4xl font-bold mt-3">{product.productName}</h1>
  {product.category}
  {product.description}
  PKR: \( \{ \) product.price \} 
  Color: {product.colors}
  <div className="mt-1 mb-2">
    <label className="text-lg  text-blue-900 font-medium">Quantity</label>
```

Product 1:



Nike Air Force 1 Mid '07

Men's Shoes

The Nike Air Force 1 Mid '07 delivers timeless style with premium leather and mid-cut design. Perfect for everyday wear, it provides exceptional comfort and durability. The iconic Air-Sole cushioning adds responsive support for long-lasting performance.

PKR: 10795

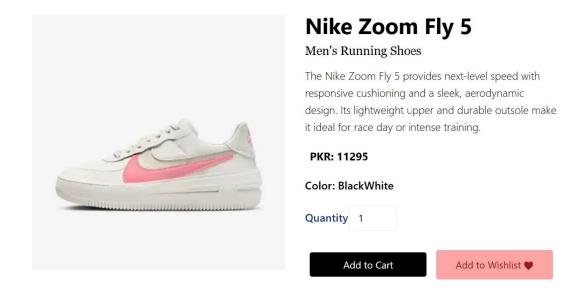
Color: White

Quantity 1

Add to Cart

Add to Wishlist 🖤

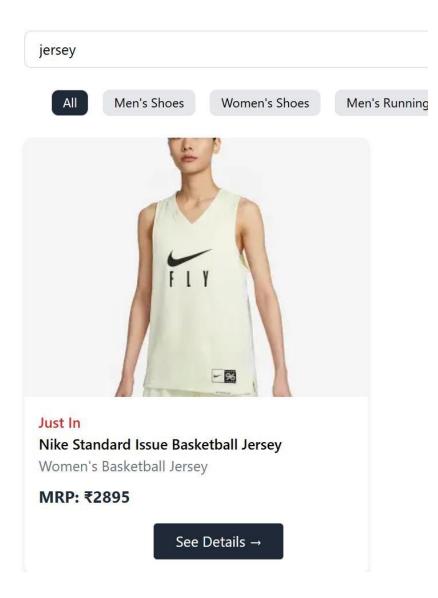
Product 2:



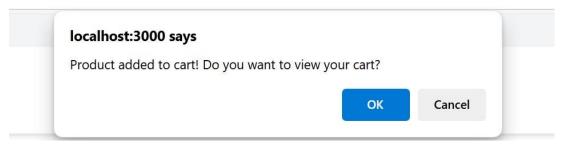
Search Bar in Action:

Search products by name

Search bar in product listing page.



Cart Functionality.

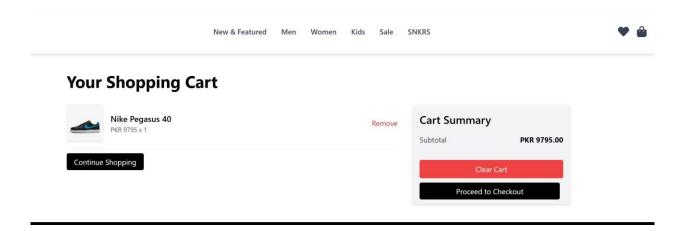


Show notification

```
const handleAddToCart = () => {
   if (!product) return;

addToCart({
   id: product._id,
    name: product.productName,
   price: product.price,
   quantity,
   image: product.image ? urlFor(product.image).url() : "",
});

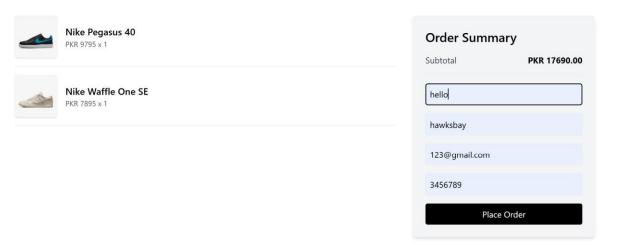
// Show notification with confirm dialog
const confirmNavigation = confirm("Product added to cart! Do you want to view your cart?");
if (confirmNavigation) {
   router.push("/cart");
}
```



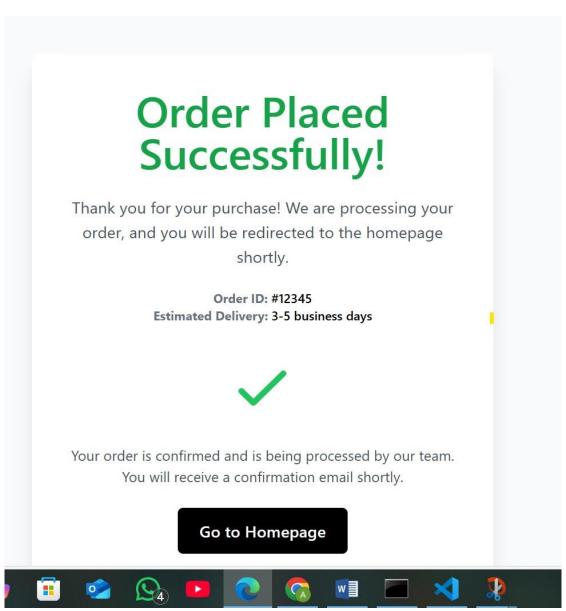
Checkout:

```
🦈 page.tsx U 🗙
src > app > checkout > ⇔ page.tsx > ♦ CheckoutPage
      export default function CheckoutPage() {
        const handleSubmit = (e: React.FormEvent) => {
          clearCart();
          router.push("/order-success");
        return (
          <div className="max-w-6xl mx-auto py-10 px-6 ml-28">
            <h1 className="text-4xl font-bold mb-8 ">Checkout</h1>
            {cart.length === 0 ? (
              Your cart is empty. Please add items to your cart before checking out. 
              <div className="grid grid-cols-1 lg:grid-cols-3 gap-8">
                <div className="lg:col-span-2 space-y-4">
                  {cart.map((item) => (
                    <div key={item.id} className="flex items-center justify-between border-b pb-4">
                      <div className="flex items-center">
                          src={item.image}
                         alt={item.name}
                         width={80}
                         height={80}
                         className="rounded shadow"
                        <div className="ml-4">
                         <h2 className="text-lg font-semibold">{item.name}</h2></h2>
                          PKR {item.price} x {item.quantity}
```

Checkout



Order Success:



Wishlist Functionality:

Your Wishlist



Continue Shopping

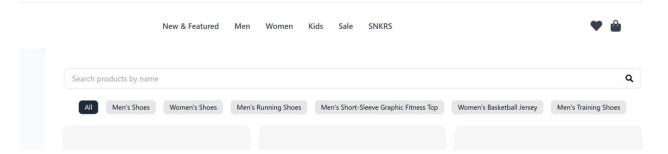
```
const handleAddToWishlist = () => {
   if (!product) return;

   addToWishlist({
      id: product._id,
      name: product.productName,
      price: product.price,
      image: product.image ? urlFor(product.image).url() : "",
   });

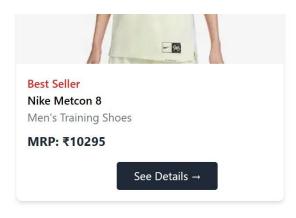
   router.push("/wishlist");
};

// Render Stars Based on Rating
const renderStars = (rating: number) => {
   const fullStars = Math.floor(rating);
   const halfStars = rating % 1 >= 0.5 ? 1 : 0;
   const emptyStars = 5 - fullStars - halfStars;
```

Filter By category:



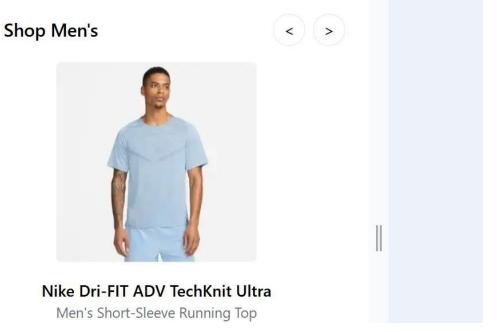
Pagination:

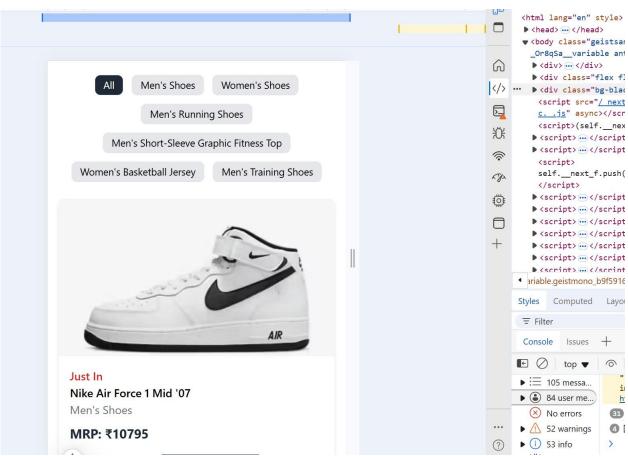


Previous 1 2 3 Next

```
/* Pagination */}
{totalPages > 1 && (
 <div className="mt-6 flex justify-center items-center gap-2">
     onClick={() => handlePageChange(currentPage - 1)}
     disabled={currentPage === 1}
     className="px-3 py-1 ■bg-gray-200 rounded-lg ■hover:bg-gray-300 ■disabled:bg-gray-100"
     Previous
    {Array.from({ length: totalPages }, (_, index) => index + 1).map((page) => (
        key={page}
       onClick={() => handlePageChange(page)}
       className={`px-3 py-1 rounded-lg ${
         currentPage === page
           ? "□bg-gray-800 ■text-white"
: "■bg-gray-200 ■hover:bg-gray-300"
        {page}
     onClick={() => handlePageChange(currentPage + 1)}
     disabled={currentPage === totalPages}
      className="px-3 py-1 ■ bg-gray-200 rounded-lg ■ hover:bg-gray-300 ■ disabled:bg-gray-100"
     Next
 Best Seller
 Nike Pegasus 40
                                           Nike Zoom Fly 5
                                                                                     Nike Waffle One SE
 Men's Running Shoes
                                           Men's Running Shoes
                                                                                     Women's Shoes
 MRP: ₹9795
                                           MRP: ₹11295
                                                                                     MRP: ₹7895
                See Details →
                                                           See Details →
                                                                                                     See Details →
```

Previous 1 2 3 Next





6. Challenges and Solutions:

Challenge 1: Handling API integration delays.

Solution: Used loading states to enhance user experience.

Challenge 2: Making components reusable.

Solution: Broke the design into smaller, modular pieces.

Challenge 3: Ensuring mobile responsiveness.

Solution: Applied Tailwind CSS media queries effectively.

7. Conclusion:

□ Summarize:

"Through this assignment, I gained practical experience in creating dynamic and reusable components for a marketplace. The integration of APIs and CMS with responsive designs provided a hands-on understanding of modern frontend development."