Dynamic Frontend Components for Fitness Marketplace

Introduction

This project focuses on developing a dynamic and responsive e-commerce marketplace using **Next.js, Tailwind CSS, and Sanity CMS**. The goal is to provide seamless navigation, efficient data handling, and an intuitive user experience through dynamic product listings, search functionality, and optimized cart management.

Project Highlights

✅ Tech Stack:

- **Frontend:** Next.js, Tailwind CSS
- **Backend:** Sanity CMS (Headless CMS)
- **State Management:** React Context API
- **UI Enhancements:** SweetAlert2 for interactive notifications

✅ Core Features:

- **Dynamic Product Listings** – Fetches product data from Sanity CMS using GROQ queries
- **Product Detail Pages** – Individual pages with pricing, descriptions, and cart options
- **Cart Management** – Add, update, and remove items with local Storage persistence
- **Checkout Process** – Validates cart details and smoothly transfers data
- **Notifications** – SweetAlert2-based alerts for key actions

Development Breakdown

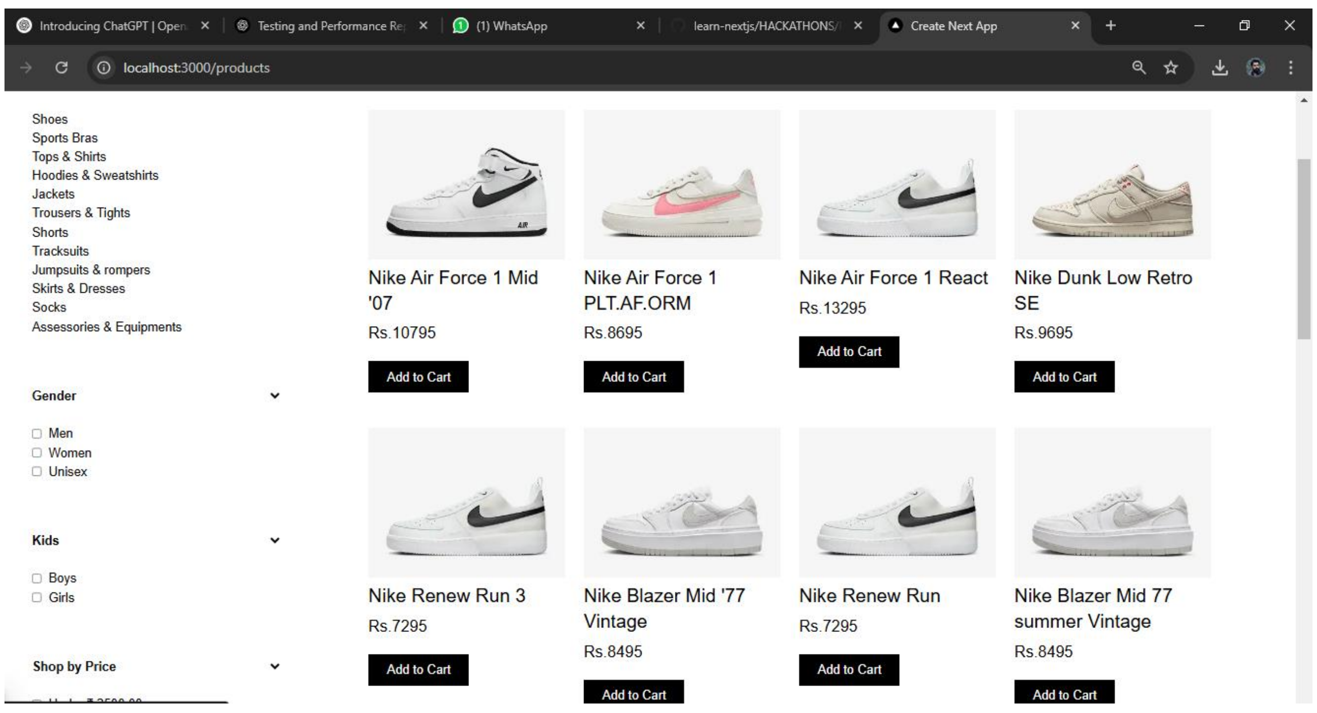
📌 1. Setup & Data Fetching

- Integrated **Sanity CMS** with Next.js and configured API endpoints.
- Used **GROQ queries** to retrieve and structure product data.
- Ensured secure handling of environment variables via .env.local.

📌 2. Component Development

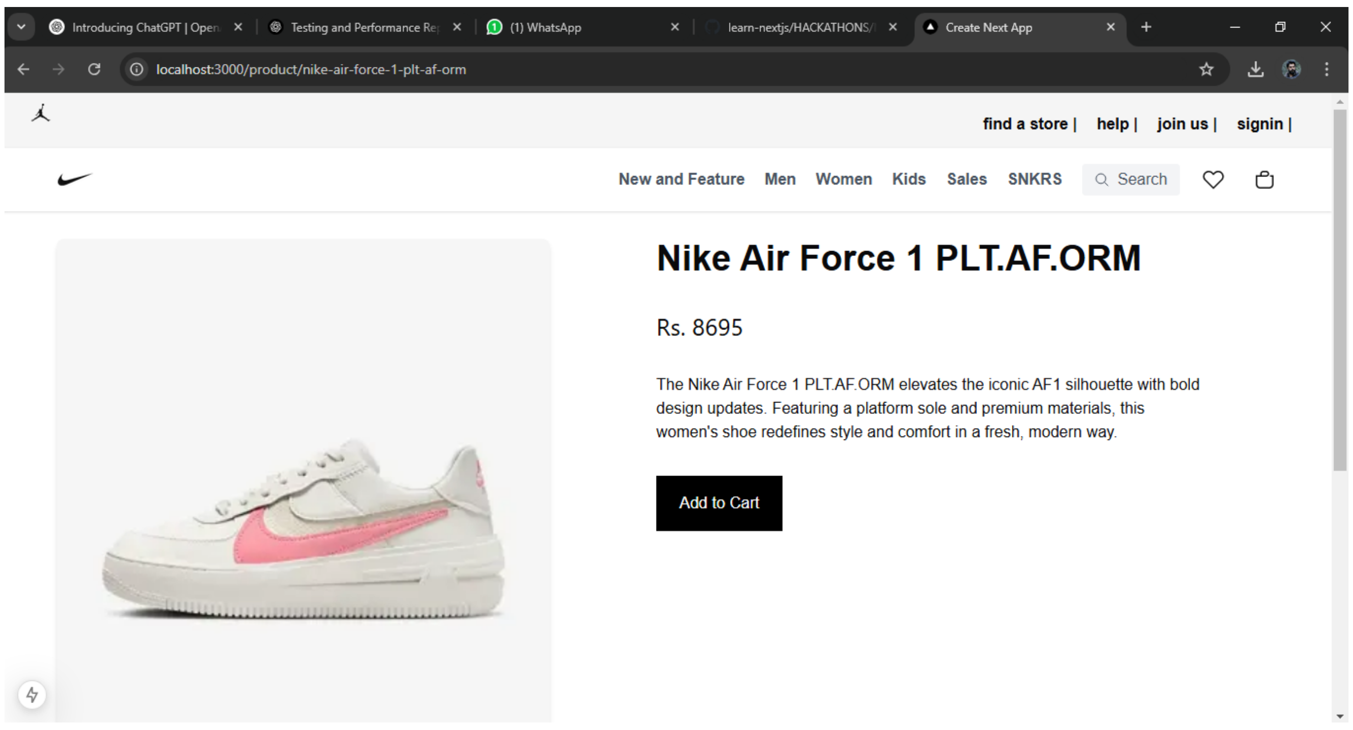
🔷 Product Listing Page

- Displays products dynamically using reusable **ProductCard** components.



🔷 Product Detail Page

- Uses **Next.js dynamic routing** for individual product pages.
- Displays **detailed product information** and supports cart functionality.


localhost:3000/product/nike-air-force-1-plt-af-orm
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Nike Air Force 1 PLT.AF.ORM

Rs. 8695

The Nike Air Force 1 PLT.AF.ORM elevates the iconic AF1 silhouette with bold design updates. Featuring a platform sole and premium materials, this women's shoe redefines style and comfort in a fresh, modern way.

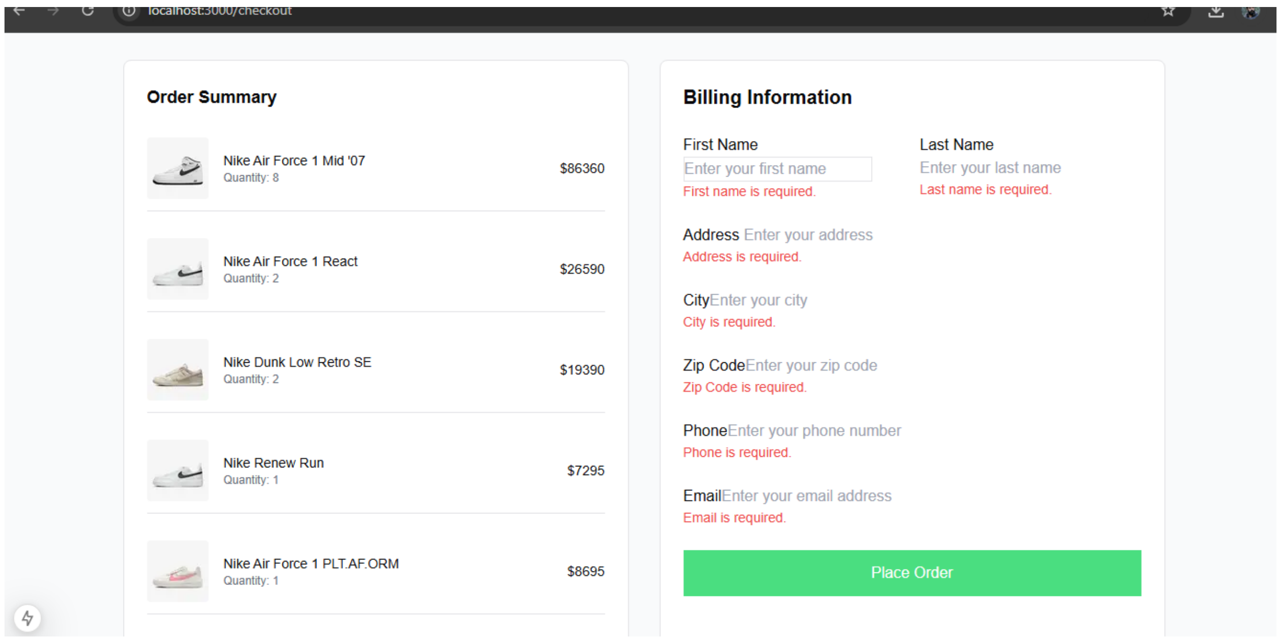
Add to Cart

🔷 Category Component

- Filters and updates products dynamically based on category selection.
- Ensures **real-time updates** without page reloads.

🔷 Cart & Checkout

- Manages cart state via **React Context API** and **localStorage**.
- Displays **interactive popups** for confirmation messages.



Order Summary

Nike Air Force 1 Mid '07 Quantity: 8	$86360
Nike Air Force 1 React Quantity: 2	$26590
Nike Dunk Low Retro SE Quantity: 2	$19390
Nike Renew Run Quantity: 1	$7295
Nike Air Force 1 PLT.AF.ORM Quantity: 1	$8695

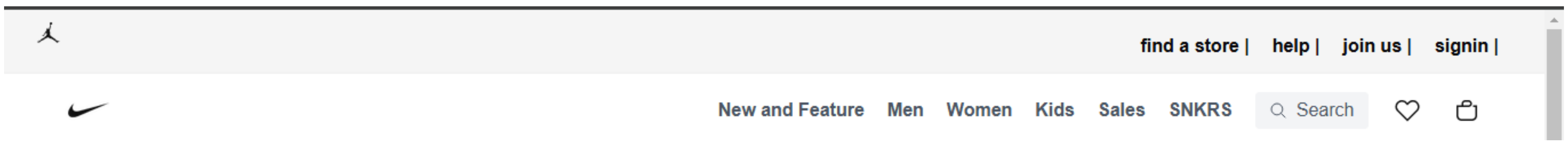
Billing Information

First Name Enter your first name
First name is required.
Last Name Enter your last name
Last name is required.
Address Enter your address
Address is required.
City Enter your city
City is required.
Zip Code Enter your zip code
Zip Code is required.
Phone Enter your phone number
Phone is required.
Email Enter your email address
Email is required.

Place Order

🔷 Header & Footer

- Navigation links, cart, and search bar in **Header**.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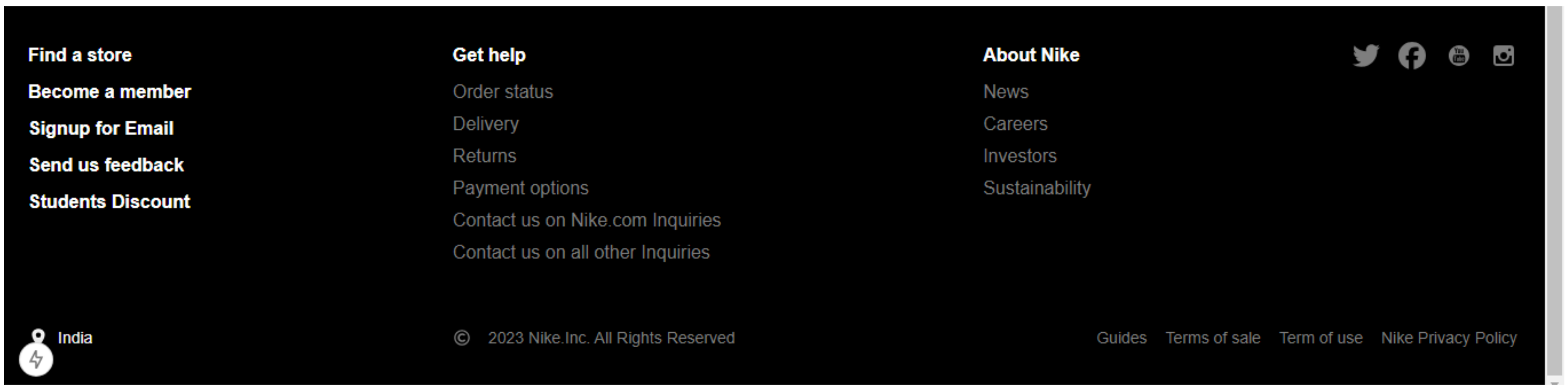
- Social media links and essential pages in **Footer**.



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Challenges & Solutions

Challenge	Solution
Cart Functionality – Managing cart state and syncing with local Storage	Implemented a modular cart.ts utility to handle add/update/remove operations efficiently.
Dynamic Routing Issues – Fetching correct product data based on URL ID	Used Next.js dynamic routing and GROQ queries, with a fallback UI for missing products.
Cart Data Transfer to Checkout – Persisting and validating user input	Leveraged local Storage and form validation functions for seamless checkout.

Best Practices Implemented

✓ **Modular Design** – Reusable components for scalability
✓ **Responsive UI** – Optimized for mobile, tablet, and desktop
✓ **Error Handling** – Fallback UI and interactive alerts for a smooth experience
✓ **Code Documentation** – Clear comments and structured logic for maintainability