

HACKATHON 3 DAY 2

PLANNING THE TECHNICAL FOUNDATION

Nike Marketplace

Overview:

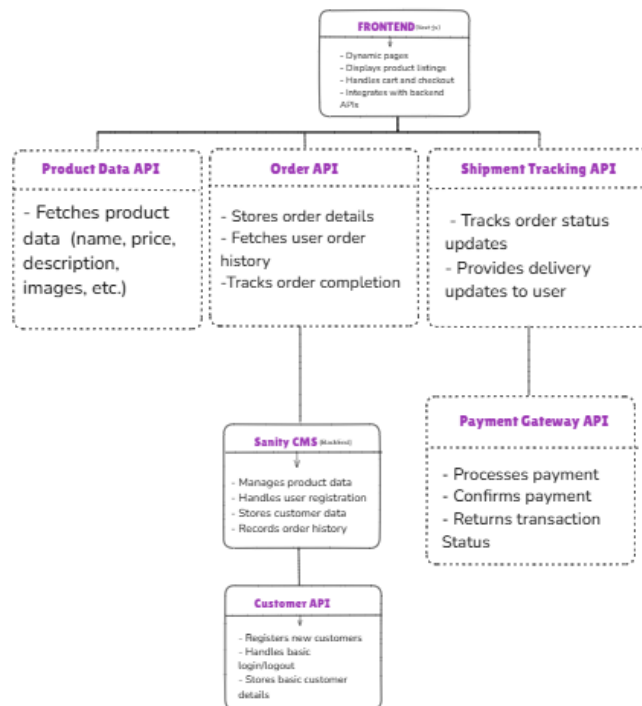
Nike Marketplace is a modern, responsive e-commerce platform designed for Nike products, providing a seamless shopping experience for sports enthusiasts and fashion-forward customers. The platform offers a wide range of Nike products, from shoes and activewear to accessories, catering to men, women, and kids. With a focus on simplicity, convenience, and high-quality products, Nike Marketplace is the one-stop destination for all Nike items.

Built with **Next.js** for frontend development and **Sanity CMS** as the backend database, Nike Marketplace ensures efficient management of product listings, customer data, and order processing. The platform offers:

- Real-time inventory updates
- Detailed product descriptions
- Easy navigation
- Smooth checkout and flexible payment options
- Mobile-first design with fast load times

Customers can track their orders with ease, experiencing a top-tier shopping journey.

Workflow



System Architecture Workflow Explanation

The workflow of Nike Marketplace :

1. **Frontend (Next.js):** Handles dynamic pages, product listings, cart, and checkout, and integrates with backend APIs.
2. **Product Data API:** Fetches detailed product information like name, price, description, and images to display on the website.
3. **Order API:** Stores user orders, retrieves order history, and tracks order completion for seamless purchase management.
4. **Shipment Tracking API:** Tracks order shipment progress and provides real-time delivery updates to users.
5. **Sanity CMS (Backend):** Manages product data, handles user registration, stores customer details, and records order history.
6. **Payment Gateway API:** Processes secure payments, confirms transactions, and sends payment status updates to users.

7. **Customer API:** Handles customer registration, login/logout, and stores basic customer profile details.
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Technologies Used

- **Next.js:** A powerful and fast frontend framework that ensures excellent performance, SEO optimization, and mobile-first design.
 - **Sanity CMS:** A flexible, headless content management system for managing product data, customer information, and orders.
 - **Tailwind CSS:** A utility-first CSS framework for building responsive and visually appealing designs with minimal effort.
 - **ShipEngine:** A third-party API for real-time shipment tracking, allowing customers to monitor their orders.
 - **Stripe:** A secure and reliable payment gateway for handling various payment methods, ensuring safe and smooth transactions.
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Sanity CMS as Backend

Sanity CMS is used to manage the data for the Nike Marketplace website. It helps organize and store product information, customer details, and orders in a flexible and scalable way.

Why Sanity CMS?

- **Customizable Schemas:** Easily define how product, customer, and order data should be structured.
- **Real-Time Updates:** Product and order data is updated instantly across the site.
- **Simple Management:** Provides an intuitive interface for content management.

Sanity ensures smooth data handling and seamless integration with the Next.js frontend.

Core Pages Users Will See

Home Page

Features sections like **Best Air**, **Gear Up**, and other highlighted collections. It serves as the landing page, presenting popular products and collections for easy browsing.

All Products Page

Displays all products with filtering options based on categories and prices. Designed to help customers explore various Nike products efficiently.

Product Details Page

Provides essential product details like name, price, stock availability, categories, tags, images, sizes, ratings, and discounts.

Cart Page

Shows items added to the cart with options to update quantities, remove products, or proceed to checkout.

Checkout Page

Collects billing details and offers flexible payment options to complete the order.

Login/Signup Page

Allows users to log in or create an account for better order management and personalized experiences.

Contact Page

Offers contact details and a form for customers to reach out with any inquiries or support requests.

Find a Store Page

Helps customers locate nearby Nike stores for in-person shopping experiences.

Third-Party APIs

Shipment Tracking API

- Allows customers to track their orders in real-time using their phone numbers.
- Ensures customers stay updated on their shipments.

Payment Gateway API (Stripe)

- Handles secure payment transactions, offering various methods like credit/debit cards.
- Ensures the checkout process is seamless and safe for users.

API Endpoints

Endpoint Name	Method	Description	Response Example	Status Code
/products	GET	Fetch all available products	[{ "id": "p101", "name": "Nike Air Max 30", "price": 150, "stock": 50, "category": "Men's Shoes", "image": "image_url" }]	200 (OK)
/products/{id}	GET	Fetch a single product by ID	{ "id": "p101", "name": "Nike Air Max 30", "price": 150, "stock": 50, "category": "Kids", "image": "image_url", "description": "High-quality Nike shoes." }	200 (OK)
/customers/{id}	GET	Get customer details by ID	{ "customerId": "c101", "name": "John Doe", "Phone": "1234567890", "address": "123 Main St", "orderHistory": ["o101", "o102"], "postalCode": "12345" }	200 (OK)
/orders	POST	Create a new order	{ "orderId": "o101", "status": "Success" }	201 (Created)
/orders/{id}	GET	Get details of an order by ID	{ "orderId": "o101", "customerInfo": { "c101", "productDetails": [{ "product": "p101", "quantity": 2 }], "status": "In Progress", "timestamp": "2025-01-16T10:00:00Z" }	200 (OK)
/orders/{id}	PUT	Update the status of an order	{ "orderId": "o101", "status": "Shipped" }	200 (OK)
/shipment	GET	Create a new shipment	{ "shipmentId": "s101", "status": "Success" }	201 (Created)
/shipment/{id}	GET	Get detailed shipment information	{ "shipmentId": "s101", "orderId": "o101", "status": "In Transit", "trackingNumber": "TN12345", "deliveryDate": "2025-01-17T12:00:00Z" }	200 (OK)
/customers	POST	Create a new customer	{ "CustomerId": "c101", "name": "John", "phone": "126537257838", "address": "1234 Nike St, City, Country", "zipcode": "12345", "orderHistory": "ORD45" }	201 (Created)