SHOP.CO

MARKETPLACE TECHNICAL FOUNDATION

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Technical Requirements – SHOP.CO

Frontend Requirements

- Home, On Sale, New Arrivals, Brands, and Cart pages.
- Mobile, tablet, and desktop compatibility using Tailwind CSS.
- Search bar, filters, and sorting options.

Sanity CMS as Backend

- Act as the primary backend to manage product data, customer details and order records.
- o Provides API for the frontend to fetch and update data.

Product Data API

 Provides endpoints to fetch product listings, details, and orders record.

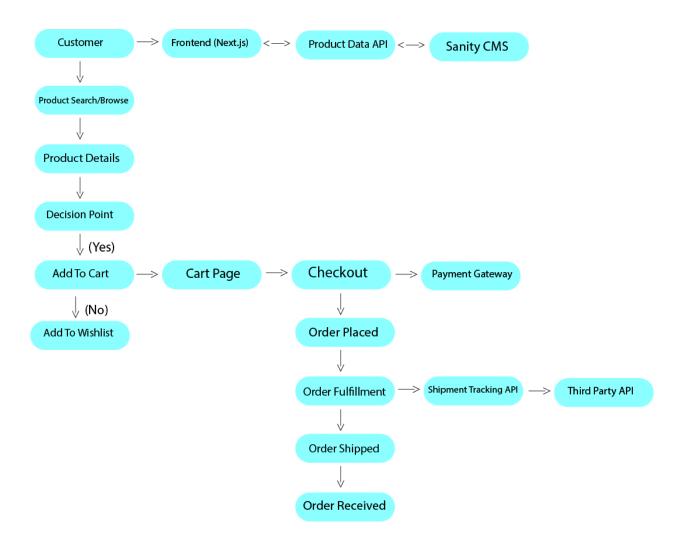
Third Party APIs

 Integrates services like shipment tracking and payment processing.

Payment Gateway

 Processes user payments securely and provides transactions confirmations.

Flowchart: Shop Co. E-commerce Sales Process



Flowchart Explanation

1. Customer Interaction:

- Entry Point: The customer begins by interacting with the Frontend (Next.js) of our shop.
- **Product Exploration:** The customer can **search** for specific products or **browse** through available categories.
- **Product Detail View:** The customer can view detailed information about a chosen product, including images, descriptions, and pricing.

2. Decision and Cart:

- **Decision Point:** The customer decides whether to:
 - o **Purchase:** Proceed to add the product to their **cart**.
 - Wish list: Save the product for later consideration.
- Add to Cart: The selected product is added to the customer's shopping cart.
- Cart Page: The customer can review the items in their cart, adjust quantities, and proceed to **checkout**.

3. Checkout and Payment:

- **Checkout:** The customer enters their shipping and billing information.
- **Payment Gateway:** The customer provides payment details, and the **Payment Gateway** processes the transaction securely.
- Order Placed: Upon successful payment, an order is created and stored in the Sanity CMS.

4. Order Fulfillment and Shipping:

- Order Fulfillment: The system processes the order, updates inventory, and prepares the shipment.
- **Shipment Tracking:** The system interacts with the **Third-Party API** (e.g., FedEx, UPS) to generate a shipping label and initiate shipment.
- Order Shipped: The order is shipped, and the system updates the order status in the Sanity CMS. The customer receives a shipping confirmation with tracking information via the frontend.

5. Order Delivery:

• Order Received: The customer receives the order.

Key Components:

- **Frontend** (Next.js): The customer-facing interface of the e-commerce store.
- **Product Data API:** Facilitates the exchange of product information between the frontend and the Sanity CMS.
- Sanity CMS: Stores product data, customer information, and order history.
- Payment Gateway: Processes online payments securely.
- Third-Party API: Provides shipment tracking services.

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API Endpoints

Endpoint	Method	Purpose	Response Example
/products	GET	Fetches all product details	{ "id": 1, "name": "Product A", "price": 100 }
/orders	POST	Creates a new order	{ "order_id": 123, "status":
/shipment	GET	Tracks order shipment status	{ "shipment_id": "SHIP123", "order_id": 789, "status": "In