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E-commerce Marketplace Website Day01

Day 1: Project Conceptualization

Overview

The **E-commerce Marketplace Website** is designed to provide an online platform for sellers and buyers. The marketplace enables small businesses and vendors to sell their products seamlessly while allowing customers to explore and purchase items conveniently.

Business Goals

1. **Establish Online Presence**
 - Build brand recognition in the e-commerce industry.
 - Provide a smooth shopping experience for customers.
 2. **Generate Revenue**
 - Implement commission-based earnings for sellers.
 - Introduce subscription-based plans for vendors.
 3. **Large Product Offering**
 - Ensure a variety of product categories.
 - Build trust and assurance for customers.
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Target Audience

- **General Customers** – Individuals looking for everyday products.
 - **Gen Z / Millennials** – Tech-savvy shoppers looking for trending products.
 - **Niche Shoppers** – Buyers looking for specific products within a category.
 - **Professionals with Busy Schedules** – Users who prefer quick, hassle-free shopping.
 - **Sellers & Vendors** – Businesses and individuals looking to showcase and sell their products online.
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Core Database Structure

User Schema

- **User ID**
- **Name**
- **Email**
- **Password**
- **Role** (Buyer/Seller/Admin)
- **Address**
- **Wishlist**

Product Schema

- **Product ID**
- **Title**
- **Description**
- **Price**
- **Category**
- **Images**
- **Stock**
- **Ratings**

Order Schema

- **Order ID**
- **User ID** (linked to buyer)
- **Products Purchased**
- **Total Price**
- **Order Status**
- **Payment Method**
- **Shipping Address**

Category Schema

- **Category ID**
- **Name**
- **Description**

Reviews Schema

- **Review ID**
- **Product ID** (linked to specific product)
- **User ID** (review author)

- **Rating**
 - **Comments**
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Relationships in the System

- **Buyers can purchase products.**
 - **Sellers can list products.**
 - **Each product is linked to a seller (listed).**
 - **A single product can be purchased by multiple buyers.**
 - **Orders are linked to buyers via placed orders.**
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Next Steps

- Define and implement the authentication system (Clerk integration).
 - Set up the backend with Sanity CMS for content management and live editing.
 - Develop frontend components using Next.js 15 and Tailwind CSS.
 - Establish helper functions to fetch product, category, and order data efficiently from Sanity.
 - Implement API integrations, including Stripe for payments.
 - Introduce real-time updates using Stripe CLI and webhooks for dynamic transaction status updates.
 - Plan for future feature expansions, including **live streaming** and enhanced UI components.
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Conclusion

The **E-commerce Marketplace Website** is structured to offer a seamless user experience while providing scalable solutions for vendors. With strong backend support, dynamic frontend components, and structured data management, the platform is well-positioned for expansion and optimization in the future.