# Day 2 of 7 day hackathon

* Structure of e.commerce web

E-commerce website ka complete structure define karte waqt, humein do main cheezein design karni hoti hain:

1. Frontend (UI/UX)
2. Backend (Sanity CMS ya koi aur service)
3. Frontend (UI/UX)

Frontend user ke liye dikhne wala part hota hai jo interactive hota hai. Isme pages aur components ka proper structure hona chahiye:

Pages

Home Page

Hero section (Featured products, sales, discounts, etc.).

Categories display.

Trending/New Arrivals products section.

Testimonials or reviews section.

Shop Page (Product Listing)

Filters (price range, categories, ratings).

Search bar for product search.

Product grid with images, names, and prices.

Product Detail Page

Detailed product view:

Images (carousel).

Price, description, specifications.

Add to cart button.

Reviews and ratings.

Cart Page

List of selected items.

Quantity update option.

Total price calculation.

Proceed to checkout button.

Checkout Page

Billing and shipping address form.

Payment options (e.g., Credit Card, PayPal).

Contact Us Page

Contact form (name, email, message).

Business information (email, phone, address).

About Us Page

Information about the company, mission, and vision.

User Account Pages

Login/Register page.

Profile page (user details, order history).

Admin Dashboard (if required)

Add/edit products.

View orders.

Manage users.

Components

Header (Logo, navigation menu, cart icon, search bar).

Footer (Links, social media icons, copyright info).

Product Card (used in shop and homepage).

Modal for login/register or quick product view.

Technologies for Frontend

Framework: React.js or Next.js (for SSR).

Styling:

CSS-in-JS libraries (e.g., Tailwind CSS, Styled Components).

UI Libraries (e.g., Material-UI, Ant Design).

1. Backend (Sanity CMS)

Backend data ko manage aur process karne ke liye hota hai. Sanity CMS ek content management service hai jo backend ki tarah kaam karega.

Structure of Sanity Backend

1. Schemas

Products:

Name, description, price, category, images, stock availability.

Categories:

Name, image, description.

Users:

Name, email, password (hashed), orders.

Orders:

Order ID, products, total price, user details, shipping address, status.

1. Content Management

Admin can add/edit/delete products, categories, etc.

Real-time updates to the frontend through Sanity’s GROQ queries.

1. API Integration

Use Sanity’s built-in API for fetching data (e.g., products, categories).

Use GROQ queries to fetch specific data.

Functionalities

1. Authentication System

Login, register (using JWT).

Google/Facebook login (OAuth).

1. Shopping Cart

Add/remove/update products.

Store cart locally (localStorage/sessionStorage).

1. Search and Filter

Search bar with auto-complete.

Filters by price, category, ratings, etc.

1. Order Management

Checkout process with address form and payment integration (Stripe or PayPal).

Track orders on the user dashboard.

1. Admin Panel

Manage products, categories, and orders.

Technologies for Backend

CMS: Sanity CMS.

Server: Node.js (if required for additional APIs).

Database: Sanity’s content lake (or MongoDB if custom backend is added).

Payment Gateway: Stripe, PayPal.

1. Deployment

Frontend Deployment: Vercel or Netlify.

Backend Deployment: Sanity CMS’s built-in hosting or custom server on platforms like Heroku/AWS.

Workflow Summary

1. Frontend: React/Next.js connects to Sanity CMS for data fetching.
2. Backend: Sanity CMS for content management (products, categories).
3. Database: Managed by Sanity.
4. API: GROQ queries to fetch/update data.
5. Authentication: JWT or OAuth-based system.
6. Payment: Stripe/PayPal integration for secure checkout.

Yeh structure e-commerce website ko scalable aur secure banata hai. If you need any specific implementation, let me know!

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