Day 4 - Building Dynamic Frontend Components

Objective:

- Design and develop dynamic frontend components for a marketplace using data from Sanity CMS or APIs.
- Focus on reusable, modular components and responsive design for scalable applications.

Key Learning Outcomes:

1. Create components to display data dynamically.
2. Build reusable and modular components.
3. Apply state management techniques.
4. Emphasize responsive design and UX/UI best practices.
5. Simulate professional workflows for real-world client projects.

Components to Build:

1. **Product Listing**: Displays product details in a grid layout.
2. **Product Detail**: Individual product pages with dynamic routing.
3. **Category**: Dynamically display categories and filter products.
4. **Search Bar**: Filters products by name or tags.
5. **Cart**: Displays added items, uses state management.
6. **Wishlist**: Allows saving products, using local storage or global state.
7. **Checkout Flow**: Multi-step form for checkout.
8. **User Profile**: Displays user details and order history.
9. **Reviews and Ratings**: Users can view/submit reviews.
10. **Pagination**: Manages large product lists into pages.
- **Filter Panel**: Advanced filtering options.
- **Related Products**: Suggests similar products.
- **Footer and Header**: Navigation and branding.
- **Notifications**: Real-time alerts.
- **Analytics Dashboard**: Display KPIs using charts/graphs.

- **Product Comparison**: Compare multiple products.
- **Multi-Language Support**: Language switcher for multilingual support.
- **Order Tracking**: Real-time updates on order status.
- **FAQ and Help Center**: Searchable FAQ and support options.
- **Subscription Management**: Manage product subscriptions.
- **Admin Dashboard**: Manage products, orders, and users.
- **Discount and Promotion**: Create/manage discounts and promotions.
- **Social Media Sharing**: Share products on social media.
- **Bulk Upload**: Upload large product data via CSV/Excel.
- **AI Recommendations**: Suggest products based on user preferences.
- **Gift Card and Voucher**: Purchase/redeem gift cards.
- **Customer Feedback**: Submit and review feedback.
- **Advanced Search**: Faceted search with multiple filters.

Best Practices:

1. **Reusable Components**: Modular design with flexible props.
2. **State Management**: Manage local/global state with React.
3. **Styling**: Use modern libraries like Tailwind CSS for responsiveness.
4. **Performance Optimization**: Lazy loading, pagination for large datasets.

Steps for Implementation:

1. **Setup**: Connect Next.js project to data source.
2. **Build Components**: Develop and integrate components.

Expected Output:

- Functional product listing and detail pages.
- Advanced filters, search functionality, pagination, and other dynamic features.
- Well-styled components with responsiveness.