PRESENTATION

DAY 2 PLANNING THE TECHNICAL FOUNDATION

UI/UX PROCESS

The user interacts with the website through a frontend built with Next.js and designed using Tailwind CSS. When they land on the homepage, they can search for products, view their details, and add them to their cart. If the user is not logged in and attempts to check out, a message reminds them to sign in or sign up. After logging in, the user completes the payment through the Stripe API, which securely processes the transaction. Upon successful payment, an order ID is generated, and the user is redirected to the order confirmation page.
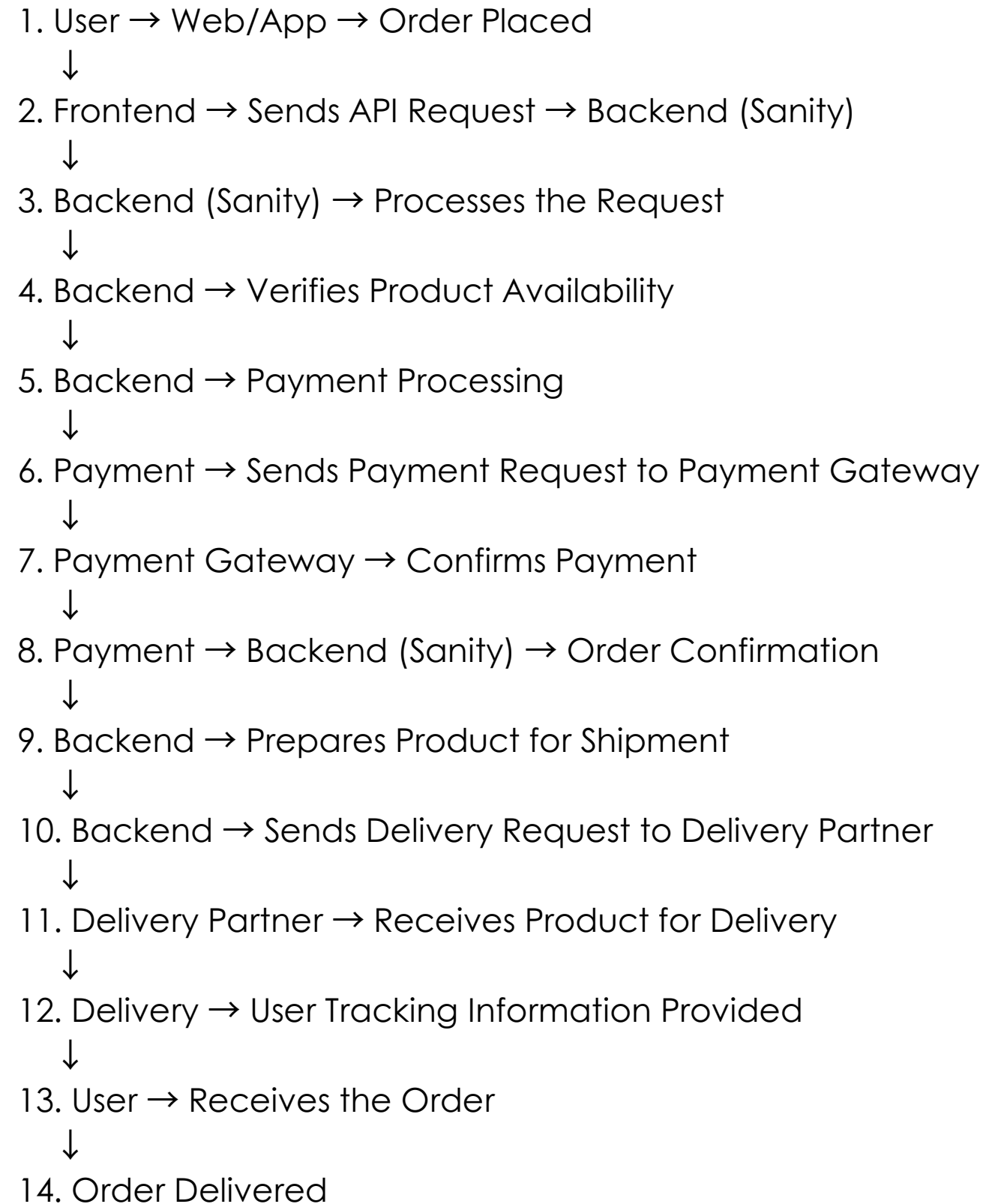
BACKEND PROCESS

Sanity serves as a headless CMS for storing and managing product information, customer data, and order records. Product details are retrieved via Sanity's API and displayed on the frontend using Next.js. When an order is placed, the backend (Sanity) saves the order information, including product IDs, customer details, and the shipping address. Sanity's API also handles shipment tracking. In the event of an API call failure, error-handling mechanisms ensure users are notified and provided with options to retry.

PAYMENT AND SHIPMENT TRACKING

Stripe handles the payment process, allowing users to enter their payment details securely for transaction processing. Once the payment is successful, the order details are saved in Sanity, and shipment information is shared with the user. Sanity also oversees order management and shipment tracking. If any issues occur during the payment or API interactions, users are alerted and provided with retry options. This streamlined workflow enables users to place orders, track shipments, and manage payments securely.

PAYMENT AND SHIPMENT TRACKING

1. User → Web/App → Order Placed
   ↓
2. Frontend → Sends API Request → Backend (Sanity)
   ↓
3. Backend (Sanity) → Processes the Request
   ↓
4. Backend → Verifies Product Availability
   ↓
5. Backend → Payment Processing
   ↓
6. Payment → Sends Payment Request to Payment Gateway
   ↓
7. Payment Gateway → Confirms Payment
   ↓
8. Payment → Backend (Sanity) → Order Confirmation
   ↓
9. Backend → Prepares Product for Shipment
   ↓
10. Backend → Sends Delivery Request to Delivery Partner
   ↓
11. Delivery Partner → Receives Product for Delivery
   ↓
12. Delivery → User Tracking Information Provided
   ↓
13. User → Receives the Order
   ↓
14. Order Delivered

TOOLS AND LIBRARIES

Frontend:

- Next.js: Framework for building the application.
- Tailwind CSS: For responsive design and styling.
- Redux: For managing global state (cart data, user data).
- Stripe: For handling payments securely.
- Clark/Auth: For authentication and session management.
- Figma: For UI/UX design and prototyping.

Backend:

- Sanity: Headless CMS for managing product, user, and order data.
- Node.js: Backend runtime for API and server-side functionality.

THANK YOU