Hackathon Day 02 Planning The Technical Foundation

Title:

Market Place Technical Foundation- [E-Commerce Website]

1. Frontend (Next.js) – User Exp

erience at the Core

- **Goal**: Provide a seamless and intuitive experience for the customer.

    - **User-Friendly Navigation**: Home page with easy-to-browse categories, featured products, and promotional offers.
    - **Product Discovery**: Users can quickly search, filter, and sort products based on their preferences (e.g., price, rating, category).
    - **Responsive Design**: The website adapts flawlessly across devices (desktop, tablet, mobile), ensuring customers enjoy a consistent experience anywhere.

2. Backend (Sanity CMS) – Data at Your Fingertips

- **Goal**: Centralized, structured data management that supports dynamic interactions.

    - **Product and Rental Data Management**: All product listings, rental durations, pricing, and availability are centrally stored and easy to manage.
    - **Real-Time Data Delivery**: Every change in the backend (e.g., product availability, price updates) is reflected instantly across the frontend, maintaining consistency.
    - **Customer Information Storage**: Securely stores customer profiles, past rental history, and preferences, ensuring a personalized shopping experience.

3. Third-Party APIs – Powerful Integrations for a Smooth Journey

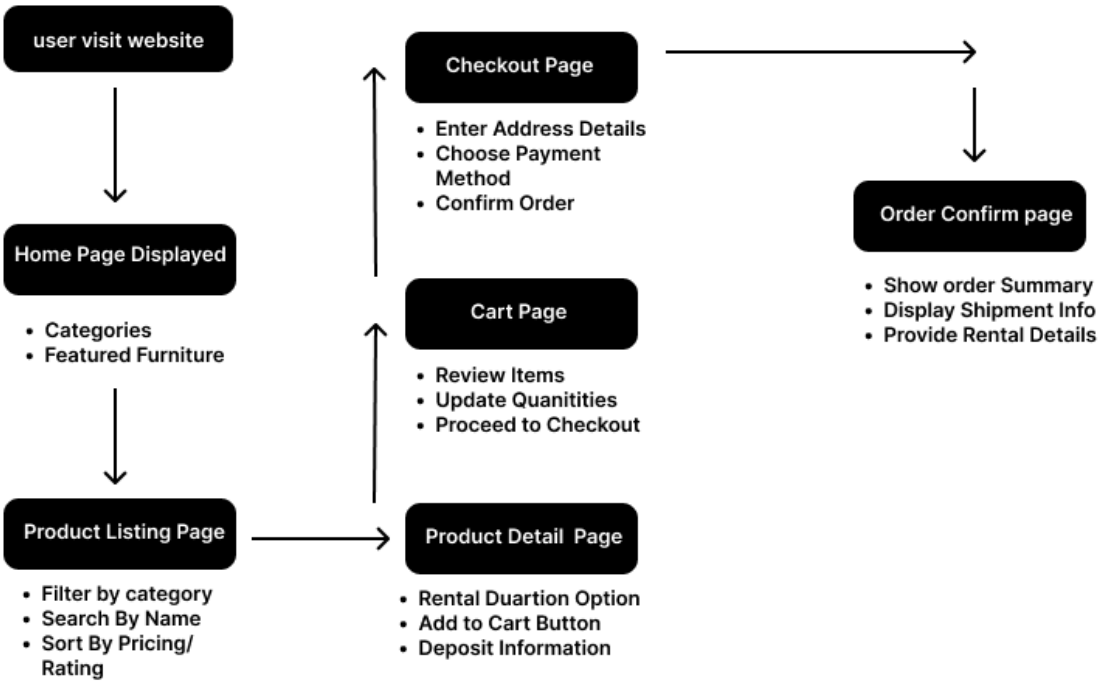
- **Goal**: Enhance functionality with trusted external services that handle critical aspects of the marketplace.

- **Payment Gateway**: Secure and seamless payment processing with multiple options (credit/debit card, online wallets). The API ensures compliance with the highest security standards, protecting both the customer and the business.
- **Shipment Tracking**: Provides customers with real-time delivery status updates, giving them confidence and peace of mind. Integration with third-party logistics services ensures that every piece of furniture arrives on time and in perfect condition.
- **Automated Communication**: When users place orders, payment, and shipment details are automatically communicated via notifications, keeping customers informed every step of the way.

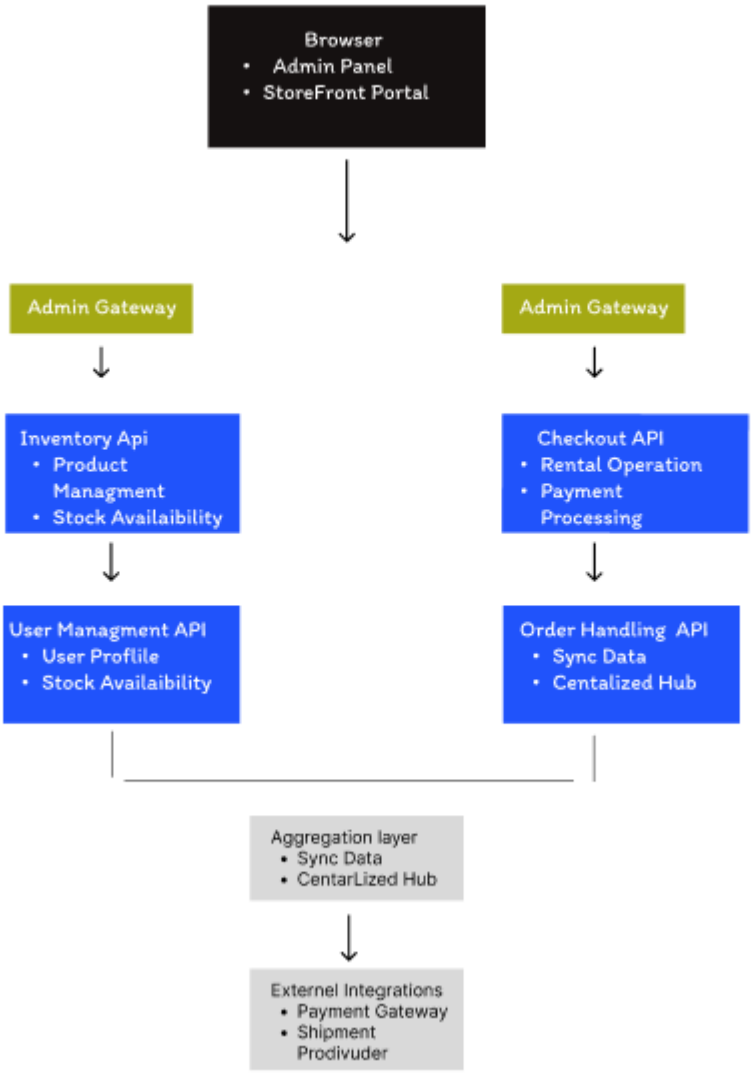
End-to-End Workflow:

- **From Browsing to Checkout**: The user experiences a highly intuitive journey from discovering furniture, adding items to their cart, and proceeding to a smooth, secure checkout process.
- **Backend Efficiency**: Every product detail, rental duration, and pricing update is automatically synced and displayed on the frontend in real time, ensuring consistency and speed.
- **Seamless Payments and Tracking**: Payment and shipment processes are seamlessly integrated, with real-time updates, ensuring transparency and customer trust.

Front End Requirements



System Architecture



Endpoint	Method	Description	Request Body	Response Example
/products	GET	Fetch product listings.	N/A	{ "id": 1, "name": "Sofa", "price": 100 }
/rental-duration	POST	Add rental details.	{ "productId": 456, "duration": "7 days", "deposit": 500 }	{ "confirmationId": 789, "status": "Success" }
/shipment	GET	Track delivery status.	N/A	{ "orderId": 123, "status": "In Transit" }

End Point Api