Technical Document for Furniture E-Commerce Website

1. Frontend Requirements

- **User Interface**:
  - Implement a user-friendly interface to enable smooth browsing of furniture products.
  - Utilize clear navigation menus, intuitive filters, and search functionality.
- **Responsive Design**:
  - Ensure full compatibility across all devices (mobile, tablet, desktop).
  - Use responsive design techniques to deliver an optimal user experience.
- **Essential Pages**:
  - Home Page:
    - Showcase featured products, categories, and promotions.
    - Include a search bar and quick access to major sections.
  - Product Listing Page:
    - Display furniture items with images, titles, prices, and filter/sort options.
  - Product Details Page:
    - Provide detailed descriptions, images, specifications, pricing, and a "Add to Cart" button.
  - Cart Page:
    - List selected items, quantities, and a total price calculation.
    - Include options to update quantities or remove items.
  - Checkout Page:
    - Gather user information for billing, shipping, and payment details.
    - Display a final summary of the order.
  - Order Confirmation Page:
    - Confirm successful placement of the order.
    - Display order details and a unique order ID.

2. Backend Requirements (Sanity CMS)

- **Role of Sanity CMS**:
  - Act as the database for managing marketplace data such as product information, categories, and user-generated content.
- **Key Backend Features**:
  - Product Information Management:
    - Store and retrieve details for each furniture product (title, description, price, dimensions, images).
  - Category Management:
    - Manage categories and subcategories for easy navigation.
  - Promotions and Discounts:
    - Manage promotional banners and apply discounts to specific items or categories.
  - Content Updates:

- Provide a dynamic backend interface for non-technical users to update website content seamlessly.

3. Integration with Third-Party APIs

- **Payment Gateway**:
  - Integrate with Stripe or PayPal to securely process transactions.
- **Shipping API**:
  - Use services like Shippo or EasyPost to calculate real-time shipping rates and track orders.
- **Email Notification Service**:
  - Employ tools like SendGrid or Mailgun to send order confirmations, shipment updates, and promotional emails.
- **Analytics API**:
  - Use Google Analytics to track user behavior and improve the customer journey.

Proposed Workflow:

1. **User Registration**:
- User visits the website (Frontend: Next.js).
- User creates an account using a registration form.
- User data is sent to Sanity CMS for storage.
- Backend validates user input and sends a confirmation email (via Third-Party Email API).
2. **Product Browsing**:
- User navigates to the Home Page or Product Listing Page (Frontend: Next.js).
- Frontend fetches product data from Sanity CMS via API requests.
- Products are displayed with filtering and sorting options.
3. **Order Placement**:
- User selects a product and proceeds to the Cart Page.
- Frontend sends order details to Sanity CMS for temporary storage.
- User proceeds to the Checkout Page.
- Payment details are processed using a Third-Party Payment Gateway API (e.g., Stripe/PayPal).
- Upon successful payment, order details are finalized and stored in Sanity CMS.
- Confirmation email is triggered via Third-Party Email API.
4. **Shipment Tracking**:
- Order shipping details are sent to a Third-Party Shipping API (e.g., Shippo/EasyPost).
- Shipping API generates a tracking number and shipping label.
- User receives shipment tracking details via email (Third-Party Email API).
- Frontend displays tracking information by fetching updates from the Shipping API.
5. **Analytics and Reporting**:
- User actions and order activities are tracked using Third-Party Analytics API (e.g., Google Analytics).
- Reports are generated to optimize user experience and business performance.