

Introduction

The project aims to develop an engaging and user-friendly website for a sofa business.

The website will serve as an online platform for customers to explore and purchase sofas, view product specifications, customize designs, and make orders.

It will enhance the brand's digital presence and streamline the sales process.

Project Overview

The website will consist of:

- Home Page: Showcasing featured products, promotions, and an introduction to the brand.
- Product Listings: A categorized display of all sofa products with filters for size, color, material, and price.
- Customization Section: Allow users to customize their sofas with specific dimensions, materials, and colors.
- Shopping Cart & Checkout: For customers to add products to the cart and proceed to secure payment gateway.
- Contact Us/Support: A section for customer queries and feedback.
- Admin Panel: For managing products, orders, and customer details.

Technology Stack

Frontend:

- HTML, CSS, JavaScript
- Framework: React.js or Angular (for dynamic UI)

Backend:

- Node.js or Django (for server-side processing)

Database:

- MongoDB or MySQL (to store product, user, and order data)

APIs:

- RESTful APIs for communication between frontend and backend

Payment Integration:

- Stripe or PayPal for handling secure payments

Hosting:

- AWS, Heroku, or Vercel for deploying the website

Data Flow

Customer Interaction:

- User visits the website and browses through products.
- User customizes a sofa or adds a product to the cart.
- User proceeds to checkout and completes the purchase.

Backend Processing:

- Receives user input (product selection, customization details, payment).
- Validates the data and processes the order.
- Stores order details in the database.

Admin Interaction:

- Admin can add/update products.
- Admin can manage orders and customer queries.

Key Features

- Responsive Design: Optimized for desktops, tablets, and smartphones.

- Customizable Sofas: Interactive tools for selecting dimensions, materials, and colors.
- Secure Checkout: Encrypted payment options.
- User Accounts: Allow users to create profiles to track orders and wishlist products.
- Search and Filters: Advanced filtering options for easy product navigation.
- Admin Dashboard: For efficient management of inventory, orders, and customers.

API Requirements

User Management APIs:

- POST /register: For user registration.
- POST /login: For user authentication.
- GET /user/{id}: Fetch user details.

Product Management APIs:

- GET /products: Fetch all products.
- GET /product/{id}: Fetch details of a specific product.
- POST /product: Add a new product (Admin only).
- PUT /product/{id}: Update product details (Admin only).

Order Management APIs:

- POST /order: Place a new order.
- GET /order/{id}: Fetch order details.
- PUT /order/{id}/status: Update order status (Admin only).

Payment API:

- POST /payment: Handle payment processing.

Customization APIs:

- POST /customize: Save sofa customization preferences.