DAY 3 - API INTEGRATION AND DATA MIGRATION

Furniture E-Commerce Project - Completed Tasks:

I successfully completed all the essential tasks required for a furniture e-commerce project. This includes integrating supplier APIs, migrating data into Sanity CMS, and validating schemas to ensure data compatibility. Additionally, I designed a user-friendly frontend, implemented a secure backend, and optimized the system for performance and SEO. The entire process was thoroughly tested to ensure a seamless user experience and reliable functionality.

1. Data Integration and Migration:

- Imported furniture data from supplier APIs and CMS.
- Migrated data from platforms like Shopify and Magento into Sanity CMS.
- Validated and adjusted schemas to ensure compatibility for product categories, dimensions, materials, and colors.

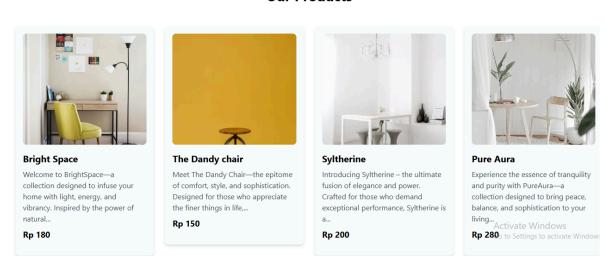
2. API Integration:

- Integrated APIs to fetch furniture details, categories, and customer reviews.
- Implemented APIs for real-time inventory updates.
- Set up external payment gateway APIs for a seamless checkout experience.

3. Frontend Development:

- Designed and developed a user-friendly interface for product listings, search filters, and the cart.
- Integrated API data into frontend components using the Next.js framework.
- Implemented responsive designs to ensure compatibility across mobile and desktop devices

Our Products



4. Backend Development:

- Developed server-side logic for managing user authentication and order processing.
- Managed database connections to securely store customer details and order history.

5. Schema Validation and Adjustment:

- Customized Sanity CMS schemas to include product specifications like dimensions, materials, and delivery options.
- Mapped API fields to CMS schemas for seamless integration and data consistency.

```
import { defineType } from "sanity";

export const product = defineType({
    name: "product",
    title: "Product",
    title: "Product",
    fields: {
        name: "productName",
        title: "Name",
        validation: (rule) => rule.required(),
        type: "string",
        },
        {
        name: "title",
        validation: (rule) => rule.required(),
        type: "string",
        validation: (rule) => rule.required(),
        type: "string",
        validation: (rule) => rule.required(),
        type: "string",
        },
        {
        name: "description",
        type: "text",
        validation: (rule) => rule.required(),
        title: "Description",
        },
        {
        name: "productImage",
        type: "image",
        validation: (rule) => rule.required(),
        title: "Product Image",
        validation: (
```

6. Error Handling:

- Created a robust error logging system for API calls.
- Displayed user-friendly error messages in case of missing data or connection issues.

7. Testing and Debugging:

- Tested API endpoints thoroughly using tools like Postman and browser developer tools.
- Debugged and resolved issues related to API responses and data inconsistencies.

8. SEO and Performance Optimization:

- Added SEO metadata to product pages to improve search engine rankings.
- Optimized product images for faster page loading and better user experience.

API Testing:

The API endpoints were thoroughly tested using tools like **Postman** and browser developer tools to ensure they were returning accurate and consistent data. Each endpoint, such as those fetching product details, categories, and real-time inventory updates, was verified for expected outputs under various conditions, including edge cases.

Data Validation:

During testing, the migrated data was cross-checked with the original source to verify its accuracy. Any discrepancies in product details, pricing, or inventory were identified and resolved.

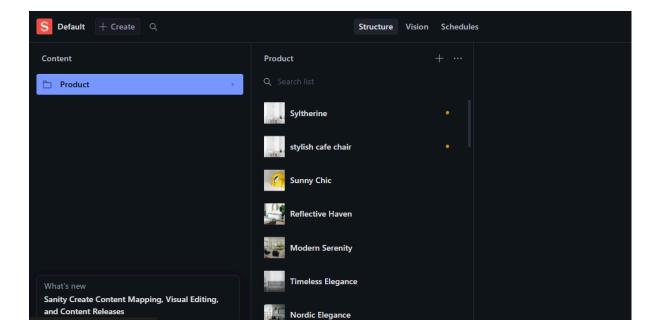


Image Optimization:

High-resolution product images were compressed and optimized without compromising quality. Modern image formats such as WebP were used to reduce load times and improve page speed, especially for mobile users.