Day 5 - Testing, Error Handling, and Backend Integration Refinement
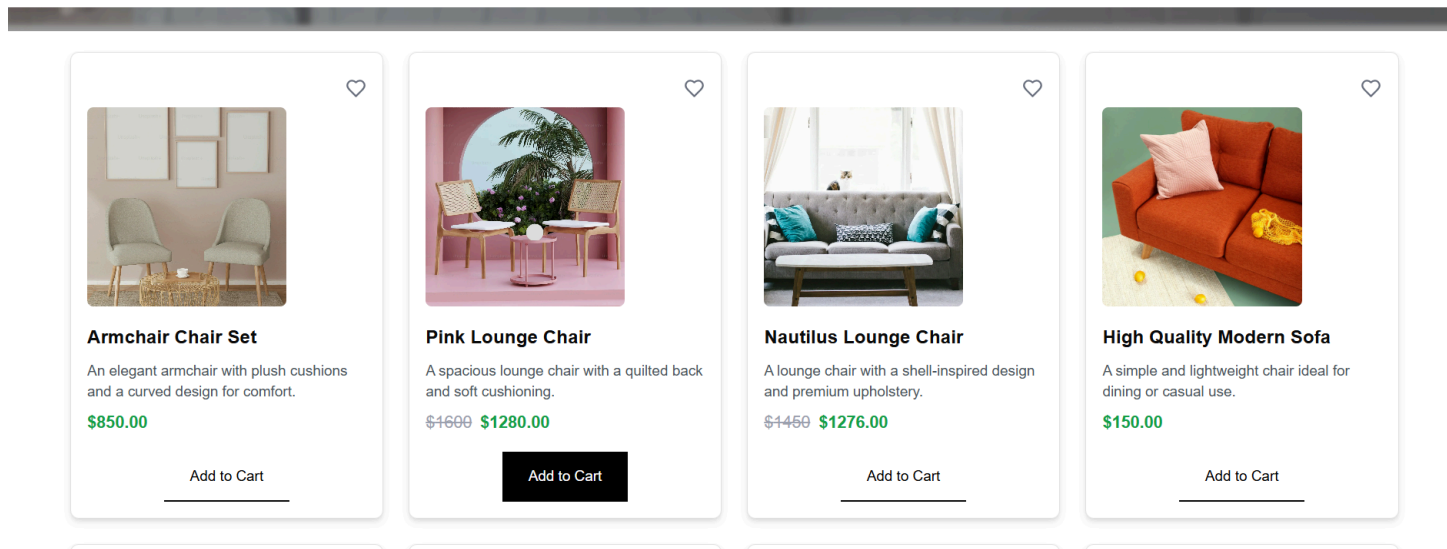
Introduction

The focus of Day 5 is to ensure the marketplace is ready for real-world deployment by implementing thorough testing, robust error handling, and backend integration refinement. This step ensures the application is functional, responsive, secure, and provides a seamless user experience.

Step 1: Functional Testing

Product Listing:

- Verified that products are displayed correctly with accurate details such as name, price, and category.
- Ensured responsiveness across different screen sizes.

- **Detail Page:**
  - Checked that clicking on a product navigates to its respective detail page.
  - Confirmed that all product information, including description, images, and stock status, is fetched and displayed correctly from Sanity CMS.
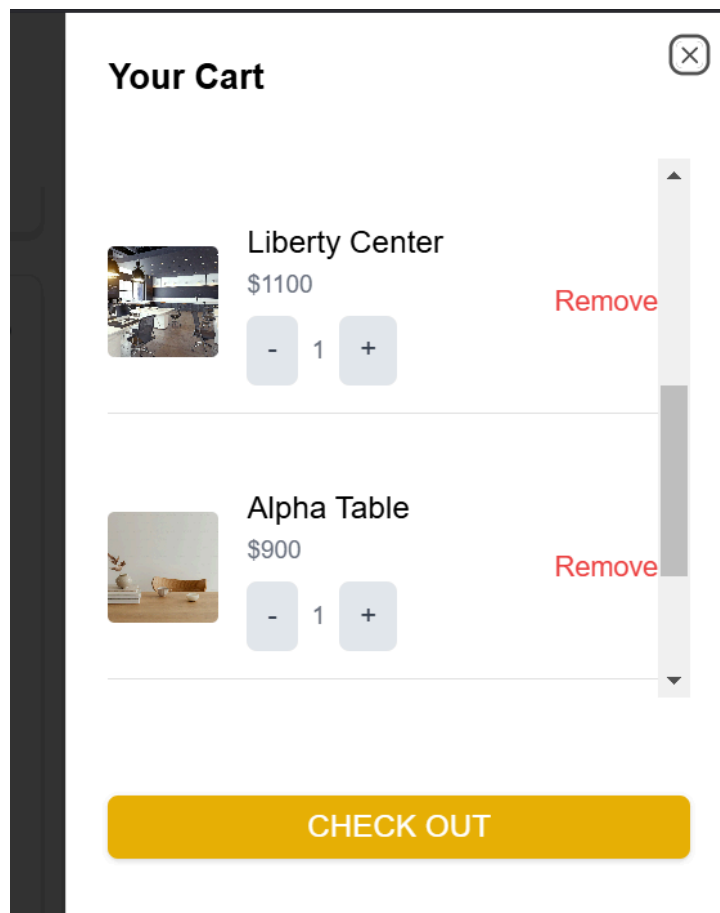
Cozy Sofa
Rs. 520
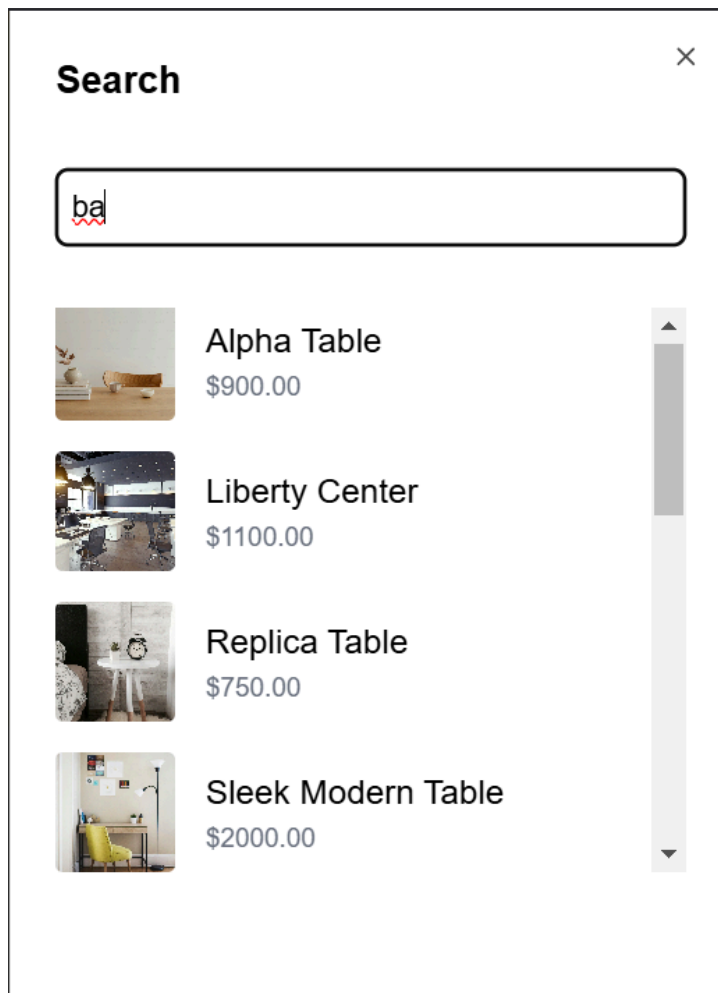Compact armchair with a cozy design for small spaces.

★ ★ ★ ★ ★

Add to Cart

Cart Operations:

- Tested adding, updating, and removing items from the cart.
- Verified that cart totals and quantities update dynamically.
- Ensured cart data persists correctly using Zustand for state management

Your Cart   ⊗

Liberty Center
$1100
                                          Remove
- 1 +

Alpha Table
$900
                                          Remove
- 1 +

CHECK OUT

Search Functionality:

- Implemented a search bar to filter products based on keywords.
- Tested real-time updates for search results and fallback UI for no matches found.

Search ✕

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	Alpha Table	$900.00
	Liberty Center	$1100.00
	Replica Table	$750.00
	Sleek Modern Table	$2000.00

Wishlist Functionality:

- Enabled users to add and remove products from their wishlist.
- Verified wishlist state management using Zustand and persistence in local storage.

Home   Shop   Blog   About   Contact

My Wishlist

 Pink Lounge Chair
A spacious lounge chair with a quilted back and soft cushioning.
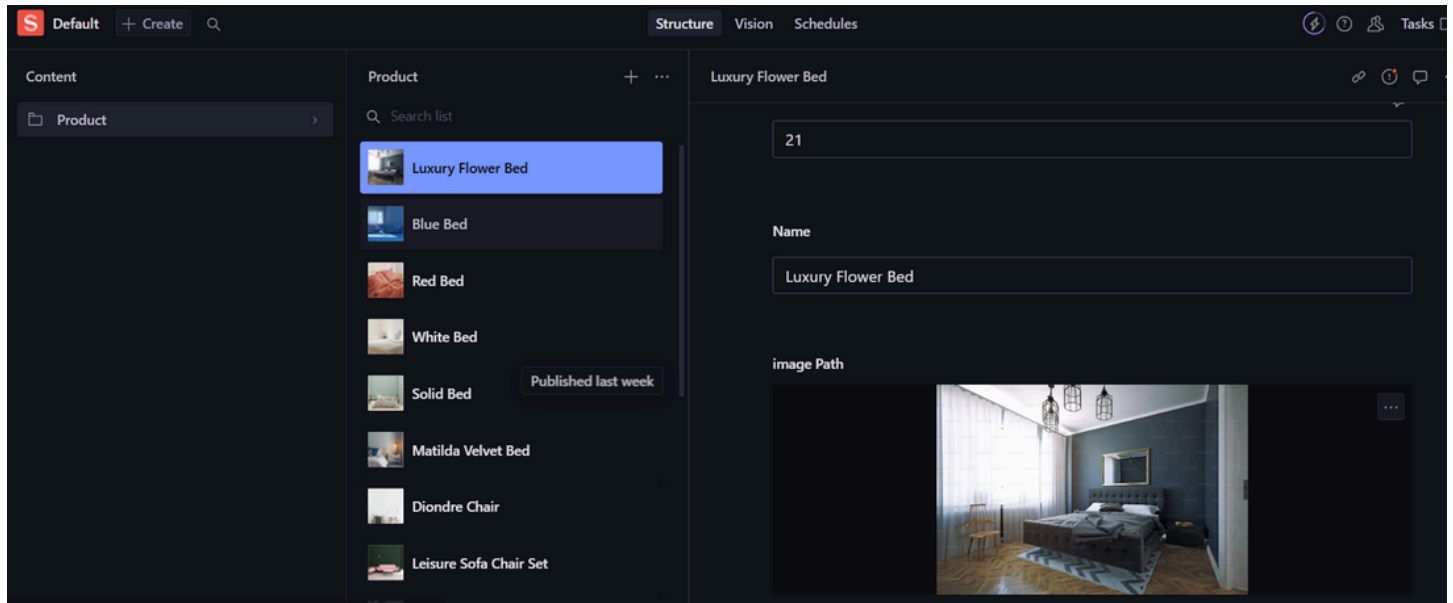Category: N/A

$1600

Add to Cart 🗑

 Nautilus Lounge Chair
A lounge chair with a shell-inspired design and premium upholstery.
Category: N/A

$1450

Add to Cart 🗑

- **Sanity Store:**

- Successfully integrated Sanity CMS to store and retrieve product data.
- Validated seamless API integration and real-time data updates on the frontend.
- Optimized queries to improve performance and reduce loading times.

Step 2: API Testing

- **Product Data Retrieval:**
  - **Verified API endpoints to ensure accurate retrieval of product details, categories, and featured items.**
  - **Used Postman to test endpoints for various scenarios, including valid requests, invalid parameters, and edge cases.**
- **Add to Cart:**
  - **Tested the API to add items to the cart and verified the response for successful and failed operations.**
  - **Checked that cart updates reflect correctly in the database and on the frontend.**
- **Search API:**
  - **Ensured search queries return relevant results by testing the API with different keywords and filters.**
  - **Validated that empty or invalid search terms provide appropriate fallback responses.**
- **Wishlist Management:**
  - **Tested APIs for adding and removing items from the wishlist.**
  - **Ensured data consistency and proper error handling for duplicate or non-existent items.**
- **Error Responses:**
  - **Verified that all APIs return proper error codes (e.g., 404 for not found, 500 for server errors).**
  - **Implemented fallback mechanisms for user-facing errors, such as "Unable to load data. Please try again later."**
- **Performance Validation:**
  - **Measured API response times and optimized queries for faster data retrieval.**

- Ensured the system handles a high number of API requests without significant performance degradation.

Day 5 Checklist

Checklist Item	Status
Functional Testing Completed	✅
API Testing Completed	✅
Error Handling Implemented	✅
Cross-Browser and Device Testing	✅
Security Testing Completed	✅
Documentation Updated	✅