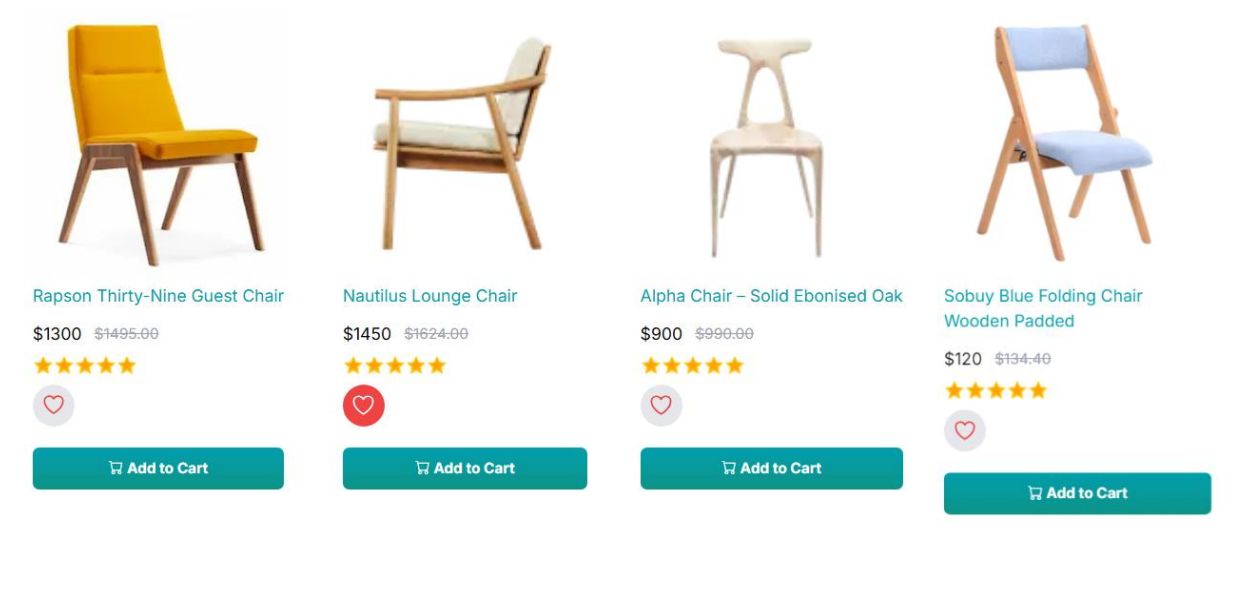# Day 4: Dynamic Frontend Components - Tech Store PK

Overview:

Explore dynamic frontend components to create a robust e-commerce experience. We'll cover product data rendering, search functionality, filters, a dynamic product list and detail pages, cart integration with Snipcart, wishlist management, user authentication, reviews, related products, toast notifications, and pagination using Shadcn UI.
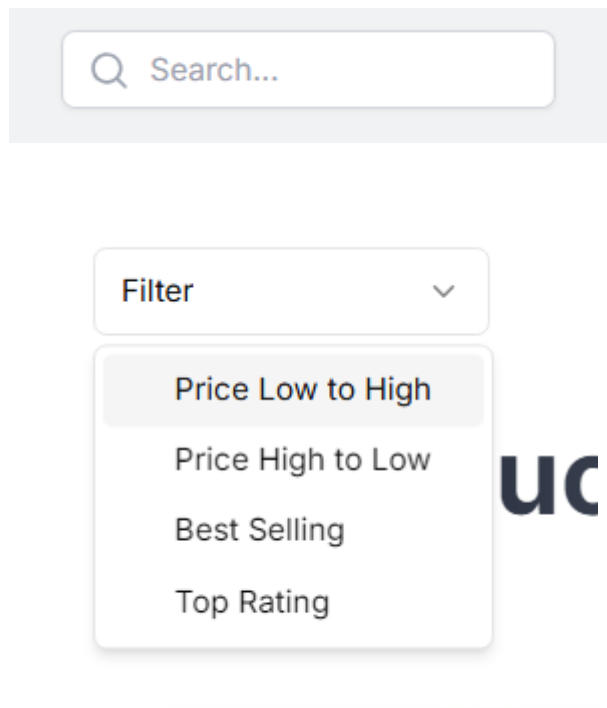

Step-by-Step Breakdown

1. Displaying Product Data Dynamically

- **Overview**: Fetch and render product data dynamically from Sanity.io.
- **Use Case**: Ensures up-to-date product display without manual updates.
- **Why Important**: Reduces management overhead and enhances user experience.

Rapson Thirty-Nine Guest Chair

$1300 ~~$1495.00~~

★★★★★

🛒 Add to Cart

Nautilus Lounge Chair

$1450 ~~$1624.00~~

★★★★★

🛒 Add to Cart

Alpha Chair – Solid Ebonised Oak

$900 ~~$990.00~~

★★★★★

🛒 Add to Cart

Sobuy Blue Folding Chair Wooden Padded

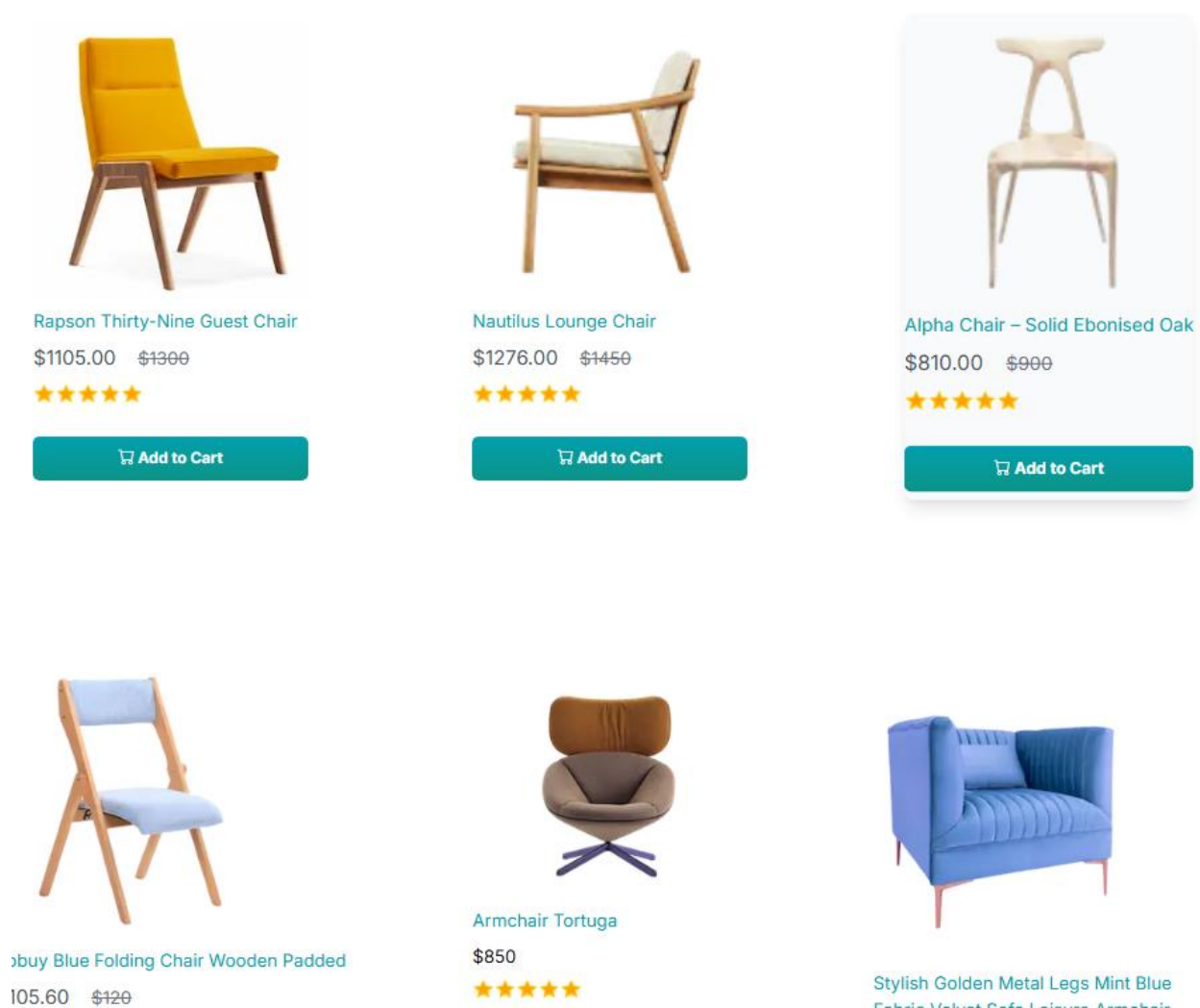$120 ~~$134.40~~

★★★★★

🛒 Add to Cart

2. Adding Search Bar and Filters

- **Overview**: Implements search and filtering to improve product discovery.
- **Use Case**: Helps users find products efficiently based on queries and categories.
- **Key Benefit**: Enhances navigation and user satisfaction.

🔍 Search...

Filter ⌄

Price Low to High

Price High to Low

Best Selling

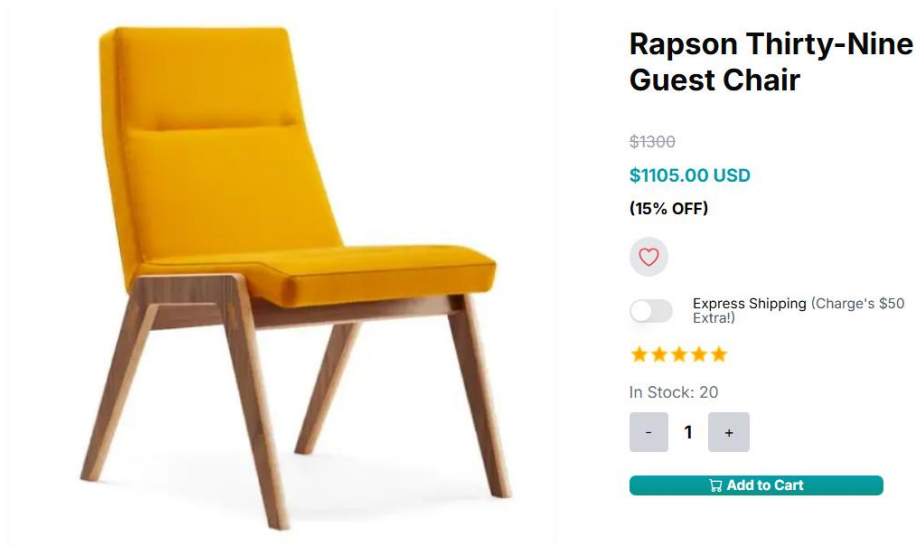Top Rating

3. Product List Page

- **Overview**: Displays a dynamic, paginated list of products.
- **Use Case**: Showcases products efficiently, even with large inventories.
- **Scalability**: Handles extensive catalogs while maintaining performance.

Rapson Thirty-Nine Guest Chair
$1105.00 $1300
★★★★★
🛒 Add to Cart

Nautilus Lounge Chair
$1276.00 $1450
★★★★★
🛒 Add to Cart

Alpha Chair – Solid Ebonised Oak
$810.00 $900
★★★★★
🛒 Add to Cart

buy Blue Folding Chair Wooden Padded
105.60 $120

Armchair Tortuga
$850
★★★★★

Stylish Golden Metal Legs Mint Blue

4. Product Detail Page

- **Overview**: Provides detailed information about a selected product.

- **Use Case**: Offers essential details like pricing, availability, and specifications.
- **Impact**: Increases buyer confidence and conversion rates.

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5. Functional Cart Using Snipcart

- **Overview**: Integrates Snipcart for seamless cart functionality.
- **Use Case**: Enables secure transactions and real-time cart updates.
- **User Benefit**: Simplifies the checkout process.

← Continue shopping   **Cart summary**   🛍 1

Rapson Thirty-Nine Guest Chair

A mid-century modern chair with clean lines and durable materials.

🗑

Quantity

⊖   1   ⊕ $1,105.00

Subtotal	$1,105.00
Total	**$1,105.00**

Checkout →

🔒 Secured by Snipcart

VISA   ●●

← Continue shopping

✓ **Billing**   Edit

👤 Muhammed Arsalan
m.arsalan4210@gmail.com

📍 1233, bufferzone
northnazimabad karachi,
karachi, sindh, PK, 12345

2 Payment

Credit card

This is a test payment form – no payment will be taken. You can use the test card *4242 4242 4242 4242* with CVV *123* and any valid date.

🔳 Card number	MM/YY	CVV

Place order →

Order summary   Edit

Rapson Thirty-Nine Guest Chair   x1 $1,105.00

Subtotal	$1,105.00
Total	**$1,105.00**

🔒 Secured by Snipcart

VISA   ●●

6. Wishlist Component (Local Storage)

- **Overview**: Allows users to save favorite products using browser storage.
- **Use Case**: Improves customer engagement and return visits.
- **Convenience**: Accessible without login, enhancing user experience.

Rapson Thirty-Nine Guest Chair

~~$1300~~

$1105.00 USD

(15% OFF)

♡

⬤ Express Shipping (Charge's $50 Extra!)

★★★★★

In Stock: 20

| − | **1** | + |

---

7. User Authentication with Auth.js

- **Overview**: Secures the app with modern authentication flows.
- **Use Case**: Protects user data and personalizes the experience.
- **Trust Factor**: Builds credibility and compliance with privacy regulations.

Login SignIn

8. Review and Rating System

- **Overview**: Collects and displays user reviews and ratings.
- **Use Case**: Builds trust and provides social proof.
- **Value Add**: Helps users make informed purchasing decisions.

★★★★★

9. Related Product Page

- **Overview**: Displays related products fetched randomly from Sanity.
- **Use Case**: Encourages cross-selling and increases average cart value.
- **Automation**: Leverages Sanity's query capabilities for dynamic updates.

In Stock: 20

- 1 +

🛒 Add to Cart

Recommended Products

Alpha Chair – Solid Ebonised Oak

A sturdy oak chair with a sleek and minimalist design.

$900

Discount: 10%

Sobuy Blue Folding Chair Wooden Padded

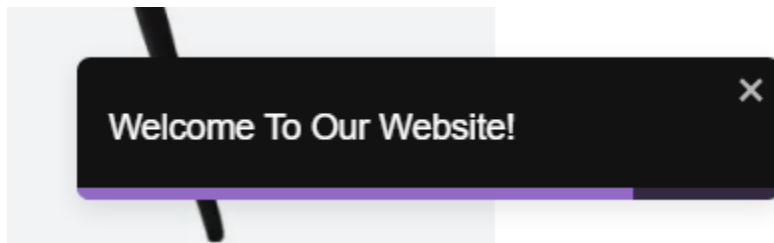A foldable wooden chair with a padded seat for extra comfort.

$120

Stylish Golden Metal Legs Mint Blue Fabric Velvet Sofa Leisure Armchair

A luxurious armchair with velvet fabric and golden metal legs.

$780

10. Welcome Notification (Toast Notifications)

- **Overview**: Greets users with welcome notifications on arrival. We use toast notifications to manage notifications easily
- **Use Case**: Delivers targeted messages or promotional alerts.
- **User Delight**: Creates a warm, engaging entry experience.

11. Pagination Using ShadCN

- **Overview**: Adds scalable pagination to improve product list navigation.
- **Use Case**: Enhances performance and user accessibility for large catalogs.
- **Efficiency**: Keeps load times fast and interfaces clean.

Conclusion

Day 4 was pivotal in transforming Tech Store PK into a feature-rich and dynamic e-commerce platform. By integrating core functionalities like dynamic product listings, user authentication, functional cart, and personalized features, we created a strong foundation for an engaging and user-friendly experience. These

components exemplify the power of modern tools and frameworks to deliver seamless functionality with scalability in mind.

Key Achievements

- **Dynamic Product Display**: Effortlessly fetching and displaying product data from Sanity.
- **Search and Filter Functionality**: Empowering users to find their desired products efficiently.
- **Wishlist and Cart Features**: Enhancing user convenience with Snipcart and local storage.
- **Authentication**: Secure login for personalized user experiences.
- **Interactive UI**: Toast notifications, related products, and pagination for improved user engagement.

Future Enhancements

1. **Admin Dashboard**: A centralized system for managing products, orders, and users.
2. **Payment Gateway Integration**: Secure payment options like Stripe or PayPal for seamless transactions.
3. **ShipEngine API**: Automated shipment tracking and logistics.
4. **User Profile Component**: Allowing users to manage their personal details, orders, and preferences.
5. **Analytics Dashboard**: Insights into sales, user activity, and product performance for strategic decision-making.
6. **Multilanguage Support**: Expanding the store's accessibility to diverse audiences.
7. **Discounts and Promotions**: Adding custom promotions and coupon codes to boost sales.
8. **Social Media Sharing**: Enabling users to share products on platforms like Instagram and Facebook.
9. **Gift Cards and Vouchers**: Attracting more customers with gifting options.

10. **Customer Feedback Module**: Collecting reviews and ratings to improve service quality and user trust.

By building on these enhancements, Tech Store PK can evolve into a comprehensive, global e-commerce solution, ensuring superior customer experiences while driving growth and innovation.