

Day 4

Dynamic Frontend Components

FurniNest

1. Introduction

This report explains how we built interactive and responsive frontend features for **FurniLand**. Our main focus was on:

- Displaying products dynamically
- Adding a search bar for easy navigation
- Creating a structured Product Listing Page
- Designing a detailed Product Page
- Developing a shopping cart system
- Implementing a Wishlist feature
- Integrating secure payments using Stripe
- Setting up user login and signup with Clerk

2. Tasks Overview

Step 1: Product Listing

- Fetched product data from an API.
- Displayed products in a user-friendly grid with names and prices.

Step 2: Product Detail Page

- Created a separate page for each product.
- Added an "Add to Cart" button to make purchasing easier.

Step 3: Wishlist Functionality

- Introduced an "Add to Wishlist" button so users can save favorite items.
- Stored wishlist data locally for a better user experience.
- Allowed users to view, add, and remove wishlist items.

Step 4: Search Mechanism

- Added a search bar to help users find products quickly.

Step 5: Shopping Cart Functionality

- Made it easy to add and remove products from the cart.
- Ensured cart updates happen instantly.

Step 6: Checkout Process

- Clicking checkout takes users to a secure payment page.
- Added fields for users to enter their order details.

Step 7: Stripe Payment Integration

- Integrated **Stripe** for secure payments.
- Set up a smooth checkout process.
- Ensured safe handling of payment details.
- Tested different payment options.

Step 8: User Authentication with Clerk

- Used **Clerk** to handle secure user login and signup.
- Enabled social login options like Google and GitHub.
- Managed user sessions for a seamless experience.

3. Self-Assessment Checklist

- **Frontend components developed: ✓**
- **Dynamic product display: ✓**
- **Product detail page: ✓**
- **Wishlist feature added: ✓**
- **Search functionality: ✓**
- **Cart system working: ✓**
- **Checkout process completed: ✓**
- **User login and signup added: ✓**
- **Design is mobile-friendly: ✓**
- **Code is well-structured and optimized: ✓**
- **Documentation provided: ✓**
- **All features tested and working: ✓**
- **No major bugs found: ✓**

4. Conclusion

This project successfully introduced key frontend features like **search, wishlist, dynamic product display, Stripe payments, and Clerk authentication**. These features improve the overall user experience, making the platform smooth and secure. In the future, we aim to add more enhancements like user roles and better authentication options.