DAY 4 - BUILDING DYNAMIC FRONTEND COMPONENTS FOR YOUR MARKETPLACE

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The focus of Day 4 was to enhance the functionality of our Next.js 13+ E-Commerce Marketplace by implementing crucial features such as fetching product data dynamically, category-based filtering, shopping cart functionality, checkout process, and real-time notifications using Toastify. These enhancements improve the user experience, ensure seamless navigation, and provide feedback during key interactions like adding products to the cart and completing a purchase.

To achieve this, we leveraged Next.js App Router for routing, Sanity CMS for content management, Context API for managing global state, and Toastify for real-time notifications. The integration of these technologies ensures that our application remains efficient, scalable, and user-friendly.

Fetching Product Data from Sanity CMS

One of the most fundamental aspects of an e-commerce website is dynamically fetching and displaying products. Since we are using Sanity CMS as our backend, we needed an efficient way to retrieve product data and display it in the frontend.

To accomplish this, we created an API route in Next.js that fetches product data from Sanity. This API route acts as a middle layer, ensuring that our frontend remains lightweight and interacts with the database only when necessary. The API returns a structured list of products, including details such as name, price, image, and description.

Category-Based Filtering for Products

To enhance the product discovery experience, we implemented a category-based filtering system. This allows users to refine their search and view only products belonging to a selected category. The challenge was to ensure that filtering was dynamic and did not require a full page reload.

To achieve this, we created an API route that fetches products based on the selected category. When a user clicks on a category, a request is sent to this API, retrieving only the relevant products. On the frontend, we dynamically update the displayed products without refreshing the page, improving the performance and interactivity of the marketplace.

Shopping Cart System Using Context API

A critical component of any e-commerce platform is the shopping cart. Users should be able to add and remove products seamlessly while keeping track of their selections. Instead of relying on local state within individual components, we used the Context API to manage the cart globally.

The Cart Context stores the cart items in a central state, making them accessible across different pages, including the cart and checkout pages. When a user adds a product to the cart, the context updates and reflects the changes immediately. This ensures that the cart remains synchronized across different components without needing to pass props manually.

A major challenge was ensuring that the cart state persisted even after a page refresh. To solve this, we stored the cart data in localStorage, automatically retrieving it when the user revisits the website. This creates a smooth user experience, preventing users from losing their selected items.

Checkout Process and Success/Error Notifications

The checkout process is a crucial step in the e-commerce flow, where users finalize their purchases. To make this process intuitive and user-friendly, we designed a simple checkout page that allows users to review their cart items and confirm their purchase.

A key aspect of this feature was integrating real-time notifications using Toastify. When a user attempts to check out, the system performs basic validations, such as checking whether the cart is empty. If the cart has no items, a Toastify error notification is triggered, informing the user to add products before proceeding**.**

If the checkout is successful, a Toastify success notification is displayed, providing immediate feedback. This enhances user satisfaction by creating a seamless interaction experience. Instead of relying on static alerts, Toastify ensures that users receive real-time visual feedback in a non-intrusive manner.

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View Details

Wood Chair
$100
Add to Cart
View Details

New
Amber Haven
$150
Add to Cart
View Details

Bright Space
$180
Add to Cart
View Details

The Lucky Lamp
$200
Add to Cart
View Details

Pure Aura
$280
Add to Cart
View Details

New
Zen Table
$250
Add to Cart
View Details

New
The Dandy chair
$150
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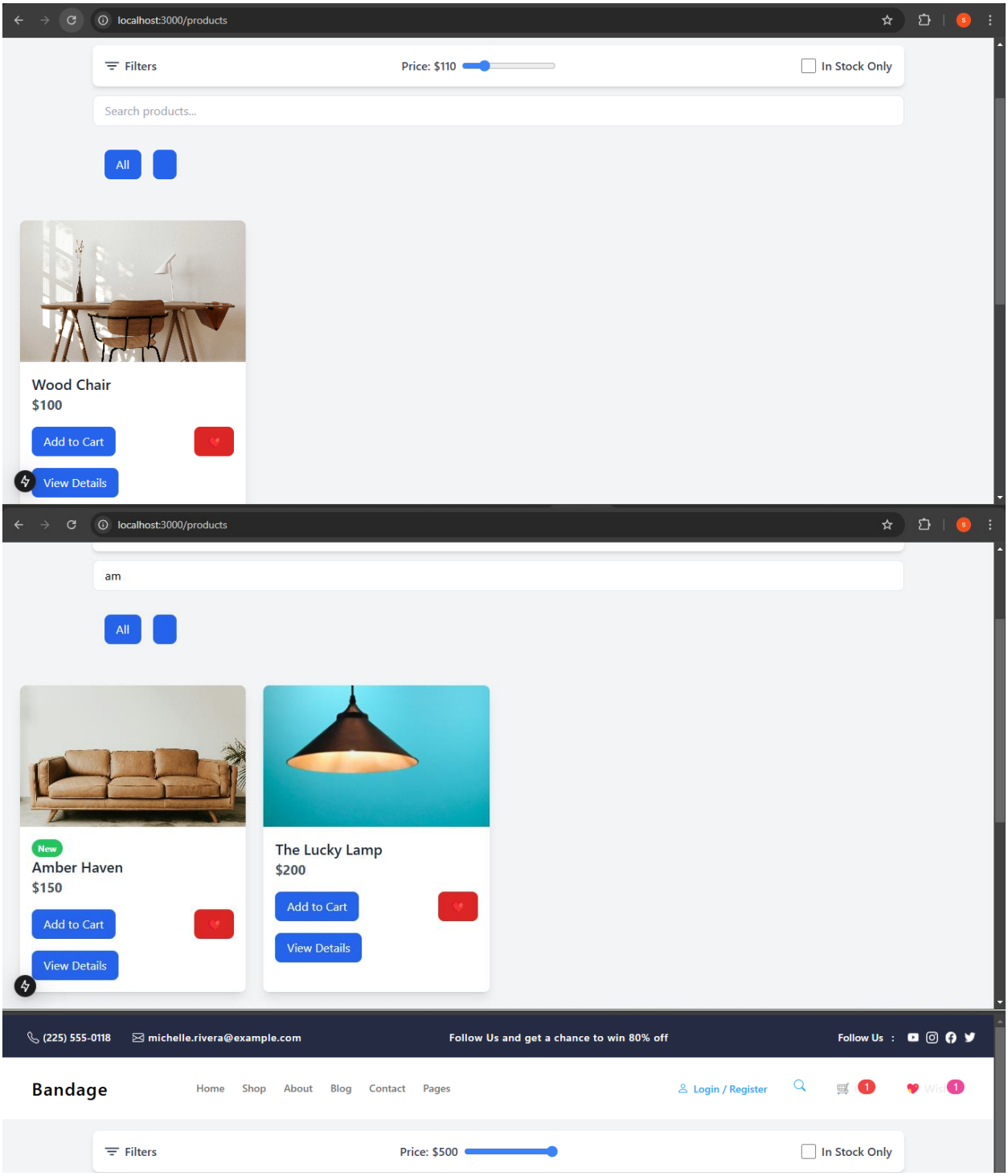
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Filters
Price: $110
In Stock Only
Search products...
All
Wood Chair
$100
Add to Cart
View Details
localhost:3000/products
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All
New
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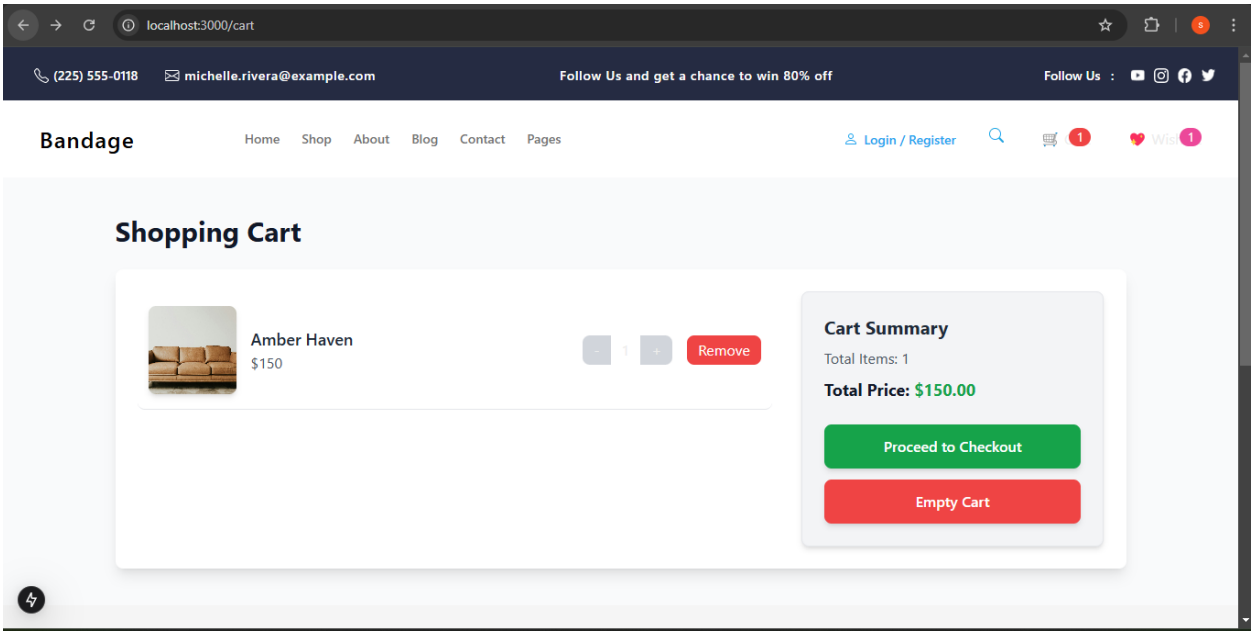
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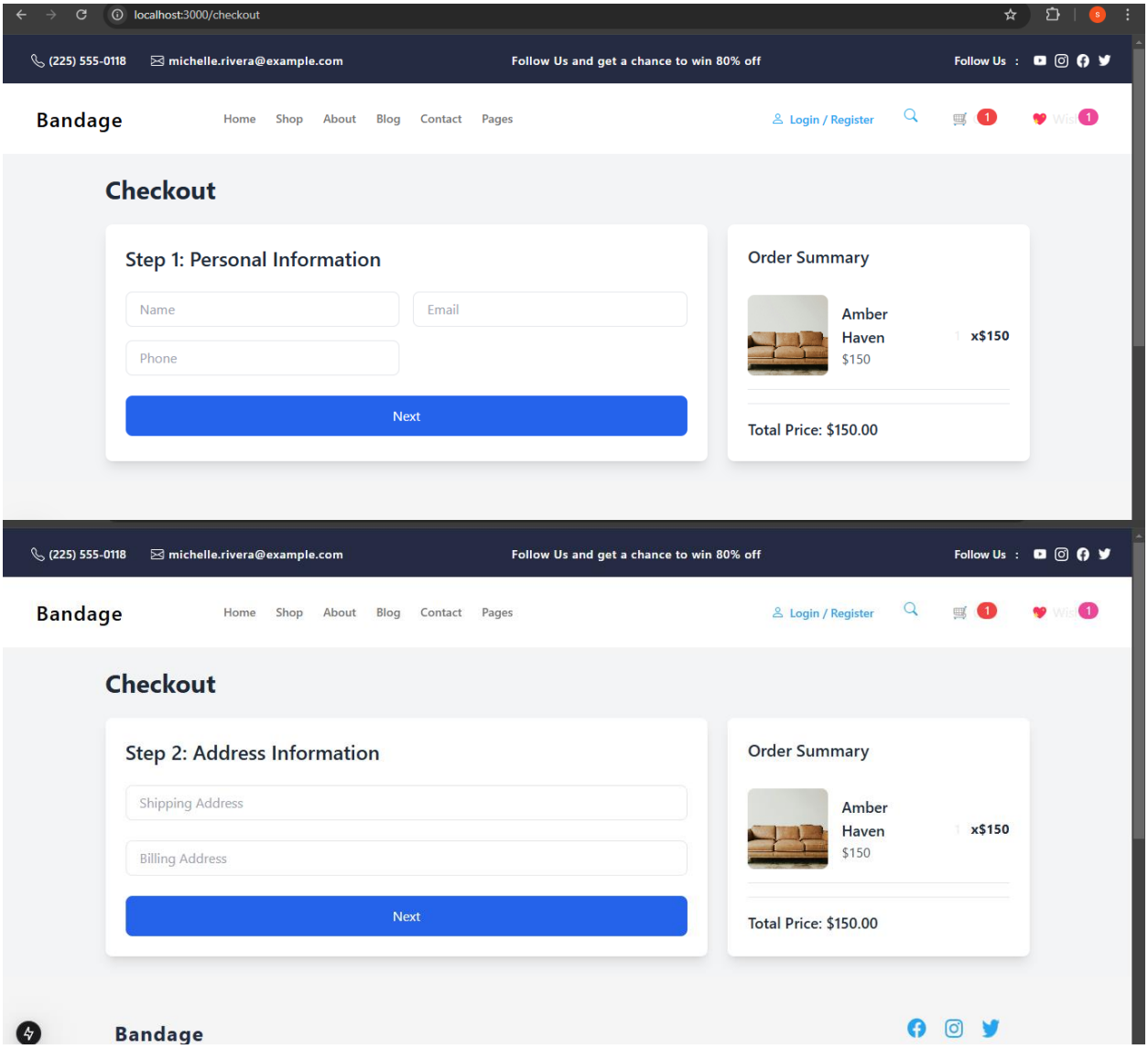
$150
Remove
Cart Summary
Total Items: 1
Total Price: $150.00
Proceed to Checkout
Empty Cart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Total Price: $150.00
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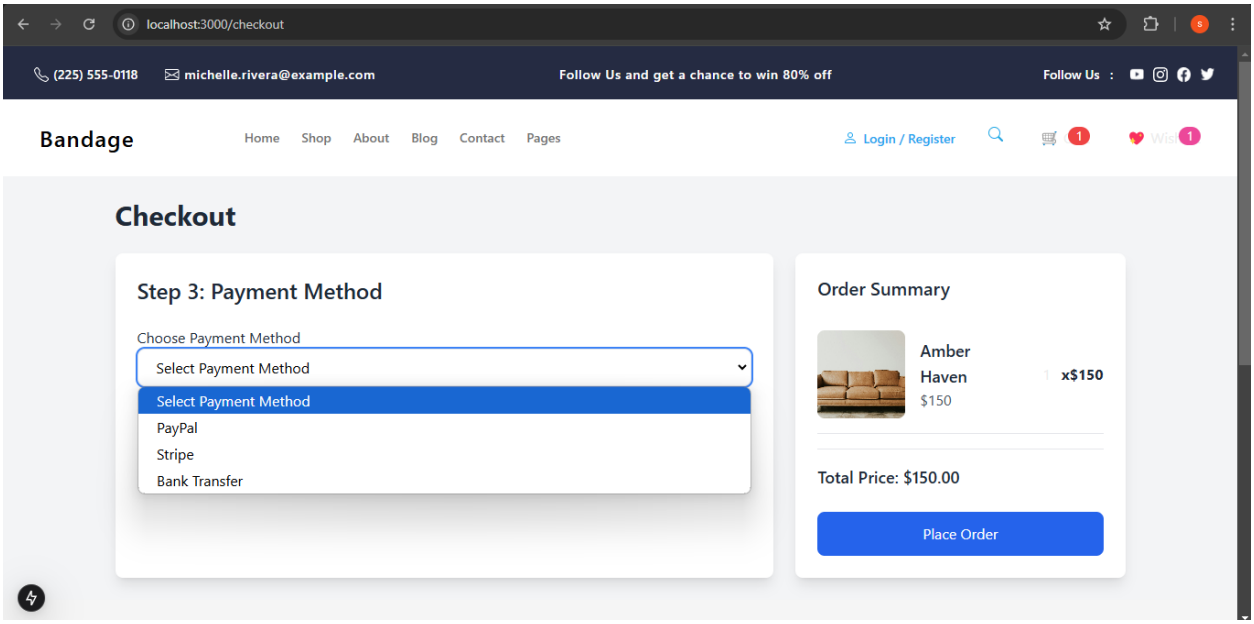
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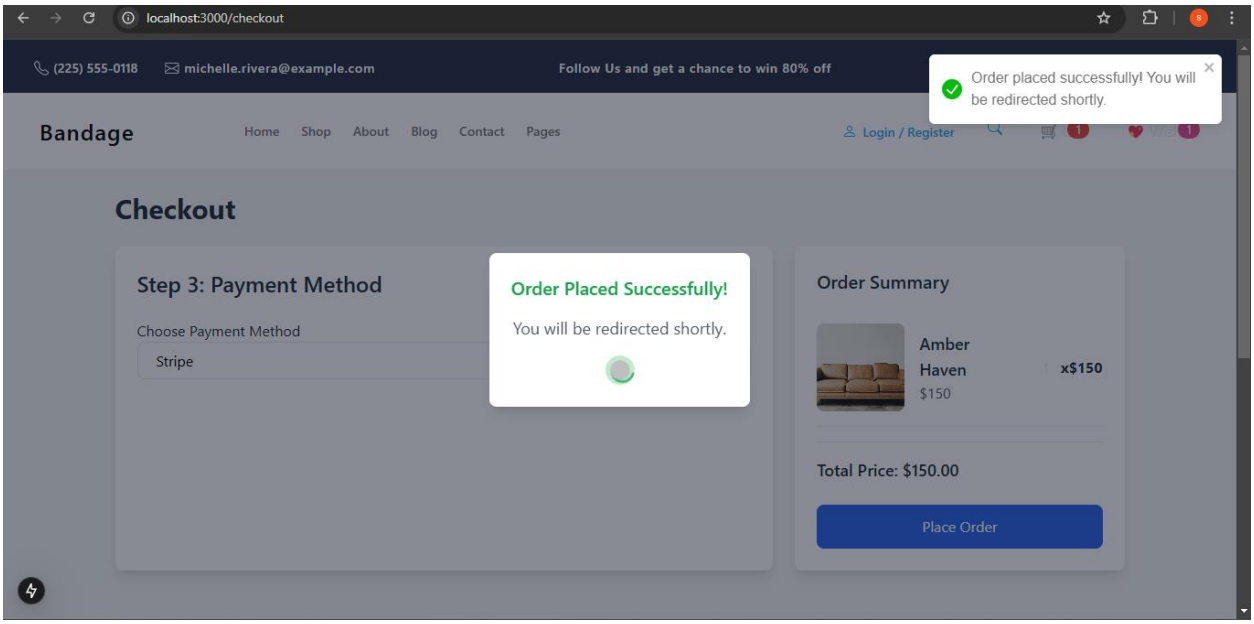
Step 3: Payment Method
Choose Payment Method
Select Payment Method
Select Payment Method
PayPal
Stripe
Bank Transfer
Order Summary
Amber Haven
$150
x$150
Total Price: $150.00
Place Order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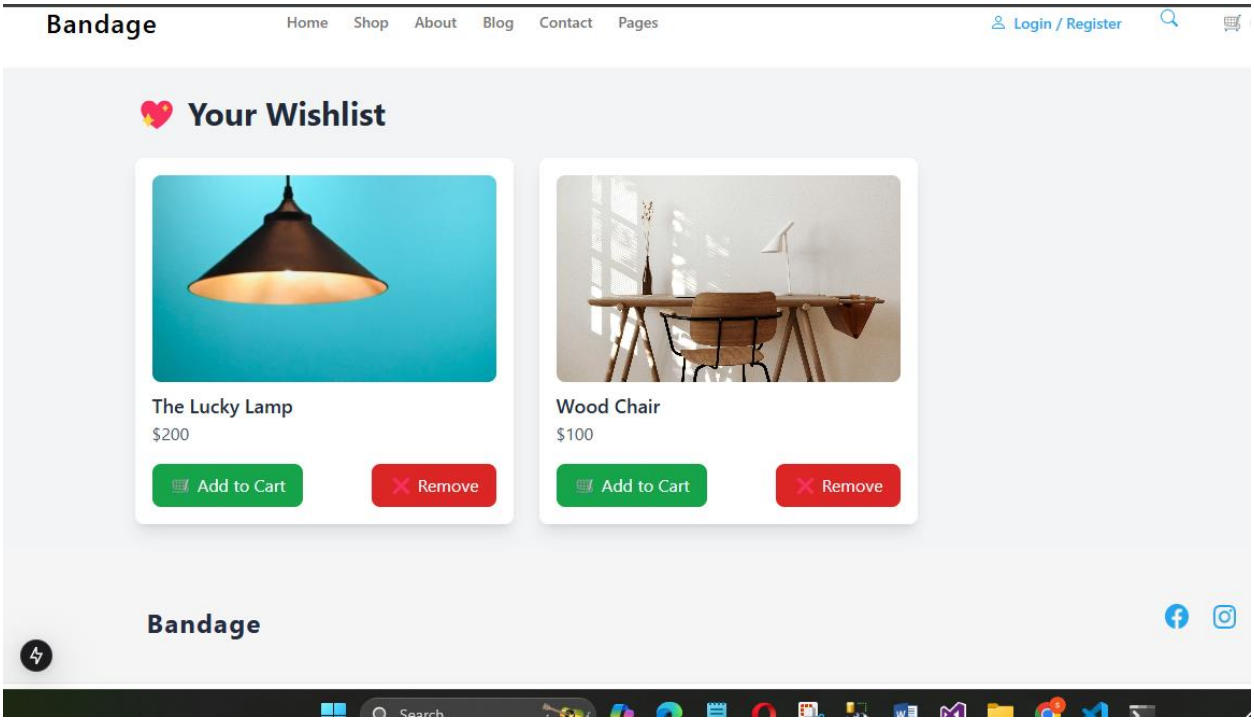
Step 3: Payment Method
Choose Payment Method
Stripe
Order Placed Successfully!
You will be redirected shortly.
Order Summary
Amber Haven
$150
x$150
Total Price: $150.00
Place Order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