# Lighthouse Test

During the testing phase of our e-commerce website, we achieved impressive results across multiple categories. The **Performance score** stands at 82, indicating a well-optimized user experience with room for further fine-tuning in areas like asset loading and API call efficiency. Our **SEO score** is an excellent 92, showcasing effective use of metadata, proper content structure, and search engine-friendly practices. Accessibility scored 90, reflecting a strong commitment to inclusivity, with minor improvements needed in areas like contrast and ARIA roles. Lastly, our **Best Practices score** hit a perfect 100, demonstrating adherence to modern web development standards. These results reflect a solid foundation, with a few opportunities to enhance the user experience further.
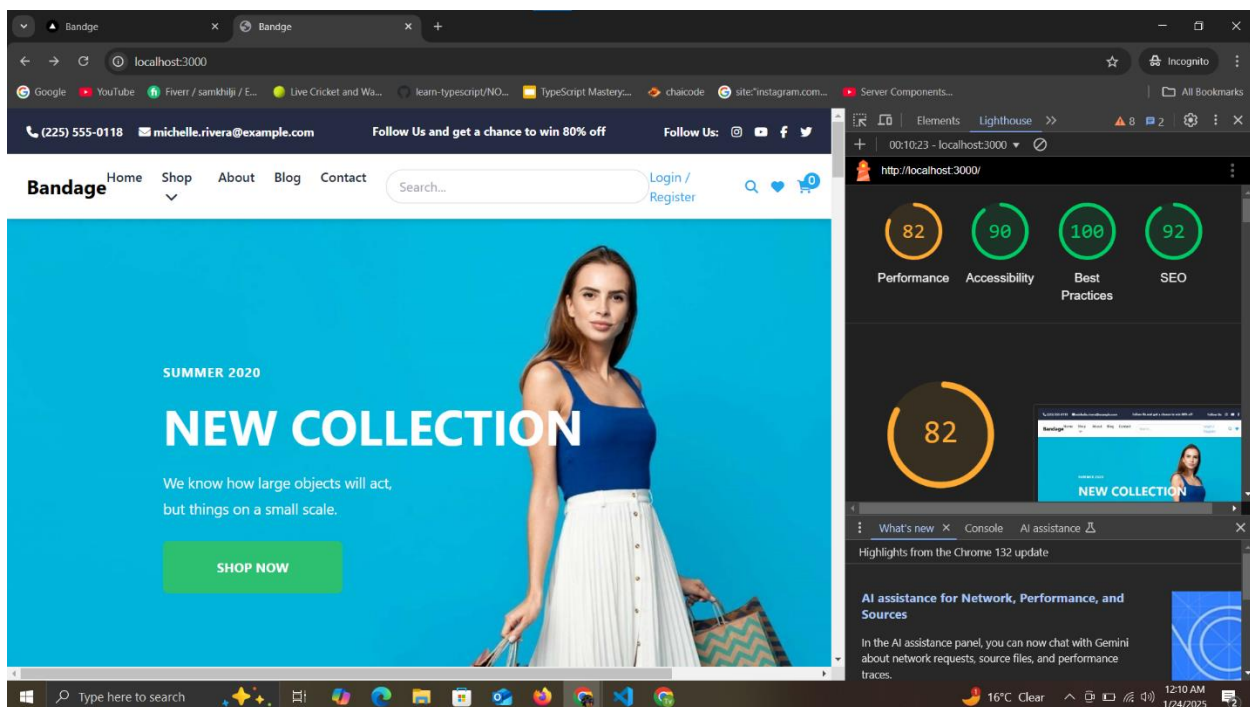
Product Listing and Dynamic Navigation

The **Product List Page** displays all products in a user-friendly layout. Clicking on a product dynamically redirects to its **Product Description Page** using Next.js dynamic routing, providing a smooth transition and detailed product information. This feature works perfectly, ensuring a seamless and responsive user experience.
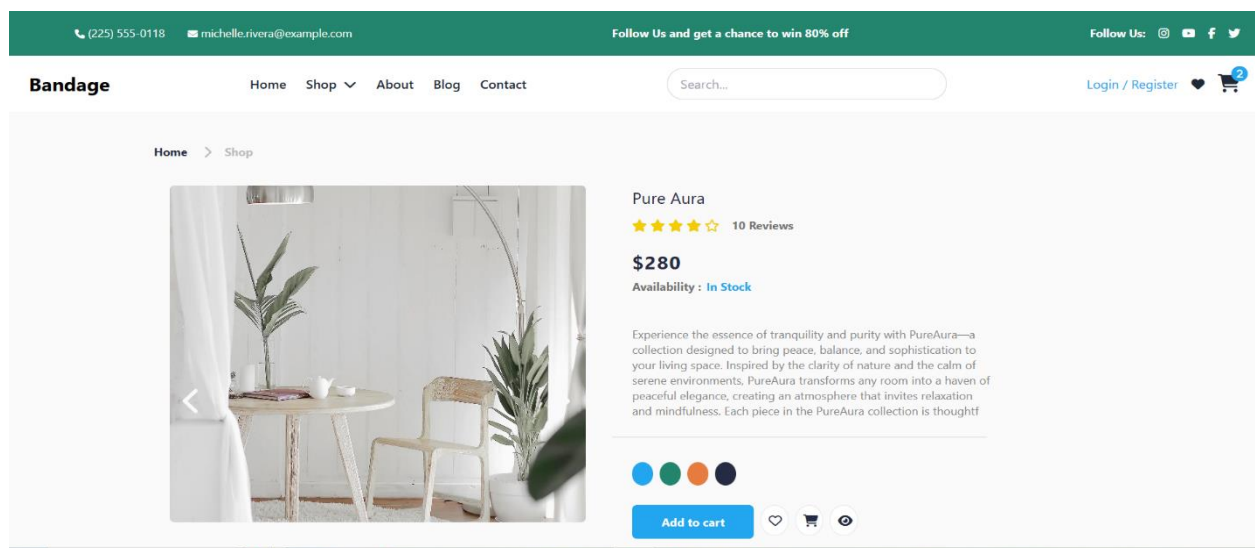

Pagination Functionality

The pagination logic ensures a smooth browsing experience by dividing products into manageable chunks per page. For example, with a total of 24 products and 8 products displayed per page, the system dynamically calculates and creates 3 pages. Clicking the pagination buttons allows users to navigate

between pages effortlessly, displaying the appropriate set of products. This functionality is working flawlessly, providing both efficiency and clarity for users.
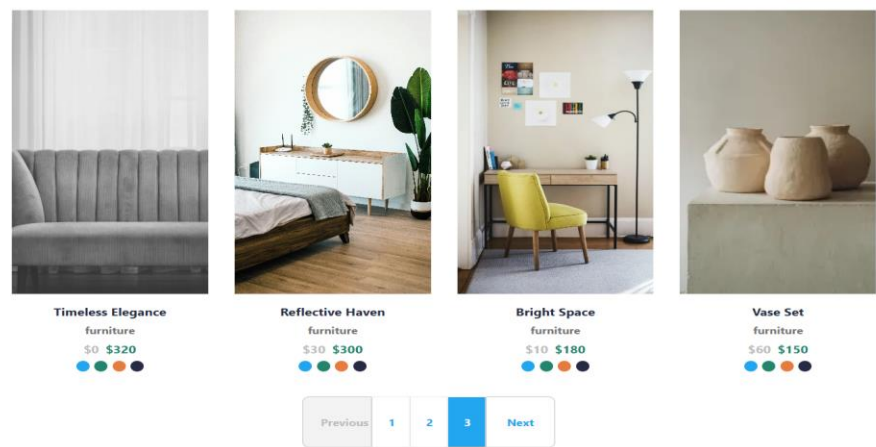

Add to Cart Functionality with Dynamic Cart Count

The **Add to Cart** feature allows users to easily add products to their cart with a single click. As items are added, the cart dynamically updates, reflecting the selected products, quantities, and total price. The **cart count** in the navbar also updates in real-time, providing users with a quick view of the number of items in their cart. This ensures a smooth and interactive shopping experience, allowing users to stay informed of their selections while navigating the site.
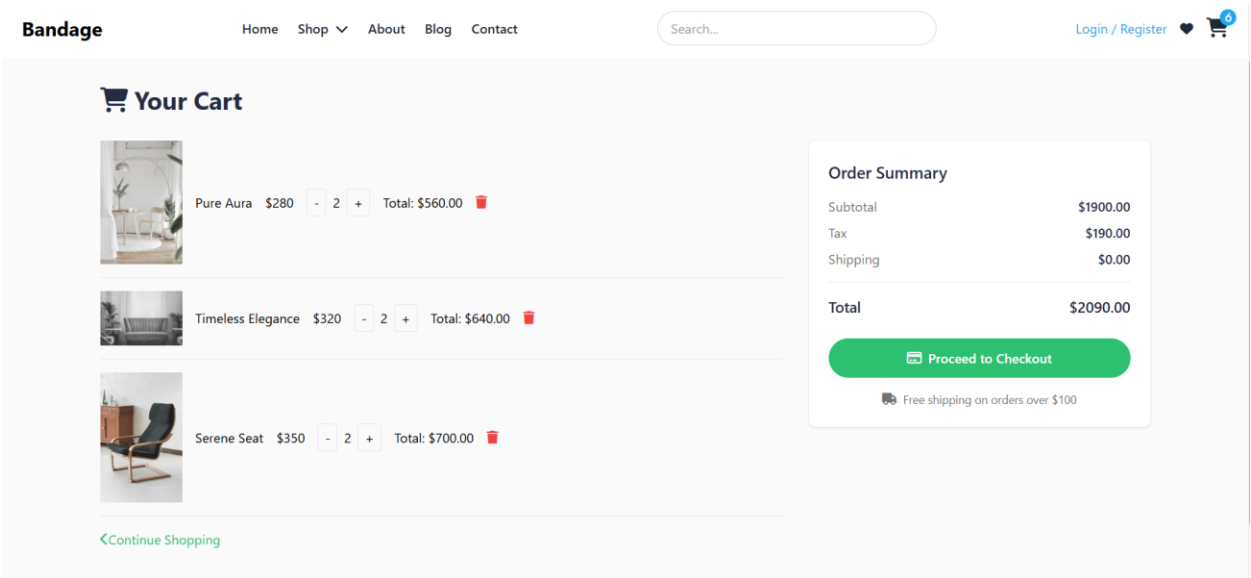
Search Bar Functionality

The **Search Bar** allows users to search for products seamlessly. Connected to the Headless CMS, Sanity, the search queries are matched to the search Title variable in the API. Using a couple of states for search input, the relevant product results are dynamically fetched and displayed in the search bar. When users click on any of the search results, they are redirected to the corresponding **Product Description Page** for more details. This functionality ensures users can quickly find and explore products based on their search terms.
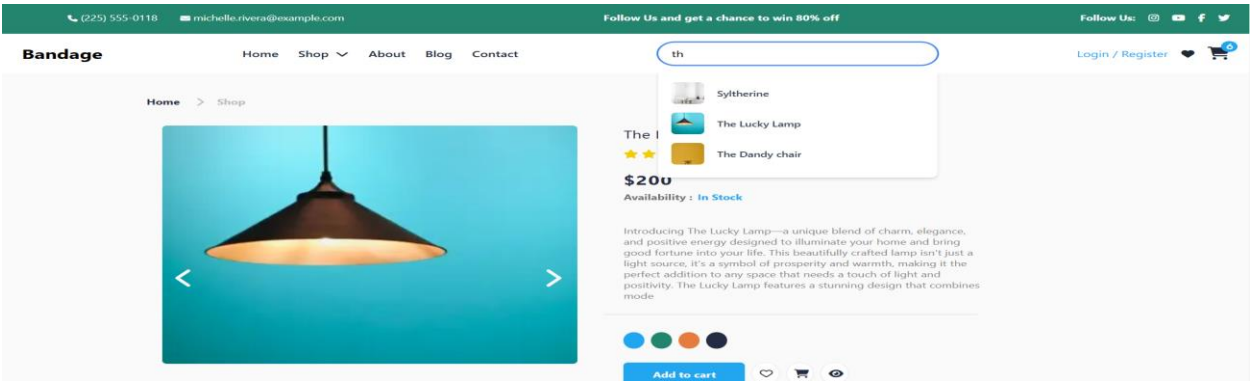
Feature Functionality Testing Results

Feature	Result	Expected Result	HTTP Status (Page Not Found)	Failed	Passed
Product Listing and Dynamic Navigation	Product displays and redirects correctly when clicked.	Clicking any product should redirect to the correct product description page.	200 OK	No issues observed.	✅
Pagination Functionality	Pagination buttons work, and products are divided into pages.	Users should be able to navigate between pages without issues.	200 OK	Pagination buttons do not change the page.	✅
Add to Cart Functionality with Dynamic Cart Count	Cart updates dynamically, showing the correct item count in the navbar.	Cart count should update as items are added.	200 OK	Cart count doesn't update after adding items.	✅
Search Bar Functionality	Search results are fetched and displayed correctly,	Search should return relevant products and	200 OK	No results show up or search query	✅

| | with redirection to the product page. | navigate users to the product page on click. | | doesn't match. | |