

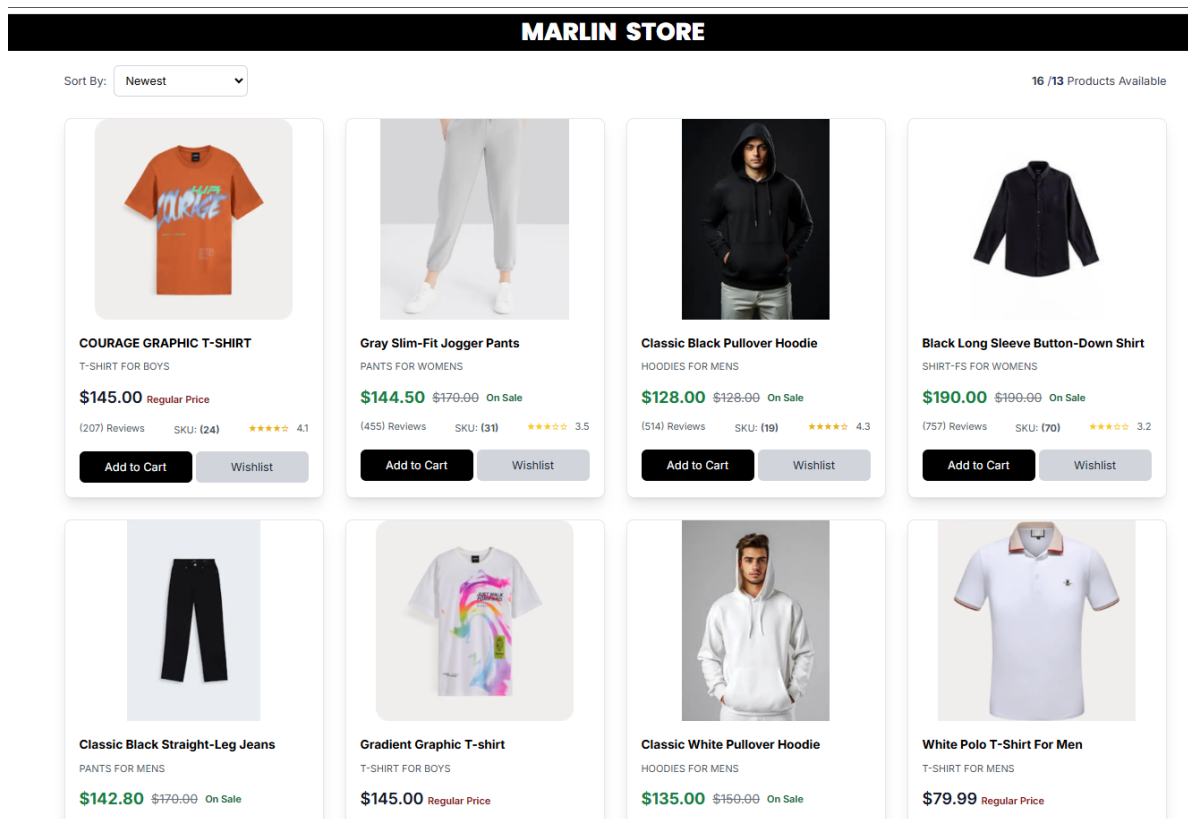
DAY-5: PERFECTION THE PLATFORM – TESTING ERROR HANDLING, AND BACKEND OPTIMIZATION

PROJECT OVERVIEW:

1. FUNCTIONAL TEST

PRODUCT LISTING

- I. **Verify Core Functionalities:** Test the product listing page for essential features like pagination, sorting, filtering, search functionality, and product details display to ensure they work as expected.
- II. **Error Handling Checks:** Validate error scenarios, such as empty search results, invalid filter inputs, or broken images/links, ensuring appropriate error messages or fallbacks are displayed.
- III. **Add-to-Cart and Navigation Testing:** Confirm that users can select products, add them to the cart, and navigate seamlessly between the product listing and other pages.
- IV. **Cross-Browser and Device Testing:** Test the product listing on multiple browsers and devices to ensure compatibility, responsiveness, and consistent functionality across all platforms.



PRODUCT DETAILS PAGE TEST


- a) **Identify Key Features:** Determine the critical elements of the product details page to test, such as product images, descriptions, pricing, availability, and add-to-cart functionality. Ensure that all necessary information is displayed accurately and clearly.
- b) **Define Test Cases:** Create detailed test cases that outline the expected behavior of each feature. For example, verify that clicking on a product image enlarges it, or that selecting different sizes or colors updates the displayed price accordingly.
- c) **Execute Tests:** Perform the tests as defined in your test cases. This includes checking for correct data display, functionality of interactive elements (like buttons and dropdowns), and ensuring that error messages appear for invalid actions.
- d) **Document Results and Report Issues:** Record the outcomes of your tests, noting any discrepancies or errors encountered. Provide clear documentation of any issues found to facilitate resolution before the product page goes live.





MARLIN

ShopOn SaleNew ArrivalsCategories

Q Search for products...

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Ice Blue Sneakers For Men

mens / Men, Sneakers

\$99.99

\$199.99

127 Reviews

4.2★

Available Sizes:

XS

Large

X-Large

XX-Large

Available Colors:

ICE BLUE

BLACK

YELLOW

PALE YELLOW

Product Details:

Stylish and Fresh: Ice Blue Sneakers for Men

A Bold Step in Comfort and Fashion

Add a splash of color and style to your footwear collection with these ice blue sneakers for men. Combining comfort, durability, and a modern design, these sneakers are perfect for any casual or athletic occasion.

Key Features:

Material: Crafted from high-quality synthetic leather and breathable mesh, offering both durability and comfort.

Design: Sleek and modern ice blue color that stands out, with subtle accents that add a trendy touch to any outfit.

Sole: Lightweight, flexible rubber sole with superior grip and traction, providing stability and comfort throughout the day.

Fit: Cushioned insole and ergonomic design for all-day comfort, perfect for walking, running, or everyday wear.

Closure: Secure lace-up design for a personalized fit.

Versatile and Trendy

Whether you're hitting the gym, running errands, or going for a casual outing, these ice blue sneakers add a fresh, contemporary feel to your outfit. The neutral tone of the blue ensures they pair well with a wide variety of styles.

Care Instructions:

Wipe clean with a damp cloth.

Air dry in a cool, dry place.

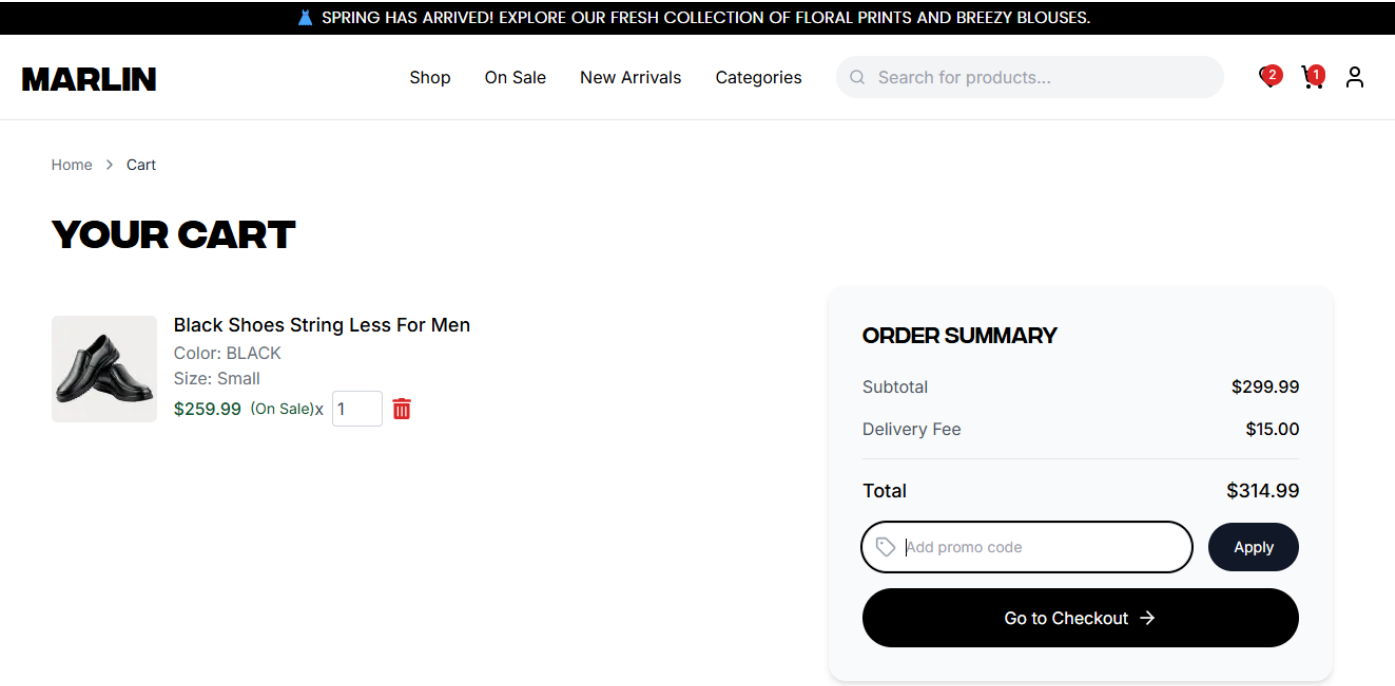
Do not machine wash.

Add to Cart

Back to Store

CART OPREATION TEST

- a) **Add to Cart Functionality:** Verify that users can successfully add items to the cart. This includes checking that the correct product details (name, price, quantity) are accurately reflected in the cart after an item is added. Additionally, test the ability to add multiple items and confirm that the total count updates correctly.
- b) **Update Cart Operations:** Test the functionality for modifying cart contents, such as increasing or decreasing item quantities and removing items. Ensure that these changes are reflected in real-time and that the cart updates without errors.
- c) **Calculate Totals and Discounts:** Confirm that the cart accurately calculates the total cost, including taxes and shipping fees. Test various scenarios involving discount codes to ensure they apply correctly and that the total reflects these adjustments.
- d) **Checkout Process Verification:** Execute a complete checkout process to verify that users can enter shipping information, select payment methods, and review their order details before finalizing the purchase. Check for proper error handling when incorrect information is entered during this process.



2. ERROR HANDLING

When an error occurs, deliver specific and actionable error messages to users instead of generic notifications. This helps users understand the issue and suggests possible solutions, enhancing their overall experience. Used try-catch blocks to catch and manage exceptions that occur during code execution. This prevents application crashes and allows for controlled error responses, ensuring users receive clear feedback about what went wrong.

3. FALLBACK UI ELEMENTS

When no data is available or an error occurs, show fallback UI elements to improve user experience. For example, when no products are returned by the API display a message line “No Product Found”.

4. CROSS BROWSER & DEVICE TESTING

The cross-browser and cross-device testing has been successfully completed. All functionalities were verified across multiple browsers and devices, ensuring consistent performance and user experience. No critical issues were identified, and the application is fully optimized for compatibility. This thorough testing process guarantees that users will enjoy a seamless experience, regardless of their chosen platform. We are now ready to proceed with the deployment phase.



5. SECURITY TESTING

Utilize automated tools to scan the application for known vulnerabilities, such as SQL injection, cross-site scripting (XSS), and insecure configurations. Regular scanning helps identify potential weaknesses that could be exploited by attackers. Input validation fields to also prevent SQL injections and other attacks.

```
export default {
  fields: [
    {
      name: 'username',
      title: 'Username',
      type: 'string',
      validation: (Rule: Rule) =>
        Rule.required().min(3).max(20).error('Username must be between 3 and 20 characters'),
    },
    {
      name: 'email',
      title: 'Email',
      type: 'string',
      validation: (Rule: Rule) =>
        Rule.required().email().error('A valid email address is required'),
    },
    {
      name: 'password',
      title: 'Password',
      type: 'string',
      validation: (Rule: Rule) =>
        Rule.required().min(8).error('Password must be at least 8 characters long'),
    },
    {
      name: 'lastLogin',
      title: 'Last Login',
      type: 'datetime',
      description: 'Timestamp of the last login',
      validation: (Rule: Rule) => Rule.optional(),
    },
  ],
}
```

6. USER ACCEPTANCE TESTING (UAT)

Successful UAT leads to stakeholder sign-off, confirming that the software meets all necessary requirements and is ready for launch. This process enhances user satisfaction and reduces the risk of post-launch issues.