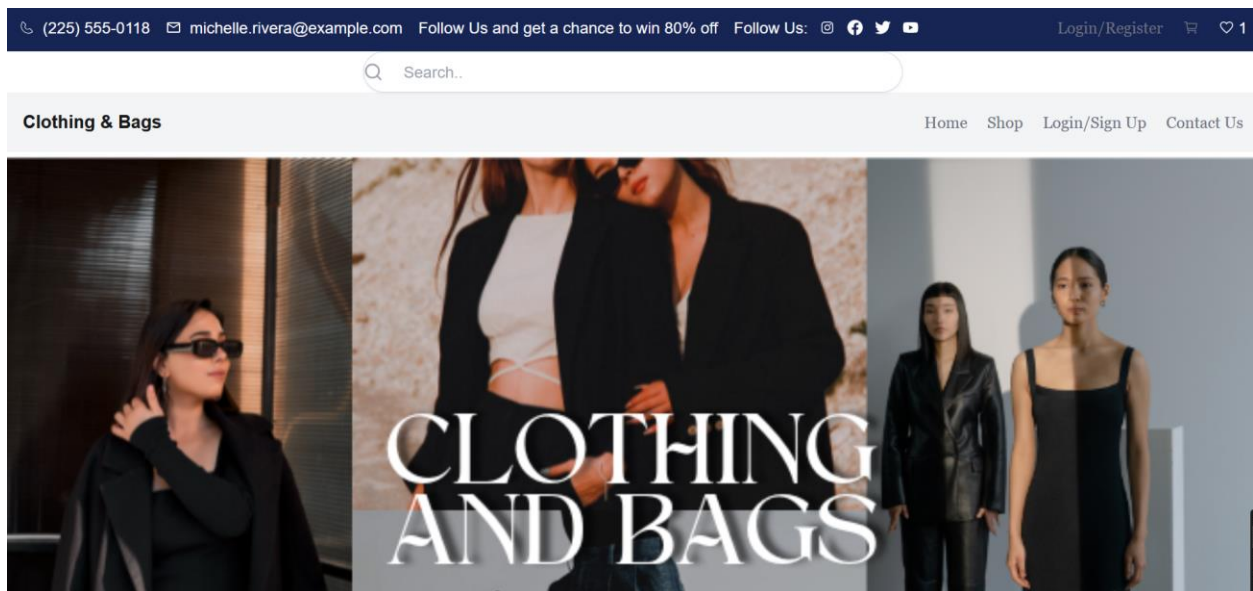


Day 5 - Testing and Backend Refinement - [CLOTHING & BAGS]

MADE BY ZUNAIRA HUSSAIN

Today focus was on rigorous testing and strategic backend optimization to ensure the seamless functionality of the e-commerce platform for clothing and bags. Comprehensive system testing was conducted to validate API integrations, ensure data integrity, and streamline user interactions. Backend improvements included optimizing database queries, enhancing server performance, and implementing advanced measures for secure data processing.

These refinements play a pivotal role in delivering a highly reliable, efficient, and scalable solution, aligning with best practices and customer-centric objectives.



Functional Deliverables:

Key functionalities delivered for the e-commerce platform include:

Product Listings: Dynamic and user-friendly product displays with complete and accurate product

Product Details: Enhanced information clarity, including descriptions, pricing, and availability.

Cart Functionality: Seamless cart management with intuitive item addition, removal and updates.

Checkout Process: Streamlined, secure, and efficient checkout with multiple payment options.


These deliverables ensure a robust and user-centric shopping experience, setting the stage for a scalable and competitive platform.

PRODUCT LISTING:

The product listing functionality delivers a premium browsing experience by combining accuracy, clarity, and user-centric design. Each product is dynamically displayed with comprehensive details, including vivid descriptions, competitive pricing, real-time stock availability, and intuitive category filters.

This robust feature transforms the shopping journey into an effortless and engaging process, allowing users to navigate the catalog seamlessly, evaluate products efficiently, and make well-informed purchasing decisions

The product listing module significantly elevates the platform's overall quality and appeal.




Retro Vibe

The fabric of a dress plays a significant role in its comfort and appeal. Materials like cotton, sil...

\$340.00

Add to Cart

View Details




Trendy Dress

A dress should provide a perfect fit, enhancing the wearer's figure while ensuring comfort. Tailored...

\$200.00

Add to Cart

View Details




Casual Bags

Bags are crafted using premium materials like leather, canvas, or synthetic blends, ensuring durabil...

\$550.00

Add to Cart

View Details




Nordic Elegance

From intricate embroidery to sparkling sequins and beadwork, the top of a dress often serves as the ...

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Fashionable Bags

Elevate your professional look with this sleek bag. Featuring a minimalist design, premium material,...

\$200.00

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Unique Top

Add a touch of elegance to your wardrobe with this sophisticated top. Featuring a flattering silhoue...

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\$121.00

Add to Cart

View Details



Fancy

This elegant dress is designed to make a statement wherever you go. Crafted from premium-quality fab...

\$150.00

Add to Cart

View Details

PRODUCT DETAILS

The product details feature is meticulously designed to provide customers with precise and comprehensive information about each item.


It includes high-quality images, detailed descriptions, specifications, pricing, and availability status, ensuring transparency and clarity. Strategic presentation highlights key selling points, enabling customers to assess product suitability quickly.

This feature is integral to building trust, enhancing user engagement, and driving informed purchase decisions, ultimately fostering stronger customer loyalty and boosting overall business success.

Clothing & Bags

HomeShopLogin/Sign UpContact Us

Versatile Bags







\$121



Elevate your professional look with this sleek bag. Featuring a minimalist design, premium material, and organized compartments, it's ideal for work or business meetings

Tags:

versatilefancyfancy

Add to Cart

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Login/Register   1

Search..

Clothing & Bags

HomeShopLogin/Sign UpContact Us

White Top



\$200

Some tops incorporate draped or cowl designs, creating soft, flowing layers that add movement and sophistication. Cutout Features Strategically placed cutouts on the neckline, shoulders, or back enhance the style with subtle, playful detailing. Bold Prints and Graphics The upper part of dresses can feature striking prints such as geometric patterns, tribal designs, or artistic graphics for a contemporary appeal.

Tags:

livingfancyelegancedesgin

Add to Cart

CART FUNCTIONALITY

The **cart functionality** in e-commerce allows users to select, view, and purchase products.

Add to Cart: Items are added with details like quantity and options. Stored in session or local storage.

View Cart: Users can see selected items with details like price and quantity

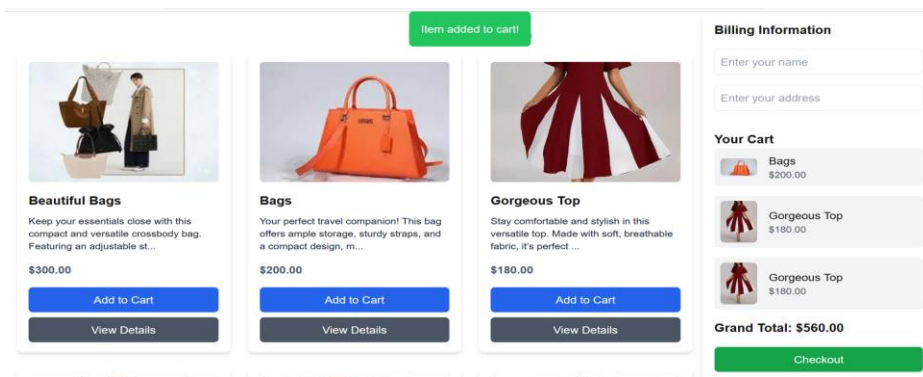
Cart Summary: Displays total price, taxes, discounts, and shipping fees.

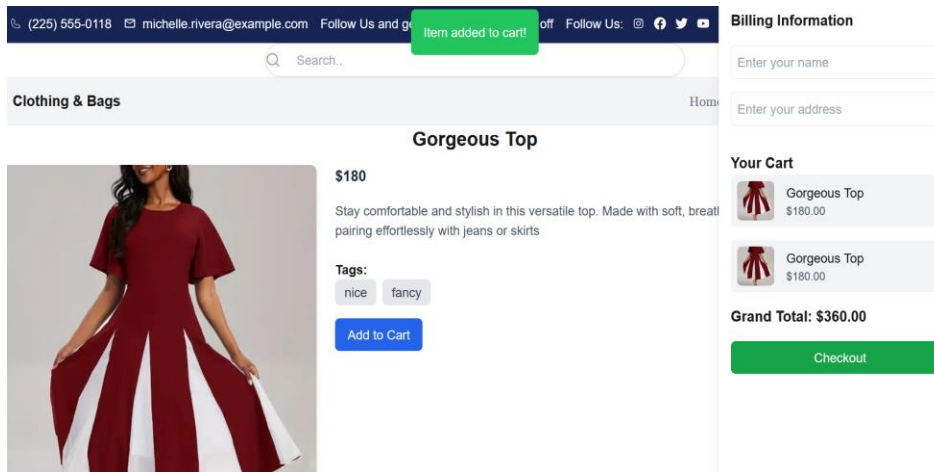
Proceed to Checkout: Users finalize their purchase by entering shipping and payment information.

Persistence: Cart data can be saved in the session for logged-in users guests.

Notifications: Alerts confirm items are added or updated in the cart

Backend Sync: Cart data syncs with the backend to reflect real-time changes like stock availability





CHECK OUT PROCESS

The **checkout process** in e-commerce guides users through finalizing their purchase. Here's a concise overview:

Cart Review: Users review their cart, ensuring quantities, options, and totals are correct.

Login/Guest Checkout: Users log in or proceed as guests.

Shipping Information: Input or select a saved shipping address.

Delivery Options: Choose shipping methods with associated costs and delivery times.

Payment Details: Enter payment information (e.g., credit card, PayPal) or apply saved payment methods.

Order Review: Display a summary of items, shipping, taxes, discounts, and total cost for final confirmation.

Place Order: Confirm and submit the order.

Order Confirmation: Display an order confirmation page with details and email receiptThis streamlined process ensures a smooth and user-friendly checkout experience

Checkout

Your Name



Your Address

Cart Summary

Your cart is empty.

Total: \$0.00

Place Order

 **Congratulations on Your Order!** 

Thank you for shopping with us! Your order has been successfully placed, and we will ship it to your address soon.

Order Summary

Grand Total: \$0.00

Back to Home

Reports from testing tools

Google PageSpeed Insights Report provides:

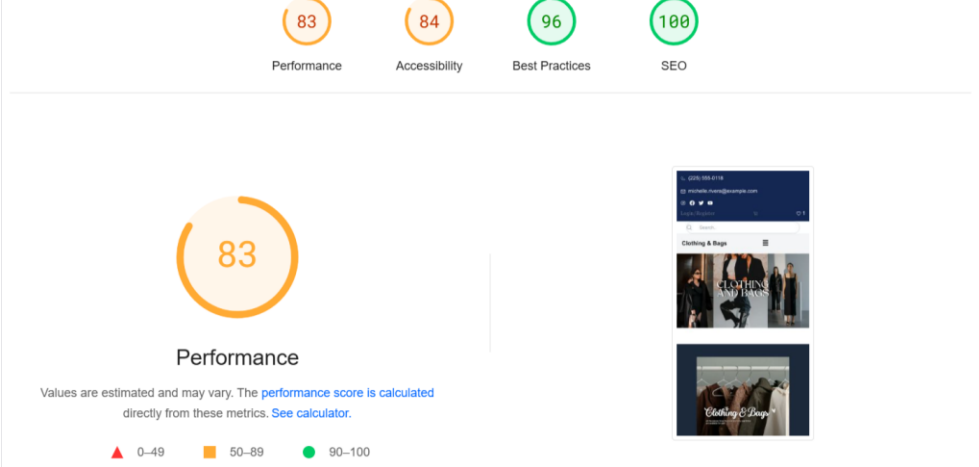
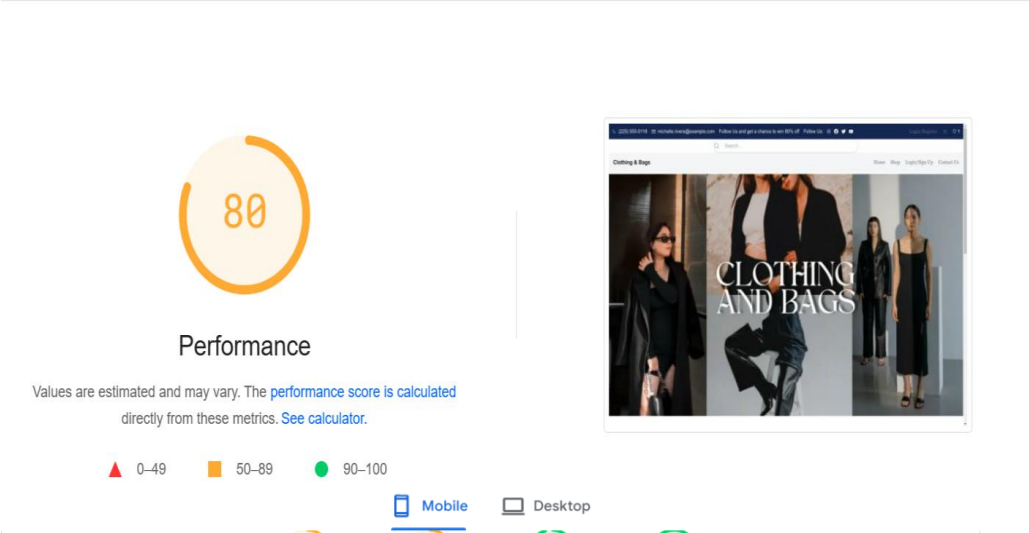
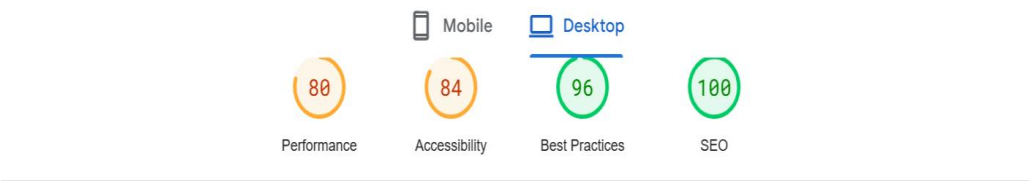
Performance Score: Overall website performance (0–100).

Key Metrics: LCP, FID, CLS, FCP, TTI, and Speed Index.

Opportunities: Suggestions like image optimization and script minimization.

Diagnostics: Detailed insights on resource usage and layout issues.

Core Web Vitals: Indicates user experience quality.



Testing Report (CSV Format):

Test Case ID: TC001

Test Case Description: Product Listing

Test Steps:

Click the HomePage

Click Shop


All product List Appear

Result: Product Listing Perfectly Shown

Status: Passed

Severity Level: Medium

Remarks:Good




Fashionable Bags

Elevate your professional look with this sleek bag. Featuring a minimalist design, premium material,...

\$200.00

Add to Cart

View Details




Unique Top

Add a touch of elegance to your wardrobe with this sophisticated top. Featuring a flattering silhoue...

\$140.00

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Versatile Bags

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\$550.00

Add to Cart

View Details



Nordic Elegance

From intricate embroidery to sparkling sequins and beadwork, the top of a dress often serves as the ...

\$280.00

Add to Cart

View Details

Testing Report (CSV Format):

Test Case ID: TC002

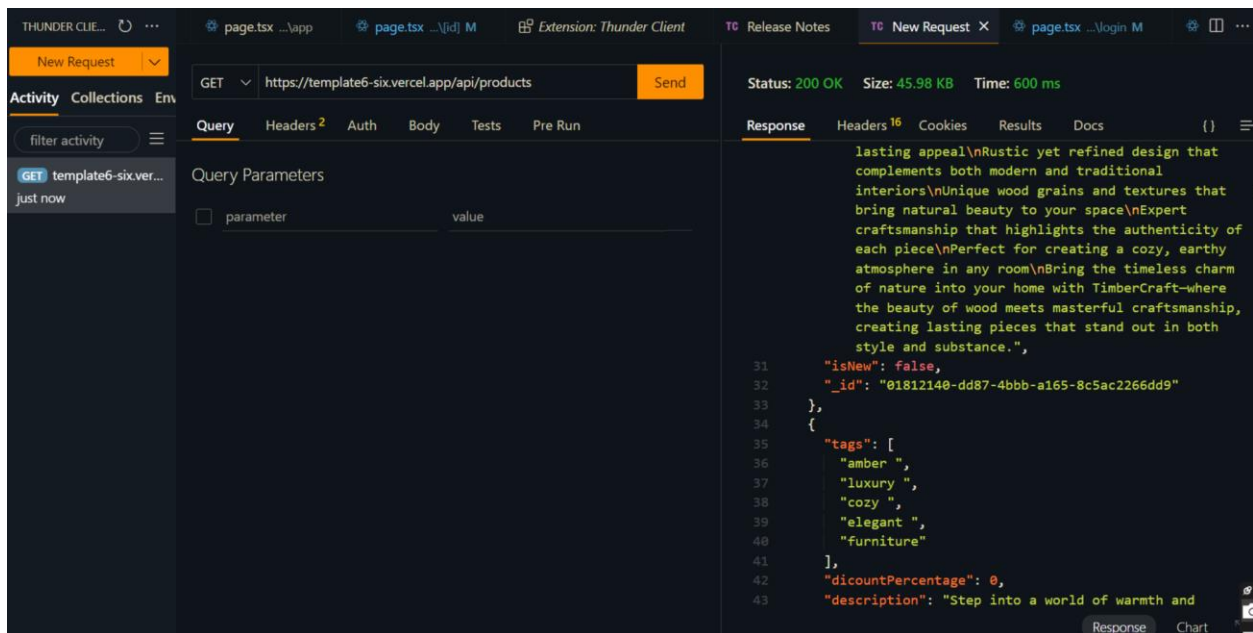
Test Case Description: TEST API ERROR HANDLING

Result: Perfect

Status: Passed

Severity Level: Medium

Remarks: Good



Testing Report (CSV Format):

Test Case ID: TC002

Test Case Description: Check Cart Functionality

Test Steps:

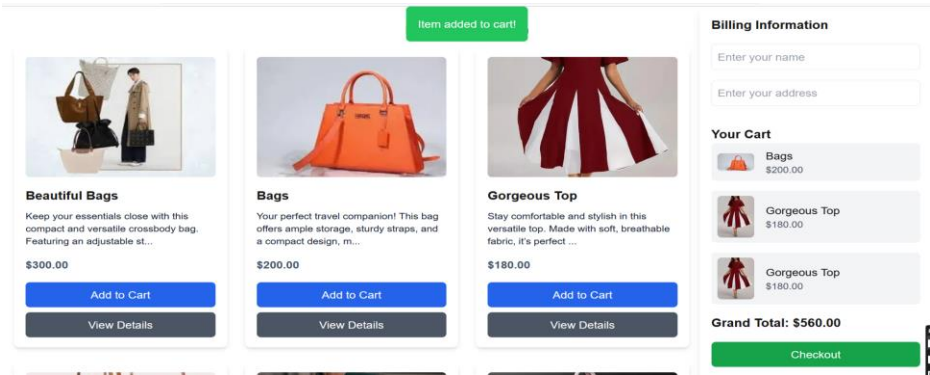
Click to Add to Cart Button

Result: Perfect

Status: Passed

Severity Level: Medium

Remarks: Good



Testing Report (CSV Format):

Test Case ID: TC002

Test Case Description: Responsiveness On Mobile

Test Steps:

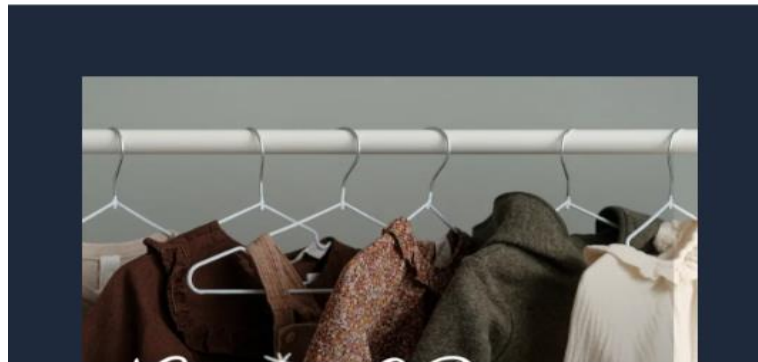
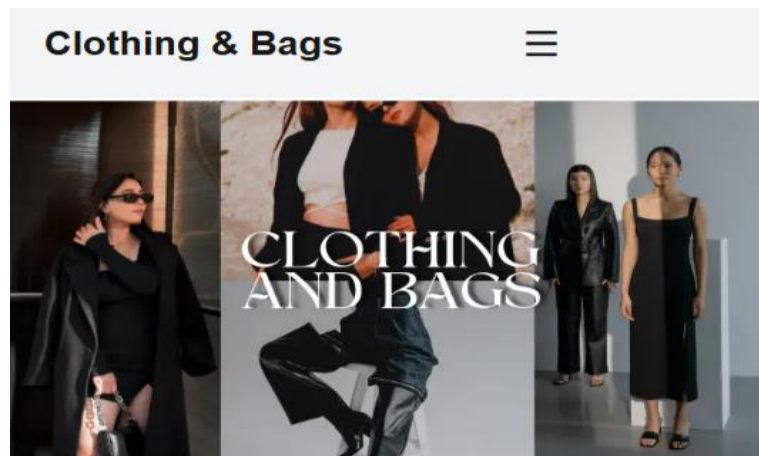
In Mobile Open the Web

Result: Perfect

Status: Passed

Severity Level: Medium

Remarks:Good



Challenges Faced and Solutions Implemented in Front-End Development

1. Slow Website Performance

- **Issue:** Delays in loading critical resources.
- **Solution:** Used modern image formats (WebP), lazy loading, and minified CSS/JS. Implemented CDN for faster static asset delivery and reduced render-blocking resources.

2. API Data Integration

- **Issue:** Irregular data handling from APIs affecting the user interface.
- **Solution:** Incorporated error handling and loading states to improve user feedback. Used tools like Postman to debug and validate API responses.

3. Responsive Design Challenges

- **Issue:** Inconsistent layout and functionality across devices.
- **Solution:** Adopted a mobile-first approach using responsive CSS frameworks and thorough cross-device testing with BrowserStack.

4. Cart Functionality Improvements

- **Issue:** Cart updates weren't consistent across sessions or devices.
- **Solution:** Leveraged local storage for guest users and server-side synchronization for logged-in users to ensure seamless cart experience.

5. Core Web Vitals Optimization

- **Issue:** Poor scores in Largest Contentful Paint (LCP) and Cumulative Layout Shift (CLS).

- **Solution:** Optimized font loading, deferred non-critical scripts, and set dimensions for media to stabilize layout rendering.

6. User Engagement Enhancements

- **Issue:** Low interaction rates on the site.
- **Solution:** Simplified navigation, added interactive elements, and enabled features like personalized product recommendations and quick-access buttons.

By addressing these specific challenges, the development process significantly improved front-end performance, usability, and overall user satisfaction.