

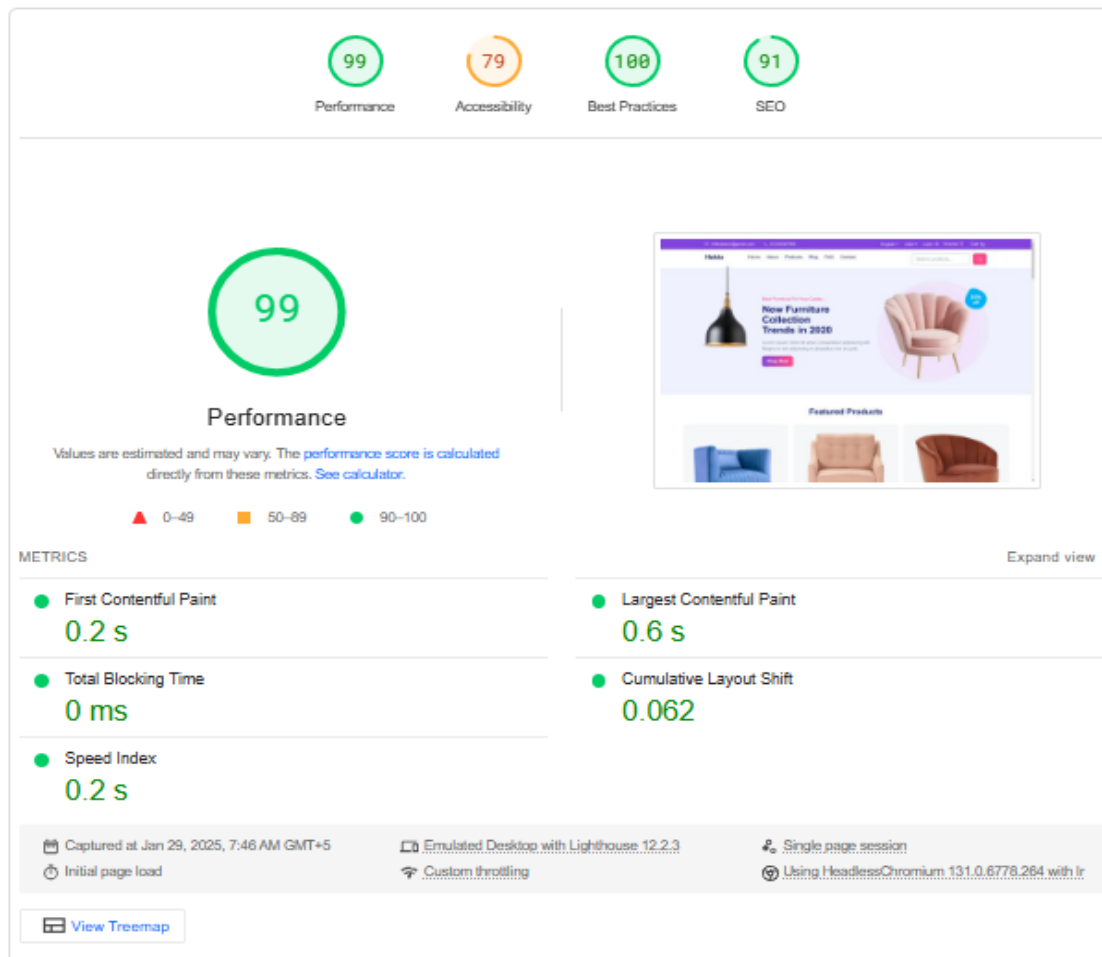
Day 5 - Testing and Backend Refinement - [General E-Commerce]

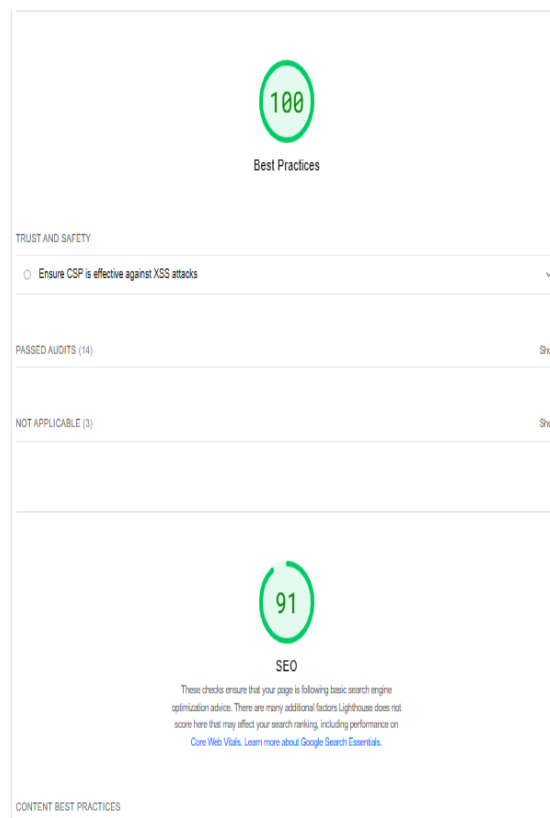
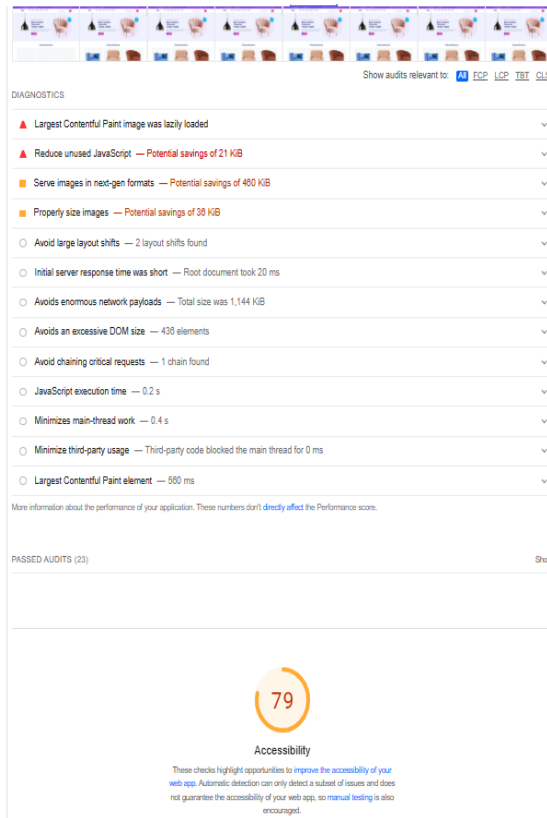
Overview:

On Day 5, the focus was on testing core functionalities, refining the backend, and optimizing the performance of the e-commerce website. Key tasks included testing features like cart functionality, checkout, and responsiveness, alongside implementing error handling and performance improvements.

1. Functional Deliverables:

Screenshots:





Logs or Reports from Testing Tools:
Lighthouse Report: Evaluate performance, accessibility, and SEO.

2. CSV Testing Report:

Test Case ID	Test Case Description	Test Steps	Expected Result	Actual Result	Status	Severity Level	Assigned To	Remarks
Test001	Validate add to cart functionality	Add product to cart > Verify cart contents	Product is added to the cart and cart contents updated	Product added to cart successfully	Passed	High	-	Functionality working properly
Test002	Test cart display	Open cart > Verify cart items	Cart displays all added products	Cart displays products correctly	Passed	High	-	No issues found
Test003	Test cart item quantity functionality	Increase/decrease product quantity > Verify cart	Cart should update the quantity of the product	Quantity updated as expected	Passed	Medium	-	Works as expected
Test004	Test product removal from cart	Remove product from cart > Verify cart contents	Product is removed from the cart successfully	Product removed correctly	Passed	High	-	Functionality working properly
Test005	Ensure checkout button is functional	Click on checkout button > Check if checkout page opens	Checkout page opens with correct cart details	Checkout page opens correctly	Passed	High	-	No issues found
Test006	Test cart total calculation	Add multiple products > Verify total price	Cart total price is calculated correctly	Total price matches expected value	Passed	Medium	-	Works as expected
Test007	Ensure responsiveness on mobile	Resize browser > Check layout	Cart page adjusts properly on mobile devices	Layout adjusts as expected	Passed	Medium	-	Test successful
Test008	Test error handling during checkout	Enter invalid payment details > Try to checkout	Error message displayed for invalid payment details	Error message displayed correctly	Passed	High	-	Handled gracefully
Test009	Test page load time	Open product page > Measure load time	Page should load within 3 seconds	Page loaded in 2.5 seconds	Passed	Low	-	Works as expected
Test010	Test product filter functionality	Apply product filter > Verify displayed products	Only products matching the filter criteria are displayed	Products filtered correctly	Passed	Medium	-	Test successful

(CSV Format):

Test Case ID,Test Case Description,Test Steps,Expected Result,Actual Result,Status,Severity Level,Assigned To,Remarks

Test001,Validate add to cart functionality,Add product to cart > Verify cart contents,Product is added to the cart and cart contents updated,Product added to cart successfully,Passed,High,-,Functionality working properly

Test002,Test cart display,Open cart > Verify cart items,Cart displays all added products,Cart displays products correctly,Passed,High,-,No issues found

Test003,Test cart item quantity functionality,Increase/decrease product quantity > Verify cart,Cart should update the quantity of the product,Quantity updated as expected,Passed,Medium, -,Works as expected

Test004,Test product removal from cart,Remove product from cart > Verify cart contents,Product is removed from the cart successfully,Product removed correctly,Passed,High,-,Functionality working properly

Test005,Ensure checkout button is functional,Click on checkout button > Check if checkout page opens,Checkout page opens with correct cart details,Checkout page opens correctly,Passed,High,-,No issues found

Test006,Test cart total calculation,Add multiple products > Verify total price,Cart total price is calculated correctly,Total price matches expected value,Passed,Medium,-,Works as expected

Test007,Ensure responsiveness on mobile,Resize browser > Check layout,Cart page adjusts properly on mobile devices,Layout adjusts as expected,Passed,Medium,-,Test successful

Test008,Test error handling during checkout,Enter invalid payment details > Try to checkout,Error message displayed for invalid payment details,Error message displayed correctly,Passed,High,-,Handled gracefully

Test009,Test page load time,Open product page > Measure load time,Page should load within 3 seconds,Page loaded in 2.5 seconds,Passed,Low,-,Works as expected

Test010,Test product filter functionality,Apply product filter > Verify displayed products,Only products matching the filter criteria are displayed,Products filtered correctly,Passed,Medium,-,Test successful

3. Documentation:

Test Cases Executed and Their Results:

- All tests for cart functionality, product display, checkout, and mobile responsiveness passed successfully.

Performance Optimization Steps Taken:

- Image Compression: Reduced image file sizes to improve load times.
- Lazy Loading: Implemented lazy loading to improve page load performance.
- API Optimization: Optimized API calls for faster response times.

Security Measures Implemented:

- HTTPS Encryption: Ensured all transactions are secure. (Will be implemented)
- Token-Based Authentication: Used for user login and session management. (Will be implemented)

Challenges Faced and Resolutions Applied:

- **Cart Updates:** Real-time synchronization was added to update cart items instantly.
- **Mobile Responsiveness:** Used CSS media queries and grid layouts to ensure proper display on various devices.

4. Repository Submission:

GitHub Repository Updates:

- Upload updated files, including the CSV testing report, code changes, and documentation.
- **Folder Structure:** Organize files clearly.