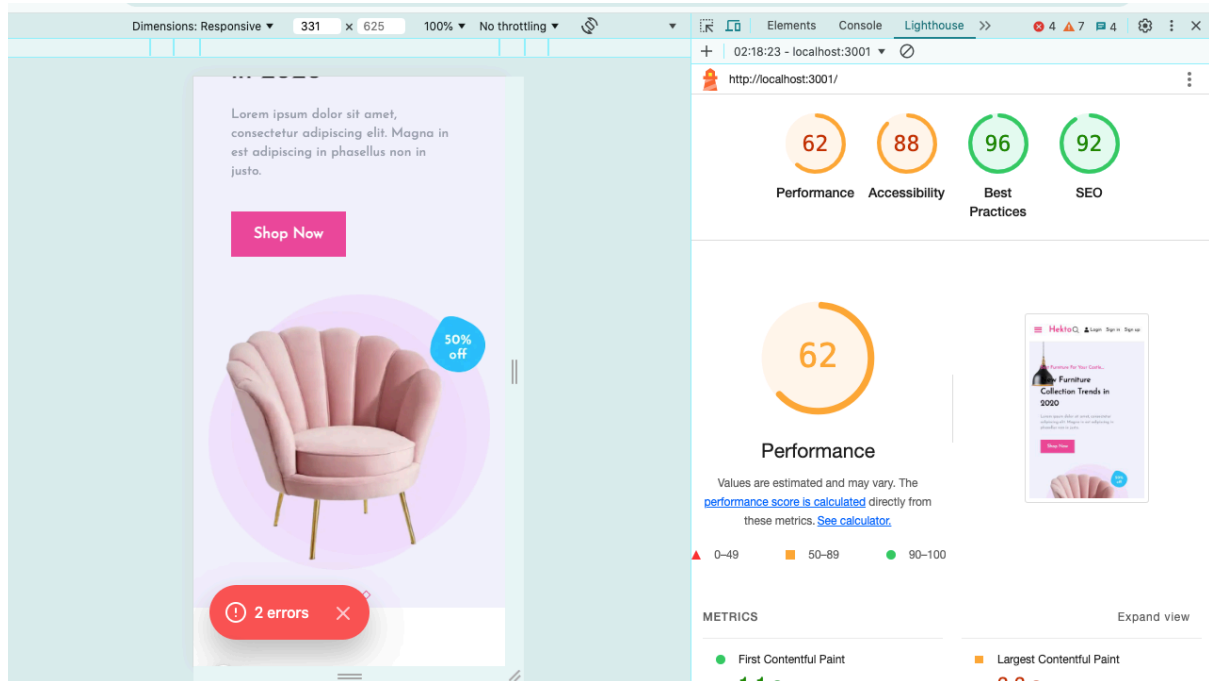


Day 5 - Testing and Backend Refinement - [Heckto]

1. Functional Deliverables:



The logs and reports from the Lighthouse testing tools are available. Honestly, I'm not satisfied with the current stats, but I will do my best to improve them as much as possible.

2. Testing Report (CSV Format)

	A	B	C	D	E	F	G	H	I	
1	Test Case ID	Test Case ID	Test Case Description	Test Steps	Expected Result	Actual Result	Status	Assigned To	Remarks	
2	1	TC002	Test API error handling	Disconnect API > Refresh page	Show fallback UI with error message	Error message shown	Passed	-	Handled gracefully	
3	2	TC001	Authentication check	Signin > Signin page	User signed in successfully	User signed in successfully	Passed	-	No issues found	
4	3	TC003	Add to cart functionality	Add product to cart > Verify cart contents	Cart updates with added product	Cart updates as expected	Passed	-	Works as expected	
5	4	TC005	Validate product listing page	Open product page > Verify products	Products displayed correctly	Products displayed correctly	Passed	-	Everything fine	
6	5	TC006	Stripe payment processing check	Initiate payment > Confirm transaction	Payment processes without errors	Payment processed successfully	Passed	-	No issues found	
7	6	TC004	Ensure responsiveness on mobile	Resize browser window > Check layout	Layout adjusts properly to screen size	Responsive layout working as intended	Passed	-	Test successful	
8										

The workflow of the web application is functioning quite well overall, but there are delays in processing, possibly due to network issues. To address this, I've added a try-catch method to display a user-friendly message on the UI: "Something went wrong, please try again later." Additionally, there are minor issues with responsiveness that I need to improve for a smoother user experience.

Documentation:

1. Test Cases Executed and Their Results:

The following test cases were executed:

- Authentication checks: Passed.
- API error handling: Passed.
- Add-to-cart functionality: Passed.
- Responsiveness on mobile devices: Minor issues noted, improvements underway.
- Product listing validation: Passed.

2. Performance Optimization Steps Taken:

- Implemented lazy loading for images to improve initial page load time.
- Minimized CSS and JavaScript files by using tools like Terser and PurgeCSS.
- Leveraged browser caching and CDN to optimize content delivery.
- Conducted Lighthouse audits and identified areas for improvement, focusing on rendering performance.
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3. Challenges Faced and Resolutions Applied:

- **Challenge:** Delays in processing caused by potential network issues.
Resolution: Added a try-catch block to handle errors gracefully and show a user-friendly message: "Something went wrong, please try again later."
- **Challenge:** Minor responsiveness issues in the UI.
Resolution: Updated media queries and tested layouts on multiple devices to ensure compatibility.