

EVALUATION DOCUMENT

As part of the development cycle for my e-commerce website project hosted at kayleeborg.github.io/5.1B-Task-1-Task-2-and-Task-3, I conducted thorough code validation to ensure that the site meets both functional and accessibility standards. This process involved validating the correctness of HTML, CSS, and JavaScript code using developer tools, manual tests, and error monitoring throughout the GitHub Pages deployment.

I validated the following key elements of my site using manual testing tools and browser-based inspection:

1. HTML & CSS

- All HTML pages were inspected using Chrome Developer Tools to verify that they rendered correctly and adhered to semantic standards.
- I ensured proper nesting, use of `<alt>` tags for images, and verified the layout responsiveness.
- CSS was checked for best practices such as use of box-sizing, flex/grid layouts, and responsive media queries.

2. JavaScript Functionality

- Event listeners (e.g., form submissions, login/logout states, dropdown toggles) were tested using `console.log()` statements and visual feedback.
- Sign-out redirects and `localStorage/sessionStorage` usage were confirmed functional through both manual testing and inspecting application state in the browser.
- Special care was taken to debug an issue related to cached redirects, which was resolved by applying cache-busting techniques and testing in incognito mode and by using other search browsers.

3. Validation Tools Used

- Manual browser inspection (DevTools > Console/Elements) for DOM structure and errors.
- GitHub's Pages environment was used to test live deployment behavior.
- Inline form validation was verified by entering incorrect data and confirming that proper error messages were displayed.

Summary of Key Validation Outcomes:

Tested Action	GitHub Commit	Expected Output	Actual Output	Pass/Fail	Notes
User Login	24ac2485ad02c447514ca8be988c032050a6e549	User is redirected to their account; error shown on invalid input and vice versa	User is redirected to their account; error shown on invalid input and vice versa	PASS	
User Register	93dd28e5ff4ad6b981a46868778f40a95d14bcc7	User is redirected to sign-up, adding details, then successfully submit (required to fill details)	User is redirected to sign-up, adding details, then successfully submit (required to fill details)	PASS	
Search Bar	a3f2e84fe5e30aa5f3711a4b5b98053730b4f9e2	Display relevant product results or "No results found" message	Display relevant product results or nothing if not found	PASS	Search works with shop keywords. Can be improved by adding "no results found" when keyword is invalid.
Sort/Filter Products	a3f2e84fe5e30aa5f3711a4b5b98053730b4f9e2	Product list updates accordingly	Product list updates accordingly	FAIL	Sort/Filter Products button is visible but non-functional. Can be improved by redirecting each option to specific pages, indicating prioritized filtering.
Add to Cart	10ce79b3d70fbdc29e6c7f1e2ec5e3962584eee3	Cart updates with correct item, price, and quantity	Cart updates with correct item, price, and quantity	PASS	
Update Cart	a80ae43c1286a6d723d43bbe34d8614a23792faf	Cart reflects changes accurately	Cart reflects changes accurately	PASS	
Wishlist	726ba9c9795e944181acd991c48fcd82b0b9199	Wishlist page displays saved products	Wishlist page displays saved products	PASS	
Apply Coupon Code	d7ff488841c01d4c56c371236bf733817a90f577	Discount applied or error message if invalid	Discount applied or error message if invalid	PASS	
Checkout	d7ff488841c01d4c56c371236bf733817a90f577	Order summary displayed + button to redirect to payment	Order summary displayed + button to redirect to payment	PASS	
Responsive Design	4b4987a03705ed46cd3c86ba37f42d0386c4cbdb	All features usable and readable on all devices	Fragmented sections	FAIL	Attempt on adding Bootstrap script file on every page. However, it did not respond accordingly. Page was misconfigured on mobile screen. Can be improved by reassembling Bootstrap with correct css and html.
Alt Text for Images	10ce79b3d70fbdc29e6c7f1e2ec5e3962584eee3	Alt text matches image content (manual screen reader testing)	Alt text matches image content (manual screen reader testing)	PASS	
Form Validation	954738b11fac4728e4138a053b40d0857c99aa62	Inline error messages appear when needed	Inline error messages appear when needed	PASS	References: Login, Sign-up, Contact Form, Checkout and Payment.
Navigation Bar	4b4987a03705ed46cd3c86ba37f42d0386c4cbdb	Page loads correctly, and links are active	Page loads correctly, and links are active	PASS	
Email Subscription	4b4987a03705ed46cd3c86ba37f42d0386c4cbdb	Success confirmation shown, email saved correctly	Page refreshes when submitting email	PASS	Text input works and refreshes - indicating that an update happened. Can be improved by adding a confirmation message when submitting the e-mail.
Pop-Ups (Offers)		Pop-up appears as intended, dismissible and mobile-friendly		FAIL	Did not implement. Alternative similarity can be seen on the homepage by showing text animation with a discount code to add when checking out.
Track Order Button	add9c058750a06b49465c29c6e13f75e35a4dcac	Link opens correctly in a new tab or embedded frame	Link opens correctly in a new tab or embedded frame	PASS	Order history is connected to the user's data. It clears after certain time.

Current Issues and Future Improvements:

1. Persistent Caching and Redirect Errors

Issue: One of the major issues encountered was persistent redirecting to home.html even after updating the website to use index.html. This led to a 404 error after logging out, especially in Chrome.

Remedy:

- The issue was traced to outdated JavaScript cached by the browser.
- The fix involved updating the JS logic to point to index.html and implementing cache-busting techniques (e.g., query parameters like index.html?v=2).
- In the future, introducing version-controlled scripts or leveraging service worker control would ensure cleaner deployment without relying on manual cache clearing.

2. Responsiveness on Smaller Devices

Issue: While the site looks polished on desktops, some elements (like the header layout and hero section) are compressed or misaligned on smaller screens.

Remedy & Future Plan:

- Implement additional media queries for breakpoints below 768px.
- Convert layout elements to mobile-first Flexbox or Grid systems.
- Test with emulated devices using DevTools to cover various screen sizes.

3. No Search Fallback or “No Results” Message

Issue: The current search function hides unmatched products but does not inform the user if no results are found.

Remedy:

- Implement a fallback message like:
"No products match your search. Please try another keyword."
- Improve accessibility by also offering a reset or “Show All” button.

4. Static Product Listings

Issue: Products remain the same without any filtering whether which are sorted i.e prices low to high or newest first.

Future Improvement:

- Transition to loading products dynamically using JSON arrays.
- This would allow filtering, sorting, and categorizing without duplicating HTML manually.

Conclusion

The development of this project has allowed me to build a fully functional e-commerce website prototype with features like login, cart, wishlist, order history, and promo codes. Despite minor challenges, primarily related to caching, responsiveness, and scaling, I have implemented key fixes and laid the foundation for further upgrades.

Moving forward, implementing dynamic data loading, real user authentication, and broader accessibility features will significantly improve the website's usability. This project has demonstrated strong front-end development skills and highlighted areas where back-end integration and UI refinement will drive future growth.