UX Principles 1: Website Design & Development for Book Depository

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CS101 UX Principles 1 - Website Design & Development

22/04/2022

Development Report

For this project, I first created the homepage, search system and header, making sure to do the most difficult parts of the site first, to ensure I didn't get overwhelmed close to the deadline. I was then able to use these layouts as templates for the other pages, speeding up the development process. In terms of each individual pages development, I first created the needed HTML for the page, adding all the elements from the Adobe XD (2022) design page, and then adding CSS, making the page visually look identical to the initial design, and finally using JS to load data into the page dynamically and add interactions. Notably, having the design helped significantly for visual cohesion between the pages and to make visual bugs more noticeable (By being able to cross-reference the site with the design). It also informained me on which aspects of a page would be replicated in other pages, allowing me to segregate those portions initially, making transferring those aspects to another page much easier.

I also used Github for my version control, which I used several times throughout the development cycle to revert and compare old code. A good example of this was during the cart system development, where I initially sent the cart information between pages using cookies. However, I later discovered that chrome can't save cookies from local files, which meant using Github to compare my code with the version before cookies had been implemented, and allowed me to rebuild the system using the URL get attribute instead.

Another large problem I faced was that the font I had initially chosen (Segoe UI, 2022) was licensed by Microsoft, meaning it couldn't be used on Mac/Linux/Android. To fix this, I used Roboto (2022) instead, due to its similarities and wider support.

End-user Testing

Outline

Once my website was complete, I got 5 users to test several aspects of the website, to compare the final site with both my design & the original, unmodified, design. I also got them to comment on any issues they noticed while navigating the site.

User Tasks

- Time homepage-product page speed.

- Time homepage-hardcover page speed.

- Time language dropdown speed.

- Note down any comments on the site.

Product Time	Hardcover Time	Language Time	Feedback (Summarized)
0:05	0:06	0:02	Looks good, but the page flickers sometimes. Also, don't like how the suggested products jut out at the bottom (Referring to the product page).
0:04	0:06	0:05	Image flashes suddenly when I click on a book (Referring to product page load).
0:07	0:12	0:07	I like it. (Note: Extra hardcover time was due to them clicking on the paperback version first).
0:08	0:05	0:08	Homepage colors

			are nice.
0:03	0:03	0:03	Search result images are useful.

Feedback Note

Several users mentioned flickering on the product page. Unfortunately, this is a side product of having to execute the Javascript functions that update the data in the site after the site has been loaded. In an actual site, this data would be loaded using PHP instead, which would update the data before the site has been loaded, preventing flickering.

Changes And Comparisons

After testing the final website with users, I can confidently say that it's significantly easier to navigate compared to the initial site, and that the Javascript in the site improves navigation compared to the Adobe XD (2022) design. For example, it takes users .4 seconds longer to find a product in the XD design, and 3.9 seconds longer in the original website. An even more stark contrast is in the hardcover times, where it took users .8 seconds longer to find a hardcover variant in the XD design, and 43.6 seconds longer in the original site.

One significant change I made to the site in comparison with the design is the "People who brought this" section of the product page. In the initial design, I had two layers of books (Fig. 1) , however after adding this to the actual site, one of the testers commented on the large empty space it created at the bottom of the page. I fixed this by lengthening the section to allow for 4 books on one row, and removed the second row (Fig. 2).
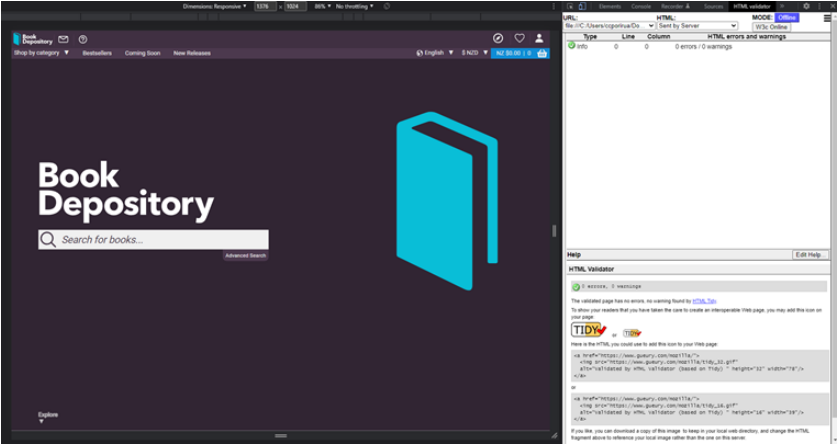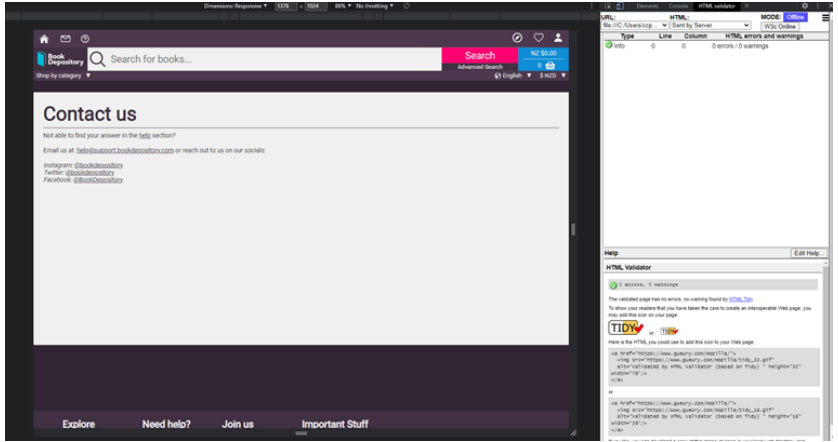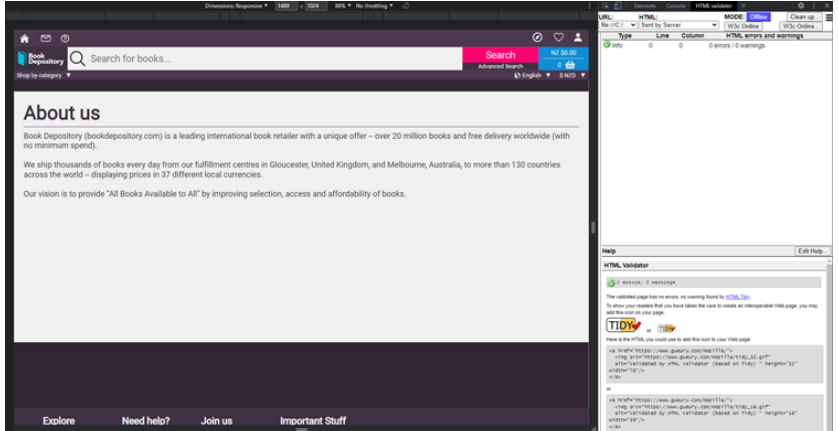
Fig. 1

Design "People who brought this" section
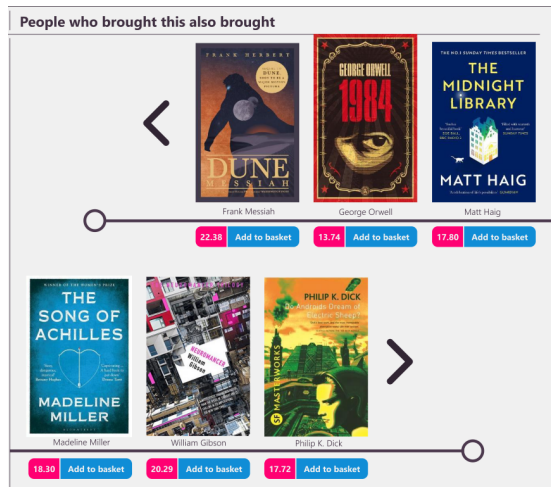
Fig. 2

Actual site's "People who brought this" section
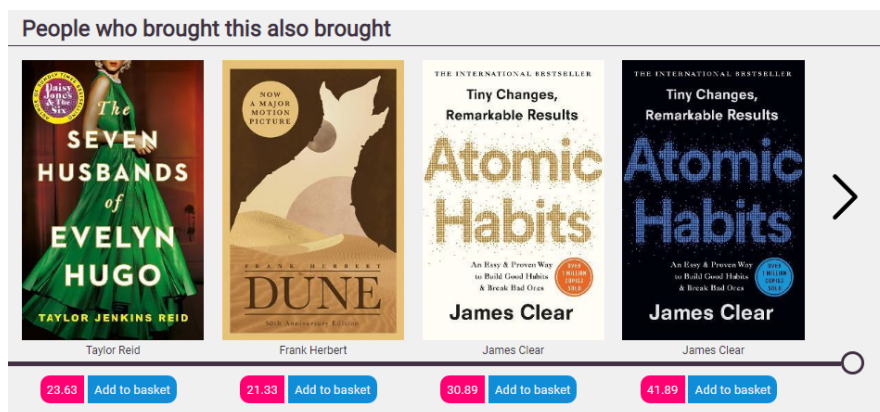
Site Checks

HTML Validation

To ensure that my site's html functioned correctly and followed standard conventions, I used HTML Validator (Gueury, 2022) to check each page.

Page Validation Chart

Page	HTML Validator Check
Index/Home	
Contact	
About	

Help

Cart

Search Query

Product
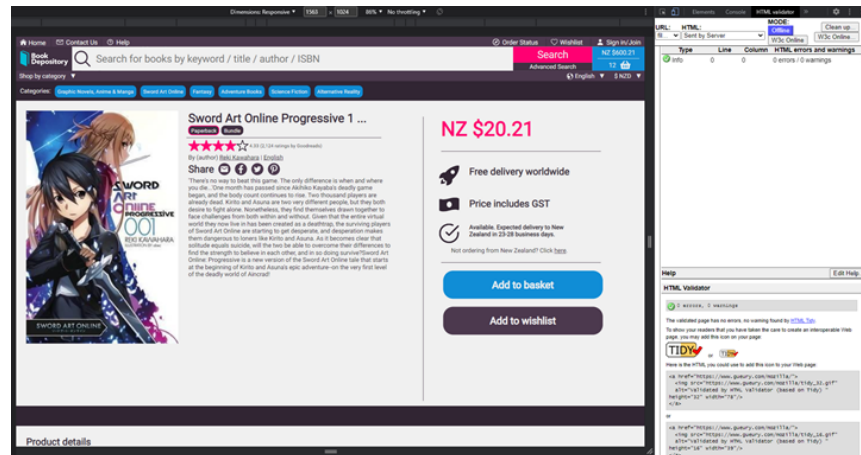
Login
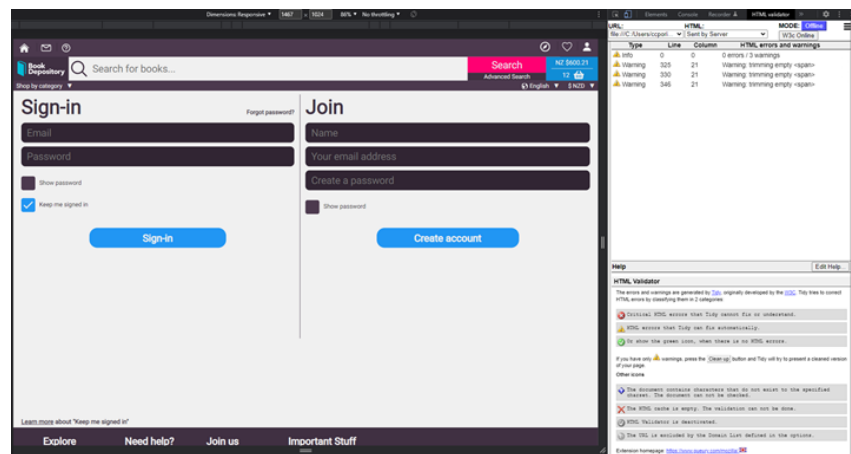
Wishlist
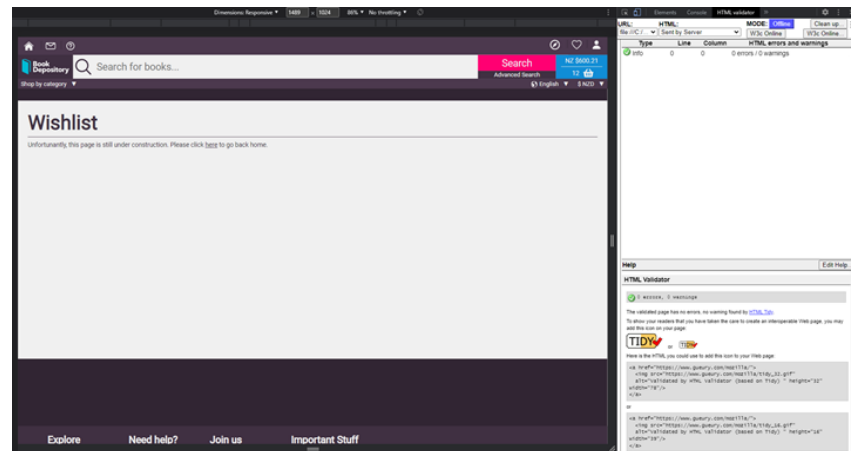
Notes
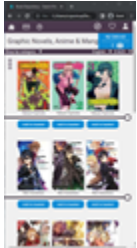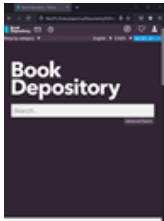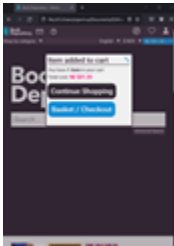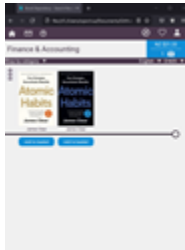
      For the cart, the warnings are acceptable since those elements are only used when certain

media queries are active, so they only appear to have no purpose to the validator. As for the

login, the trimming warnings are acceptable, since they are filled using CSS, which the validator

doesn't see.

Responsiveness and Browser Compatibility

To ensure that the website would be accessible to as large a demographic as possible, I
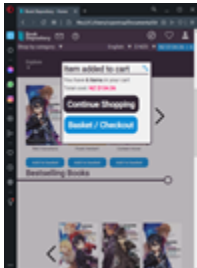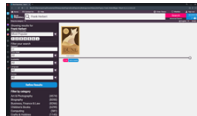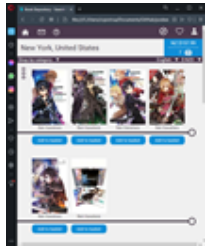
ran 5 of the major browsers (Chrome, Firefox, Opera, Brave, Edge) (2022) through multiple

pages, checking for bugs, responsiveness and JS functionality.

Compatibility Chart

Browser	Homepage	Homepage (Shrunken)	Cart Popup (Shrunken)	Search Results	Search Results (Shrunken)
Chrome					
Firefox					
Opera					

Microsoft
Edge
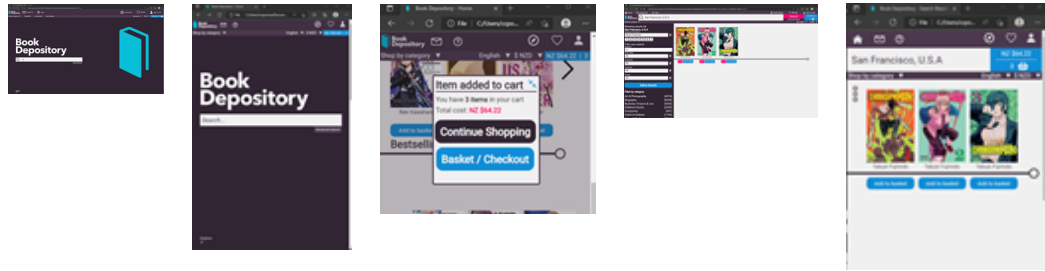
Brave
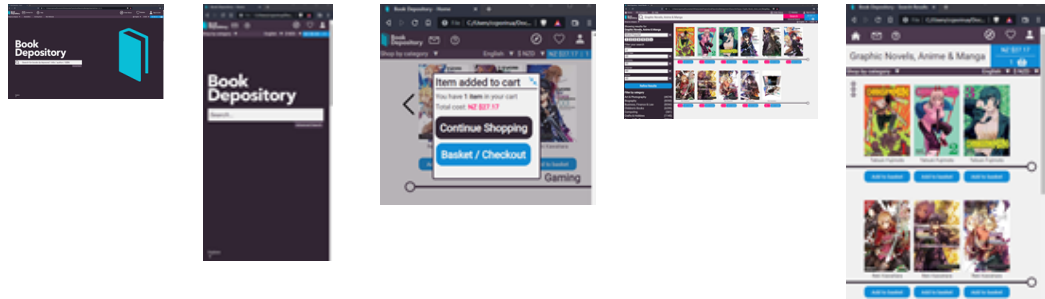
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https://www.adobe.com/nz/products/xd.html

Brave Browser. (2022). Retrieved 22 April 2022, from https://brave.com/

Firefox (2022). Retrieved 22 April 2022, from https://www.mozilla.org/en-US/firefox/new/

Google Chrome - The Fast, Secure Browser from Google. (2022). Retrieved 22 April 2022, from

https://www.google.com/chrome/

Gueury, M. (2022). Html Validator for Firefox and Chrome. Retrieved 22 April 2022, from

https://www.gueury.com/mozilla/

Microsoft Edge Web Browser | Microsoft. (2022). Retrieved 22 April 2022, from

https://www.microsoft.com/en-us/edge

Opera Web Browser | Faster, Safer, Smarter | Opera. (2022). Retrieved 22 April 2022, from

https://www.opera.com/

Roboto Font Family. (2022) Retrieved 22 April 2022, from

https://github.com/googlefonts/roboto

Segoe UI Font Family. © (2018) Microsoft Corporation. All Rights Reserved.

https://docs.microsoft.com/en-us/typography/font-list/segoe-ui