



**Noroff**

School of technology  
and digital media

# Project Exam 1

Emel Jemal Hassen

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## Summary

For this project, we have been tasked to design and implement our own personal blog. This report will investigate the process behind my design elements choices and code implementation considerations. We will look at the visual hierarchy and language used, colour choices, typography, images, icons, and layout of the website. This is to give insight into the design process and ideas. Furthermore, I will be discussing the implementation choices taken in HTML, JavaScript, and CSS, as well as the technology choices to implement the solution such as WordPress as my content management system. I discuss how the code is made more semantic and neat, the DRY principle implementation on my CSS, the abstraction of functions to simplify my JavaScript files, and the use of media tags, aria tags, alt properties, transitions, and other elements to secure a fully interactive site. I will also be discussing how we have made the website more accessibility-friendly and search engine optimized.



# Design

## Branding

The project exam assignment was to create a blog website, I chose to create a lifestyle theme blog. The topics vary from education, lifestyle, and personal topics. After choosing the theme for my blog, the next step was to get to know my target audience's age group. When considering the topics chosen to post on my blog, I imagined my target audience was probably going to be mainly women, and young mothers in their 20-30s. Considering my audience I choose to keep a simple and friendly-user design, displaying only the essential information on each page and adapting the typography and colour scheme to them.

## Layout, visual language, and visual hierarchy

In my design, I have prioritized a grid layout that transforms into a vertical column layout on smaller devices. My visual hierarchy begins (primary) with the site logo and navigation bar at the top. I have ensured to use high contrast to make it very visible and be at the top of the visual hierarchy. Additionally, the navigation bar is also sticky to be always present as the user scrolls to help navigate the pages with ease throughout the pages.

Next, the visual hierarchy (secondary) varies from page to page. On the home page I have a grid section that has the latest blog and about me displayed side by side to draw the users into action. On other pages, I simply have a title, or in the case of the blogs page I have a search bar and one can clearly see the blogs list below. The user tests showed that this worked best for them. I also use call-to-action buttons here where appropriate to encourage the users' navigation and interaction with the site.

Further, below the main page images, follows the next hierarchy (tertiary) of visuals and information. This information is more detailed and given in a structured layout to align the information presented to the user. The layout is chosen based on the amount and type of information presented. Consistency is used here carefully to keep with the visual identity of the page and make sure it is easy to read as well.

Lastly, a footer section is present on each page with some key information that is always accessible to the users.

Some key design elements that I have considered here are the choice of colour (as discussed later section), the use of contrast, spacing, and size to create a hierarchy of information and a sense of navigation. This same pattern is repeated on every page to create a familiar feel to the users and makes up the visual identity, language, and hierarchy of my site.

## Colours

Considering my target audience is mostly going to be women, I decided to go for a more pastel colour palette. For my background colour throughout the blog, I chose a white background, and as you scroll down the page, it turns to a soft sunset-orange colour. And on the footer box, I chose soft green, which I believe complemented the orange colour perfectly. For the navigation bar text, I chose black, but as you hover over the text it turns to a soft purple colour. A fun and simple way to highlight the navigation bar and guide the user



through the website. Hence, on top of the visual hierarchy. Colour evokes emotion, and the emotions that I wanted my users to evoke while visiting my blog is a calming, fun, and peaceful emotions.

## Typography

After spending some time scrolling through fonts on Figma, I ended up with Julius Sans One - font for the headings. I like the visual look of the font, it is beautiful which I believe suits my blog, and it gives a more distinct visual hierarchy. The second font I chose, for my paragraph, is Lato. It's an easy-to-read font, and it does not take attention away from the heading font. A perfect match.

I have also ensured to use of lining height and paragraph spacing, making it easier for the users to focus and read my blogs.

## Images, icons, and call-to-action buttons

I chose images with the intent to match my blog topics. Some are downloaded from WordPress, Unsplash (Unsplash 2013), and few are my private pictures.



# Technical

## HTML, Javascript and CSS basics

I followed the semantic and neat HTML code standards. This implies the use of the correct tags to make my code easily readable. I also used descriptive naming for classes in my CSS for the same reason. As an example, I use the Nav tag for the navigation menu, as well as segmenting the HTML body into a header, main, and footer to create a semantic separation. Otherwise, the additional content is contained using the div tag with a class associated with it. As for the image tags and links, I use alt and description properties to make sure it is easy to read and easily accessible even for the impaired.

When it comes to styling the website, I have separated the concerns into several stylesheet files where I have defined all the various classes and their style. The separation makes it easier to find and edit various styling options. In my CSS I opted for the DRY principle where I try to not repeat myself. As such, some global properties are set that are generic for the entire site, and then later they are overridden for specifics of various classes.

As for the JavaScript files, I have here too separated the scripts based on their usage. This helps keep the code clean and easier to digest for others. I have also separated the helper functions that can be used in several situations, like finding and filling specific information, in a separate file to not repeat code and minimize the impact of change if things need editing in the future.

To get content, I used wordpress.com APIs (<https://developer.wordpress.com/docs/api/>), as I used this site to host my backend content management system. I also made sure to not call the APIs too often and rather navigate the returns to minimize traffic and create more responsive elements on the page.

## Responsive and interactive design

Several measures were considered for making the site responsive and interactive. Firstly, I utilize flex display options in the styling as well as the grid. Grid is used for larger devices and displays as it helps us structure the content better. I make sure that I reuse as many of those properties across the page to adhere to the DRY principle.

To adapt the layout to various devices I use media tags in my CSS to switch various views, like the use of the hamburger menu rather than the horizontal navigation. For the hamburger menu, I have utilized some other interesting CSS elements. To begin with I have used transitions and animations to move the elements around and make them interactive. I have also made the navigation bar sticky, meaning that it is always visible on the page, and updated the z-index to make sure it comes on top of all the content. This is all to make it easier to navigate the page and always make the menu accessible.

I use animations not only for the hamburger menu but also for the loading wheel to make sure the user understands that the site is pending information from its CMS. I also implemented a modal for images when on the detailed blog page. This makes sure that all images on a certain blog are now interactive and can be accessed in “full screen” mode to get a better view. All the blog cards have interaction elements of changing the pointer as



well as the background colour to make sure the users understand that they are clickable and invite to interact. Another animated element is the use of the sliding carousel on the home page. Here I used the arrows to allow the users to quickly navigate the blogs as it slides to the next 4 blogs in the 12 latest posts.

I also made sure that the site is responsive and interactive by making sure there is not too much content on each page and with call-to-action buttons to encourage interactions. I also made sure to keep the site performant by using compressed images to increase response times.



# Usability testing, WCAG guidelines, content management, and SEO

## Usability Testing (Hotjar)

During the development and design of my blog, I did a few user tests. Firstly, on my Figma prototype design, then later on the actual implementation where I tracked the usage using Hotjar. I prefer conducting face-to-face interviews and asked the users to go through a set of tasks:

1. Find the latest blog.
2. Find a list of all blogs.
3. Find a blog about gardening and parenting.
4. Send a contact request.
5. What is this blog about? and why motivates the author?
6. Subscribe to the blog.

Here is the list of feedback retrieved and that has been fixed in the final implementation submitted.

1. Add search functionality when viewing all blogs.
2. The slider and carousel had strange behaviour and the cards/tiles were off.
3. The date is presented in a strange format on the detailed blog page.
4. The logo needed revising to better reflect the blog.
5. Pictures loaded very slowly and made the page unusable.
6. Some colour choices gave very poor contrast.

When conducting the test, I made sure the users tested both desktop and device views and made recordings in Hotjar to further analyse later. An example link can be found here:

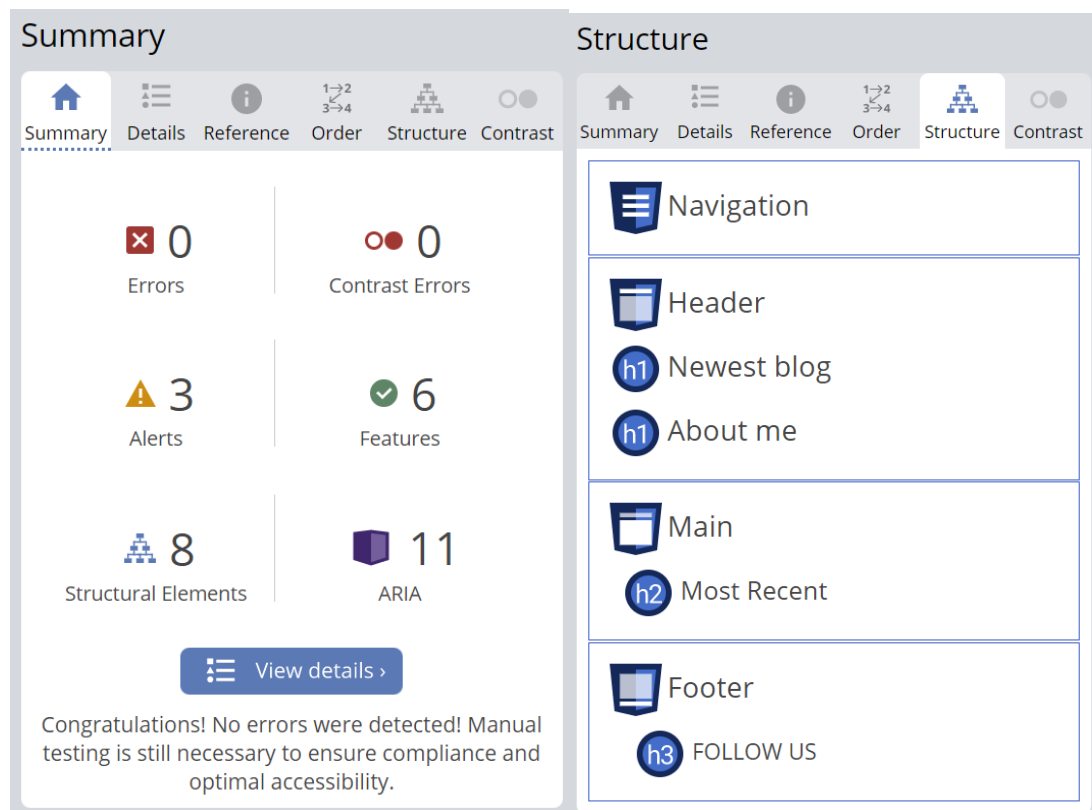
- <https://insights.hotjar.com/r?site=3499857&recording=27129520689&startTime=1000&token=7fa4b702a6a1ec46ca75ebd38d34e390>

## WCAG

The images below show the structure and hierarchy of the page as implemented. As discussed in the design section there is a navigation at the top with a logo and menu. Then a header with the main image for the page. Main is where the main content of the page is displayed, and finally, the footer contains some key information. I used WAVE as a tool to analyse the website as I developed it to make sure I have addressed all issues early. Also, in the image below, you will see that I do not have any errors or any contrast issues for readability. In the beginning, this was not the case as I had to adjust my code to achieve this. I also made sure that my site is accessibility friendly by using good alt descriptions and aria labels to describe links and navigation options better.







## Content Management System (CMS)

I used wordpress.com to host my WordPress CMS. This is a free tool that allowed me to post all my blogs and images as well as retrieve all this information via WordPress API. I submitted 12 blogs and made sure all the images are compressed to make the retrieval time quicker. I found the WordPress interface easy to use and allowed me to add a lot of content quickly, and the API was also well documented and easy to work with.

## SEO

To improve my site's content towards search engine crawlers, I optimized the site using Meta tags to include a description for each page together with keywords. I also made sure I specify the language of the page and have good alt text and descriptions around images to complement the content. I also used free web tools to evaluate the website's SEO score and did generally well on the on-page and performance scores. Things typically to improve are having a sitemap and a better URL as well as optimizing keywords to search topics around personal blogs in general.



## References

Unsplash, 2013. Unsplash: <https://unsplash.com/> [29 November 2022]

