A screenshot of a cell phone

Description automatically generated

# Semester Project 1

Eivind Gjerløw Sundbø

Word count

2635

Contents

[Semester Project 1 1](#_Toc97491348)

[1.0. Introduction 3](#_Toc97491349)

[2.0. Design 3](#_Toc97491350)

[2.1. What went well on the project 3](#_Toc97491351)

[2.2. What was difficult on the project 4](#_Toc97491352)

[2.3. What would I do differently next time? 5](#_Toc97491353)

[3.0. Technical 5](#_Toc97491354)

[3.1. What went well on the project 6](#_Toc97491355)

[3.2. What was difficult on the project 6](#_Toc97491356)

[3.3. What would I do differently next time? 7](#_Toc97491357)

[4.0. WCAG guidelines, content management and SEO 7](#_Toc97491358)

[4.1. What went well on the project 7](#_Toc97491359)

[4.2. What was difficult on the project? 8](#_Toc97491360)

[4.3. What would you do differently next time? 8](#_Toc97491361)

[5.0. Conclusion 8](#_Toc97491362)

[6.0. References 9](#_Toc97491363)

## 1.0. Introduction

The Community Science Museum is an interactrive science museum with appeals to “middle school children (7-15) and families with young children” (Noroff, n.d., p. 1). The museum wants to construct a website which reaches the target audience and which reflects the engaging and informative attributes of the brand. The goal being, of course, to create a want within the target audience to visit the museum. As a front end-developer, I have been appointed this task.

## 2.0. Design

The design of a website refers to the visual elements of a website, that is colours, fonts, pictures, icons etc., in addition to the order of which the elements are placed on the website (Noroff, n.d., p. 2).

Starting the project, I had a clear vision. I wanted to create an inviting and engaging design, focusing primarily around the pictures. I wanted the design to be overlapping – flowing like a unit, not fragmented separate parts.

## 2.1. What went well on the project

Creating the design for the Community Science Museum I had to apply knowledge from colour psychology, that is the lesson on how colours affect people (Noroff, n.d.). I spent some time trying to find the right colour palette in order to reach the target audience and evoke the right emotions. Using Marincia’s lesson on colour psychology, I therefore went with a combination of blue and purple colour nuances.

The blue and purple nuanced colour palette used in the style sheet for The Community Science Museum Website



Figure 1: Colour palette used for The Community Science Museum Website

The blue colour nuances are associated with trust, professionalism, and success – signalising that this is a serious institution keeping it’s promises. Secondly, the purple colour nuances triggers associations of mystery, fantasy, magic, and dreams, as well as wisdom – thus incorporating all important attributes for the Community Science Museum (Marinica, 2011). Furthermore, the colour palette was playing on the same tones or at least corresponding great with the colours of the pictures provided for this assignment, giving the overall design a very uniform and accomplished expression.

The pictures of the website were for most parts given. I have supplemented the gallery with three more pictures for the website to have the right expression and to help show the diversity of the museum. As I stated in the introduction to the design chapter, I wanted to centre the website around the pictures. The reason for this was that incorporating lots of text on the website could potentially drive away the target audience – middle schoolers aged 7-15 operating by the TL;DR-principle (Too long;didn’t read). I therefore considered the visualization of the different attractions in the museum more important that a verbal description of the exhibitions.

This is, however, not to underestimate the value of text. The descriptions of the exhibitions are essential to give the target audience the necessary information upon visiting the museum and is of course a quality assurance for the other part of the target audience – the parents. To incorporate both the TL;DR-principle and the necessity of text, I therefore strived to place the text in accordance with engaging, relevant pictures and to bring the website to life by creating movement and dynamic with the placement of the different elements.

**Website

Description automatically generated with low confidence**

Figure 3: Visualization of the dynamic design on the website

Graphical user interface

Description automatically generated

Figure 2: Visualization of the dynamic design on the website

## 2.2. What was difficult on the project

Since starting on the study of Front-end development, I have found font psychology difficult. Font psychology means choosing a font that triggers the right emotions and/or associations of the target audience (Fussell, 2020)

This is similar to colour psychology, but the difference is that there is a myriad of different fonts to choose from, some of which I am not familiar with. In addition, while colour psychology offers keys to put together the different colours in a colour palette, no such key is explicitly provided for choosing the hierarchy of fonts which go well together.

To ensure the right progression of the project, according to my Trello-schedule, I therefore awaited to choose the font combination. I was afraid that this might stagnate the whole process. Upon finishing the design, I took a day dipping into font psychology, reading about the different ways typography affects the user. I thus got a better understanding of which typeface to use – the sans serif.

Sans serif is the name of the typeface characterized by its lack of serifs, that is its lack of “little “feet” (…) at the ends of their strokes” (Kadavy, 2011, p. 290). This typeface is described as modern, innovative, and adventurous, as well as inviting and friendly (Fussell, 2020) – like a science museum should ought to be.

Still, the choosing of the exact font within this typeface category was not an easy task. Luckily, I remembered an overview provided in the course material, describing the effects of the different types. I looked into what was the main purpose of the design – to create an engaging and professional website, that should strive to pique the interest of the target audience. I therefore relied on the course material and chose the font combination described as “loud and outgoing” within the sans serif typeface – Bebas Neue (headline) and Montserrat (body text) (Noroff, n.d., p. 6). Bebas Neue offers a “blend of technical straightforwardness and simple warmth which make it uniformly proper for web, print commerce and art” (Anonymous, n.d.). Montserrat is a geometric sans serif typeface, with curves and rounded corners, applicable for both traditional and modern designs (Anonymous, Top 5 Fonts and its usage, 2017)

## 2.3. What would I do differently next time?

It must be allowed to state that I am very happy with the overall design of the website. I feel that I have managed to create and manage elements according to my vision in order to reach the target audience and evoke the emotions and trigger the associations laid out in the assignment.

However, If I was to do something different, it would be in regard to the process of designing. It is stated in the course material that it is important to know your target audience in order to make the website appealing (Noroff, n.d., p. 2) (Noroff, n.d., p. 9). For this assignment the target audience was provided and described – rather superficially (Noroff, n.d., p. 1). In the study of digital marketing, the defining of the target audience is done in great detail by creating “buyer personas”, to ensure that all material made is in .favour of those reading/interacting with it (Noroff, n.d., p. 11). I think that such an approach would be beneficial for Front-end development as well – in this project it was time consuming going back and forth in the design process, finding out what engaged the target audience. If this was clearly defined in advance, incorporating psychographic, demographic, social attributes, this might have been smoother (Noroff, n.d., p. 11). I would have all relevant attributes of the target audience clearly in front of me, and thus be able to make necessary adjustments more quickly.

## 3.0. Technical

For the technical part of the assignment, I was given some guidelines. Firstly, the HTML is expected to be “semantic and neat”, that is easily readable. This, I think, is of course an ideal for all coding projects. Secondly, the external CSS sheet is to follow the DRY-principle. The DRY-principle is an acronym meaning “Don’t Repeat Yourself”, and the implication of this is that a line of code should only be typed once – even though the specific code has a function on several places (Chies, 2015). Lastly, the site must be responsive – have a good functionality on different devices (Noroff, n.d., p. 3) (Truong, n.d.).

## 3.1. What went well on the project

The first couple of days – after finishing the design, I worked on the prototype for the website. I used Adobe XD as a tool for this task. I acted according to the style sheet and experienced no troubles for this part of the project. The prototype later functioned as a manual for the HTML and CSS coding (Noroff, n.d., p. 2).

On the previous project – the website for “RainyDays” – I experienced some difficulties when implementing the code. Therefore, I thought it important to choose a work path which allowed me to feel a sense of achievement during the process.

I thus started the project with implementing the recurring design of the website – the header, footer, hamburger menu etc. on all sites. This helped give an overview of how the placements of the elements on each site should be in practice, relatively in accordance with the recurring design.

The main strategy to gain some sense of achievement was to fully complete all the HTML and CSS for one specific site before moving on to the next one. This was a successful way to go. I started with the main index.html, finished it and thus got a sense of the progress and a sense of the overall design on the website.

Furthermore, I found it simplest to write one CSS for each HTML. This helped prevent overlap in the classification systems (class=””) and the general targeting in CSS (Noroff, n.d., p. 4). In addition, I wrote one CSS for the header/footer, one for fonts and one for the hamburger menu to reduce lines of code in each CSS, making it readable and clear – both for myself during the work process and for the readers.

## 3.2. What was difficult on the project

As of earlier I have had problems implementing the responsiveness of a website, and I have spent many hours trying to improve this skill. However, making the website responsive showed to be a challenge in this project as well. For instance, I experienced it difficult to achieve the positioning of text above certain pictures (see for instance Figure 3). As an alternate possibility, I considered using Photoshop to modify the respective picture, placing the text permanently above it. Although solving one problem in the desktop version, this had some implications when scaling it down to the mobile version. Here I had to exchange the edited picture with an unedited picture, as the text would not adjust relatively in size and position. However, stubborn as I am, I spent hours and hours trying to make the coding work, and at last it did. #senseofachievement.

In the course material we are advised to design mobile first, and then scale up to desktop. Why? Source. I also followed this procedure when coding the website. However, I seem to have some difficulties “thinking” this way – I find it hard to see which div an element is supposed to placed in when scaling from mobile to desktop. The consequence of this was that I had to make several changes to my HTML when working on responsiveness on the project.

## 3.3. What would I do differently next time?

On the next project I will implement the procedures of design – mobile first, desktop secondly. Upon implementing the code, I will, however, work the other way around – writing all code for desktop first and then scaling it down to mobile. Hopefully this would render the work processes more seamless and allow me time to work on other aspects of the project.

I also think it important to research and practice even more on responsiveness, so that I am able to experience and achieve more functions without finding alternate ways in the next project.

## 4.0. WCAG guidelines, content management and SEO

The WCAG guidelines are in place to ensure website accessible to everyone, including people with disabilities. Content management is the system of which content is organized on a website, and SEO (Search Engine Optimisation) involves using specific keywords to make the website highly ranked on search engines.

## 4.1. What went well on the project

Previously in this task, I have discussed colour psychology and font psychology. Moving on to content management involves a bit of psychology as well. The objects must be placed in a sequence and relatively to each other, so that the visitor of the website is led towards the important information and the call-to-action buttons. I had a clear understanding of this, going into the project. The reading direction from left to right is taken into consideration, as the logo and brand name are placed in the top left corner – expecting eyeballs as soon as the visitors enter the website. The main call-to-action – encouraging the customer to plan their visit to the museum is also among the first objects the customers notice on the website. Furthermore, the pictures of the website are positioned and designed to be the centre of attention, connecting the visitor to the content of the website and the call-to-action buttons in the extension of these. This, I mean, shows an understanding of content hierarchy – where the main objects have central placements, whereas other and more detailed descriptions of the different exhibitions and events comes second. Distinguishing between headlines and copy text helps substantiate this hierarchy.

On the previous assignment I received feedback regarding implementation of SEO principles. I therefore did my very best taking this into account in this project. I had to do some research on how to incorporate these principles through code in my HTML, but I as did so, I quickly understood the task. I added meta descriptions of each individual page on my website in the HTML. These descriptions give a snippet of what the site is about and is visible on the search engine when searching for specific key words. The important thing about these descriptions, is that they are appropriate in length – allowing the prospective customer to read the text as a whole on the search engine, and that they contain precise information of the site using searchable key words and phrases. The formulation of this meta descriptions thus took some time, but at last I was happy with the result.

## 4.2. What was difficult on the project?

My “RainyDays”-project was not WCAG-approved, as it was lacking in both meta descriptions and alt-text. I thus received 0 points on this criterium in the last project. This time, I used the accessibilitychecker to ensure that my website met the standards. Upon this check, I received 86 % score. The challenge, however, was that I didn’t quite understand the errors. I therefore had to spend a lot of time familiarizing myself with the description system used in the accessibilitycheck and was then able to fix all of the urgent and some of the secondary issues on my website. Doing this, my WCAG score bumped up to 95 %, and the site was registered as compliant.

Even so, the website still has some secondary issues, some of which I still do not understand. For instance, the accessibilitychecker claims that “<video> elements do not contain a <track> element with [kind='captions']“, yet I don’t have any videos on my website. Stupid WCAG…

## 4.3. What would you do differently next time?

I felt that I mastered this part of the project pretty well (hopefully?) and righting my WCAG wrongs helps me learn and internalise methods for website design and HTML and CSS coding. I therefore believe that the WCAG issues firstly discovered on this project, will be handled during the coding process on my next project. Learning by doing.

However. Next time – instead of wasting my time with the WCAG check, I would simply add a video on my website, just to give it a <track> element with [kind=’captions’]…

## 5.0. Conclusion

I have delivered a project that I am proud of – that lives up to my vision in design and code, and which has incorporated SEO-techniques and is WCAG compliant. There were some bumps in the road along the way, but I managed to solve them to the best of my expertise so far. I now feel that The Community Science Museum has a consistent brand identity through the whole website and is visible and actionable.

## 6.0. References

Anonymous. (2017, 08 16). *Top 5 Fonts and its usage*. Retrieved from medium.muz.li: https://medium.muz.li/top-5-fonts-and-its-usage-39fb616f574b

Anonymous. (n.d.). *Bebas Neue Font Family*. Retrieved from befonts.com: https://befonts.com/bebas-neue-font-family.html

Chies, A. R. (2015, 05 12). *DRY CSS (Don't Repeat Yourself)*. Retrieved from medium.com: https://medium.com/across-the-mirror/dry-css-don-t-repeat-yourself-80a21de18238

Fussell, G. (2020, 05 16). *The Psychology of Fonts (Fonts That Evokes Emotion)*. Retrieved from design.tutsplus.com: https://design.tutsplus.com/articles/the-psychology-of-fonts--cms-34943?fbclid=IwAR28cqyAkCVqCq0HgUGde5PHzZb8i7nyKbkI39lFqAWPf1Q6u4CmGjvj2WE

Kadavy, D. (2011). *Design for Hackers: Reverse Engineering Beauty .* Sussex: John Wiley & Sons, Ltd. .

Marinica, A. (2011, 05 25). *Colour Psychology in Web Design - Big Website Case Studies*. Retrieved from pixel77.com: https://pixel77.com/color-psychology-web-design-color-schemes-big-websites/

Noroff. (n.d.). *Lesson - Business Strategy.* Retrieved from noroff.bravais.com: https://noroff.bravais.com/document/5811/preview

Noroff. (n.d.). *Lesson - Font Pairings, Usability and The Style Tile.* Retrieved from noroff.bravais.com: https://noroff.bravais.com/document/6121/preview

Noroff. (n.d.). *Lesson - Fundamentals of Colour .* Retrieved from noroff.bravais.com: https://noroff.bravais.com/document/6121/preview

Noroff. (n.d.). *Lesson - Introduction to Branding .* Retrieved from noroff.bravais.com: https://noroff.bravais.com/document/5809/preview

Noroff. (n.d.). *Lesson - Introduction to CSS.* Retrieved from noroff.bravais.com: https://noroff.bravais.com/document/6799/preview

Noroff. (n.d.). *Lesson - Introduction to Prototyping.* Retrieved from noroff.bravais. com: https://noroff.bravais.com/document/10209/preview

Noroff. (n.d.). *Lesson - Typograhpy Basics.* Retrieved from noroff.bravais.com: https://noroff.bravais.com/document/6121/preview

Noroff. (n.d.). *Semester Project 1: Final Delivery.* Retrieved from noroff.bravais.com: https://noroff.bravais.com/document/5291/preview

Truong, C. (n.d.). *CSS Essential Training*. Retrieved from linkedin.com: https://www.linkedin.com/learning/css-essential-training-3?replacementOf=css-essential-training-2-2017