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Semester Project 1

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1695 words

This is a description of how the prosses of planing and making the website for Community Science Museum. The description given was that a new science museum is coming in my home town and I was given the opportunity to make their site. The target audience is primary and middle school students and their families. The "client" wanted a website that should be apealing to the target audience, and be informative and engaging and make the children want to come and visit the museum.

When I started the process of planning the project, I started by creating a trello board where I set up the various work items In form of epics (cards) I had to complete, and in each card I entered a checklist user storys (tasks) that I had to complete in order to complete the assignment. I set end dates for each of these so I always would know how far I had come and how much I had left to do to reach the deadline of the project. During the prosess I have had to add some additional tasks to the cards that I needed to do to make the website as I wanted, that I did not think about during the planning fase of the project.

Design

I started by creating wireframes on paper to quickly come up with a couple of solutions that I thought could work, both for the customer and to make the website good and responsive. During this period, I checked out other sites that were aimed at children and young people, both to get inspiration and to see what might not work as well. After coming up with a wireframe that I liked I drew it up in Adobe XD. Here I continued the process of finding a proposal for the colors and typography I wanted to use. I chose to go for strong, colorful colors as I felt this could appeal to children and young people. I wanted the page to bring out all the important information that was needed, but at the same time clearly show that this was not a boring museum aimed more at the adult generations. The typography on the headlines can be reminiscent of gaming headlines, which I know children today have a great relationship with, while they are easy enough to read. Due to the strong colors on the page, I chose to use white text on much of the page as it created a better contrast.

When I tested the colors in an accessibility tool, I discovered that I had to change four of them to get it approved in terms of contrast level. So, this is what I did. I also struggled for a while to get the top navigation to look exactly like the design, but finally managed to fix it to the best of my ability. I also found out while I was programming that I wanted the navigation menu to be visible in larger screens without a hamburger menu, so I had to change this along the way.

Next time I will check the colors before I insert them into the Design, so I don't have to fix it on a later occasion. Otherwise, I think that I went through the process in a reasonable way which meant that I had an overview of which pages I was going to create, how they should look and how it would be possible to click through them through prototyping.

Technical

The work on the code started with building the index.html and then starting with the styling on it. As I chose to go for the same navigation menu on all my pages, I wanted to put this styling first. This was a task I had to work on a bit to find out how it could scale in the nicest way to both large and small screens. In this process, I chose to replace the hamburger menu in the large screen and replace it with visual links to the various pages. This required some thinking about how I should best make it happen, but after a bit of work it turned out about as I wanted. In the further work with the various pages, I made the various sections look mostly as I wanted with the design as a starting point.

I had reduced the images I used in photoshop so that they were all under 200kb, which means that the pages should load at a good speed. I was able to place them to the right size where I wanted them and adjust the number of images by using Grid to the different screen sizes. I wanted some interactivity with the user, such that on hover the links and icons in the footer turned green. In addition, I wanted the sections on information on the home and contact pages to pop a little at the edges. I fixed this by using transform:scale().

But I had some problems with this transform:scale as I had not set the navigation menu to be in the front. This caused the sections to overlap the nav menu when I hovered over them. This caused quite a headache, but after reading up and asking my fellow students for help, I got tips on setting the nav menu to z-index:2, which of course worked very well.

Another problem I have is the search field in the navigation menu. It works very well in Firefox and scales and behaves as I want, but when I open the page in Apple products (mobile/pad) it changes. The button I have added next to the search field becomes smaller and the icon disappears unless the button is pressed. In addition, there is a magnifying glass in front of my placeholder text in Apple, but I was able to remove this by using -webkit-appearance:none. But this with the button is a problem I have not yet been able to fix.

After I started to feel that the page took the shape I wanted, I started the process of looking for bugs in the various browsers and the tools you can use to check for errors. I found that some browsers did not operate in the same way as Firefox where I had mainly developed my site. This meant that I had to make some changes to various components, and it became clear that I had not set the correct sizes on a couple of the images. This created a horizontal scroll bar on some of the other browsers such as Chrome and Opera. I fixed this after some searching on the subject. I also opened my page on wave.webaim.org and in Lighthouse to check for errors there. Among other things, I had some poor contrast color on the buttons on the page, in addition some of the images had some poor alternative text. This was also corrected.

WCAG guidelines, content management and SEO

At the beginning of the project, I thought I had found good colors with good contrasts, but as mentioned above I had to change something about these. In addition, I came across an article about accessibility for screen readers, after I checked my page on wave.webaim.org

where it was brought to my attention that the search field did not have a label. This is of course important so that all people can also use the search field on the page. I therefore added an aria-label to prevent people using screen readers from losing this ability to use the search field.
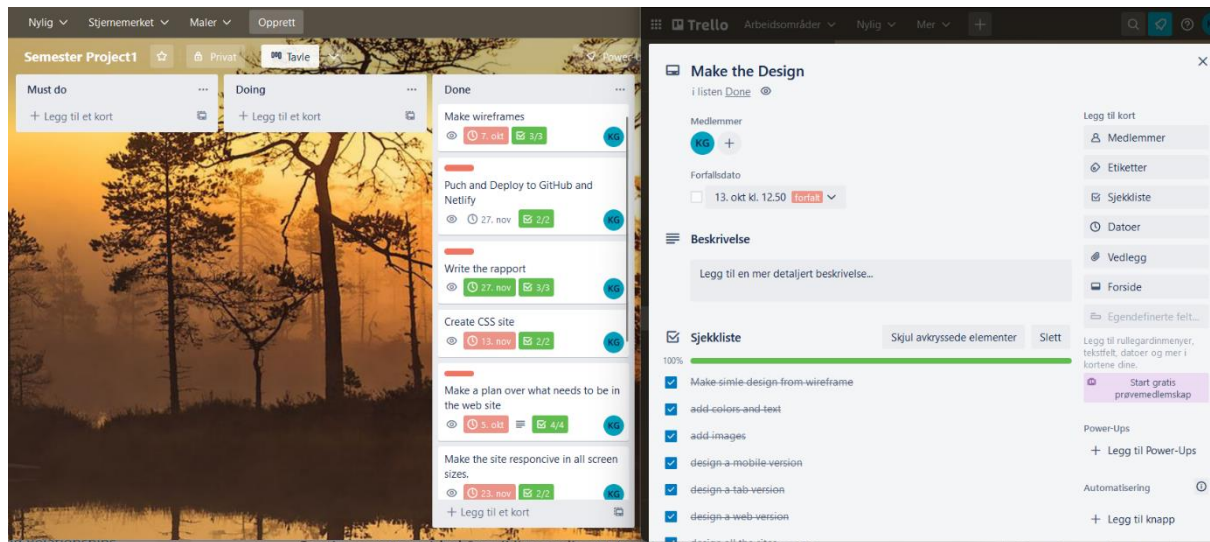
In addition, all images have an alternative text that gives a short description of the image. This is both for information in case the images do not load, but even more important for those who for one reason or another cannot see the images. Then the alternative text should be there to inform about what is on the page. For the same reason, the page is set up with a hierarchical system of headings, and the various sections of text are inserted in their own <div> or <sections> so that tools such as screen readers can easily understand where on the page they should go. I also had to change the background image on the header section from the original design because the contrast with the headings where to low. With a filter applied on Photoshop I managed to make a bigger contrast so that it would be easier for everyone to se the text.

When it comes to content management and SEO I have created a unique title for each site in the project. There is also a description on each page that states what is described on that page. This is done so the search algorithm will give the user an insight into what the page is about, and hopefully will visit the page. All the pages have unique headings that describes that particular page, and all the anchor text is describing to where the link goes.

In summary, I feel I have crated a website for Community Science Museum which is aimed at a younger audience and thus sets the target audience to be children, young people, and their families. The colors and font are designed to inspire and speak to children and young people. The site is easy to navigate and always let you know where you are on the site. The site has enough information to let the user know what is to be found in the museum and are using images that inspire to curiosity. The site is interactive with buttons that changes by hover, and some sections scale a bit when they are hovered over. In my opinion is this just enough animation on the page. To much can become messy and troublesome for the user. The site is responsive and fits both big screens and scales down nicely to smaller screens. There is one problem with the site when I open it on iPhone and iPad and that is as mentioned above that the search input changes somewhat. I must find out more about this in further work.

Trello board

References

- https://color.adobe.com/
- https://webaim.org/resources/contrastchecker/
- https://www.w3schools.com/
- https://css-tricks.com/
- https://stackoverflow.com/
- https://developer.mozilla.org/
- https://wave.webaim.org/
- https://www.w3.org/WAI/WCAG21