Noroff
School of technology and digital media

Project Exam 2

Part 2 of 2

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1. Summary

In the second part of project exam 2, I have created a website with mainly Reactjs and SASS for a real world client that fulfils both the exam- and the client's brief the best of my ability during my circumstances.

After submitting this exam, I will have further cooperation with the client to maintenance his website, in addition to adding new functionalities to it as I further develop my skills and knowledge in web design (which I will discuss in a bit more details later in this report).

While working on this self-selected freelance project, I have had a steep but rewarding learning curve when it comes to personal growth and professional development as a front-end developer and designer - yet I still feel I have so much more to learn and discover after frontend study program ends for me. But I experience I have come a long way since I starded my studies at Noroff over two years ago.

1.1. Project brief

In short, I was contacted by a client who needed a website where he could display his collection of paintings he has made since he retired from his job late 2018. In addition, he also wanted to have opportunity to easiest possible way to self add and publish new paintings he is creating. Since he also wants to get in touch with other people who have similar interest in art as him, he wants to be able to see what visitors writes to him trough contact/enquiry form.

Some changes from the prototype stage of the project to the actual website of his online gallery have been made based on both client's and MJ's feedback in the first instance of this exam.User testing has placed extra weight on how the final end result of the website ended up to be when it was first time launched after beta testing of the site was completed.

Note that my current use of CSS Pre-processors and BEM is not fully complete and will work further on improving this part of the project after marking of it.

2. Body

2.1. Introduction

In this part of the report I will focus on explaining briefly how it has been to create this particular website when it comes to design, the technical and WCAG, SEO and CMS (Content Management System) part of it where I will discuss for each part of the website building:

- What went well?
- What was difficult or din't go well?
- What will I do differently next time?

2.2. Main section of report

2.2.1. Design

When I talk about the design part of the project in the second part of this exam here, I want to share how I experienced the process of designing the website using HTML (jsx) and SCSS – translated from design version of the site (Figma prototypes) to coded version of the site.

I would also like to give a comment or two on how I have tried to use SCC Pre-processor and BEM (in my case; SASS) to design this website, although it may border a little more on the technical aspect of the webdesign when it comes to organizing the code as it is thought it perhaps should have been done – rather beforehand after own experience and learning process.

What went well on the project?

If I didn't made a prototype of the website beforehand, it would have taken me much more longer to code all included elements on the site and potentially could have lost extra time debugging when needed. What I want to convey with this statement is that I have saved a lot of time on extra work with coding various of components and elements on the site while creating prototypes first – so I could focus more on the critical technical aspect of the website.

What was difficult or didn't go well on the project?
I was unable to display the search bar typehead exactly the way I'd pictured in my head. Although current solution may not be perceived as visually optimal, it is currently designed to work flexibly across different screen devices with the main priority make it as user-friendly as possible during these circumstances.

Another challenge I ran into that I found a workaround (for now), was that I experienced both challenges with creating the enquiry modal from homepage and make it behave optimally for users where I have mentioned in conclution part of the report how I consider to further develop the UX/UI part of it. It wasn't until during user testing I discovered how it really behaved and how it affected the users – which could have had negative consequences if these issues were not fixed (view **figure 1** below this paragraph).

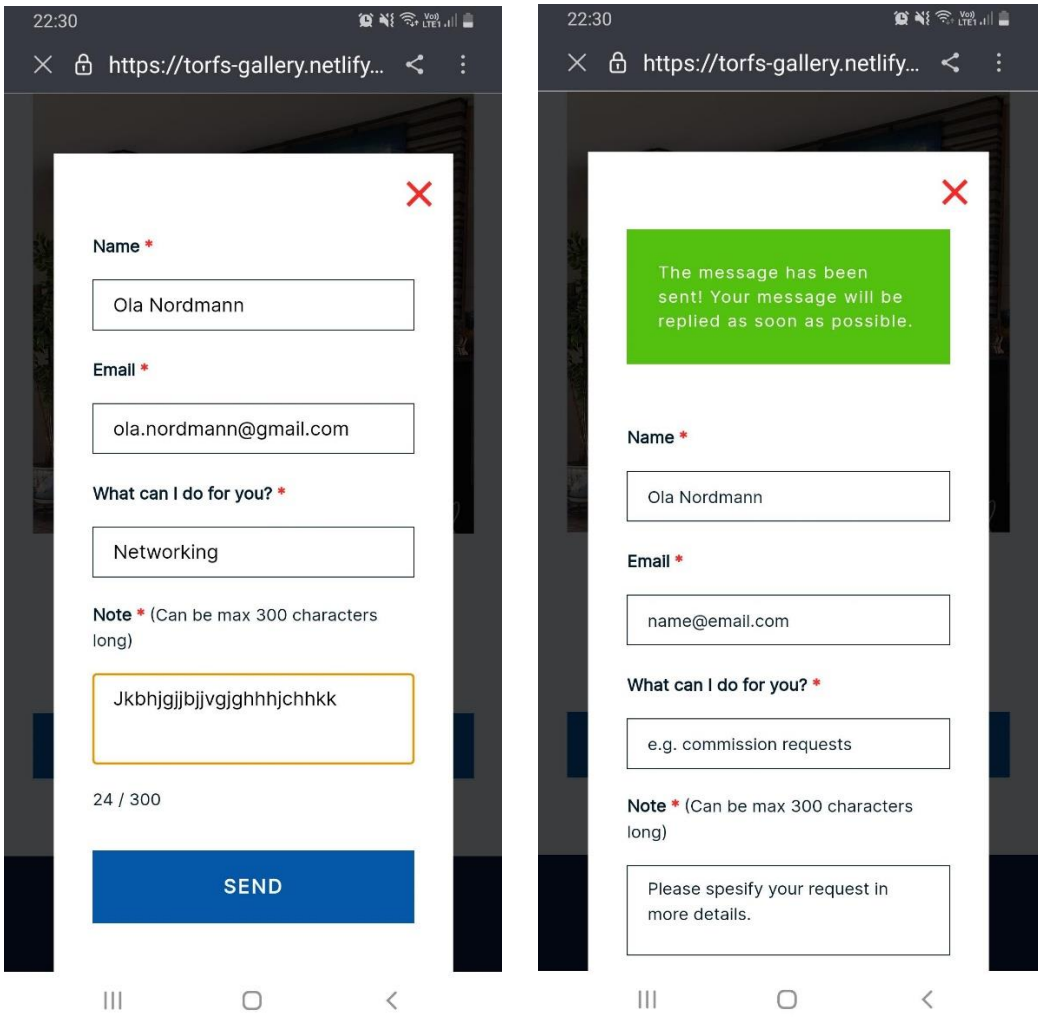

Figure 1: This is how the enquiry form displayed on e.g., Android phone before current changes were done. Tablet (Samsung S7) landscape had similar issues. Unfortunately, I won't say it is yet 100% optimal for all devices, even these temporary solutions I've made.

I also struggled to create the slider from scratch with API call and ended up using Bootstrap to achieve the desired result similar to the prototype. I know how to do this in hard-coded way, but have not been able to find out how I can somehow transfer this knowledge with API instead of hardcoded version of it.

What would you do differently next time?
I hope until next project I will be able to create several more drafts or proposals for how the website could alternatively look, not just present one design idea at the beginning, and then choose one of the design concepts in cooperation with future clients we want to explore further more in depth.

In addition, I miss exploring further different ways of designing components and elements, including different ways of functioning for these, in order to find out which solutions best suit which project goals and with the though of best possible user experience for the target group(s). If there is some extra time left from the next projects, I will consider putting in these measures in addition to create a couple of more design drafts of the website in form of wireframes.

One last thing I will try to do for the next project is to input SCC Pre-processor and BEM at a much earlier stage of the project to keep more order and control over the code I write – although I have to insert extra time and effort on put these into practice but will save me for the trouble later.

2.2.2. Technical

Here I will explain how I have worked with React and used JavaScript to add the functional part and requirements for this website, and how these have influenced the interactivity of the website. In this part of the exam, I have experienced the yet biggest learning curve and professional development so far.

What went well on the project?
GET-requests were where I personally experienced least hardship, since this was something I had practiced A LOT for some time before I worked on this exam. Working with the back-end part of the project via Strapi trough Heroku, particularly V3, has been a satisfactory, fun, and intuitive part of this project work for me – which I will say it's also the CMS part of this project, something that I am motivated to practice more into my further projects .

Another request type I used, which was not mandatory but done for the sake of user experience from admin's perspective, was DELETE request which I experienced I at some level excelled in within short amount of time. I inserted DELETE request on both «contact inbox» and «enquiry inbox» from admin page(s) to make it possible for my client to delete messages as it pleases him without having to use backened (login through Strapi) to achieve this. The next steps I will take to further develop and improve the UX of these functions is that I'm planning to use react-confirm-alert to costumize the user interface of default confirm dialog (NPM 2022).

What was difficult or didn't go well on the project?
There were some POST-requests that I struggled for some time to manage to do, which was when I had to get «Login.js» and «Add.js» pages from admin to work properly. I actively used Postman POST requests to test out how I could add data to the endpoint before solving these issues from above in the code, with some assistance from one of the tutors with my login form and a former classmate of mine to post new data with images to the API without having to use «/upload» in addition to my API url (acknowledgements on page 11).

Further I was working with this project, I gradually started to loosing track on keeping the components in order and assessing when it's appropriated to divide the code into several components that can be reused also elsewhere inside the project. In WCAG-part of this project, I shared a bit of my thoughts how I'm thinking of improving this part of the project till next time.

What would you do differently next time?
I this case, I see now in retrospective that I could have lowered the threshold for asking for help when I get stuck for a longer period of time. I'm going to set a clearer limit on how long I will allow myself to sit with the same problem(s) depending on the course of the project, before I'll ask for help. Will still for next projects keep practicing solving my own errors and issues in my code, since it's something I learn a lot from, which makes me grow as a developer in addition to my problem-solving skills. Also notice that I should probably improve my ability to assess what I'm able to do within given time in some cases perhaps, and critically select what's the most important to implement on the website to be considered as completely functional and user-friendly, based on client's demands and user's needs. This may depend on experience and practice?

2.2.3. WCAG Guidelines, content management and SEO

In the last section of the report before I end this report with the conclusion section, I would like to tell a little bit about how I have worked with WCAG, CMS and SEO in React.

What went well on the project?

One of the reasons why I find joy in working with ReactJS is to work with components. Components have made it easier for me to keep track of code and detect errors and its location(s). For me, importing components and JS files is easier to work with and goes faster in react than with traditional javascript.

What was difficult or didn't go well on the project?

What I find so far to be one of the most challenging parts of working with ReactJS was to find more suitable practice for me to work with props, yet it has been a critical practice to me when it comes to create web accessibility to the semantic elements (part) of the code. Since this is the very first year I am learning and practicing creating websites and applications with Reactjs, I still have a lot to learn when it comes, among other things, the correct and proper use of props and when it is appropriate to use them – which is also something I have received feedback on from previous assignments in React and something I am trying to learn from.

Other challenges I experience that have been a regular occurrence in my web projects, something I would not have been able to capture without user testing, is that some UI elements are not quite the same in Chrome as e.g., Safari browsers.

What would you do differently next time?

Something I intended to do beforehand, and which I regret I didn't put enough time to do earlier, was to rewatch video lessons to, for example, go trough a bit more in depth the use of props and other practices that would be beneficial to include in order to improve web accessibility for web project.

Another thing I wish I knew about earlier, which I will use in the next React (or Next.js) projects, is to adopt WCAG checker with eslint plugin, although I have noticed it uses to tell me about this in the terminal without a plugin for this when I enter html semantics incorrectly – for instance in some cases.

2.3. Conclusion

The overall conclusion prase I have concluded for this project, is based on my overall experience with website building and design – which says:

«The simplest is often the best».

This also applies to coding practice. For me personally, living by this statement means to create effiency in design, code and workspace (Hossain 2021). This mindset has also helped me to keep track of what I create and to understand what my code does at any time with the goals I want to achieve with them, as well as more quickly identify and fix errors and bugs when they occur during testing before website's 1st launch – reffered to after beta version of the website (Goslen 2019). When I'm talking about «beta version» of the website I refer to the first time I deployed this website for user testing only before its official 1st launch, and the first time I have done and practiced this with React App ever.

2.3.1. The way forward

As I may have mentioned in the introduction part of this report, we're planning to add more functions to the site, which can improve the user experience and make the site more engaging for them – both for visitors and administrators.

In general, these functions will have the highest priority:

- Enable users to filter the paintings based on existing image categories:
  - Abstract
  - Maritime
  - Nature
- Make it possible for admin to also update his paintings, including updating the slider images and info.
- Consider switching enquiry form to a separate page instead of displaying it as a modal.
- Improve the overall UX/UI design of the default confirm dialog from the admin site (for both `Inbox.js` and `Enquiries.js`).
- Create a working comment section for each painting, where users can post a comment for each painting and admin can manage (delete comments) as desired when logged in.

3. References in the text

Goslen, D., «Why Simple Code is Better Than Reusable Code», 2019. Internet: https://dangoslen.medium.com/why-simple-code-is-better-than-reusable-code-319118eeb691. [Acessed 11-11-2022].

Hossain, Md., «Top 5 Reasons Websites with Simple Design are Better», 2021. Internet: https://www.telerik.com/blogs/top-5-reasons-websites-with-simple-design-are-better. [Acessed 11-11-2022].

NPM, «react-confirm-alert», 2022. Internet: https://www.npmjs.com/package/react-confirm-alert. [Acessed 17-11-2022].

4. Acknowledgements

I would like to extend a big thanks to MJ Phillips for making it possible for me to carry out this project, as well as giving me good advices and constructive feedback on the prototypes for the website I created from part 1 of 2 in project exam 2. In addition, I would like to thank Connor O'Brien for good help and follow-up the time I got stuck with the authentication part of the project while working on backened running Strapi (with Heroku and Cloudinary) which was crucial for me to get this project done.

And I also want to thank Kate Westwood for giving me up to 1 week extencion to complete this exam shortly after doctor's visit.

I would also like to thank my closest former classmates, for taking their time to participate in the user test of website and for reviewing quickly my code with honest but supportive feedback on it, which has contributed a great deal to further work on improving the holistically user experience of the website. My special thanks goes to Priscila Derlam and Tiffany Utvær Gasser.

Also, I don't want to forget to thank my nuclear family and closest friends, including my partner (even my dog), for giving me emotional support and encourage me to keep going the times I felt down and I just wanted to nearly give up.

Last but not least I would like to thank my client Torfinn Lie, also my father, for giving me the opportunity and showing me the trust to work on this, and for having faith in me and my ability to execute it. I really look forward to working further with you when you've recovered from your surgery and feel ready. I wish you the best and good recovery!

After long days and evenings, liters of coffee, ups and downs throughout this exam, I want to give myself a good pat on shoulder - and reward & allowing myself to finally watch the first season of the House of the Dragons series with good conscience.