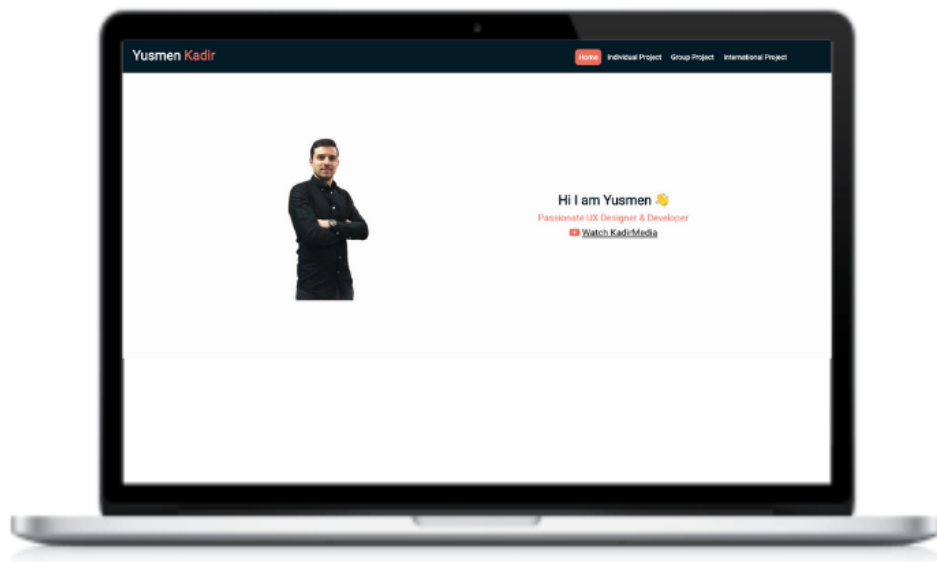


Reading Guide

Portfolio Website

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The Assignment

Context

I designed this portfolio website in order to showcase my individual & group projects developed throughout the semester.

Goal of the Project

The goal of the project was to design a portfolio website that would show target users the products I have done during the semester in the simplest and most interactive way. The initial goal was to perform research in order to answer the research questions described in the project plan and then by drawing conclusions from the conducted research to proceed to designing, implementing and testing the structure of the site. At the end of this project, the basic structure of the site had to be ready and tested, so that I could subsequently add the necessary products and descriptions later on.

Description of process & results

Due to the nature of the project and the fact that it was small I couldn't follow the design thinking methodology completely therefore I came up with my own process and I broke the project into separate phases:

Research , **Prototype** , **Implement** and **Test**. I used methods from <https://www.cmdmethods.nl/> & <https://ictresearchmethods.nl/Methods>.

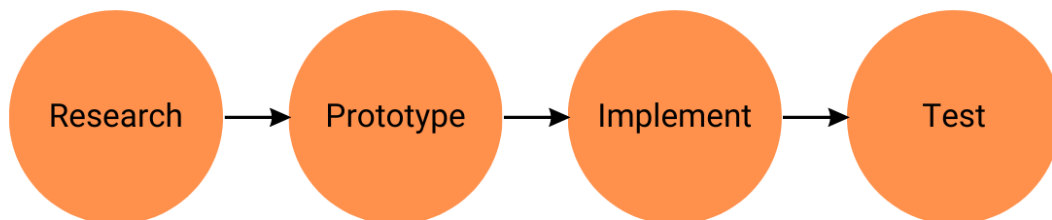


Figure 1. Representation of project phases

Research phase

During the research phase I aimed to use the research cycle provided by teachers in order to answer my research questions with the selected methods (figure 2).

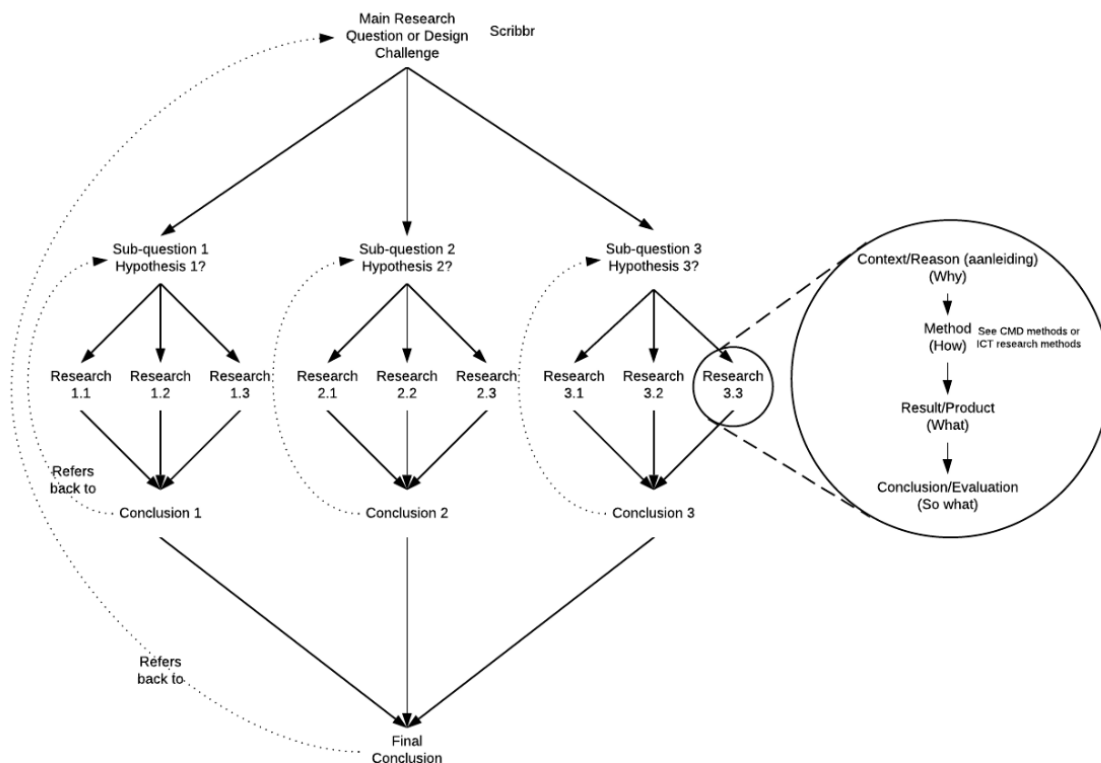


Figure 2. Representation of research cycle

Research questions

How can I use design principles to create a visually appealing and user-friendly website?

Method: Community research

Result: From the conducted research I found out that there are **9 principles** of good web design. The first principle is having a clear intention on all pages. The second principle is by achieving simplicity through design by utilizing colors, typography and imagery. The third principle is having simple, intuitive and consistent navigation on every page. I found out about

the F-shaped Pattern (figure 3) reading which is the fourth principle and I decided that I would incorporate that in some of the pages from my website later on, mainly on places where I would have to show large amounts of text.

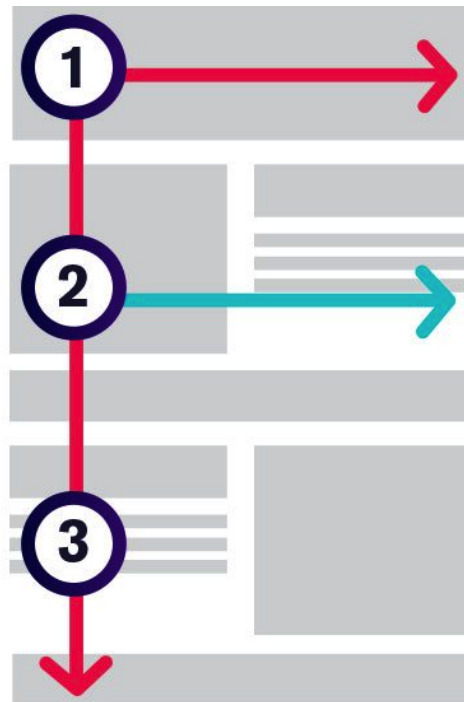


Figure 3. F-shaped pattern

The next principle I had to follow was having visual hierarchy. Visual hierarchy is the arrangement of elements in order of importance. The sixth principle was related to the content I was going to show on the website. I learned that a website is effective when it has both great design and great content. The last three principles I had to follow were having a grid based layout which helped to keep my content organized, having quick loading time and mobile friendliness.

I found about the zig zag pattern (figure 4) which could help me to present important information on some pages in a way that would help the eye of the visitors to scan it naturally.

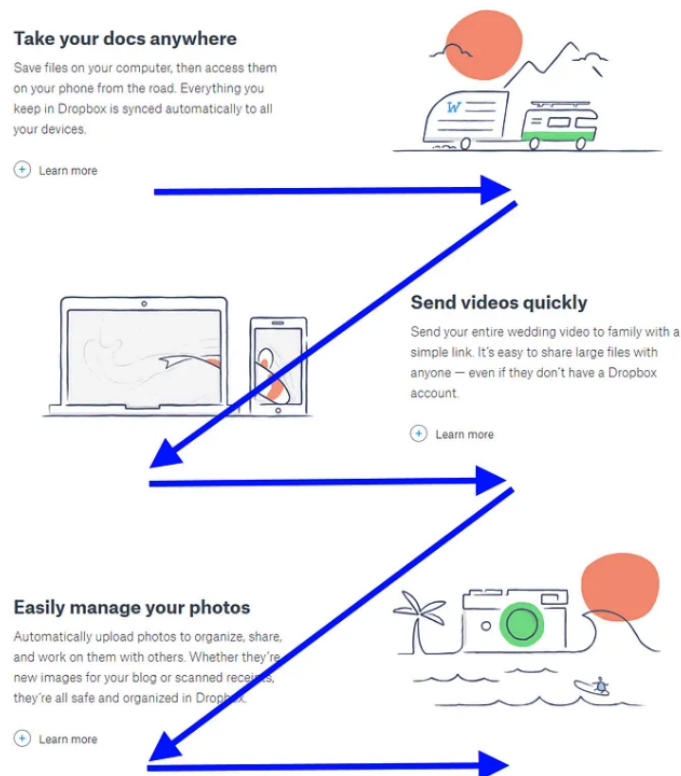


Figure 4. Zig Zag Pattern

What color schemes would be most effective for my portfolio website to create a visually appealing and cohesive design?

Method: Community research

Result: I found about the **60/30/10** rule. I learned that I have to choose a primary color, secondary and third accent color. The primary color had to take about 60% of the color on the website, the secondary had to take up to 30% and the accent color had to take about 10%. I decided that my primary color will be a shade of white, the secondary color will be a shade of black and the accent color will be a shade of the red color (figure 5).

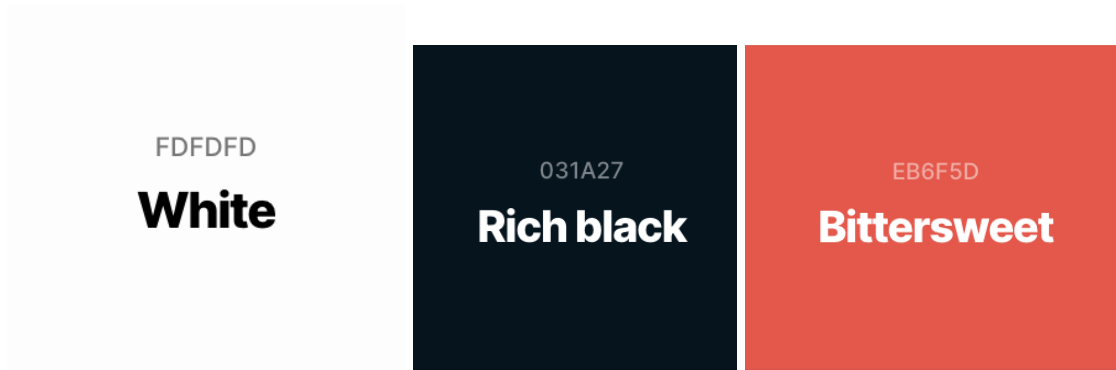


Figure 5. Website color scheme

What typography options are available, and which would be most effective for my website?

Method: Community Research

Result: I decided to use Roboto (figure 6) which is considered a dual-purpose font, and is the most popular Google font available. Geometric in shape, it also has nice curves and is generally considered very easy to read. It has been used as the typeface for Google's Android operating system since 2014.



Figure 6. Roboto font

What tools should I use to collect data from the usability test?

Method: Community research

Result: Useberry is a user testing platform that allows conducting usability testing and testing prototypes with real users. Here are a few reasons why it was beneficial using Useberry for my usability testing needs:

- **Easy to use:** Useberry's platform is designed to be user-friendly and intuitive, making it easy for both me and test participants to use.
- **Comprehensive testing options:** Useberry offers a range of testing options, including remote testing, moderated testing, unmoderated testing, and A/B testing. This allowed me to choose the method that best fits my needs and budget.
- **Real-time feedback:** With Useberry, I could get real-time feedback from test participants, allowing me to make quick adjustments and improvements to the website / prototype.

Which front-end frameworks and libraries I can use to develop my portfolio website and what are their benefits.

Method: Community research

Result: React is a popular front-end JavaScript library for building user interfaces, and it offers several benefits, including:

- Declarative programming
- Component - based architecture
- Virtual DOM
- Rich ecosystem

I decided to use React for developing the website mainly because I wanted the website to have better performance and fast rendering compared to using standard HTML with vanilla javascript. Moreover thanks to its

component based architecture I can easily create reusable components and use them in all over the pages. This would save me time and effort.

Framer Motion is a popular open-source library for building animations and interactive user interfaces in React applications. I decided to use it in order to enhance the experience of the users by including animations in certain parts of the website.

Sass (Syntactically Awesome Style Sheets) is a preprocessor scripting language that is compiled into CSS. Sass offers several benefits over standard CSS:

- Variables - Sass allows me to define variables that can be used throughout my stylesheets. This makes it easier to reuse values and maintain consistency in the design.
- Nesting - Sass allows me to nest selectors inside one another, making it easier to organize and structure my stylesheets. This can also improve the readability and maintainability of my code.
- Mixing - Sass allows me to define mixins, which are reusable blocks of code that can be included in the stylesheets. This makes it easier to reuse code and avoid duplication.
- Functions - Sass allows me to define functions, which can be used to perform calculations, manipulate colors, and more. This can help simplify your code and make it more efficient.

I decided to use Sass mainly because of the nesting feature it has. This resulted in having my stylesheet file less smaller in lines of code and it was better readable and maintainable.

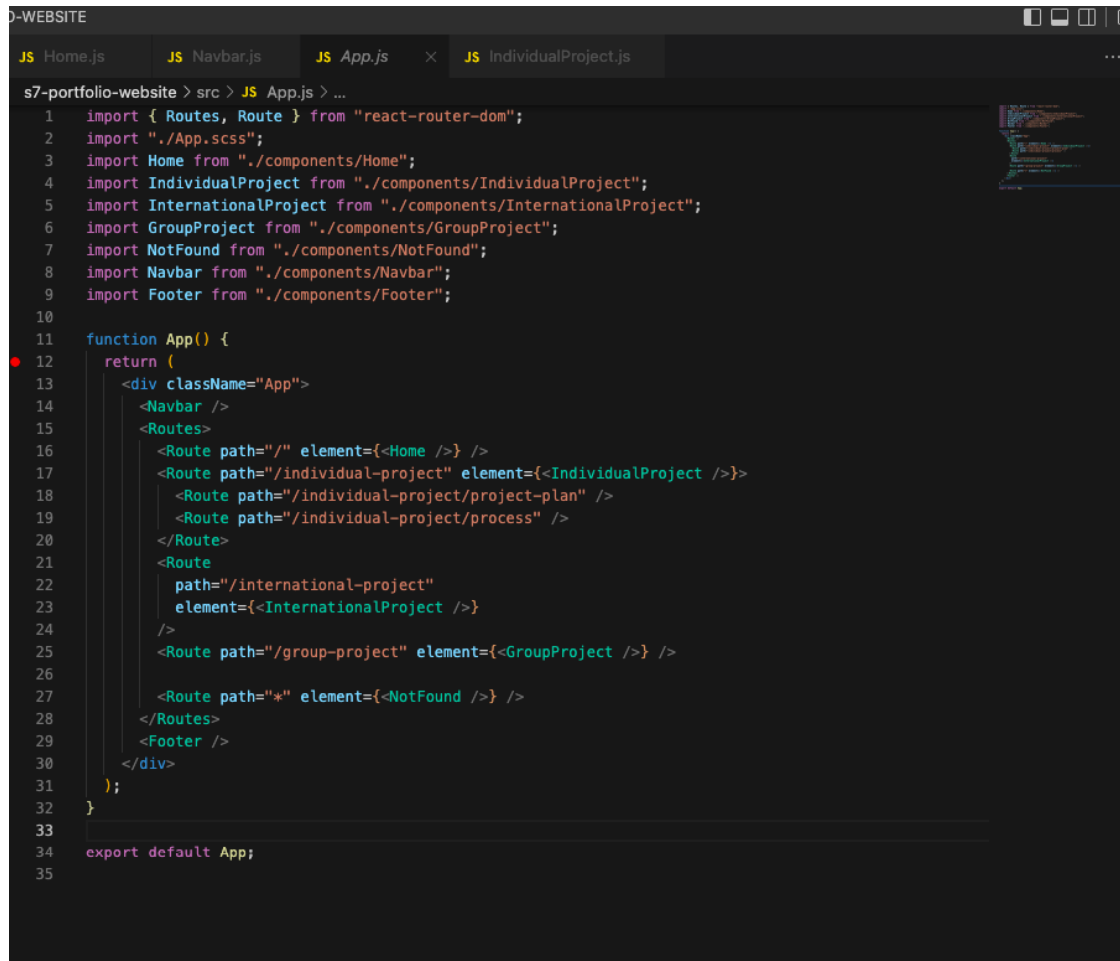
Prototype phase

Method: Prototyping

Result: During this phase I created low and high fidelity prototypes of the website in order to visualize my ideas. While designing them I kept in mind the design principles I encountered during the **research phase**. Those prototypes helped me a lot while implementing the website later on. Low fidelity prototypes can be found [here](#). High fidelity prototypes can be found [here](#).

Implementation phase

Result: Implementation phase went smoothly. I took advantage of the features React provided. I set up the initial routes (figure 7) in the main app.js file and created all necessary components. I pushed the code to a remote repository. The repository can be found [here](#).



```
1 import { Routes, Route } from "react-router-dom";
2 import "../App.scss";
3 import Home from "../components/Home";
4 import IndividualProject from "../components/IndividualProject";
5 import InternationalProject from "../components/InternationalProject";
6 import GroupProject from "../components/GroupProject";
7 import NotFound from "../components/NotFound";
8 import Navbar from "../components/Navbar";
9 import Footer from "../components/Footer";
10
11 function App() {
12   return (
13     <div className="App">
14       <Navbar />
15       <Routes>
16         <Route path="/" element={<Home />} />
17         <Route path="/individual-project" element={<IndividualProject />}>
18           <Route path="/individual-project/project-plan" />
19           <Route path="/individual-project/process" />
20         </Route>
21         <Route
22           path="/international-project"
23           element={<InternationalProject />}
24         />
25         <Route path="/group-project" element={<GroupProject />} />
26
27         <Route path="*" element={<NotFound />} />
28       </Routes>
29       <Footer />
30     </div>
31   );
32 }
33
34 export default App;
35
```

Figure 7. Routing setup

Test Phase

Method: Usability Testing

Result: I conducted usability testing to test the website with real users. I took advantage of Useberry's features and created a test with multiple tasks which users needed to fulfill when they were interacting with the website. My main goal was to determine if users will be able to easily find

key elements on the home page and I wanted to track their clicks. I created a testing summary which can be found [here](#).

Reflection

During the development of my portfolio website, I had regular communication with my semester coach, which proved to be very beneficial. I was able to receive valuable feedback on my work, which helped me to refine my research questions and take into consideration the available time. It was an excellent opportunity for me to learn from an experienced professional and make the necessary adjustments to ensure the project's success. For the first time I conducted usability testing with a nice tool called Useberry and I was able to get important user feedback. My plan is to continue working on this project throughout the semester by adding other important information and enhancing the user experience by conducting more usability tests.

Proof of learning outcomes

Note: click on the underlined links if you want to see a specific proof

Learning outcome	Proof
User interaction (analysis & advice)	I performed community research in order to answer the research questions described in the project plan .
User interaction (execution & validation)	I used the prototyping method to create low fidelity and high fidelity prototypes of the website. I conducted usability testing to obtain feedback and improve the design
Software Design	I investigated existing frameworks and libraries during the research phase. I coded the website with technologies like React.js , Sass & Framer motion. I used Git as a version control system. Project code can be found here
Future oriented organization	At the beginning of the project I developed a detailed Project Plan. After feedback from the semester coach I revised the project plan. Final version of project plan can be found here
Investigative problem solving	<p>I created the primary and sub research questions in the Project Plan</p> <p>I used methods from https://www.cmdmethods.nl/ & https://ictresearchmethods.nl/Methods such as Community research , Ideation, Prototyping , Peer review and Usability</p>

	testing.
Personal leadership	I wrote a reflection at the end of this document. I tracked & applied the feedback received from my semester coach in Feedpulse and formulated respective action items from it
Goal-oriented interaction	N / A