

README - the aim of this file is to document the process of development of the personal website. It will include my developmental process, the learning resources I have used, my Figma, sketches & web design files and research information. In addition to this file, I have recorded a video with my explanation of the key ideas and pivotal moments of my project, problems I have encountered and solution I have applied.

In this README file I will link my developmental process & solutions I have used, to the Learning Outcomes & Assessment criteria presented in the unit Assessment Brief document.

LO1 Demonstrate an awareness of working with HTML (Knowledge)

LO2 Demonstrate a fluency with popular CSS Frameworks (Knowledge)

LO3 Implement User Interfaces in JavaScript (Knowledge)

LO4 Discuss what makes for an effective and successful cross-platform User Experience including issues of accessibility (Enquiry)

LO5 Demonstrate the ability to use a popular animation and data visualisation packages such as three.js or D3.js (Realisation)

‘Your website should aim to create your online persona, collect your artworks and be a digital home for your practice. Attention to design, selection, curation and navigability will be important.’ - as mentioned in the brief further, I will also mention my realisation of design, selection, curation and navigability as I go through them in my development process.

Link to GitHub:

https://github.com/AndriiArtemenko3/Andrii_Portfolio_Website/tree/main

Link to figma file with ideation stage -

<https://www.figma.com/design/8OdSDrCn6FpwqWnElseCsx/Untitled?node-id=2-6&t=R6kJQJnm8cQeHe-1>

Index:

Ideation Stage (pages 1-10)

Building Responsive Layout – Tailwind CSS (pages 11-19)

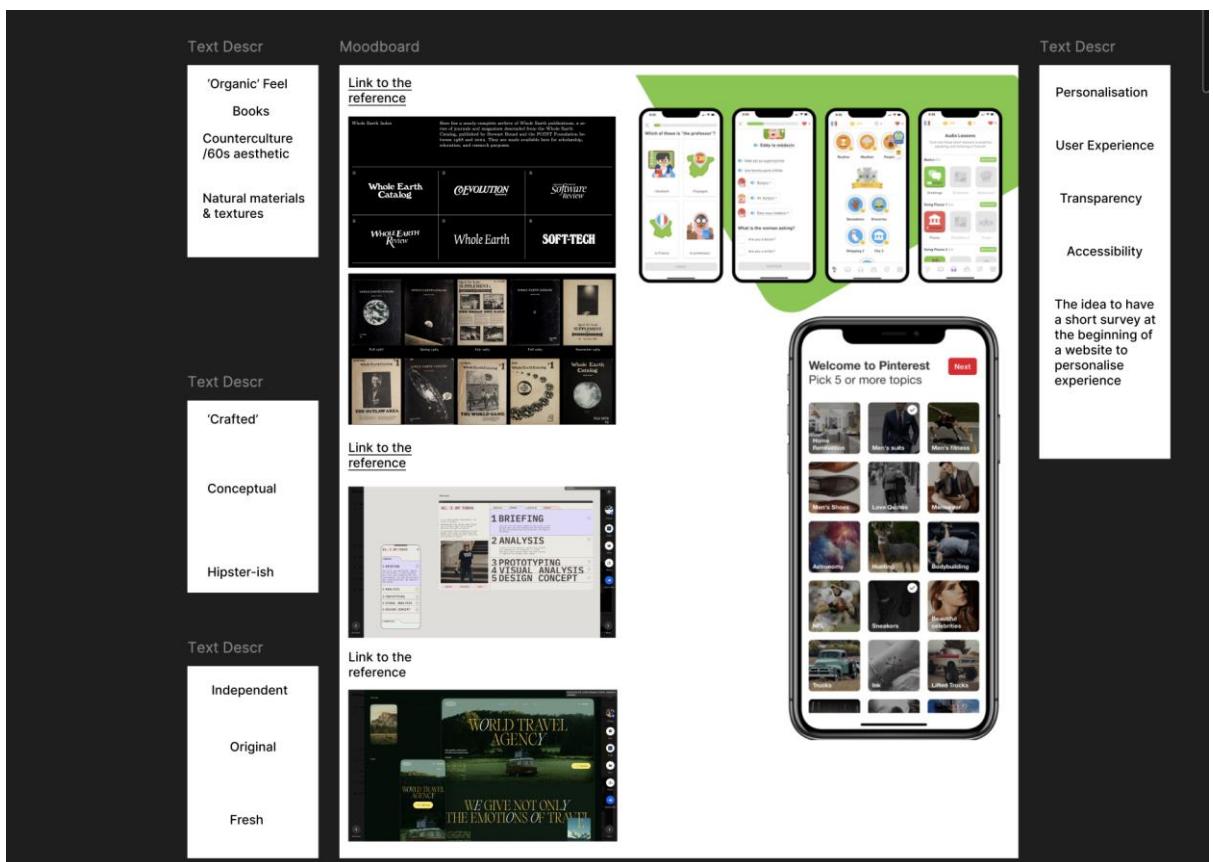
More styling with Tailwind (pages 20-23)

JS & Interactions (pages 23-25)

1. Ideation Stage

Any websites start with an idea, purpose, vibe or feel that the author wants to retranslate for the user. To brainstorm on my ideas, I have made a figma file to gather references, create the mood board, make the wireframes and visual ‘feel’ of the website I want to build.

1.1 What is the general philosophy of my personal website?



I have gathered the keywords that I had in mind for the feel and design direction of my website. I started from the section at the top left which has a list of keywords & descriptions

- ‘Organic Feel’
- ‘Books’
- ‘Counterculture/60s aesthetic’
- ‘Natural materials and textures’

This is the first ‘chunk’ of ideas I had regarding the feel of the website, but also about the philosophy of sustainability and stronger communities which are central to my creative practices.

As my example and reference, I have ‘The Whole Earth Catalogue’ website, which is an archive of the magazine that was published through 1968 to 1998. It serves as a pdf viewer for the most part, but it has some user interface options like you can sort view into squares, book spread or full view. It is also made in a simple, ‘straight to the point’ fashion which I would argue makes it more user friendly than most websites with pdf view as their main feature.

Then I add idea iteration with a list of keywords I wanted to explore next

- ‘Crafted’
- ‘Conceptual’
- ‘Hipster-ish’

So, this is another direction which is probably a bit more modern and a bit more mainstream, which is simple, ‘crafted’ aesthetic of the websites, where you can see the elements like distinct borders between the layout sections, the colour scheme is soft and heavy on pastel colours, the fonts that are curvy and soft, navigation is simple and steady. It is definitely hard to put into words because it is more of a feel than a specific category, but I have an example of such website in my figma file.

- Independent
- Original
- Fresh

This direction is another direction that I was interested in, the websites that feel like they are very fresh and independent, usually these are about travelling though, but that is also partially linked to my creative practice (for instance my HCI project is about maps and urban travelling), so that was something else I took a look at

- UI
- Transparency
- Accessibility
- Personalisation

These are included because of the realisation that I have, that the UI design can be misleading on purpose, like for example when Netflix makes it hard to unsubscribe from their account by making color/buttons smaller, etc. So I wanted to reflect my beliefs here that a website should be UI-friendly, it should be transparent, accessible and it has to have personalisation options. I was

looking at the idea to make my website very highly personalisable, so the user would have to fill out a simple form before entering, that asks him about his preferences of viewing the information and if any accessibility is needed. Later I discarded the idea because I realised I should enable the user control but make them more subtle as a questionnaire before entering the website might make a lot of users leave, so if this websites was potentially for publishing, I would not want to have it this way.

1.2 What and How? Skeuomorphism influence

So, I think the central purpose of many websites, and especially portfolio websites, is to store a specific information that we can describe as ‘content.’ I had to decide what is it exactly I want to include, as my creative practice can be quite diverse, in terms of what I produce. It can be essays and manifestos, it can be projects with a lot of multimedia such as HCI/UI Projects, my works with design files and vectors, it can be codes and web elements. The nature of my degree is truly diverse too, as we both work with codes and write applications, and do bits or robotics, creative thinking, designing, and writing. I decided that I will have several types of layout content pages that match the type of content inside. So, for example, if my content is primarily text, like an essay, then I want it displayed on a page with a flipbook design, that the user can interact with using buttons to flip pages, change size of the font, the typefaces and if the colour mode is set to dark I want the content to be displayed accordingly, too. I want it to be accessible and responsive, too. If I want to display code and a software project, it should have the code snippets where the code can be copied, and the page be previewed, embedded into html. Those are just examples to present what was my idea better.

Then I made some sketches for my wireframes, keeping the following ideas in mind.



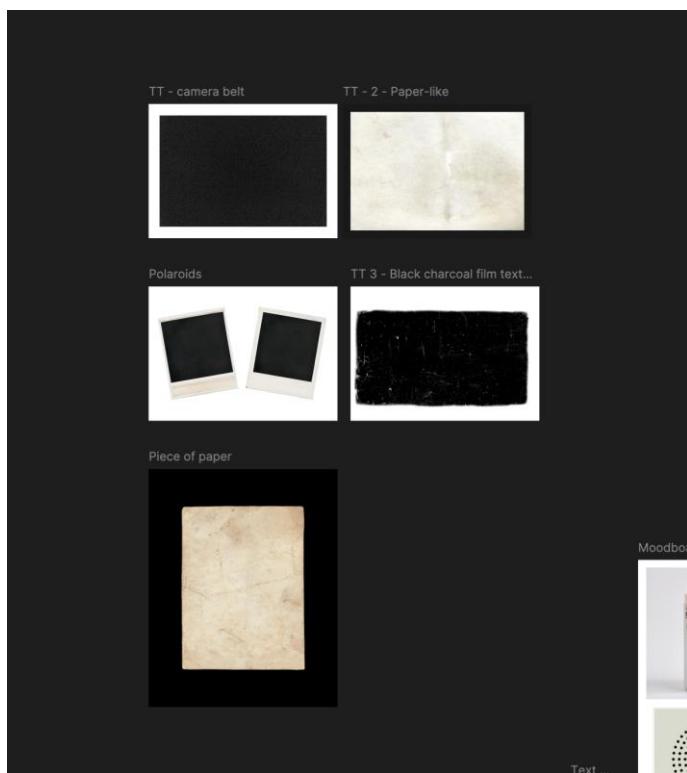
Here, I was heavily inspired by the Apple IOS UI that was used in 2011-2013 years, roughly speaking.

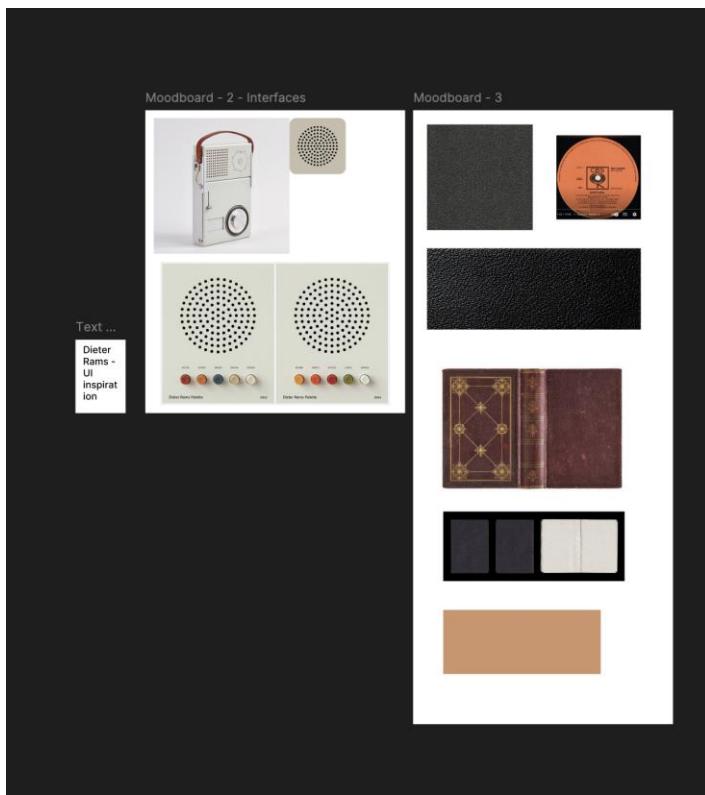
It is nostalgic for me, as I remember using it as a kid and I still think it was incredibly good UI, that was inspired by using real-life elements, like a bookshelf, and designing the book pages in a way that closely resembles the feel of the real book. Speaking in professional terms, I am referring to skeuomorphism, which was heavily utilised by Apple IOS system up until 2013. (*What is skeuomorphism? 2024*)

It is interesting that now the flat design seems to be the industry standard. Yes, flat design does look cleaner and more polished, but it also feels like there is no space for personality anymore, and no space for creative and more ‘real’ design, if you would. What I remember is after Apple changed that design system in 2014 many users felt unhappy and wanted the old UI back, and then everyone just accepted the change, I guess. (*Irish, What Apple learned from Skeuomorphism and why it still matters 2022*)

1.3 Colours, Textures, Elements and Wireframe ideations

Since I stick with skeuomorphism, I decided that I need to gather some digital assets, both to visualise my ideas better and to maybe use them later in development. I have Adobe Cloud subscription, so I used the Creative Cloud to search for some textures and elements. I used prompt like - ‘real wood texture’ or ‘bookshelf texture’, and similar, to gather and select graphic elements.

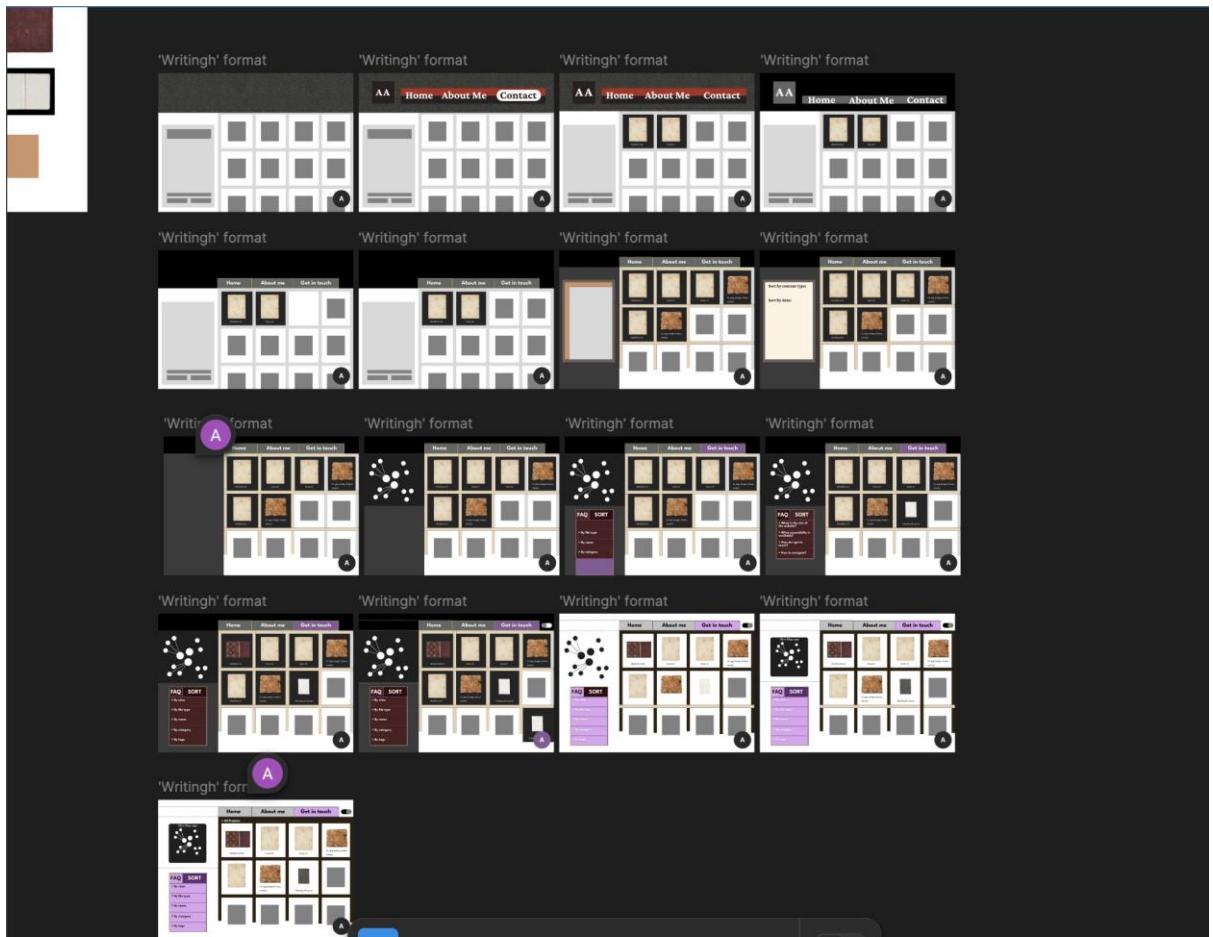




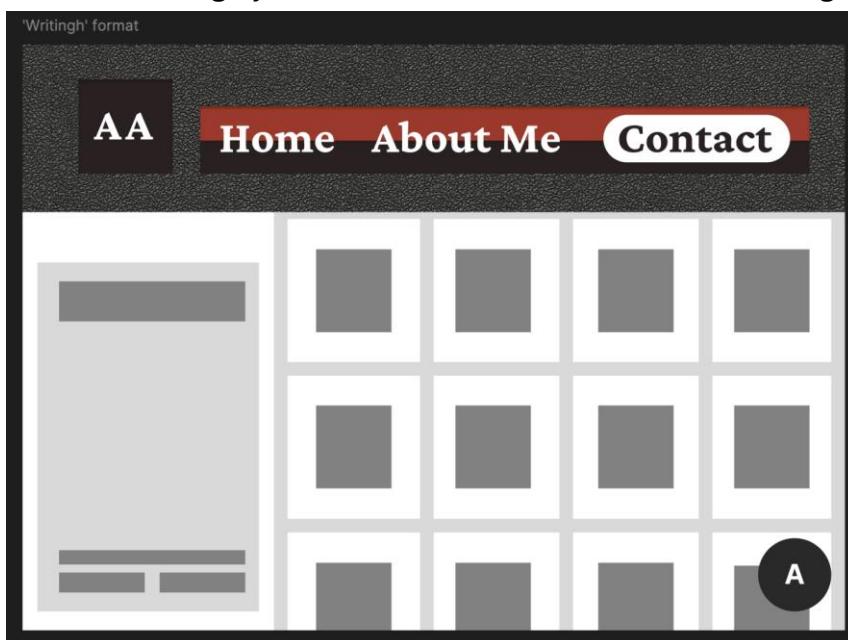
On the left there is also reference to Dieter Rams, whose designs also were taken as basis for the nostalgic skeuomorphic IOS. I will use some of his designs as inspiration of good, clean & enjoyable UI.

And on the left, there are some more textures, and real-world elements like a book spread. Those were not something I will use in my actual design, but rather an inspiration and visualisation, to move further with my wireframes.

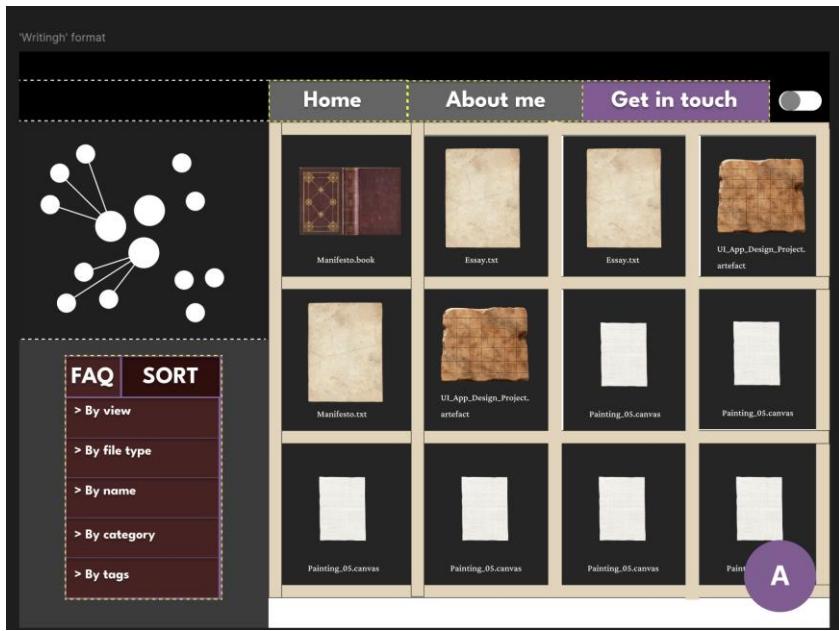
The wireframes:



There were roughly 16 iterations that took me from this design



To this:



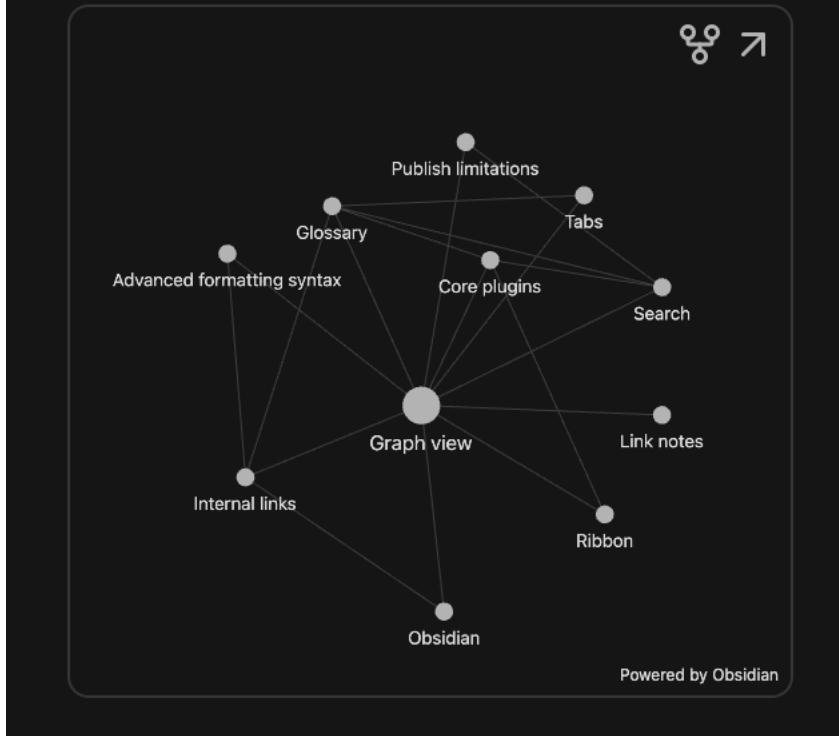
I am not going to describe my full iteration process, it is much better to view it in the figma file provided, but I will describe the UI elements and the final outcome of the second ideation/wireframe stage in terms of UI & navigation.

The main idea here that my personal website is a collection of my projects, that are realised in different forms of content. (text, UI elements, codes, vectors, sketches & paintings), They are presented in form of a bookshelf that imitates the real design of a bookshelf, at least in its shape and colour. The dotted lines are used in this design because they imitate a feel of paper spread at a journal or a sketchbook. The icons are playing with the idea of skeuomorphism as well, as they are designed as vintage and antique elements – old books, pergamus, the ancient hieroglyphs scraped on a stone. This is a metaphor that represents that the digital artefacts like text in an article, images, codes, UI designs, are all related to the history of information and culture itself, and they could not exist without the examples and analogies in the real world.

The left side of the home page has something that I would describe a map of knowledge. It is a technique to represent nodes in a way that the connections between them will be visualised as circles and paths. Originally, I saw this feature in Obsidian, which is a markdown file editor & personal knowledge management tool that I use for many years now.

The purple was chosen as an accent colour, it highlights the FAB (Flying Action Button) - Accessibility. I have noticed many websites now have a FAB to access accessibility features, which is something I will implement as well because it is highly effective navigation option.

INTERACTIVE GRAPH



I am not sure that I will be able to implement it, but that is something that at least I want to consider in my design. If not, I will include maybe different javascript interaction there, or an animation, or move this element down. I will be free to iterate and change, if that doesn't work out for me.

At the bottom left we have FAQ/SORT section, which gives answers to questions I find essential for the user (that help to answer some of the questions that can pop up in their head), and sort will allow users to filter my projects like they would in Mac OS or Windows – by file name, category, type, date, etc. This section is brought because I believe it makes my website closer to the user, and more transparent, and more usable. So it kind of functions as a side bar.

2. Building Responsive Layout – Tailwind CSS

2.1 Setting up Tailwind CSS Library, addressing accessibility through built-in functions of Tailwind ([LO1](#)) ([LO2](#)) ([LO4](#))

I have chosen Tailwind as my framework for this project because

- a) It is extremely popular, wide used library, that is used by big corporations etc. It means that the skill of knowing it will be in higher demand than for the other libraries
- b) It has built-in responsive functions and accessibility, such as breakpoints, dark theme, etc.
- c) It has a design system that is predefined, which means they make it easier to navigate and have consistent styles across the pages
- d) Very clean and useful documentation
- e) Does not have pre-built components such as bootstrap for instance, which allows for greater customisation

2.2 Building basic responsive layout with Grid CSS properties ([LO1](#)) ([LO2](#)) ([LO4](#))

I will build the layout according to my figma sketch, so I will need a header with links, buttons, logo. I will need the main section for content with a grid that should be responsive, and then I need a layout for mobile devices that I will make with built-in accessibility functions of tailwind, specifically the breakpoints (*Tailwind Docs - Responsive design - core concepts*) ([LO4](#))

I want my layout to be presented in a grid as well so I will use grid CSS properties to construct it.

Step one – setting up the background

```
<div id="Layer1_Container" class="w-screen h-screen bg-slate-950"></div>
```

Here I am just adding a new HTML element with id of Layer1 Container and CSS class with Tailwind set of classes.

In my first iteration, I was looking at documentation for width and height sections, and at first, I used h-full and w-full but that did not display my element, so I changed it to w-screen and h-screen, which is equivalent to 100vh and 100vw in vanilla CSS.

It is important to set values here in relative units rather than absolute ones, for the webpage to be responsive. ([LO4](#)) This container will serve as a background for all pages on my website

Next, I add a <nav> container that will serve as my navigation bar for all the pages of the website

```
<div id="Layer1_Container" class="w-screen h-screen bg-slate-950">
<nav id="NavBar" class="w-screen h-20 bg-slate-400 sticky"></nav>
```

h-20 in Tailwind is not equal to 20px, but is equal to a relative height that is dependent on the spacing scale (*Tailwind Docs – Height*) ([LO4](#))

I use sticky position to stick it to the top of the page.

Then I decide at the process that as this layout will be responsive, I will probably need to move User Interface section just below the navbar, as it will be highly usable on all screens.

```
<div id="Layer1_Container" class="w-screen h-screen bg-slate-950">
<nav id="NavBar" class="w-screen h-20 bg-slate-400 sticky"></nav>
<div id="ToolBar" class="w-screen h-10 bg-red-500 sticky"></div>
```

P.S. all the colours now are random and just added to test out the code

The I build my div container for the grid, where I will display my projects

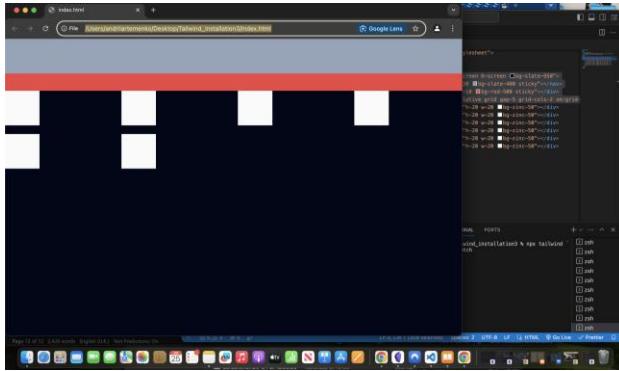
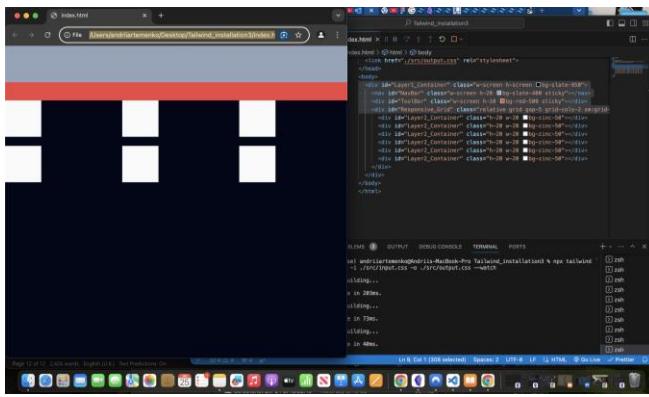
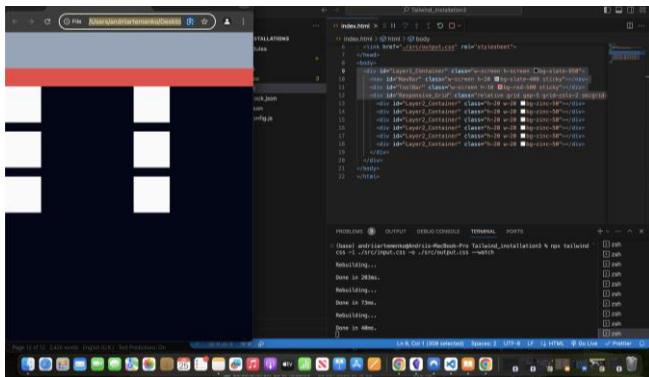
```
<div id="Layer1_Container" class="w-screen h-screen bg-slate-950">
<nav id="NavBar" class="w-screen h-20 bg-slate-400 sticky"></nav>
<div id="ToolBar" class="w-screen h-10 bg-red-500 sticky"></div>
<div id="Responsive_Grid" class="relative grid gap-5 grid-cols-2 sm:grid-cols-3 lg:grid-cols-4">
```

So, here I have added a bunch of properties to try and make the layout responsive.

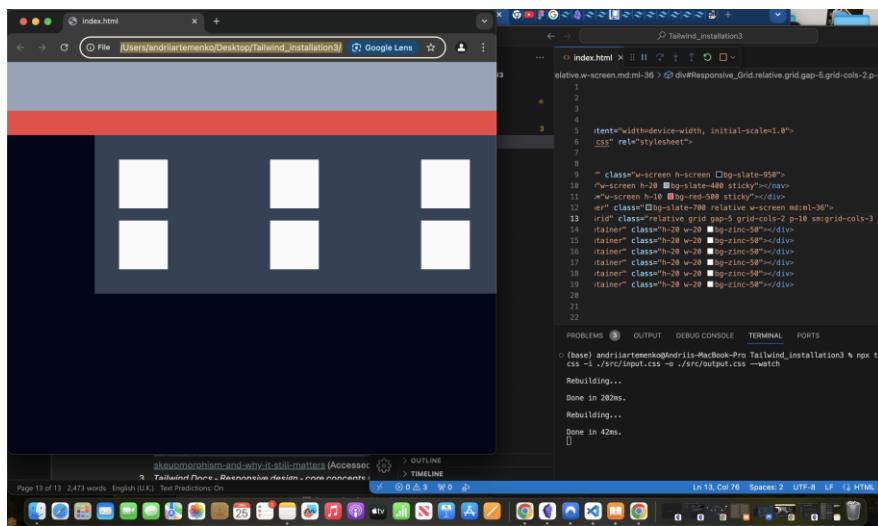
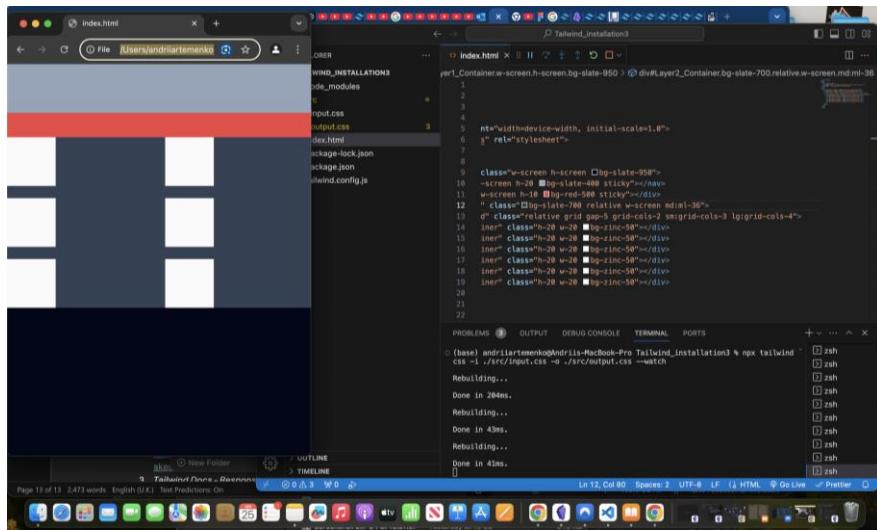
Firstly, I use position relative here to position my grid just after the sticky elements in the document flow. I use gap property to space out the elements, and I use grid-cols to specify the number of columns I want in the grid

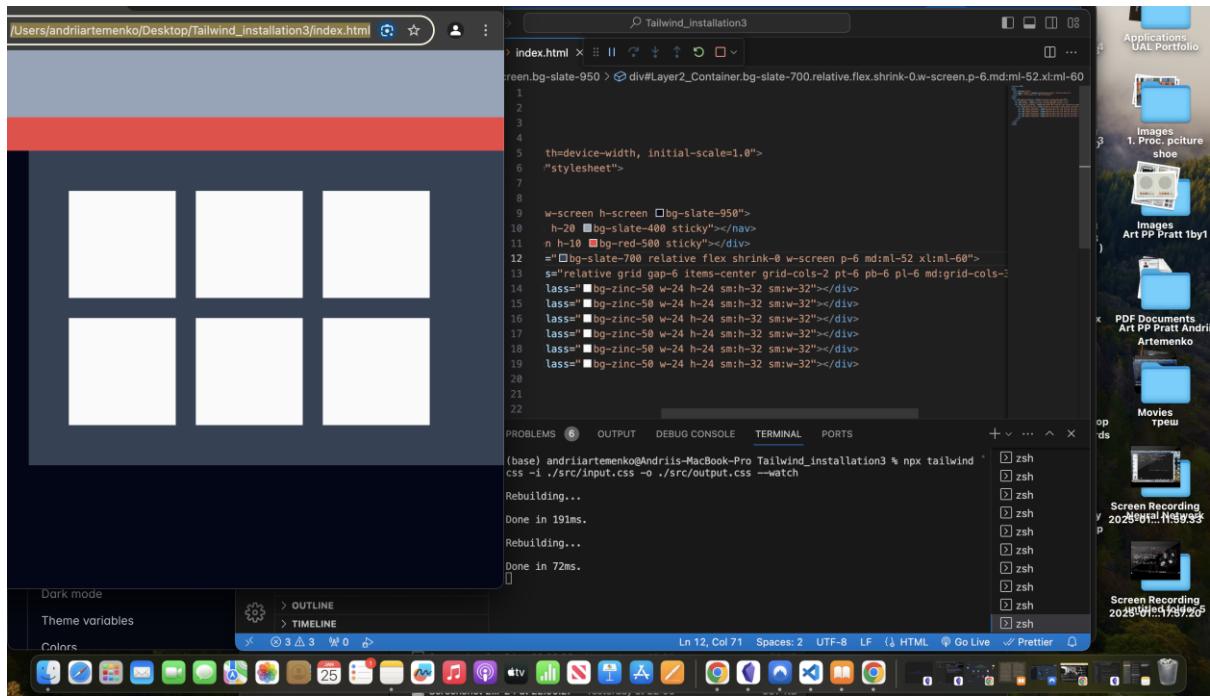
The breakpoints are used to make the grid actually responsive. From the small screen size, which is about 40 rem or 640 px., the grid cols increase by 1, and then after large breakpoint is reached, one more column is added ([LO4](#))

I have populated some <div> containers to see how the elements would behave, and here are the results of a simple responsive layout with grid properties and CSS Tailwind

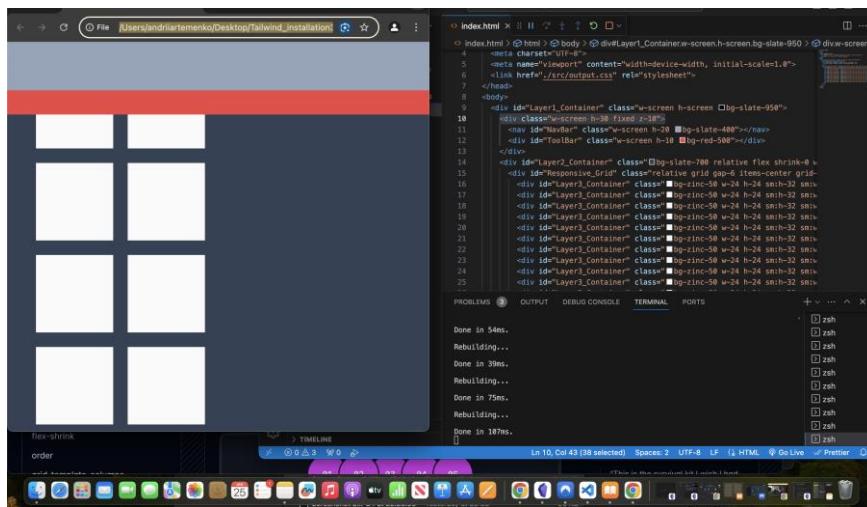


I have iterated on breakdown points and added basic styling like paddings to make my grid more usable for the later stages





* made my elements larger

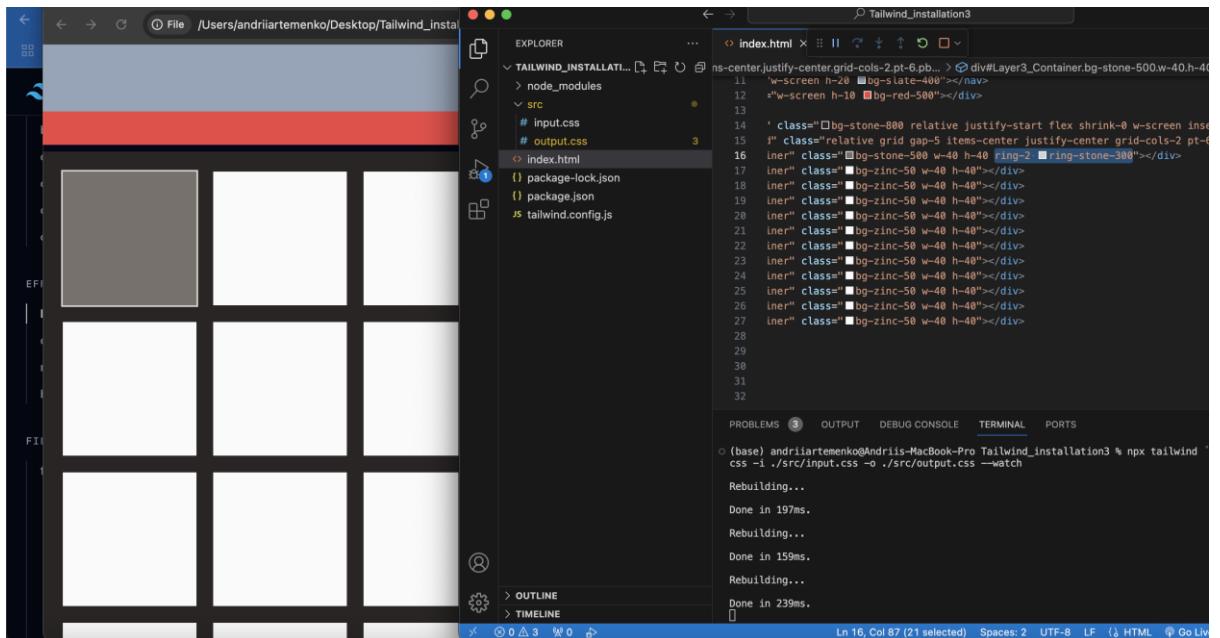
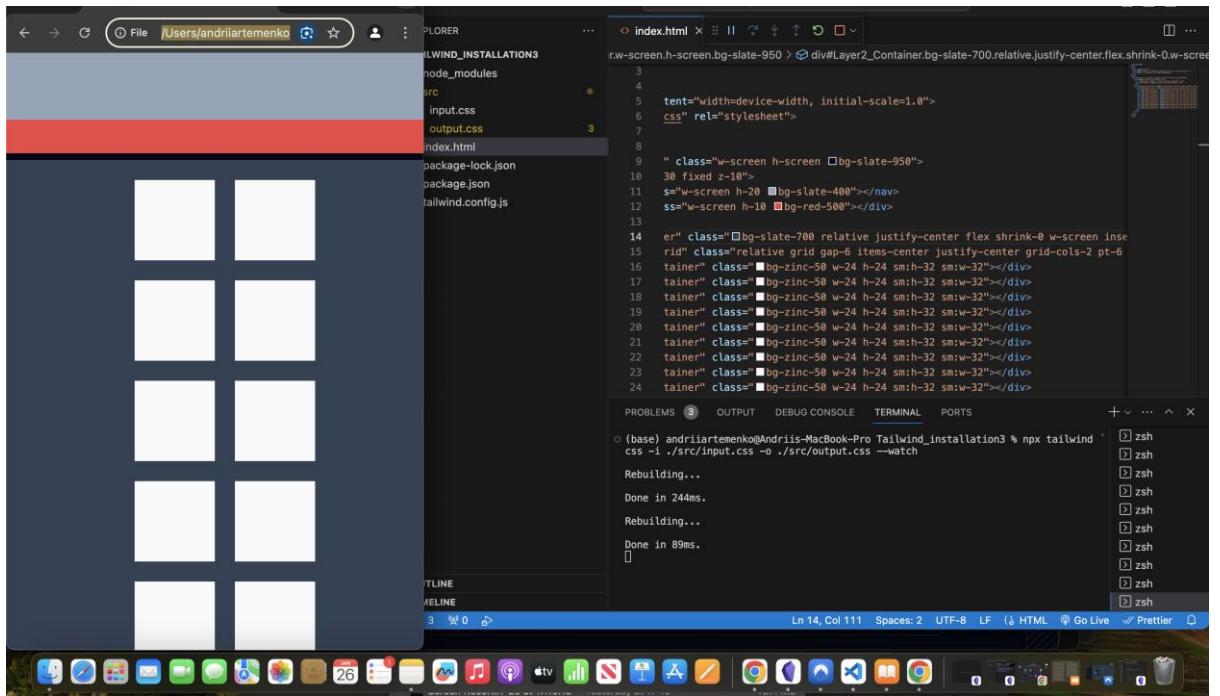


I have also made sure to make my grid responsive for the mobile devices

At this stage I had a problem with my navigation container and main area with the grid, as the nav bar was overlapping a part of the main page

To fix the issue I've applied inset-y-32 (Tailwind Docs – top / right / bottom / left) to my main div which stores all other elements on the index.html page other than nav bars.

So the inset-y-32 helped me to position my element just below the navbars



I have applied some basic styling for the elements with Tailwind properties ring and ring-color, that essentially is a shadow-border for element.

Note: for some reason when i tried to apply border i wasn't getting anything, might be a bug but I couldn't find what it was so i went with the ring

The screenshot shows a browser window displaying a Tailwind CSS application. The application has a dark background with light-colored UI elements. A sidebar on the left contains navigation items like 'HOME', 'ABOUT', 'SERVICES', 'PORTFOLIO', 'CONTACT', and 'LOGOUT'. The main content area features a grid layout with various cards and sections. The code editor on the right shows the source code for 'index.html' and 'output.css'. The 'output.css' file contains Tailwind CSS utility classes such as 'bg-slate-950', 'text-white', 'grid gap-5', and 'grid-cols-2'. The 'TERMINAL' tab at the bottom shows build logs for 'Done in 196ms.', 'Rebuilding...', 'Done in 117ms.', 'Rebuilding...', 'Done in 122ms.', 'Rebuilding...', and 'Done in 102ms.'

```
index.html
<div relative h-20 bg-slate-400>
  <div LogoHolder Container h-20 w-20 align-start absolute inset-0 bg-black top-0 right-0 z-10>
    <div relative h-20 w-20 absolute align-start bg-white></div>
    <div relative h-20 w-20 align-start absolute inset-20 bg-black top-0 right-0 z-10 bg-red-500></div>
  </div>
  <div relative h-20 w-800 relative justify-start flex shrink-0 w-screen inset-y-0 z-10>
    <div relative grid gap-5 items-center justify-center grid-cols-2 pt-6 pb-6 z-10 bg-stone-500 w-40 h-40 ring-2 bg-stone-300></div>
    <div relative grid gap-5 items-center justify-center grid-cols-2 pt-6 pb-6 z-10 bg-zinc-50 w-40 h-40></div>
    <div relative grid gap-5 items-center justify-center grid-cols-2 pt-6 pb-6 z-10 bg-zinc-50 w-40 h-40></div>
    <div relative grid gap-5 items-center justify-center grid-cols-2 pt-6 pb-6 z-10 bg-zinc-50 w-40 h-40></div>
    <div relative grid gap-5 items-center justify-center grid-cols-2 pt-6 pb-6 z-10 bg-zinc-50 w-40 h-40></div>
  </div>
</div>
```

At this stage I've added some elements to my top navigation bar. The colours here are just to see visually where my containers are.

At this stage I've learned a lot about alignment and flex properties like `flex`, `justify-start` / `flex justify-start`, `flex-col` / `flex-row`,

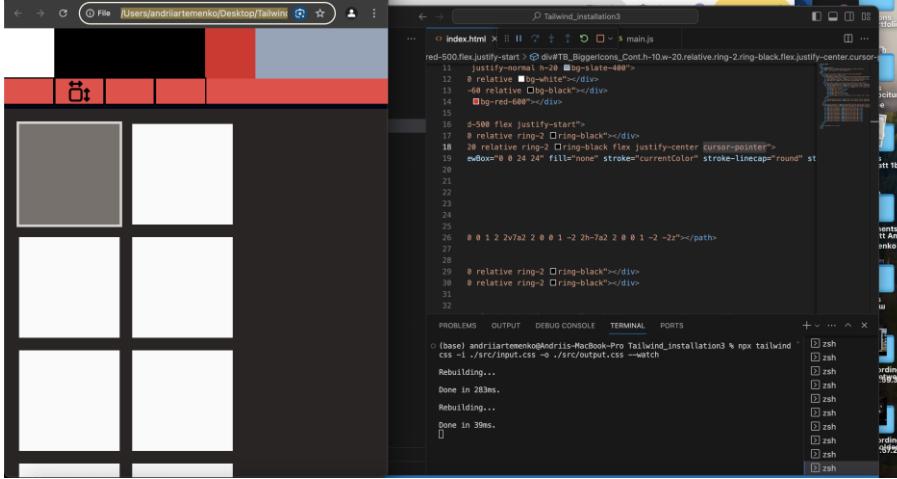
As well as revised some parent-child positional behaviour control

(Tailwind Docs – direction)

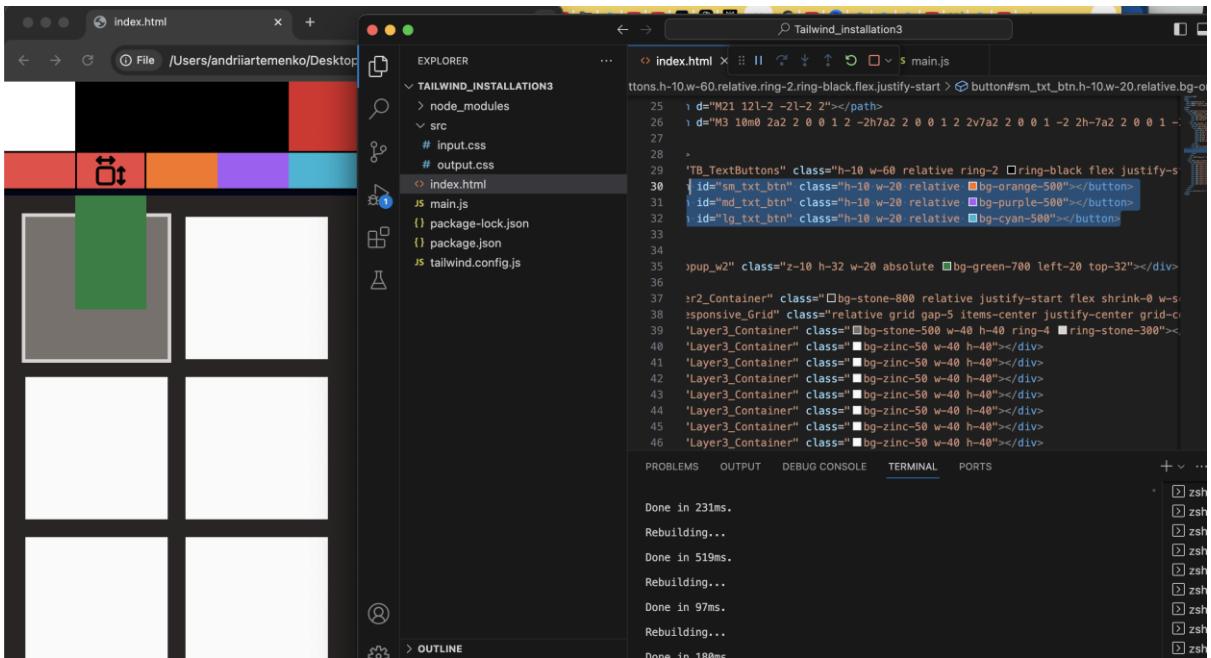
(Tailwind Docs – display)

Exporting icons as SVGs directly into html – I've used <https://tablericons.com/> to source all of my icons used in the project

I have also manually changed the sizes of the svgs so they fit better into my design.



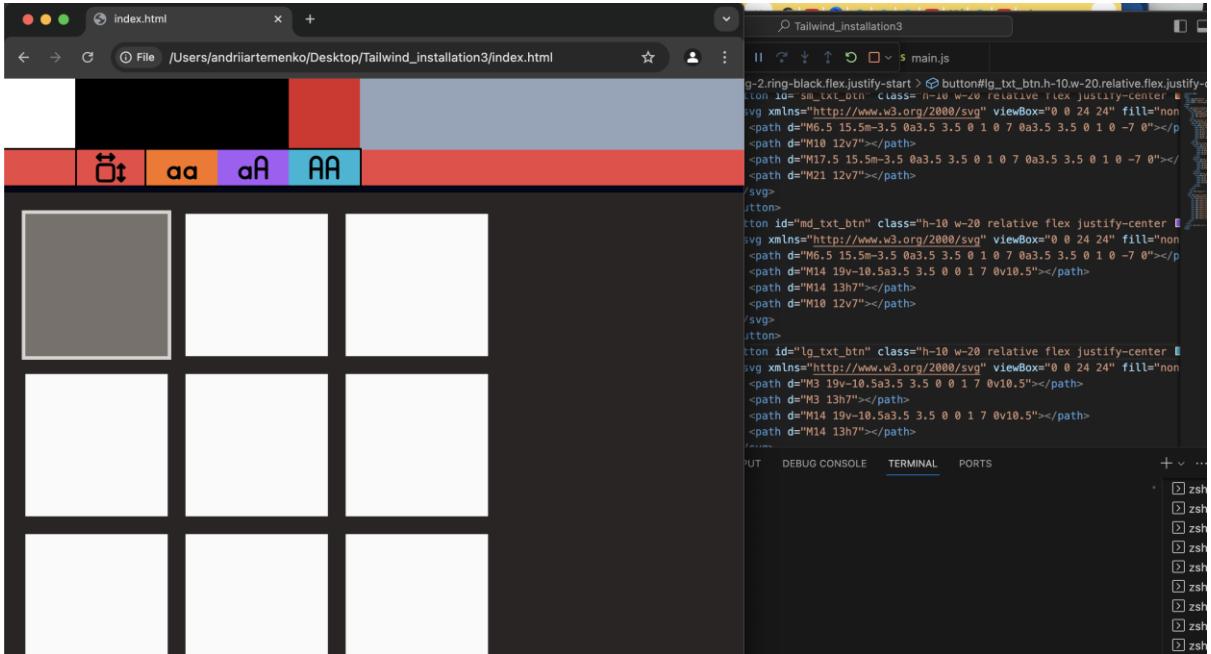
Adding cursor pointer to my elements to let the user know that the element is clickable. However, I have noticed later on that when using button tag in html, the pointer cursor is set to default.



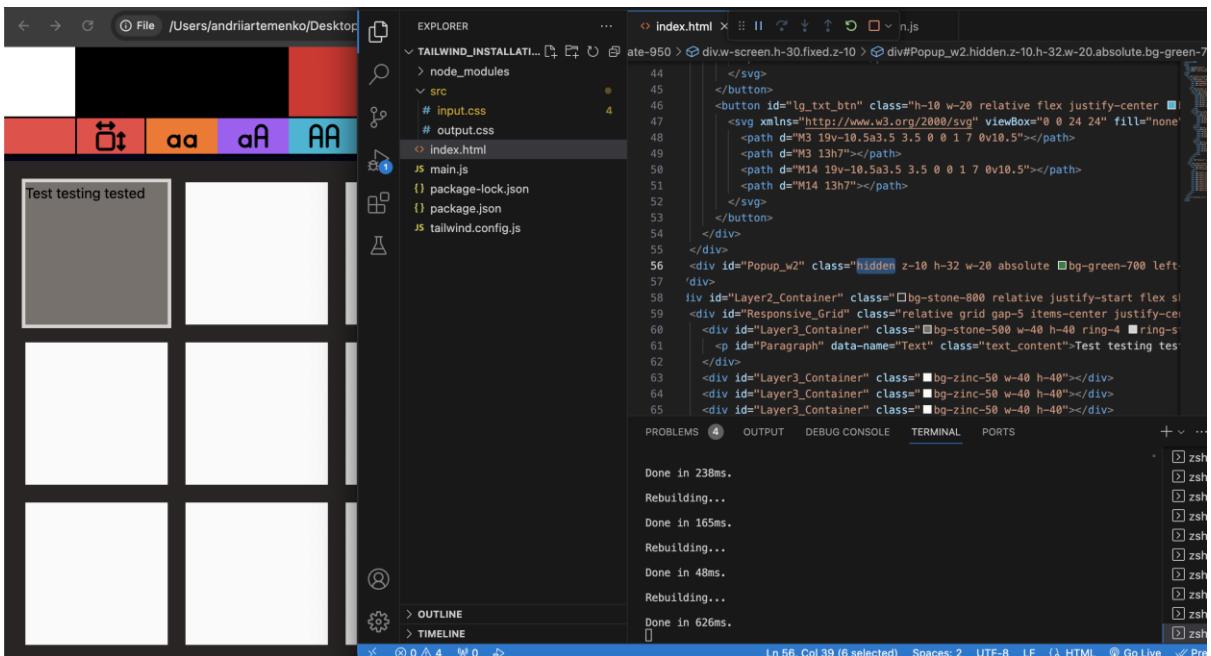
Then I've added more elements and added a drop-down element for one of the buttons.

I probably have to go back now and explain what is this toolbar for and what was the idea behind – so initially I was thinking of adding accessibility features as a FAB but later I decided that it would be cooler to develop a tool-bar where the user would have quick access to customising the content – like text size, contrast, icon size. The simple reference is figma or photoshop, where the toolbar is useful and is there to let the user ability to customise documents and

change variables easily. I have developed this drop-down and made it function, which I will talk more about in the javascript section, but unfortunately it did not reach the full development stage as I am submitting this document.



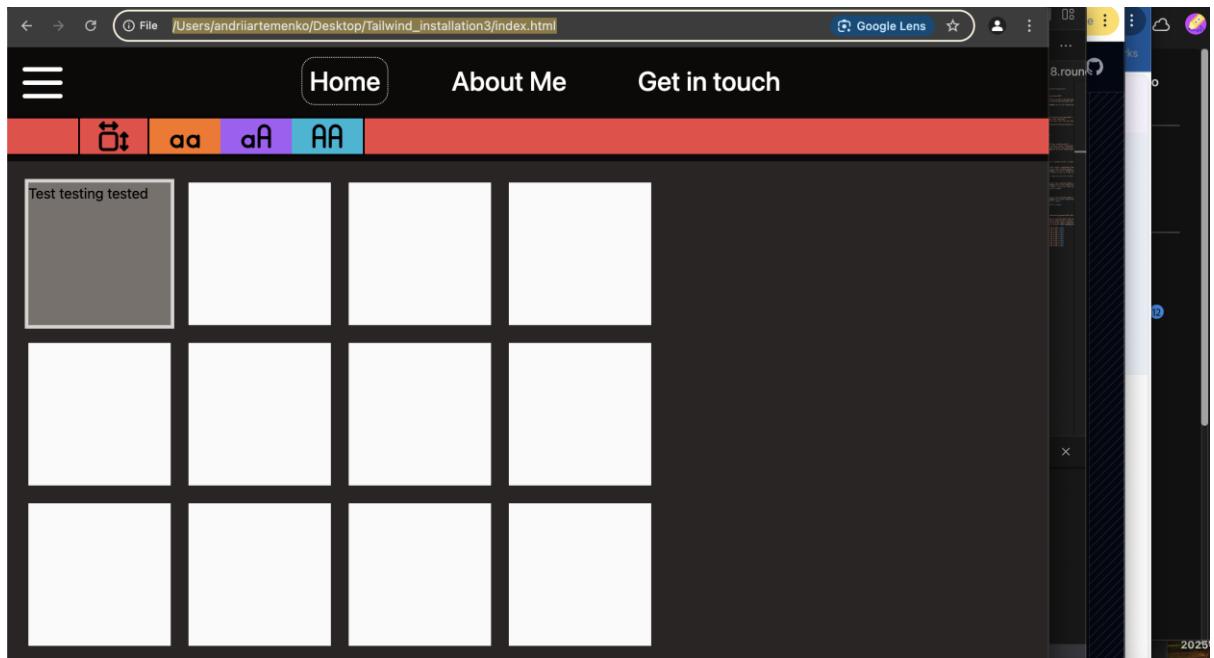
More icons added



This is my attempt into test the text function that i was trying to build, which I'll also talk later on about, but essentially it didn't work out this time.

I've also fixed an issue with that drop-down menu, because it was supposed to be closed when the page loads but it was open, so i added property hidden to it and it fixed the issue.

3. More styling with Tailwind

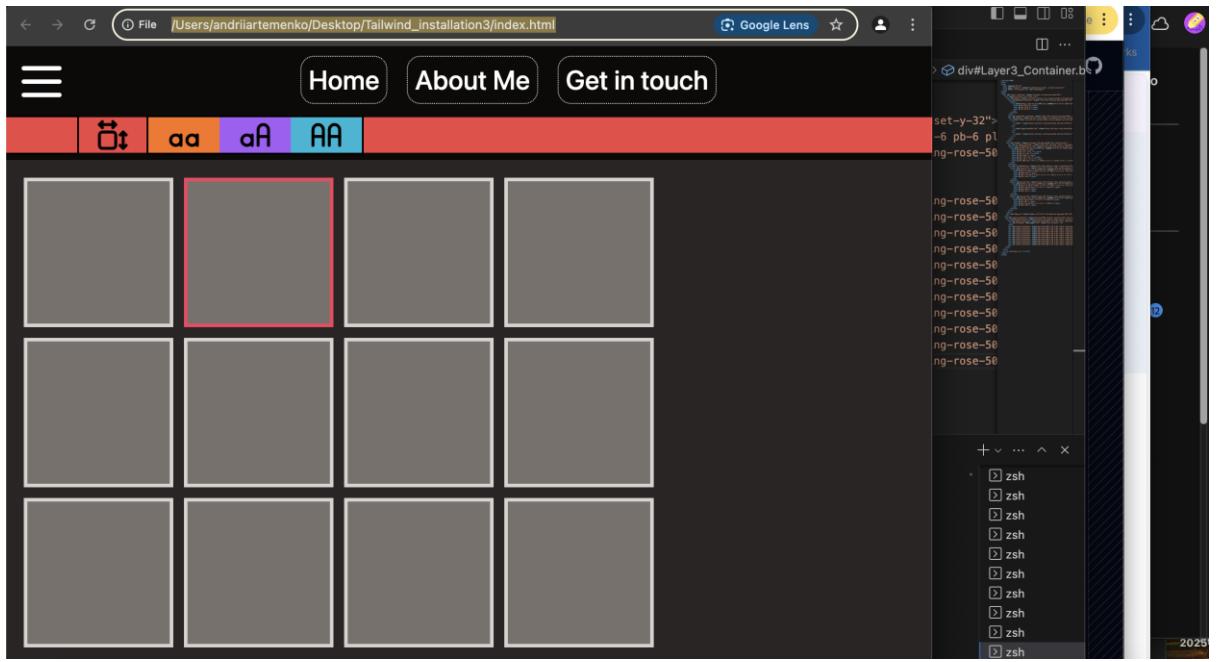


It was time now to add some buttons to my navbar and style the whole page in a unified way

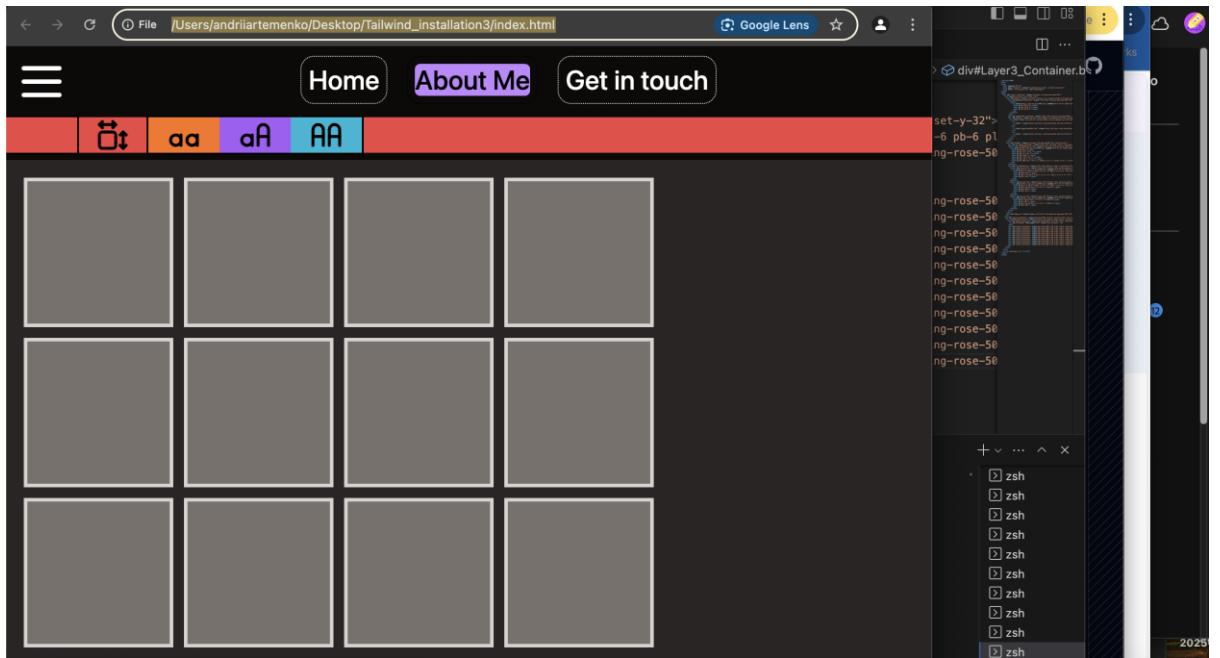
First, I got an icon for my hamburger menu that would be used if the user is connecting through the mobile

Secondly, I've unified all the color boxes above and added buttons to the navigation bar.

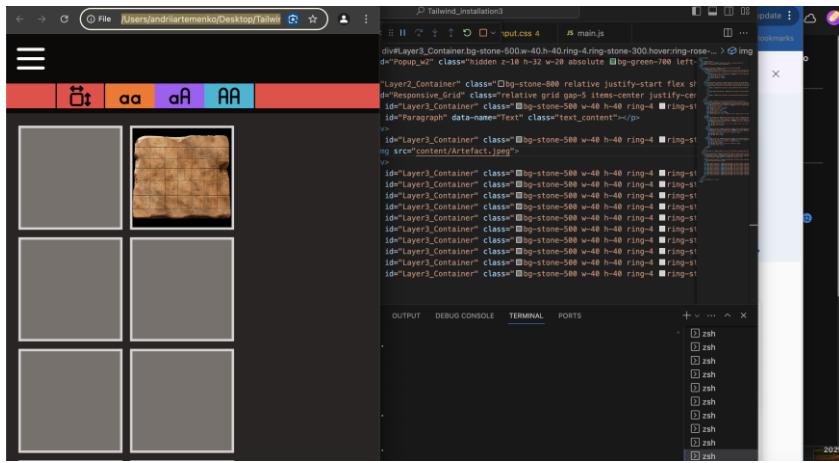
The buttons are responsive also, meaning that they are only visible if the viewport of the user is large, or at least 1024px. The buttons are styled with an outline dotted property, and are changing their style when being hoovered on.



Here I just added the same style to every project box and I added hover for them as well, which makes it easier for the user to select the box he is hovering his mouse on. The higher contrast, according to the research (*Accessibility designing – material design 3*), the better users can access the elements of the webpage. (LO4)

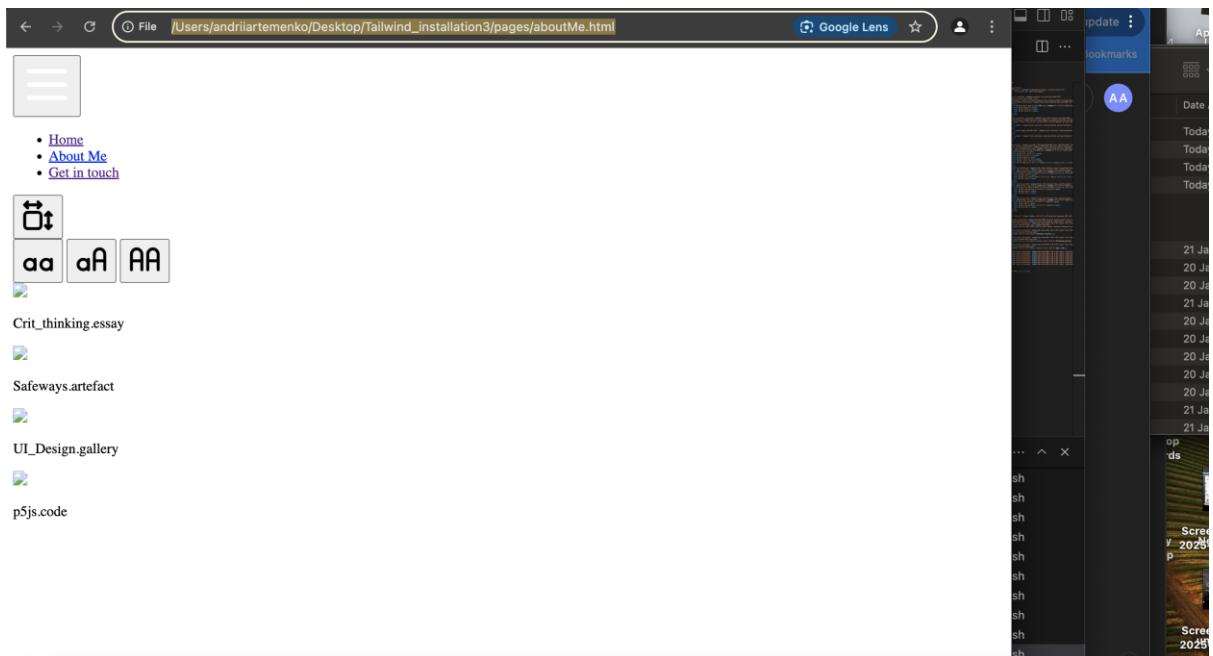


*hover-btn



I am adding my first png to the file. The crucial part is to fit all of the pictures properly so that they don't look messy and disorganized. In the grid the symmetry is important.

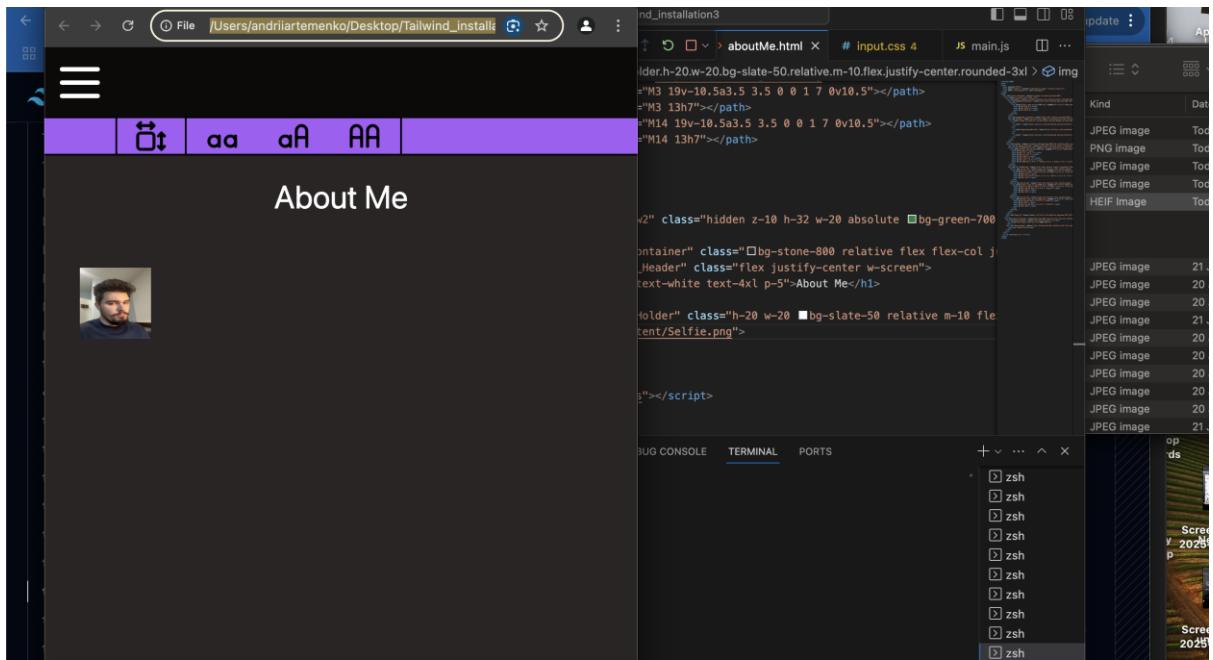
I have used scale-x property, that helps to reduce the size of the image element because it was too big to fit in the box with adjustment for the text. I have also used position relative and fixed the issue that my text would act like sticky instead of relative, because my z-index was higher than all other document's elements, which created the bag.



Another bag I had was related to copy-pasting elements to my About Me page from the main page.

I am not sure what was the root cause of the issue, but what happened is my About_me page was in the folder /pages, and it couldn't access my input.css for example, because of it. So the thing that worked was I deleted the folder and moved my element to the root, and it works. The solution is unsustainable in

the long run though because when you have too many pages floating in the root of the project it is hard to get around and navigate.

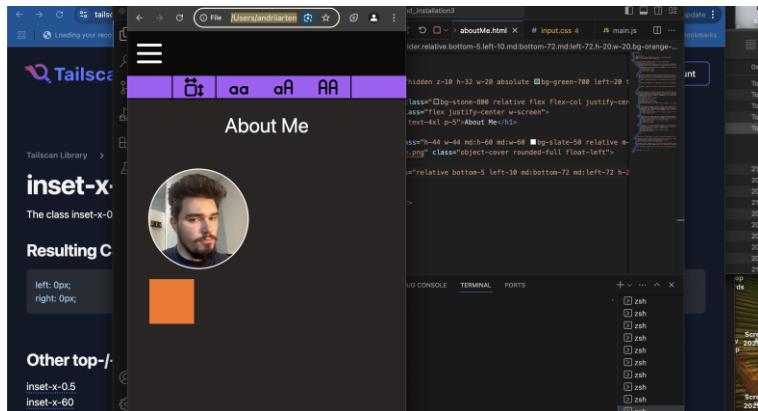
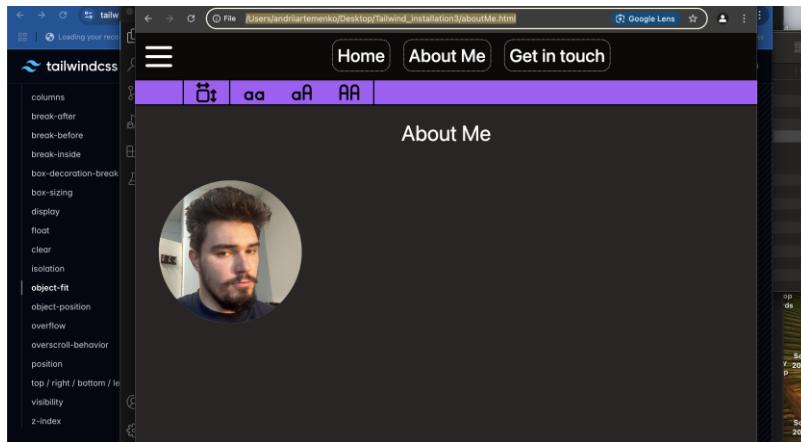


Styling about me page – the page has all the same navbar and toolbar. I have also changed the color to purple which will be my main accent color for this project (bg-purple-500 as the main one)

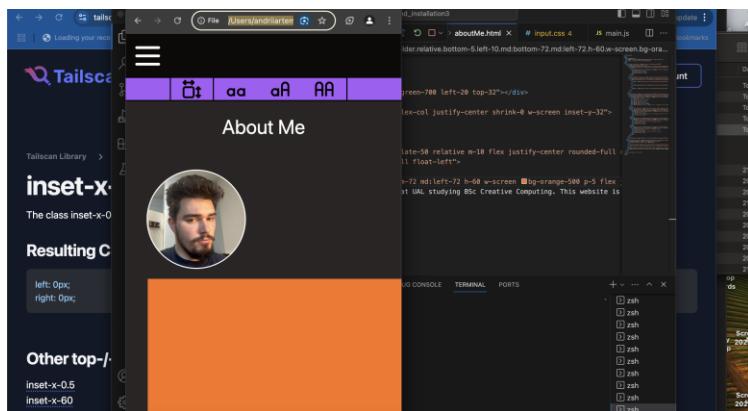
For the container and image – i wanted my selfie to be masked into the ellipse element and displayed next to the text

Things I have done here

1. Made the div container an ellipse by applying ‘rounded-full’, which makes the border round
2. Made my img an ellipse
3. Created an outline
4. Made it more responsive – larger photo for larger screen, smaller photo for smaller screens, with breakpoint being at medium size the screen
5. Adjusting the content: object-cover



* Testing out position with the box containers



4. Interactivity & Javascript

So I have 2 main things in mind that i wanted to do with the javascript – it is to change the font via button click and change image sizes on icon click in things like gallery etc.

I've managed to build only the font-one though properly, and it still doesn't function on About Me, but it works very well on Project One page.

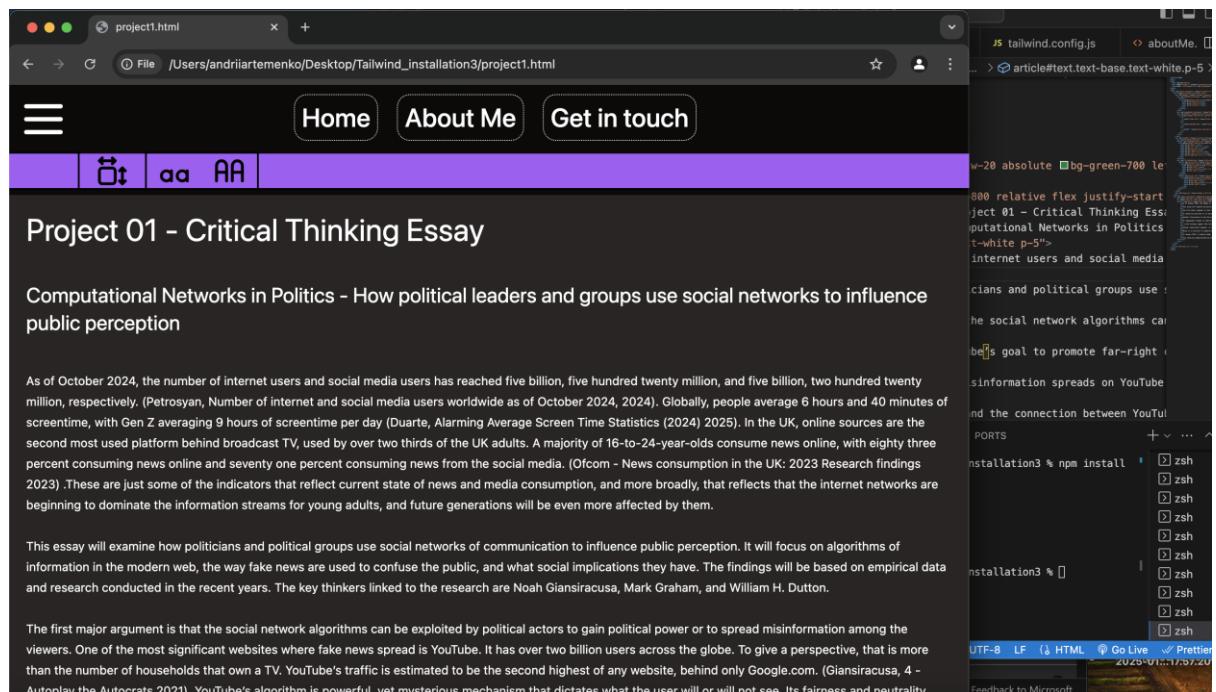
I have researched the code examples and project references to build a better understanding of how to write this code in JavaScript

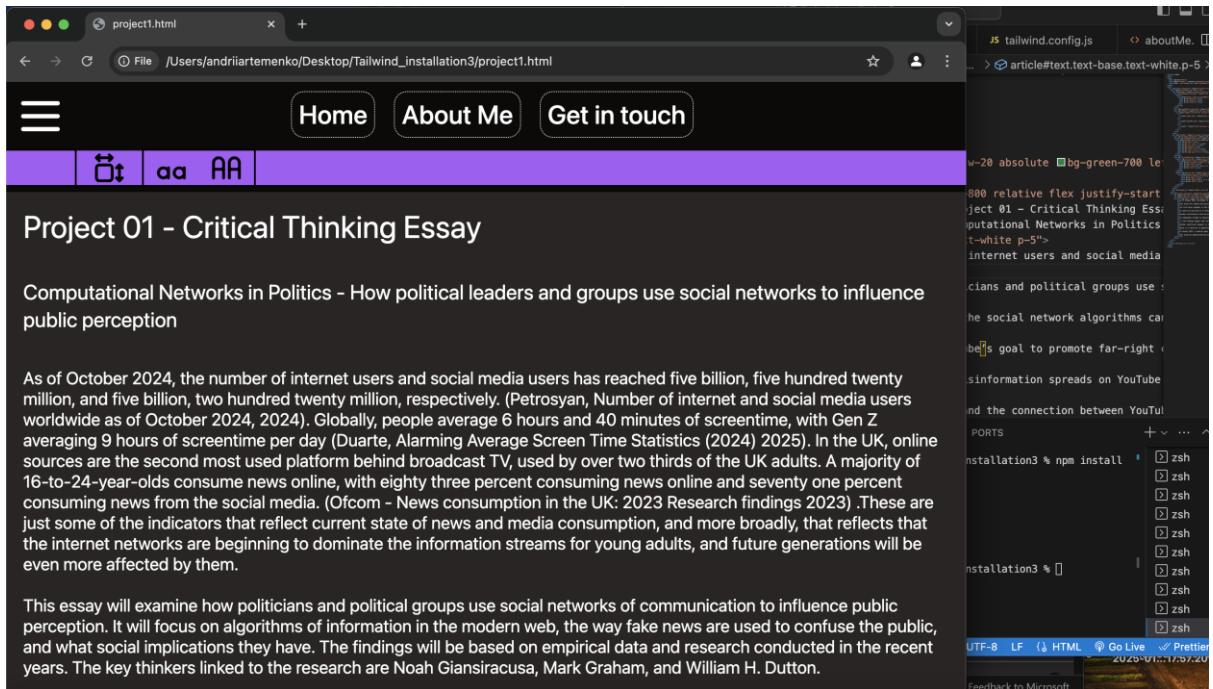
My main references were 1. (*JavaScript Increase Font Size on Click Tutorial*) 2. (*Click Button to Change Font-size using Javascript | Increase Decrease Font Size on Website*), along with revising documentation and class notes on javascript

What my function here does is it first browses through all the ids that I have defined, and then, it loops through each of them to increase or decrease the size of the font by 1 px.

What is good about this method is that it is like an infinite zoom almost, and you the user has a lot of flexibility as to what reading size text they prefer.

What is not so good – i think it would be better to get element by class instead but because I am using Tailwind it makes it a bit more difficult to get around, so I tried to work out a way but it didn't work so I used the id instead.





Another event that I built with javascript is the appearance of the dropdown tab that is modulated by onclick function in html.

it has a property 'display' which is either 1 or 0, 1 being display:block and 0 being display:none. So I have used conditionals to loop through the element and if element is hidden on click of the button which has this function on click, i was able to set it up.

Reference List:

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3. *Tailwind Docs - Responsive design - core concepts* (no date) - *Tailwind CSS*. Available at: <https://tailwindcss.com/docs/responsive-design> (Accessed: 07 January 2025).
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https://www.youtube.com/watch?v=8m47IdfJe9k&ab_channel=TheWheelchairGuy (Accessed: 27 January 2025).
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(Accessed : 26 January 2025)

12.