Technical Report

Semester Project 1
Community Science Museum website

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Introduction

The main aim of this report is to clarify and justify choices that were taken under creating the prototype for Community Science Museum website for a desktop as well as a mobile.

Community Science Museum website

1. Content

The content of the site was chosen according to the information included in the task (Noroff, 2022), research on Internet (Hadley, 2017) as well as qualitative interviews with a small group of people who matched the profile of the target audience. In addition, the theory of UX, UI and web design (both HTML and CSS) presented during the study course (Noroff(a), 2022) was applied in the whole project.

2. Target audience

The wide range of age of potential users (both children, teenagers and families with young children) means that the project should be appealing to different age groups that want to engage with science and ultimately visit the museum themselves. This information as well as information about the museum included in the exam task (Noroff, 2022) were crucial under the process of creating the whole project.

3. Research and findings

After the research and interviews it were carried out, it became clear that potential target audience expected the site to be:
- Easy to navigate for different age groups and people disabilities;
- Responsive so that user can access the site from different devices;
- Informative and intuitive which means that the user should be able to find requested information during as few mouse-clicks as possible, but at the same time spacious and not clattered;

- Engaging which means that it should evoke interest to stay on the site as well as visit the museum;
- Memorable which means that the audience not only will come back on the site but also will recommend it to others people.
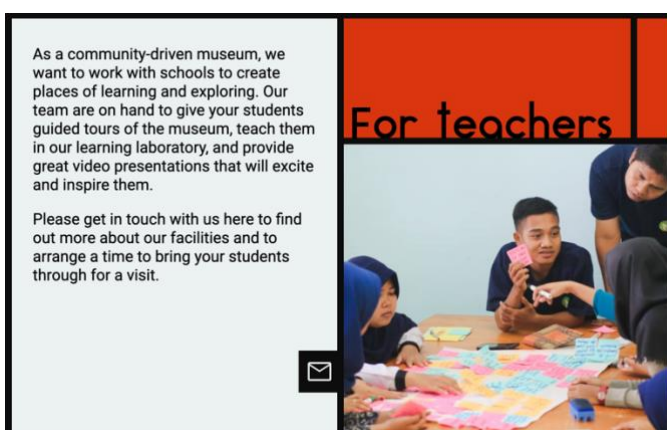
4. Design

When it comes to design itself, the main inspiration for the website was taken from the art of P.Mondrian (Deicher, 2010), Bauhaus (Fiedler, 2006), but also O.Byrne's illustrations of "The First Six Books of The Elements of Euclid" (Byrne, u.a.). After studying the artists and art mentioned above, it was decided that the website would have simple form and include primary colors. This would hopefully appeal to most of the users – children, teenagers, adults and those with different disabilities.

Additionally, each page would be built from modules and each module would contain the title, picture(s) and related text. Each and every one module was supposed to be an autonomic unit, however, the set of those modules were supposed to create a bigger, visually balanced entity.

As mentioned above, the principles of UX and UI were applied with consideration. Visual hierarchy and other elements like repetition, alignment and proximity do not change


through the whole project. It was also crucial that the style of applied design would not interfere with usability of the site and readability of texts, especially when people with disabilities are considered. Therefore, even though the font Aqua Grotesque seems to be effortless styled, it ultimately might have been difficult to read and therefore the other font, Roboto, was introduced and used in sections of text.

In addition, to make the site easy to navigate, the elements like navigation bar and footer, both including crucial information, were always to be found at the top and the bottom of the site and styled in a straightforward way.
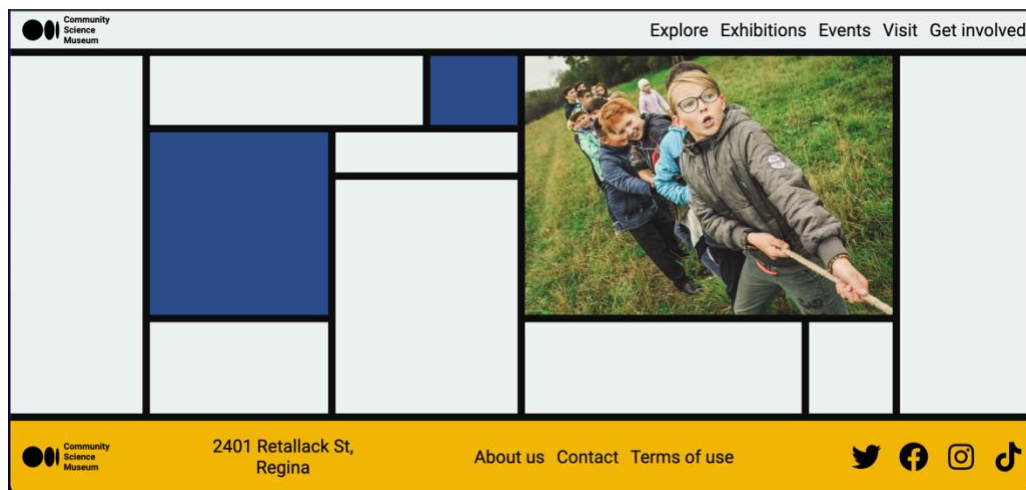
5. HTML and CSS

Experience with a previous project learnt me to better organize my work. As a consequence, the website was organized in folders, each containing images, .html, .css, and (…)__mobile.css files. Furthermore, the idea of using modules in the design was also applied into HTML and CSS.
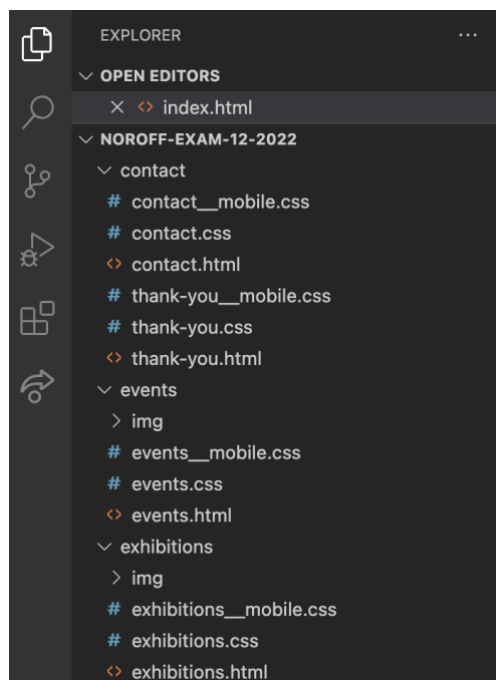
Each .html and .css file consists of modules that correspond with the rule of "title-picture-text" that was explained in Design-part of this report. The idea behind this was to easily navigate, move and find errors or flaws if needed. The downside of this solution was creating a great number of classes that appear in this project and navigate through them.

Working with modules also required an extensive use of grid, and sometimes even nesting of grids. The use of grid was a great help in positioning elements in modules, and modules themselves, however, nesting of grids made the process much more difficult and sometimes even unclear.

This brings me to another important issue, namely the DRY-principle. Content of .css files was organized after modules and only then, after the DRY-principle. The reason for this decision was to be able to change around, delate or add modules without spending too much time finding specifications of different classes in shared properties. On the other hand this kind of approach effected in longer .css codes and possible difficulties if shared properties would be changed globally on the site.

```
24   <body>
25 >     <header class="nav__body">-
59     </header>
60
61     <main class="main">
62         <div class="panel-left"></div>
63         <section class="events__column">
64
65 >         <section class="module1v2__container">-
78         </section>
79
80 >         <section class="module5v1__container">-
116         </section>
117
118 >         <section class="module5v2__container">-
141         </section>
142
143 >         <section class="module5v3__container">-
179         </section>
180
181 >         <section class="module4__container">-
188         </section>
189
190         </section>
191         <div class="panel-right"></div>
192     </main>
193
194 >     <footer class="footer__body">-
230     </footer>
231
232   </body>
```

```
83   /* module 5v1 */
84   .module5v1__container {
85       grid-column-start: 1;
86       grid-column-end: 17;
87       grid-row-start: 6;
88       grid-row-end: 20;
89       display: grid;
90       grid-template-columns: repeat(16, var(--module-template__1));
91       grid-template-rows: repeat(14, var(--module-template__1));
92   }
93
94   .m5v1__h2__text-background__1,
95   .m5v1__h2__text-background__2,
96   .m5v1__pic__1,
97   .m5v1__module5__text,
98   .m5v1__tile__1,
99   .m5v1__pic__2 {
100       border: solid 5px ☐#0d0d0d;
101   }
102
103   .m5v1__h2__text-background__1,
104   .m5v1__pic__1,
105   .m5v1__tile__1 {
106       border-left: solid 10px ☐#0d0d0d;
107   }
108
109   .m5v1__h2__text-background__2,
110   .m5v1__module5__text,
111   .m5v1__pic__2 {
112       border-right: solid 10px ☐#0d0d0d;
113   }
114
115
116
```

The last thing that must be noted in this report is responsiveness. As required, the site was designed to be responsive.

Mobile and desktop versions are similar so that users can easily switch between the devices without any effort. It is worth mentioning that this part of the project took most of the time and effort. Scaling down the grids was not always an option, since the cells would be to distorted in their dimensions, text would be difficult to read and CTAs almost impossible to press. Besides, access to the sites from different devices also meant customizing the size of pictures and switching between those effortlessly (Responsive Breakpoints, s.a.). Another problem that appeared while working with responsiveness was the scaling of h1 and h2 font and keeping the intended positioning at the same time. Finding the right balance between the font sizes, clamp function values and alignment found out to be much more difficult than assumed.

Conclusion

Creating Community Science Museum website has been a challenging process.

Implementing theory and information provided in the task was not always an easy process, especially in terms of responsiveness of the site. Even if the final product is not as flawless as planned, hopefully it still fulfills its function, is visually appealing and it is easy and intuitive to use for all kind of users.

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