

# **Engame Sophomore project**

Intro to web development alongside school

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## **Introduction**

Ever since I was little, I had been interested in how computers work and the logic behind programming them. Luckily, my parents also realized this, and they helped me pursue this dream of mine. From 4 consecutive years of attending Logiscool classes in primary school, I am now learning front-end web development at school, and hopefully start back-end development soon as well. However, as good as this may sound, I find classes at school slow and easy at times, hence I decided to start learning programming alongside friends and base my sophomore project on it. I am ambitious and aim to present a finished website at the end of this project.

## **HTML**

Hyper Text Markup Language, or HTML is fundamental in web development as it is responsible for the content shown, and elements of the webpage. Think of HTML as the body of the document, plain text, hyperlinks, tables, and images. Learning it is essential, and it was during these dry classes that I realized I should start coding alongside school and always be a step ahead. HTML is not a difficult language to get a hold of, and some do not even consider it programming with its easy syntax<sup>1</sup>, and lack of typical programming language elements, albeit I prefer to stay neutral on this topic. I would like to thank my teacher, and W3schools for their great courses online, because they greatly helped me grasp the basics. After around one and a half a month of working with plain HTML, I found it best to move on to the next language.

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<sup>1</sup> Syntax is a term used in programming, which refers to how a programming language is to be written, for the code to be able to successfully execute on the machine.

## **CSS**

Cascading Style Sheets, or CSS is usually the second language people learn after HTML. It is responsible for the visual appearance and presentation of the document, such as layout, colors, and fonts. It is ultimately used to style the already existing structure of the website with easily rememberable syntax. Learning this language went way faster than expected, and towards the end of learning HTML I was also looking into CSS simultaneously. There are still things I need to master, but I would say I am decent, and I know everything I am required to, but more on this in the Bootstrap paragraph. The next language in my sight was the notorious JavaScript.

## **JavaScript**

JavaScript is the 3rd language I started learning, and it is used to make the document react to user actions. Think of it as the brain of the website. During my previously mentioned Logiscool classes, I was taught a specially created, but JavaScript-based language with similar syntax and logic to JavaScript. Despite these similarities, the two languages still vary in many ways, albeit I feel lucky to have a head start. JavaScript was created in just 10 days, but it has been taking me a lot longer to learn. This is due to the fact of the variable types and their different conversions, as well as loosely typed syntax, which was not present in the previously mentioned language. In a way it allows "too much freedom", and there are multiple ways to solve the same problem, but I like a little challenge and new opportunities to learn from debugging<sup>2</sup> my "thought-to-be correct" code.

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<sup>2</sup> Debugging is when a code is not able to execute successfully, and the "bug" that causes the problem is to be found and fixed. The time interval of this process can vary from a few seconds to hours or days even.

## **Bootstrap 5**

The latest release at the time of writing is Bootstrap v5.3. It is a free-to-use framework, meaning it is a library of pre-written CSS and JavaScript, as well as icons. This handy tool speeds up the development process and enables you to make a website without writing most of the CSS code. Whilst Bootstrap is a powerful option, it does not mean you can bypass learning CSS, hence learning it beforehand is the right thing to do in order to understand the structural basics. In my experience, working with Bootstrap is easy and the documentation available on the official Bootstrap website comes in handy when troubled. The documentation also helps to keep track of all the available options for pre-written formatting. The main reason I was eager to learn the basics of Bootstrap was that it makes responsive <sup>3</sup>web-development easy to implement.

## **Conclusion**

While this may not seem like a usual Sophomore project, I am glad to have chosen this topic. Regardless of the end product, meaning the website, it has greatly improved my set of development, time management, and resource managing skills, as well as benefiting me academically. This project description would not be complete without mentioning all my friends and all their support and positive criticism; therefore, I would like to express my gratitude towards everyone making this possible.

All materials used are either open source and free to use, or self-made.

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<sup>3</sup> For a website, responsive means the site and its content automatically adapt based on the area properties of the screen. It enables developers to create sites that are comfortable to access on all devices, optimizing content to be the best fit in terms of visibility across all screen sizes.