Desenho de bandeira

Descrição gerada automaticamente com confiança média

**WEB DESIGN AND CLIENT SIDE SCRIPTING**

**EUGENE MCLAUGHLIN**

**HDCSDEV\_INT** - **HIGHER DIPLOMA IN SCIENCE IN COMPUTING**

**Go Training Fitness Center**

**Project Report**

Interface gráfica do usuário, Site

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# 1. Project Summary

The “Go Training Fitness Center Website” was developed to deliver a modern, responsive, and visually captivating platform that showcases the fitness center’s services. The primary purpose was to highlight various offerings, including some training modalities such as CrossFit and Swimming, membership plans, and contact information, while ensuring accessibility across different devices.

The presented project had a strong emphasis of having a clean and easy understanding design with intuitive navigation, and the integration of modern web tools such as HTML, CSS, Bootstrap, and JavaScript that help both with the points mentioned, as well as with responsiveness. These technologies enabled the creation of a user-friendly experience that meets industry standards and user expectations by making the platform more functional and pleasing to the eyes of those who access it and at the same time capturing the user's attention to its content.

# 2. Design Process

## 2.1. Research & Investigation

To understand user expectations and industry standards, we analyzed several fitness websites, such as SmartFit, Bodytech, Stoneybatter Cross Training and Competition Gym, which provided inspiration for layout, color schemes, and content presentation. Key insights included the importance of high-quality visuals, clear navigation, and the effective presentation of membership options. This research informed the structure and design of the “Go Training” website.

Interface gráfica do usuário, Aplicativo

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Fig.1 Smart Fit. (n.d.). Plans. Retrieved November 27, 2024. From <https://www.smartfit.com.br/>

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Fig.2 Bodytech. (n.d.). Home. Retrieved November 27, 2024. From <https://www.bodytech.com.br/>

Mulher falando no microfone

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Fig.3 BlueFit. (n.d.). Home. Retrieved November 27, 2024. From <https://www.bluefit.com.br>

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Fig.4 Competition Gym.( n.d.). Home. Retrieved November 27, 2024. From <https://www.competition.com.br>

## 2.2. Requirements & Technical Approach

The project aimed to create a responsive website with six pages: **Index**, **Swimming**, **Contact Us**, **Gym**, **Plans**, and **CrossFit**. Each page needed to have a clean design, easy navigation, and a consistent style that matched the fitness theme.

To build the website, the team used **HTML**, **CSS**, **JavaScript**, and **Bootstrap**:

* **HTML** was used to organize the content on each page.
* **CSS** helped style the pages with colors, fonts, and layouts to make the website look clean and modern.
* **JavaScript** added interactive features like carousels and form validation to make the website more dynamic and user-friendly.
* **Bootstrap** made the site responsive, so it works well on different screen sizes, like phones, tablets, and desktops.

The team used **GitHub** for version control and collaboration, which made it easy to track changes and combine everyone’s work. Development was done in **VS Code**, a simple yet powerful tool for writing and debugging code.

The technical approach focused on using reliable tools and keeping things simple while ensuring the website was functional, visually appealing, and easy for users to explore.

## 2.3. Design & Wireframe

### 2.3.1. UI Kit Design

The website uses a color palette of black, white, gray, and orange to balance sobriety with visual appeal. Fonts and buttons were selected for readability and user engagement. The Go Training logo, designed with a heart and heartbeats symbolizing vitality, reinforces the website’s theme of health and wellness.

Student Clara used Canva application to create a UI kit to be used in the development of this project, containing color palette scheme, font families, logo, navigation bar and footer designs. This kit information will be applied across all project pages.

### 2.3.2. Wireframes

Wireframes were created for each page making use of draw.io website.

|  |  |  |
| --- | --- | --- |
| **Student** | **Page** | **Wireframe** |
| Clara | Index | Interface gráfica do usuário  Descrição gerada automaticamente |
| Swimming |  |

|  |  |  |
| --- | --- | --- |
| Guilherme | Plans | A screenshot of a computer screen  Description automatically generated |
| Crossfit | A screenshot of a web page  Description automatically generated |

|  |  |  |
| --- | --- | --- |
| Alexandre | Contact Us |  |
| Open Gym |  |

# 3. Project Work

## Breakdown of Tasks

The project was divided among the team members in the following way:

**Clara**

* Worked on the **Index** and **Swimming** pages.
* Created the **Go Training logo**, designed the **UI Kit** and **navigation bar** for all pages, and made sure these features had a clean and appealing look that matched the theme of the website.

**Guilherme**

* Handled the **Plans** and **CrossFit** pages.
* Implemented the **floating button** that switches the styles of the modality pages, added interactive features like **carousels** and designed the **footer** for all pages.

**Alexandre**

* Focused on the **Contact Us** and **Gym** pages.
* Built the **contact form** and added **form validation** to make sure it worked smoothly.

The team used **GitHub** to track tasks, share updates, and keep everything organized. This made sure everyone’s work fit together without any problems.

# 4. Development

## 4.1. Bootstrap Integration

Bootstrap was a big help in making the website look modern and responsive. It allowed us to quickly set up layouts using its grid system, which automatically adjusted to fit different screen sizes. This made it easy to design pages without starting from scratch for each device.

The navigation bar was made using Bootstrap tools, making it interactive with dropdown menus and a responsive design. Buttons and other elements were styled with Bootstrap classes, which saved time and gave a clean, professional appearance.

Overall, Bootstrap simplified a lot of the work and kept everything consistent across the website.

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Fig. 5. Tips section using HTML, CSS and Bootstraps Card component (created by Student Clara)

A person lifting a kettlebell

Description automatically generated

Fig. 6. Display of images created using HTML, CSS and Bootstraps Carousel component (created by Student Guilherme)

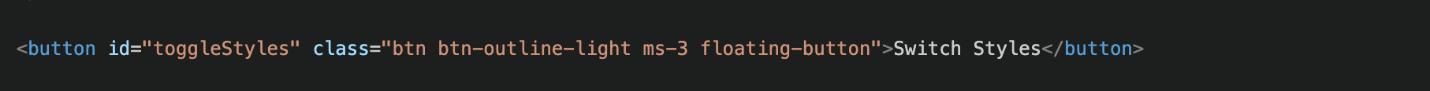
/\*inserir foto do forms criado pelo alex\*/

## 4.2. JavaScript Implementation

To enhance user interactivity and provide a unique feature on the CrossFit page, a **floating button** was implemented to allow the users to toggle between two stylesheets: the external.css and the student’s individual stylesheet. This button is fixed at the top-right corner of the screen and remains accessible even when the user scrolls down the page.

**How it was implemented**

1. **HTML Integration:** A button element was added with the ID toggleStyles and assigned to the class floating-button to enable custom styling.



1. **CSS for Floating Button:** Using CSS, the button was styled to stay fixed in the top-right corner of the screen. The <position: fixed> property ensures it remains in place during scrolling.

A screenshot of a computer program

Description automatically generated

1. **JavaScript Functionality:** A simple JavaScript function was written to toggle the <href> attribute of the link element responsible for loading the CSS file. This switches the stylesheet whenever the button is clicked.

**A screen shot of a computer code

Description automatically generated**

**/\*ALEX ESCREVER SOBRE O JAVASCRIPT QUE VC USOU PRA VALIDAR SEU FORM\*/**

**/\*SEGUIR EXEMPLO ACIMA\*/**

## 4.2. Validation

HTML and CSS were validated using W3C tools to ensure standards compliance.

**Plans and Crossfit - Guilherme**

To fix errors on the CrossFit and Plans pages and make them follow HTML5 standards, it was necessary to remove extra slashes from <meta> and <img> tags, add headings to sections that didn’t have them, quote all attribute values properly and adjust heading levels. These fixes helped make the pages more organized and user-friendly.

|  |
| --- |
| **Plans Page** |
| Before Adjustments |
| **A screenshot of a computer  Description automatically generated** |
| After Adjustments |
| **A screenshot of a computer  Description automatically generated** |

|  |
| --- |
| **Crossfit Page** |
| Before Adjustments |
| A screenshot of a computer  Description automatically generated |
| After Adjustments |
| A screenshot of a computer  Description automatically generated |

The css file made by Guilherme (stylesGui.css) did not show any errors.

|  |
| --- |
| stylesGui.css - Crossfit Page |
| **A screenshot of a computer  Description automatically generated** |

**Index and Swimming - Clara**

**Contact Us and Open Gym - Alexandre**

## 4.3. SEO and Optimization

Images were optimized for fast loading using Tinify and Optimizilla. It resulted in a considerable reduction size of the images as shown in the screenshots below.

A white sheet with black lines

Description automatically generated

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Proper use of alt attributes was made to improve accessibility (e.g., Crossfit Page created by Guilherme, Swimming Page created by Clara and Gym Page created by Alexandre as shown below ).

- CrossFit Page created by student Guilherme

A screenshot of a computer program

Description automatically generated

- Swimming Page created by student Clara

Texto

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- Gym Page created by student Alexandre

Texto

Descrição gerada automaticamente

## 4.5. Testing

### 4.5.1. Responsiveness

We used Bootstrap extensively in our project to ensure responsiveness and a consistent layout across various screen sizes. Bootstrap’s grid system, with classes like col-lg, col-md, and col-sm, helped us create flexible layouts that automatically adjust based on the viewport size.

In addition to Bootstrap, we implemented custom CSS media queries to handle specific styling needs that were not covered by default Bootstrap classes. These media queries allowed us to fine-tune the appearance of elements like font sizes, paddings, and margins for different screen widths.

Together, Bootstrap and CSS media queries ensured that our website provides a seamless and visually appealing experience across devices.

**Plans and Crossfit Pages (Guilherme)**

In the Plans and CrossFit pages, the Bootstrap grid allowed content, such as plan cards and carousels, to rearrange from multi-column layouts on large screens to single-column layouts on smaller devices (e.g., cards in Plans Page).

|  |  |
| --- | --- |
| **Plans Page - Cards** | |
| **A computer screen shot of a black background  Description automatically generated** | |
| **col-lg-4** | |
| **A screenshot of a website  Description automatically generated** | |
| **Col-md-6** | **Col-sm-12** |
| **A screenshot of a website  Description automatically generated** | **A screenshot of a phone  Description automatically generated** |

CSS media queries adjusted the size of the plan cards and centered buttons on smaller screens to maintain usability and aesthetic consistency (e.g., “Choose a Plan” button).

|  |
| --- |
| **Plan Page – “Choose a Plan” Button** |
| **A screenshot of a computer  Description automatically generated** |
| **Large Screen (width > 991px)** |
| **A group of people on treadmills  Description automatically generated** |
| **Smaller Screen (width <= 991px)** |
| **A screenshot of a phone  Description automatically generated** |

The website was deployed on GitHub Pages. Challenges included aligning the navigation bar across all pages, which was resolved through collaboration.

# 5. Results and Achievements

The “Go Training” website successfully met its objectives, offering a visually appealing and functional platform. Highlights include a fully responsive design, seamless navigation, and engaging interactive features.

# 6. Teamwork and Improvements

Collaboration among team members was effective, with clear task distribution and regular check-ins. Future improvements could include adding a backend for dynamic content and incorporating user feedback mechanisms.

# 7. Conclusion

The “Go Training Fitness Website” project provided valuable experience in web development, teamwork, and problem-solving. The final product is a testament to the team’s dedication to creating a high-quality, user-centered platform.

# 8. References

Bootstrap Documentation: <https://getbootstrap.com>

W3C Validator: <https://validator.w3.org>

Tinify (file compression): https://tinypng.com

SmartFit: <https://www.smartfit.com.br/>

Bodytech: <https://www.bodytech.com.br/>

Stoneybatter Cross Training: <https://www.stoneybattercrosstraining.ie>

Competition Gym: <https://www.competition.com.br/>