



CA1: Web Design and Development

Module Title: Web Design and Development

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1. Business Case

Jessica Smith is a Personal Trainer (PT) and business owner. Her company name is Fresh Fitness™ established in 2012. During the past 10 years, she has relied on word of mouth to grow her business and has been met with great success. Recently, she has noticed a change in how the general population are attracted to hiring Personal Trainers. People are now researching individual trainers to find the right fit for them. She wants to build an online presence for her business to attract new clients by displaying her qualifications, results and testimonials. She has asked for a brochure-style website to be designed for her Personal Training business.

Jessica has Level 3 EQF in Fitness Instruction and Group Instruction. She also has completed Level 4 EQF in Personal Training. Jessica provides one-to-one and small group training in a private gym space in the Malahide Marina, North County Dublin. There is paid parking onsite and Malahide is also accessibly by public transport. Gym opening hours are from 6am to 10pm Mon-Fri, 8am-5pm Sat by appointment only. Within this facility, there is state of the art training equipment. There is also a sauna and floatation therapy tank available to clients at a reduced rate.

Jessica is also a qualified nutritionist and has not yet tapped into this side of her business. Again, a website displaying this information would aid in attracting clients to utilise this qualification more. She intends to write a monthly training and nutritional newsletter and would like to use the website to increase subscribers.

Jessica would like to provide a means for prospective clients to purchase personal training/nutritional packages on the site directly.

2. Report

2.1 Techniques to improve accessibility

To make the site more accessible to individuals with visual impairment, multiple strategies were used. “Alts” were added to each image to assist visually impaired users in comprehending the image. Text size was also kept above 12px.

Text size below 12px can be difficult for people with certain disabilities to read as well as those with a visual impairment. A single Sans-serif font typeface (Exo 2) was used across the site to make it as readable as possible. For the same reason text style changes were minimised.

The colour scheme is consistent throughout, so once the user familiarises themselves with the homepage, they can more easily transition through other pages on the site. The best way I found to achieve this was to create a collection of classes in CSS that I have referred to as the “palette”. This allowed me to use the classes for colours and text across site in a simple a consistent manner.

Design decisions were made to make for better ease of access e.g., leaving the header floating the whole way down the page on phone and tablet screen sizes.

I added a submission page to give feedback to the user that the form submission was successful. This would also prevent extra unnecessary submissions.

For search engine optimisation(SEO), I added h1 tags to each page on the company name/logo in the header. This not only will help in SEO but also draws the eye to the top left corner even more than it normally would. I also looked into the most commonly used and useful tags to aid in optimisation.

2.2 Logbook

Date	Activity
Week beginning 17.10.2022	<p>Business case creation.</p> <p>Researched similar websites. Reviewing their design, structure and inspecting pages. Documenting like/dislikes, pros/cons and useful information.</p> <p>Sublime text file set up and folders created.</p> <p>Physically drew design on A4 pages as reference design template.</p> <p>Researched w3 schools for implementation of grid and flex boxes (w3schools, 2022)</p>
Week beginning 24.10.2022	<p>Design of home page confirmed. HTML written for body of homepage. Used CSS for grid container. This process took me a long period of time to ensure it looked as planned. Decision made to move away from grid box structure for the remainder of the website but left in place for the homepage as it displayed my learnings.</p> <p>Researched header and footer formats to find best solution for this project. Attempted to utilise learnings from class on header and footer placement but were not functioning within grid structure. Spent time restructuring Homepage until happy with alignment of header, main body and footer for my project. Inspiration from the footer was gathered from codepen.io, as I liked the 3-column approach. (Steve, 2022)</p> <p>Transferred reusable HTML to other pages.</p>

	Unhappy with folder structure as finding it difficult to navigate with so many stacks. Researched other organisation methods (Stein, 2019)
Week beginning 31.10.2022	<p>Created HTML and CSS for About page. Spent considerable time in aligning/styling text and making look appropriate. Images caused issues with sizing and alignment. Wrapped in div and centred to overcome this.</p> <p>Created HTML and CSS for Shop page using design template(physical drawings) for div structures. Spent a lot of time utilising CSS margins/padding/borders to achieve required look on both these pages. Researched how to make header bar responsive pre-emptively to ensure I wasn't doing anything that would hinder this later. (Mozilla, 2022; w3schools, 2022)</p>
Week beginning 7.11.2022	<p>Created HTML and CSS for Contact page using class learnings and w3 schools (w3schools.com, 2022) Radio button not working properly as able to click multiple options. Turned out to be a simple labelling issue discovered after searching multiple sources online. (Douglas, 2011; Mozilla, 2022; w3schools, 2022)</p>
Week beginning 14.11.2022	<p>Began tidying up CSS and HTML. Added comments to files. JavaScript added to validate form page. Looked for most efficient method of doing this, utilising methods used in class, programming knowledge and researched methods.</p> <p>Researched how to validate email and telephone. Had issues implementing mainly around logic paths and regex. Had to rework the logic multiple times to achieve desired result. (thacker_shahid, 2022; w3resource, 2022) Took some time to understand regex format and how to implement correctly in JavaScript i.e., testing regex with .test() function.</p> <p>Added submission page to help with accessibility and make more user friendly.</p>
Week beginning 21.11.2022	<p>Made website responsive as per learnings in class and research. Used media queries and meta tags.</p> <p>The biggest challenge regarding responsiveness was to condition the header bar to work effectively on smaller screen sizes. Using codepen.io and previous research, I implemented a CSS only solution that I felt was appropriate for this site (Aprekuma. T, 2022). There were bugs particularly around hiding and showing elements that took several hours to overcome. Required long thought process to decide what to remove and at what size and what look would be best. Lot of experimentation involved.</p>
Week beginning 28.11.2022	<p>Structured CSS and added comments.</p> <p>JavaScript added to Shop. Needed to restructure the HTML to allow the functionality.</p> <p>JavaScript added to About.</p> <p>JavaScript added to Homepage.</p>

2.3 Reflection

This project highlighted to me the importance of a solid design process. The way I approached the project, I did a small amount of design prior to commencing the HTML and CSS. I would dedicate more time to the design stage to have a better vision of the look and feel of the website before writing any code. While this may take extra time at the beginning, I feel it would have saved me time in the implementation.

I found it very useful to break down features into user stories and work iteratively through them. This allowed me to focus on one part of the site in isolation. I wasn't making changes that were out of scope to my current focus. I could then easily develop and test my changes in a neat feedback loop.

In future projects, I feel it would be very useful to expand the palette section of the CSS to include padding, margin, and other design features.

I have found researching other web designer implementations of certain things very interesting and have picked up a lot of knowledge by reading and trying to understand/implement ideas.

From testing the site on different browsers and sizes, it is apparent that in a small number of situations that the site does not perform as I would expect e.g., a sideways scrollbar in Kindle fire HDX and iPad iPadOS across all pages, the text and picture testimonial section does not render properly in surface duo. In future projects, I would test this earlier on giving more time to correct the issues.

The website was designed with minimal search engine optimisation due to lack of knowledge in the area. It was difficult to go back and add it in when I was already happy with the design. I did so where I could and researched the topic for future projects.

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