CSC8018 Coursework Assignment

The aim of this assignment is to assess your practical skills to create a functional, standards-compliant web page using HTML and CSS from a given textual and visual specification. You are also required to reflect on your solution as part of a reflective report.

Objectives:

* To create a cleanly structured, accessible and valid HTML and CSS web page from a plain text document (provided), based on a visual representation. This is representative of the real world where one can be required to work from a design brief.
* To correctly include specified images and other external page objects within the final document.
* To use clean valid CSS to layout and present a HTML document.
* To reflect on your solution and evaluate how your website could be enhanced using modern web frameworks, drawing on trends in recent developments

# Getting Started

Read through the specification carefully before starting. Download the following files from the specification folder:

* chessboxing.txt
* chessboxing.css
* chessboxing-HTML.png
* chessboxing-accessibility-demo.mp4 ([chessboxing-accessibility-demo.mp4](https://newcastle-my.sharepoint.com/:v:/g/personal/b8014315_newcastle_ac_uk/EaXmhbcO_yFHgPbzBKayEA8BOYvPY2MK7XPKx-Fb8lRUOg?nav=eyJyZWZlcnJhbEluZm8iOnsicmVmZXJyYWxBcHAiOiJPbmVEcml2ZUZvckJ1c2luZXNzIiwicmVmZXJyYWxBcHBQbGF0Zm9ybSI6IldlYiIsInJlZmVycmFsTW9kZSI6InZpZXciLCJyZWZlcnJhbFZpZXciOiJNeUZpbGVzTGlua0NvcHkifX0&e=ZNSk2C))
* chessboxing-CSS-small.png
* chessboxing-CSS-large.png

These files, besides the video (linked above), can be found here: <https://github.com/cgshep/csc8018-coursework-resources/>

# Instructions

Use HTML tags and attributes to mark up the contents of chessboxing.txt for display on the web, as shown in chessboxing-HTML.png. Save your file as chessboxing.html.

Next, add valid CSS to present chessboxing.html as shown in the resource files chessboxing-CSS-large.png and chessboxing-CSS-small.png. All your CSS must be contained inside a single external file called *chessboxing.css*.

You are not permitted to use any external libraries, such as jQuery-UI or Bootstrap.

## Marking Criteria (HTML) – 12 marks

**Structure and organisation [4 marks]:** Appropriate, content-specific, clean semantic markup that reflects the document structure must be used throughout the document. Your page must correctly link to all required external resources.

**Links, images & media [3 marks]:** Images and other external media objects must be appropriately marked up and displayed correctly. All images should be linked using full absolute URLs (see Assets & resources section).

**Accessibility [2 marks]:** Your markup should include accessibility measures for non-textual content such as images, tables and forms. This means images should include a detailed alt text description e.g. “A photo of two men sitting at a table with a chessboard on top”. You should refer to chessboxing-accessibility-demo.mp4 for an example of screen reader behaviour.

**Visual comparison [1 mark]:** Your file chessboxing.html should look like the screenshot example shown in the resources file chessboxing-HTML.png when the page is displayed without styles. You are not allowed to add, remove, or rearrange the supplied content.

**Validation [2 marks]:**  Your finished chessboxing.html must contain a suitable DTD and validate automatically as HTML5 without warnings when checked by file upload at [http://validator.w3.org/Links to an external site.](http://validator.w3.org/)

## Marking Criteria (CSS) – 26 marks

Use the included chessboxing.css file (linked) as a base for your CSS. This file includes a link to the font family for your website. You can call fonts like ‘Crimson Text’ directly. The file chessboxing.css also includes scale variables which you can use as reference points to size some on-screen elements.

**Layout [9 marks]:** The main (white) content block should be centred in the browser window, with the main text not extending further than approximately 80-90 characters. On displays of 600px width or less (referred to as "small display" in the following), padding within the content block should be reduced to reserve more space for content. The layout should not break, even if the page is narrowed to as little as 200 pixels.

**Header [4 marks]:** The background image of the page header should be fully visible (no matter the width of the viewport) and should appear centred within the header. The left edge of the main heading should be aligned with the left edge of the main text. The size of the heading should reduce on small displays.

**Navbar [4 marks]:** The navigation should be rendered horizontal in viewports larger than 600 pixels. On small displays, the menu should instead be rendered vertically. In both cases the navbar should be aligned right with the right edge of the main text. When hovering over a menu item, background and text colour should highlight the current selection, with a background hex colour of #fff6 and a text colour of ‘yellow’, as in the following screenshots:

A boxing ring with a person in the corner

Description automatically generated

A boxing ring with a person in the corner

Description automatically generated

**Floating elements [5 marks]:** Text should properly wrap around floating elements as shown in the graphical specifications.

When the page width is reduced, floating should be suppressed as soon as the wrapped text becomes unpleasantly small, and the element should be rendered within the page flow and horizontally cantered instead.

**Colours & Typography [1 mark]:** You are tasked to find out the correct hexadecimal codes for the colours used in the final version. You must use these correctly.

The core typeface in use is 14pt Crimson Text, with Kanit for headings and navigation. Both fonts are provided by Google Fonts, which is imported at the top of chessboxing.css.

A little research should enable you to build simple font stacks to implement them correctly using CSS. Your font stacks should provide appropriate alternatives if these typefaces are not loaded on the client.

Unicode provides glyphs for chess pieces which can be used like other special characters by referencing their hexadecimal HTML entities or their escaped CSS codes:

|  |  |  |
| --- | --- | --- |
| **Piece** | **HTML (hex)** | **CSS (escaped)** |
| white king | &#x2654; | \2654 |
| white queen | &#x2655; | \2655 |
| white rook | &#x2656; | \2656 |
| white bishop | &#x2657; | \2657 |
| white knight | &#x2658; | \2658 |
| white pawn | &#x2659; | \2659 |
| black king | &#x265a; | \265a |
| black queen | &#x265b; | \265b |
| black rook | &#x265c; | \265c |
| black bishop | &#x265d; | \265d |
| black knight | &#x265e; | \265e |
| black pawn | &#x265f; | \265f |

**Validation [3 marks]:** Your CSS should be clean, generic, and reasonably separate from the content of the HTML file. If the CSS is removed from chessboxing.html, the content must appear exactly as shown in the textual specification chessboxing.txt. This means you are not allowed to add, remove, or rearrange the supplied content for visual purposes, but must instead achieve this using CSS alone.

Your finished chessboxing.css must validate with no errors and no warnings against CSS level 3 at [http://jigsaw.w3.org/css-validator/Links to an external site.](http://jigsaw.w3.org/css-validator/).

## Reflective Report – 10 marks

Produce a short (**maximum 500 word**) reflective report detailing your experience of completing this assignment and evaluating how web technologies could be used to enhance your solution. Your report should answer the following questions:

1. How did your experience of writing CSS compare to your experience of writing HTML for this project? For example:
   * Did you find writing HTML for your website easy or difficult?
   * Was the HTML or CSS easier to learn and use?
   * Did both the HTML and CSS behave as expected when you tested your website?
2. Modern web frameworks like Bootstrap provide comprehensive templates for structuring websites. How could you have enhanced your solution by making use of these technologies?
3. Have you learned about any other trends in web technologies that could enhance your website? If so, what are these and how could they be used?

Your report should also include a consistent academic reference style to cite relevant work, where you have used information from another source. The report should also be well-formatted, adhere to good spelling and grammar, and otherwise written to an appropriate academic standard.

# Hints

Redundant or extraneous mark-up will cost you marks. Think “lean and clean”. If you find yourself asking, “have I put too many tags in here?” or "have I repeated CSS rules at too many places?", then you probably have.

The final page layout and functionality should appear and behave identically in recent versions of Firefox and Google Chrome. Your page will be tested in one of these browsers. For the purposes of this exercise, other browsers do not have to be explicitly catered for.

The screen shot chessboxing-CSS-large.png is taken from a browser window set to 1920 pixels width, while chessboxing-CSS-small.png is taken from a browser window of 360 pixels width. You can make measurements off it if you wish, however this may not help you much beyond relative proportions for margins, borders etc. You do not have to be pixel perfect to pass. You should make sure that the page renders well on any viewport size, not only the two provided in the visual specification.

Your solution should demonstrate a maximal separation of concerns between content and presentation. That implies, for example, that the overall style of the page should remain consistent if paragraphs or images were added, removed or reordered on the page.

# Assets & Resources

For this assignment you will need access to the following images:

• chessboxing\_background.jpg

• chessboxing\_map.png

• chessboxing\_ring.jpg

These images have been uploaded as follows:

|  |  |
| --- | --- |
| chessboxing\_background.jpg |  |
| chessboxing\_map.png | <https://github.com/cgshep/csc8018-coursework-resources/assets/> |
| chessboxing\_ring.jpg |  |

The YouTube video to be embedded is located at [https://www.youtube.com/watch?v=8ZGHrzE8bqcLinks to an external site.](https://www.youtube.com/watch?v=8ZGHrzE8bqc).

[A black and grey play button

Description automatically generated](https://www.youtube.com/watch?v=8ZGHrzE8bqc)

All fonts are provided by Google Fonts. These are provided for you at the top of chessboxing.css.

# Submission

The due date for this assignment is stated on NESS. You will need to submit a ZIP file containing the necessary HTML, CSS and asset files (e.g. images) required to run your website. You must also include your report as a PDF file.

Your files should be named and structured appropriately such that your website can be launched easily.