

# An introduction to HTML and CSS

24 September 2020

As with all lab exercises, this exercise is not directly assessed. It is intended to complement the material presented in lectures, and may turn up in the exam. You are encouraged to complete it in your own time if you do not finish it during the lab hour.

The aim is to become familiar with the use of some basic aspects of HTML and CSS.

*There is much to be gained in doing these exercises together with one or two other people from the class, discussing what you observe, as well as answering the questions below. We would normally encourage you sit with someone else in the class to complete these exercises. This year we suggest making use of the 'Student Room' channel on MS Teams for talking to other students and the 'General' channel for asking questions.*

You will need to copy files into the web accessible area in your own School filespace – somewhere within `~/nginx_default/`, e.g. `~/nginx_default/cs2003/wk02/`.

Please use either Firefox or Chrome web browsers, as we will use one or both of those for our ongoing work within CS2003.

## 1 Basic HTML – your School homepage

If you have not done so already, please make a simple homepage for yourself in your School web filespace. That is, create a file called `~/nginx_default/index.html`. See the example in the lecture notes from earlier this week.

You can see the web pages that the rest of the class have created here:

<https://ozgur.host.cs.st-andrews.ac.uk/cs2003/studentwebpages.html>

*Note that your School web page is publicly accessible from anywhere on the Internet.*

Later, after looking at the other examples below, you might want to modify parts of your homepage.

## 2 Links, images, and video

Please view in your browser the HTML pages in:

<https://studres.cs.st-andrews.ac.uk/CS2003/Examples/wk02/01a/>

`hello-world.html` is a very simple page that we looked at in class. You could use it as a simple template for your own homepage if you wish.

`images.html` shows how graphics can be linked into a page.

`video.html` shows how video can be linked into a page.

Copy `images.html` and `video.html` into your own web filespace, and view them in a web-browser via your own “host” URL.

1. You will notice that when you view the pages in a browser from your own web filespace, the pictures and video do not appear. Firstly, workout why that is and *edit your own copy of the web pages* so that the pictures and videos can be viewed again (do not copy the pictures and videos to your own web filespace).
2. Now modify `images.html` so that:
  - when you click the photo of the School, it takes you to the School homepage.

- when you click the photo from Google, it takes you to the Google homepage.
- when you click the photo of Victoria, it takes you to the Victoria Tourism homepage.

### 3 Some examples of CSS

Please copy the files from studies in CS2003/Examples/wk02/01b/ to the same web filespace as your other files above.

`list.html` has a list of links to the other pages.

`css-1.css`, `css-2.css`, and `css-3.css` are three example CSS files.

View `list.html` in your browser from your own web filespace. Keep this page view open for comparison, e.g. as a separate browser tab, or as a separate browser window.

1. Examine the file `list.html` in a text editor or text file viewer (such as `more`, or `less`).

Notice:

- The use of an “ordered (enumerated) list”, using `<ol>` `</ol>`. (`<li>` `</li>` are list items.)
- The use of an “unordered list”, using `<ul>` `</ul>`. (Again, `<li>` `</li>` are list items.)
- The use of the tags, `<nav>`, `<footer>`, and `<mypagetitle>`. Look these tags up on the Mozilla Developer web site, e.g.:

<https://developer.mozilla.org/en-US/docs/Web/Guide/HTML/HTML5>

or even:

<https://www.wpkube.com/html5-cheat-sheet/>

What do you notice about the tag `<mypagetitle>`?

2. Now, edit `list.html` to include, in turn, `css-1.css`, `css-2.css`, and `css-3.css` – you will see at the top of the HTML, in the `<head>`, there is some commented HTML you can use for this purpose. Compare with the tab/window you already have open for the unmodified page, to compare what the page looks like with each of these different CSS definitions.
3. Look at the file `css-1`. Notice the relationship between the tag names in the HTML and the same names occurring in the CSS. Notice, especially, `<mypagetitle>`. Notice the CSS definitions for each tag name – they are relatively self-explanatory, but a CSS reference can be found here:  
<https://developer.mozilla.org/en-US/docs/Web/CSS/Reference>
4. If you look at `css-2.css` and `css-3.css`, you will see that some CSS definitions have several tag names, as well as some other “selectors” (modifiers) to the tag names, within the definitions given. Explore what these mean. You may want to look at:  
<https://code.tutsplus.com/tutorials/the-30-css-selectors-you-must-memorize--net-16048> for some hints.