CISC 181 Lab 10 Your Own Web Page

For this lab, you will need a text editor, and (again!) an excellent choice for the job is Visual Studio Code. If you prefer another editor, that is fine, but do not use a word processing program such as Microsoft Word for the lab Files created with such programs will, by default, contain many non-text elements like formatting codes that have no place in an HTML document.

1. Open a new, blank document in your editor and save it on your computer's desktop (or somewhere else that's easy to find) as **Lab\_10.html**. While you work on the lab, get in the habit of saving the file frequently. This can usually be done by holding down your keyboard's Control (or Ctrl) key and pressing the S key.
2. If you are working in Visual Studio Code, type an exclamation mark, !, and press your keyboard's Tab key. If that does not seem to do anything magical in your editor, remove the exclamation mark and carefully copy and paste this in, instead:

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<title>Document</title>

</head>

<body>

</body>

</html>

1. Save your work. In its current form, your Lab\_10.html document is a valid, standards-compliant web page that, if viewed in a browser, will show a blank page with "Document" in its tab at the top of the browser, but do nothing more. To check that this is the case, find the file you just created in a file listing (or on your desktop if you saved it there) and drag its icon onto an open browser window. Refresh this (currently blank) browser window as you work your way through to lab to see what effect your changes are making.
2. Find the <title></title> tag pair in your document and change the content from "Document" to "My Life After Queen's". Save your work (Ctrl-S), and refresh your browser page to note that this changes the content of the web page's tab.
3. This step just involves reading. What you learn here you will apply in step 6, so this material can serve as a reference. Some of what this section contains is covered in the lecture slides for the week.

The content of web pages – the stuff that shows up in the main window – must be placed between the <body></body> tags. Currently yours are empty (or, rather, they contain only blank space). Here are some tags that will help you to fill it. Understand that the italicized words (like *text*) inside the tags is to be replaced by meaningful content, as shown in the examples.

* <h1>*text*</h1> - These tags are meant to contain a major (or first-level) *heading*. By default, the font size used in a browser to display such a heading is much larger than that used for regular text. By contrast, <h2></h2> tags are used to contain a second-level heading which, be default, is displayed with a font size larger than normal, but smaller than that used in an <h1></h1> pair. There are six levels of headings tags available. An example:

<h1>My Blog</h1>

<h2>by Hong Li</h2>

* <p>*text*</p> - These tags are meant to contain *paragraph*s of data. By default, a browser will separate paragraphs by some fixed amount of blank vertical space. (The precise amount of space may differ a bit among browsers.) Here is an example using two paragraphs:

<p> Queen's is an integral part of the Kingston community, with the campus nestled in the core of the city, only a 10-minute walk to downtown. Kingston becomes a part of the Queen's experience whether you are faculty, student, or staff.</p>  
<p> From tutoring an elementary or high school student down the street, volunteering or working for one of the many shops and businesses downtown, or becoming friends with a neighbour (who also could be a professor or staff member!), being a part of the Queen's community and the Kingston community are intimately intertwined.</p>

* <em>*text*</em> - These tags contain text that the author wants to *emphasize*. By default, browsers *italicize* any text placed between these tags. For example:

"Look at <em>that</em>!" exclaimed Fred, gawping at my sleek new tricycle.

* <strong>*text*</strong> - These tags contain text that the author feels *strongly* about. By default, browsers **embolden** any text placed between these tags. I will note, at this time, that *nesting* of tags is allowed when a combined effect is sought, so that, for example,

I would <strong>never, <em>ever</em></strong> do such a thing.

would appear in a browser as (approximately) "I would **never, ever** do such a thing." I will also note that although a tag pair does exist for underlining, <u></u>, it is not used much because most viewers of Web pages have been conditioned to interpret underlined text as hypertext links.

* <a href="*target*">*link text*</a> - Speaking of hypertext links, these *anchor* tags exist to provide them. The Web page author puts a URL (a web address), or the name of a disk file on the server inside the quotation marks after the "href=", and a description of the targeted URL or file between the opening and closing tags. By default, browsers display the *link text* underlined and in blue (or in purple, for a link already visited). This example paragraph contains a link to the School of Computing home page:

<p>This course is offered by the <a href="https://www.cs.queensu.ca">School of Computing at Queen's University</a>.</p>

* <img src="*file*" title="*text*" alt="*text*"> - The *image* tag is self-contained and does not have a closing tag. It is used to put images (i.e., pictures) on Web pages. The file name or URL of the picture file goes inside the quotation marks after the "src=". An optional (but recommended) *title* goes inside the quotes after the "title=", and an optional (but also recommended) *alternative* text (of use to people using non-visual browsers) goes inside the quotes after the "alt=". A typical image tag might look like this:

<img src="ahmedandme.jpg" title="Ahmed and me" alt="Photo of Ahmed and me">

or maybe this:

<img src="https://tinyurl.com/yzxrzesn" title="Kitten" alt="A kitten">

The first example displays an image file saved on the same computer and in the same folder as the web page, and the second example uses a URL to display an image file that is on a server elsewhere on the web. **Note:** The <img> tag is an "inline" tag, meaning that it embeds itself into the flow of the surrounding text. To separate your image from the surrounding text, you can put it into a paragraph of its own, like this:

<p><img src="https://tinyurl.com/yzxrzesn" title="Kitten" alt="A kitten"></p>

1. Now that you have a guide to some (of the many) HTML tags, replace the blank line between the <body></body> tags (do NOT delete the tags themselves) of your Lab\_10.html file and replace it with a description of **what you would like to do after you finish at Queen’s**. **Use all the tags described above**. Write **at least two multiple-sentence paragraphs of text** in addition to your heading(s).

For your <img> tag, find a non-copyrighted image suggestive of your plans for the future, perhaps using Google's or Bing's Image Search, copy the image's URL into your clipboard, and paste it in as the "src" in your own image tag. **Place your image between two of your text paragraphs. If you don't like how the text wraps around your image, try placing your image tag inside its own paragraph tags.**

**Your anchor tag should link to some other page on the web that is about your future plans or relates to them in some way** – perhaps a Wikipedia page about them. As you build your page's content, save it regularly, and have a look at it in your browser to see how it is coming along. **Note: If you find that, as you type your paragraphs, they stretch out along one very long line, you can make them wrap by using the text wrap feature in your editor (if you can find it). Note, too: If the picture you have included is too large for your page, don't worry. If you place your <img> tag inside <p></p> tags, that will be taken care of in step 7.**

1. This set of instructions will let you dress your Web page up a bit using a styling technique for markup languages (including HTML) called Cascading Style Sheets (CSS). First, insert a pair of <style></style> tags just above the closing </head> tag, like this

<style>

</style>

</head>

and fill them in exactly as follows. **Note that you should use the Tab key to make the indents as shown unless your editor generates them automatically.**

<style>

body {

color: white;

background: navy;

font-family: sans-serif;

}

h1, h2 {

text-align: center;

color: lightblue;

background: black;

}

a {

text-decoration: none;

color: yellow;

background: blue;

}

a:visited {

text-decoration: none;

color: silver;

background: blue;

}

p img {

display: block;

float: left;

margin-right: 1em;

max-width: 20em;

}

</style>

Save your work! Then have a look at the result in "Preview". If you don't like my choices for colours (and I know they're horrible), you can find others here that you may use instead:

<https://www.w3schools.com/colors/colors_names.asp>

Optional: **Can you figure out how to make the image move to the right side of your web page?** Note: When you do that, you will also want to change the "margin-right" to a "margin-left" in the CSS. As you make further changes, save your work before previewing your page in your browser.

When you are satisfied with the look of your page and have made sure that you have met all the lab requirements, save your work, one last time.

Here is a checklist of what we shall be looking for:

* (6 marks) An error-free HTML document consisting of, at minimum, a heading, at least two multiple sentence paragraphs on the topic specified above, and an image related to that topic in a paragraph of its own (between two paragraphs of text).
* Inclusion and correct use of the following HTML tags:
  + (1 mark) <h1></h1>
  + (2 marks) <p></p> (Two sets of these, at minimum)
  + (1 mark) <em></em>
  + (1 mark) <strong></strong>
  + (3 marks) <a></a> with a valid URL href attribute in the opening tag and suitable link text between the opening and closing tags
  + (3 marks) <img> with a valid URL src attribute as well as appropriate title and alt attributes
* (3 marks) Inclusion and correct use of the <style></style> tags and CSS. You may use the provided style sheet and, optionally, adjust or add to it to make your page more attractive.

**Submission guideline**

**In the name of site security, onQ may do cruel and horrible things to HTML files that are uploaded directly, so it is important that you put your Lab\_10.html file into a .zip file – please call it Lab\_10.zip – and submit that file to onQ by the deadline.**