Web Design and Development ACS-1809

Chapter 3

Document Setup

Create an HTML file

- At their very core, HTML files are simply text files with two additional feature.
  - *.htm* or *.html as* file extension name

  - They have *tags.*
    - *Tags* are commands or code used to tell the web browser how to display the page content.

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```html
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml" class="no-js" lang="en">
<head>
<meta content="text/html; charset=utf-8" http-equiv="content-type"/>
<title>The University of Winnipeg</title>

<meta content="index, follow" name="robots"/>
    <meta content="IE=9; IE=8; IE=7; IE=EDGE" http-equiv="X-UA-Compatible"/>

    <link href="styles-2014.css" media="screen" rel="stylesheet" type="text/css"/>
    <!-- IE 6-8 support for media queries https://github.com/scottjehl/Respond -->
    <!--[if lt IE 9]>
        <link href="/styles-2014-ie.css" media="screen" rel="stylesheet" type="text/css"/>
        <script type="text/javascript" src="/_files/scripts/respond.min.js" ></script>
    <![endif]-->
    <!--[if IE]>
    <script type="text/javascript">
    (function(){
        var html5elmeents = "address|article|aside|audio|canvas|command|datalist|details|dialog|figure|figcaption|footer|header|hgroup|keygen|mark|meter|menu|nav|progress|ruby|section|time|video".split('|');
        for(var i = 0; i < html5elmeents.length; i++){
            document.createElement(html5elmeents[i]);
        }
    })();
    </script>
    <![endif]-->
    <link href="print.css" media="print" rel="stylesheet" type="text/css"/>

    <!-- Arvo font http://www.google.com/fonts#UsePlace:use/Collection:Arvo -->
    <link href="https://fonts.googleapis.com/css?family=Arvo:400,700" rel="stylesheet" type="text/css"/>

    <meta content="width=device-width, initial-scale=1" name="viewport"/>
    <meta content="yes" name="apple-touch-fullscreen"/>
    <meta content="UWinnipeg" name="apple-mobile-web-app-title"/>
    <link href="_files/images/responsive-2014/favicon.png" rel="icon" type="image/png"/>
    <link href="_files/images/responsive-2014/apple-touch-icon.png" rel="apple-touch-icon-precomposed"/>
    <link href="//ajax.googleapis.com/ajax/libs/jqueryui/1/themes/redmond/jquery-ui.css" rel="stylesheet" type="text/css"/>

    <script src="https://code.jquery.com/jquery-latest.min.js" type="text/javascript"></script>

    <script src="_files/scripts/jquery.cycle2.js" type="text/javascript"></script>
    <script src="_files/scripts/custom.js" type="text/javascript"></script>
    <script src="_files/scripts/accordion-nav.js" type="text/javascript"></script>
    <script>
        $(function() {
    $( "#accordion" ).accordion();
    });
    </script>
<script src="https://www.google.com/jsapi" type="text/javascript"></script>

<script src="https://uwinnipeg.ca/_files/scripts/facebook-conversion-code.js" type="text/javascript"></script>
    <noscript>
        <img height="1" src="https://www.facebook.com/tr?id=691550670905035&amp;ev=PageView&amp;noscript=1" style="display:none" width="1"/>
    </noscript>



</head>
<body class="home">
<header id="topBar"><div class="layoutBlock"><a href="index.html" id="siteLogo">University of Winnipeg</a> <a href="#search" id="siteSearchLink">Search</a>
<div id="mobileNavLink">
<div></div>
```

Naming Conventions

- About the file name
  - Be consistent about *.htm* or *.html*
  - Case sensitivity
  - Simple file names with only letters and numbers.
    - Don't use spaces, punctuation, or special characters.
      - (No "-,_...")
- Remember to save your file as a text file (on both PCs and Macs)

Preview of You HTML Work

- No need to upload the file to be able to preview in the browser
  - Use "open" from "File" menu in your browser.
  - Example
  - If the file is already opened in the web browse then just a "refresh/reload" is enough

HTML Document Format

- AN *HTML element* or *tag* is a command used to tell the browser how to display content on a page.
   Reminder:

- Tags are placed within *brackets (<   >).*
  - *Example:* <p> creates paragraphs, <li> creates list items, and <br> adds a line break.

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Types of Tags

- Document Setup
  - Elements in this category include those necessary to set up a basic HTML page – html, head, title, …

- Text-Level Semantics
  - These elements help the browser understand the meaning behind bits of text content – fonts, …

- Sectioning
  - Elements used to section large chunks of content and divide up the page belong in this category – div, header, …

- Grouping
  - Elements used to section smaller chunks of content, like lists and paragraphs, fall into this category

Types of Tags

- Embedding
  - Often times, we need to embed content from other sources into a web page – image, vidoe, audio, …
- Tables
  - The elements that are used for managing tabular data
- Forms
  - Any element used in the development of a web form falls into this category

Types of Tags

- "Opening" and "Closing" tags.
  - `<p>` as an opening tag: to signify where to start a paragraph
  - Closing tag: to signify where the paragraph ends
    - The same tag with a forward slash placed before it: `</p>`
  - Not all tags in HTML5 are required to have both opening and closing tags.
    - They are called "empty" if just one tag

Table 2-1: Basic HTML Page Tags

Opening Tag	Closing Tag	Description
!DOCTYPE	n/a	-Tells the browser about the standards used in your page.
<html>	</html>	-Frames the entire HTML page.
<head>	</head>	-Frames the identification information for the page, such as title, that is transferred to the browser and search engines.
<body>	</body>	-Frames the content of the page.
<title>	</title>	-Gives the name of the page that will appear at the top of browser window. - Is contained within <head> and </head>.

Attribute

- Many tags have additional aspects that you can customize. These options are called *attributes*
- *Attributes* are placed after the element name but before the final bracket

  <img src= "mypicture.jpg" width="100" height="100" alt="A photo of me">

- Base element is img : insert an image at this spot
- The attributes are: src, width, height, alt
- Each attribute has a *value,* which comes after = sign and is placed within quotation marks

Attributes – Cont'

- Multiple attributes can be included in a single tag
- Only add the attributes to the opening tag, and then close this opening tag (NO attributes in closing tag)
- **img** tag doesn't have a separate closing tag
  - This is referred to as being "empty"
  - In early version of HTML, to close tags without separate closing versions, simply place a forward slash(/) before the final bracket
    - This is **not required in HTML5**, but good for stricter validation (like XML parser)

HTML Document

- HTML document is one big element
  - <html>your html document</html>
- There is a head and a body
  - Head: <head>the header</head>
    - contains information about the document like title, keywords for search engine, etc
  - Body: <body>the body</body>
    - contains the content of the web page
    - tells the browser how to display it
  - Body is always placed after the head element

Required tags - Example

```
<!DOCTYPE  html PUBLIC "-//w3c//DTD XHTML 1.0
    Transitional//EN"
    "http://www.w3.org/TR/xhtml1/DTD/transitional.dtd">
<html>
  <head>
    <title> My First HTML page</title>
  </head>
  <body>
    This is a very basic HTML page.
  </body>
</html>
```

!DOCTYPE

- The !DOCTYPE tag: tells which version of HTML is used in the document
  - In HTML 4.01
    - XHTML Transitional : for documents that combine old and new HTML code
    - XHTML Strict : for documents that only use new code
    - XHTML Frameset: for documents containing frames
  - Now it's much simpler for HTML5 – just use "html" for <!DOCTYPE>

    <!DOCTYPE html>

Required tags - Example

ⓉSo now the previous HTML code becomes:

```
<!DOCTYPE html>
<html>
  <head>
    <title> My First HTML page</title>
  </head>
  <body>
    This is a very basic HTML page.
  </body>
</html>
```

About the Tag

- In earlier days HTML was case insensitive
- HTML4 became case sensitive and requires all tags to be lowercase
    - All values for attributes must be placed within quotation marks

        <p style="font-family: verdana;">

                        The value of the attribute

- Now in HTML5, it's case insensitive again
    - To keep backward compatible it's still recommended to use lower case for all the tags
        - as well as the quotation marks

Nesting

□ Containing one HTML tag inside another

         This text is bold and italic

The em tag is nested within strong tag

□ Proper way and improper way to nest tags:

     These tags are nested properly.

     These tags are not nested properly..

Spacing and Break

- Two places within an HTML file to add breaks:
  - In between tags (as well as their components) -- to help you differentiate between sections of the page.
  - In between lines of text within the body of the page.

Spacing and Breaks

```
<html>
  <head>
    <title>My first web page</title>
  </head>
  The title tag is indented to show it is contained
    or nested within the head tag.
```

Spacing Between Lines of Text

```
<!DOCTYPE html>
<html>
  <head>
    <title> My first web page</title>
  </head>
  <body>
    Welcome.

    Thank you for visiting my first web page. I have several other
    pages that you might be interested in.
  </body>
</html>
```

Spacing Between Lines of Text

To make those line breaks appear, you have to use a tag to tell the browser to insert a line break.

**
** : simple line break.

<p></p> : paragraph break.

Spacing Between Lines of Text Cont'

⌨️So to display the blank line it should be in this way:

<p>Welcome.</p>

<p>Thank you for visiting my first web page. I have several other pages that you might be interested in.</p>

💻 HTML can not recognize extra space either

🖱️To put more than one space between words, you must use style sheets or special characters

Special Characters

Character	Numbered Entity	Named Entity
"	&#34	"
&	&#38	&
(nonbreaking space)	&#160	
©	&#169	©
®	&#174	®
é	&#233	é
<	&#60	<
>	&#62	>

Appendix D : full list

Comments

- To leave comments or notes that you don't want the visitors of your web site see (e.g. Reminders to yourself):

Space

`<!--` Remember to update this page after the new product becomes available. `-->`

Space