

Introduction to HTML

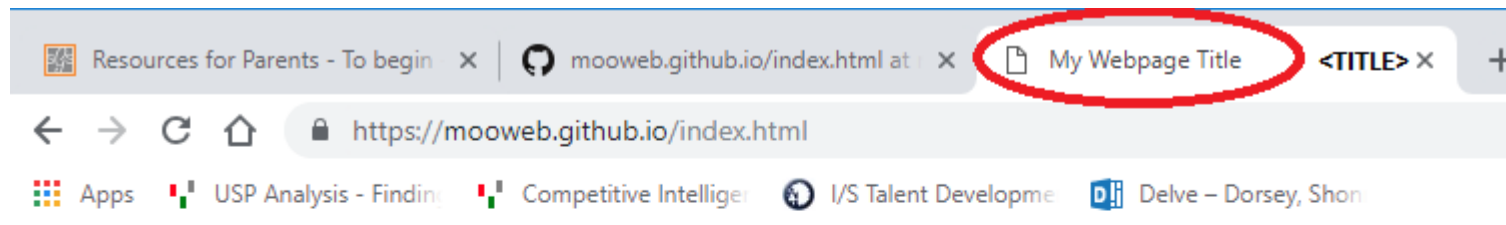
What is HTML?

- Hypertext Markup Language - Made up of tags, content and hyperlinks
- HTML standards are managed and maintained by the World Wide Web Consortium (more info at [w3.org](https://www.w3.org))

HTML Example (CODE)

```
1  <!DOCTYPE html>
2  <html>
3    <head>
4      <title>My Webpage Title</title>
5      <!--comment: the <title> tag is used to replace the web page url in the active browser tab-->
6    </head>
7    <body>
8      <h1>Large Header</h1>
9      <p>Content after large header</p>
10   </body>
11 </html>
```

HTML Example (OUTPUT)



Large Header ← `<H1>`

Content after large header ← `<P>`

<!DOCTYPE>

The <!DOCTYPE html> declaration tells us that the person who created the HTML document is using HTML version 5.x.

For more information on HTML5, visit
<https://dev.w3.org/html5/spec-LC/>

```
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3    <head>
4      <title>My Webpage Title</title>
5      <!--comment: the <title> tag is used to rep
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8      <h1>Large Header</h1>
9      <p>Content after large header</p>
10   </body>
11  </html>
```

<HTML>

This is the root of the HTML page – note that the opening tag <html> appears right below <!DOCTYPE> and closes </html> at the end of the document.

```
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2  <html>
3    <head>
4      <title>My Webpage Title</title>
5      <!--comment: the <title> tag is used to rep
6    </head>
7    <body>
8      <h1>Large Header</h1>
9      <p>Content after large header</p>
10   </body>
11  </html>
```

<head>

The <head> section includes information the page needs to load and data about the page (meta tags). An example of content within a <head> section follows:

```
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2  <html>
3  <head>
4      <title>My Webpage Title</title>
5      <!--comment: the <title> tag is used to rep
6  </head>
7  <body>
8      <h1>Large Header</h1>
9      <p>Content after large header</p>
10 </body>
11 </html>
```

<body> section - where your content appears

- <head>: info the page needs prior to loading (**brain** of the page - behind the scenes)
- <body>: visible content on the page (**visible** attributes of a person - hair, clothes, shoes, etc.)
- Notice that on the live page example, the only visible items on the page are the content within the <h1> and <p> tags. No tag names are visible.

```
1  <!DOCTYPE html>
2  <html>
3    <head>
4      <title>My Webpage Title</title>
5      <!--comment: the <title> tag is used to rep
6    </head>
7    <body>
8      <h1>Large Header</h1>
9      <p>Content after large header</p>
10   </body>
11  </html>
```


<meta> tags

<meta> tags are used by search engines to index your web pages. The more (relevant) information here, the better.

4 <meta charset='UTF-8'>

The following info regarding the charset attribute is from
https://www.w3schools.com/html/html_charset.asp

- Because the character sets in ISO-8859 were limited in size, and not compatible in multilingual environments, the Unicode Consortium developed the Unicode Standard.
- The Unicode Standard covers (almost) all the characters, punctuations, and symbols in the world.
- Unicode enables processing, storage, and transport of text independent of platform and language.
- **The default character encoding in HTML-5 is UTF-8.**

‘name’ attribute

‘description’ is used for indexing, ‘author’ is used to credit the document author, ‘keywords’ is used by search engines for optimization purposes

-

```
5      <meta name='description' content='Intro to Web Workshop'>  
6      <meta name='keywords' content='training, introduction, web, development'>  
7      <meta name='author' content='Shonna Dorsey'>
```

.

‘viewport’

Continue onto line 8 and add the following META tag:

```
8      <meta name='viewport' content='width=device-width, initial-scale=1.0'>
```

- A <meta> viewport element gives the browser instructions on how to control the page's dimensions and scaling.
- The width=device-width part sets the width of the page to follow the screen-width of the device (which will vary depending on the device).
- The initial-scale=1.0 part sets the initial zoom level when the page is first loaded by the browser.

‘viewport’ cont.

One other important attribute in the <meta> section is **‘viewport’**. Viewport is important because it describes the page appearance based on the size of the device on which it is displayed.

From w3schools, the example on the left is what a page looks like without viewport, the right has viewport set to 1.0 (fill 100% of the visible screen space):



Without the viewport meta tag



With the viewport meta tag

External Content - CSS References

CSS Stylesheets and JavaScript content can be entered directly into an HTML document.

This practice is **ok** for small projects. I recommend storing CSS and JS in external files - much easier to manage.

For CSS the format is:

```
<link rel="stylesheet" href="css/style.css" />
```

- rel = relationship
- href= hyperlink reference
- /> = self closing tag.

External Content - JavaScript References

CSS Stylesheets and JavaScript content can be entered directly into an HTML document.

This practice is **ok** for small projects. I recommend storing CSS and JS in external files - much easier to manage.

For JS, the format is:

1. **<!--library reference-->**
2. `<script src="https://code.jquery.com/jquery-3.3.1.js"></script>`
3. **<!--custom file-->**
4. `<script src="js/script.js"></script>`

IMPORTANT: Any library references must appear above the custom file

Add content to <body>

<body> content: TEXT

The <body> section of the HTML document includes tags with attributes, as applicable, and related content. A couple of examples follow:

Text

You can use **<p>** tags to add text to a page and line breaks **
** to add a single line of text between content. Note that the
 tag is **self-closing** which means a closing
 tag is not required. The following syntax is incorrect:
content</br>.

Example:

SAMPLE HTML (PARAGRAPH WITH A LINE BREAK)	OUTPUT ON THE WEB
<pre><p>Here is some text. A little more text. Just a little more text.
 Adding one more line of content below the first line and closing out the paragraph. </p></pre>	<p>Here is some text. A little more text. Just a little more text.</p> <p>Adding one more line of content below the first line and closing out the paragraph.</p>

<body> content: COMMENTS

Comments

Helpful notes which do not appear on a live web page, are called comments.
Comment notation follows:

`<!--here is a hidden comment-->` This text (outside of the `<!--comment-->`), will appear on the page!

HTML	WEB OUTPUT
<pre><p>This is some content.</p> <!-- - This is a comment that will not appear on the page - - > <p>Additional content.</p> <button>Click Me!</button></pre>	<p>This is some content.</p> <p>Additional content.</p> <p>Click Me!</p>

<body> content: UNORDERED AND ORDERED LISTS

Lists

There are two list types:

- Unordered lists (bulleted lists)
- Ordered lists (numbered lists)

HTML	
UNORDERED LIST (BULLETS) Bread Cheese 	ORDERED LIST (NUMBERED) Heat Skillet Cook Grilled Cheese
WEB OUTPUT	
UNORDERED LIST • Bread • Cheese	ORDERED 1. Heat Skillet 2. Cook Grilled Cheese

<body> content: HEADINGS AND LISTS

Headings and Lists

Default heading sizes are <h1> - largest through <h6> - smallest. <hx> tags are used to highlight important summary data within your HTML documents.

HTML (HEADING + AN UNORDERED LIST)	WEB OUTPUT
<pre><h2>Recipe Ingredients</h2> Bread Cheese </pre>	Recipe Ingredients <ul style="list-style-type: none">• Bread• Cheese

<body> content: LINKS

Hyperlinks connects internal and external site content from anchors and pages within your site to links to external content. An example of using a hyperlink to connect to Google.com follows:

HTML

```
<a href="http://google.com">Best Search Engine!</a>
```

Tag Breakdown

a = anchor

Attributes:

href=hyperlink reference

HTML (HYPERLINK)	WEB OUTPUT
	CLICKING THE HYPERLINKED TEXT BELOW WILL REDIRECT THE USER TO GOOGLE.COM
<pre>Best Search Engine!</pre>	Best Search Engine!

<body> content: IMAGES

Images

Format: ``

Example: ``


Tag Breakdown:

img = image

Attributes

src = link to image file

alt = text that appears if the image doesn't show up.
Can also be used by screen readers for accessibility purposes.

HTML (IMAGE)	WEB OUTPUT (Image resized for this exercise)
<code></code>	

<body> content: FORMS

An excellent tutorial for creating basic form including instructions on how to use php to post form entries is available on W3Schools.com at the following link.

https://www.w3schools.com/html/html_forms.asp

An overview of how to add a basic form follows, but please visit the link above for a detailed breakdown of form options including instructions on how to group form data, form example.

`<body>` content: FORMS

`<form>` element:

`<form>` defines a form used to collect input from a user which could include text, radio buttons, check boxes, etc.

Format:

`<form>`

`<!-- form content-->`

`</form>`

<body> content: FORMS

<input> element:

<input> is the most important form element and can be displayed in a variety of ways based on the type attribute.

Examples (source: https://www.w3schools.com/html/html_forms.asp):

Type	Description
<input type="text">	Defines a one-line text input field
<input type="radio">	Defines a radio button (for selecting one of many choices)
<input type="submit">	Defines a submit button (for submitting the form)

<body> content: FORMS

<input> example in HTML:

1. <form>
2. First Name: <input type="text"
name="firstname">

3. Last Name: <input type="text"
name="lastname">

4. </form>

First Name:

Last Name:

Next — HTML Exercise!