Girl Develop It Albuquerque

Intro to HTML & CSS: Day One

Supplemental Material
January 2016

Hello!

Welcome to Girl Develop It Albuquerque's Introduction to HTML & CSS class. This packet contains material and notes that supplement the lecture slides.

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What We'll Cover

Lecture slides and content are available at:

http://gdi.rochellelewis.com/

1. HTML - What is it?
2. History of HTML
3. Web Dev Terminology and Tools
4. Directory Structure and Content
5. Anatomy of HTML elements: Tags, Attributes, Values
6. Creating a simple HTML document

7. HTML elements and content:
   a. Paragraphs
   b. Headings
   c. Text
   d. Links and paths
   e. Images
   f. Line Breaks
   g. Lists
   h. Comments
   i. Tables
   j. Special Characters

HTML Day One

From Wikipedia:
https://en.wikipedia.org/wiki/HTML

"HTML is a markup language that web browsers use to interpret and compose text, images and other material into visual or audible web pages. Default characteristics for every item of HTML markup are defined in the browser, and these characteristics can be altered or enhanced by the web page designer's additional use of CSS."

"The first publicly available description of HTML was a document called "HTML Tags", first mentioned on the Internet by Tim Berners-Lee in late 1991. It describes 18 elements comprising the initial, relatively simple design of HTML."

CERN
Conseil Européen pour la Recherche Nucléaire", or European Council for Nuclear Research.
http://home.cern/

The W3C
The World Wide Web Consortium (W3C) is an international community that develops open standards to ensure the long-term growth of the Web. https://www.w3.org/

HTML === HyperText Markup Language
Refer to the Mozilla Developer Network for a comprehensive reference on HTML tags: MDN HTML Element Reference.

Web Design
The process of planning and designing the Front End of a website or application.

Web Development
The process of coding/programming websites and applications. Front and Back End.

Front End
The components of a website or application that the end-user interacts with.

Back End
The data-centric inner workings of a website or application. Server-side code and data.

Tools

Browsers	Developer Tools	Text Editors
Chrome Firefox Safari (Mac) Internet Explorer 11/Edge	Included with Browsers Firefox - Firebug Addon Suite	Atom - Win, Mac, Linux Sublime Text - Win, Mac, Linux TextWrangler - Mac Notepad ++ - Win

Directory (folder) Structure

Create a main "root" folder to house all the files for your project. Inside this main "root" folder, we'll create all the files for your site.

This includes:
- HTML Files
- CSS Files
- Images
- JavaScript files
- Anything else that will appear on your site

File names should <u>not</u> include spaces or special characters. File names ARE case sensitive.

Anatomy of a Website

HTML provides the structure for your content. CSS will provide the style, or presentation.

Anatomy of HTML Elements

- An element is an individual component of HTML
  - a paragraph, heading, table, list, div, link, image, etc.
- A "tag" marks the beginning and end of an element.
- Many different kinds of HTML tags for unique purposes

Opening tags and closing tags:

```
<p></p>
<h1></h1>
```

Self-closing "stand-alone" tags:

```
<img />
<br />
```

Container elements can contain other elements or content. For example, a paragraph (<p>) contains text.

Attributes provide additional information about the HTML element. Attributes are placed inside an opening tag, before the right angle bracket. **Values** are assigned to a given attribute. Values must be contained inside quotation marks.

```
<div id="copyright">© GDI 2013</div>
<img src="my_picture.jpg" alt="my picture" />
<a href="http://girldevelopit.com">GDI</a>
```

The Shortest, Valid HTML Document

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="utf-8"/>
    <title>Basic HTML Page</title>
  </head>
  <body>
    <h1>Hello, World! :D</h1>
  </body>
</html>
```

The **DOCTYPE** tells the browser what version of HTML the document is written in. The above example is HTML5.

The <html> tag contains all the HTML for the web page. The lang attribute tells the browser what language the web page is written in.

The <head> tag contains the title and metadata for the page. Metadata is not visible to the user, but has many purposes. One of which is to set the proper character encoding for the HTML document. **charset="utf-8"** is standard for the web.

The <title> tag informs search engines, and also appears in the browser's tab.

The <body> tag contains the content of the page that the user will see. Everything that is contained in the body is visible to the user.

NOTE: HTML elements nest inside one another. Be careful to indent your code properly, but WHITE SPACE in your HTML does not affect how the content will appear on the web page.

Headings and Emphasis

Use headings semantically, as you would when outlining a document. Do not use them just for appearances sake. Heading number indicates hierarchy, not size. <h1> is the largest top-level page heading, while <h6> is the smallest sub-heading.

```
<h1>Heading 1</h1>
<h2>Heading 2</h2>
<h3>Heading 3</h3>
<h4>Heading 4</h4>
<h5>Heading 5</h5>
<h6>Heading 6</h6>
```

The <strong> tag will make text **bold.** The <em> tag will *italicize*.
```
<strong>I'm bold.</strong>
<em>I'm italic</em>
```

Notice: em and strong are meant to indicate meaning through code. If you want to have italicized for style appearance and not to communicate meaning, you should use CSS.

Links

Links have three components
  1. Tag: <a>
  2. href attribute: "http://www.girldevelopit.com"
  3. title attribute: "Girl Develop It"

```
<a href="http://www.girldevelopit.com" title="Girl Develop It">GDI</a>
```

The <a> tag surrounds text or images to turn them into links. Links can have attributes that tell the link to do different actions like open in a new tab, or launch your e-mail program.

Links will open in a new window or tab with the **target="_blank"** attribute and value.
```
<a href="home.html" target="_blank">Link Text</a>
```

Open the user's default email program by inserting **mailto:** directly before the email address.
```
<a href="mailto:info@girldevelopit.com">E-mail us!</a>
```

Relative and Absolute Paths for Links and Images

Relative paths are used to link to pages and resources within a site. They change depending upon the page the link is on.

```
<img src="my_selfie.jpg">
```

Links within the same directory/folder need no path information.

```
<img src="images/my_selfie.jpg">
```

Subdirectories are listed without preceding slashes.

Absolute paths refer to a specific location of a file, including the domain. These are generally used when pointing to a link that is not within your own domain.

```
<a href="http://www.girldevelopit.com/chapters/detroit">GDI Detroit</a>
```

Images

Images have three components

1. Tag: <img/>
2. src attribute: "http://www.girldevelopit.com/assets/white-logo.png"
3. alt attribute: "Girl Develop It logo"

```
<img src="images/white-logo.png" alt="Girl Develop It Logo"/>
```

Notice that the <img/> tag is a self-closing, stand-alone element.

Line Breaks

The <br/> tag forces a line break in your content.

```
<p>
Imagine there's no Heaven <br/>
It's easy if you try <br/>
No hell below us <br/>
Above us only sky
</p>
```

Imagine there's no Heaven
It's easy if you try
No hell below us
Above us only sky

Lists

Lists can be **ordered** or **unordered**.

```
<ul>
  <li>List Item</li>
  <li>Another List Item</li>
</ul>
```

- List Item
- Another List Item

```
<ol>
  <li>List Item</li>
  <li>Another List Item</li>
</ol>
```

1. List Item
2. Another List Item

Comments in HTML

You can add comments to your code that will not be seen by the browser, but only visible when viewing the code.

```
<!-- Comment goes here -->
```

Comments can be used to organize your code and/or provide notes so you or your fellow developers can clearly understand what you've done.

```
<!-- Beginning of header -->
<div id="header">Header Content</div>
<!-- End of header →
```

Tables

HTML Tables are a way to represent tabular data and information in a grid format. Tables are made up of rows and columns.

```
<table>
  <tr>
    <th>Header 1</th>
    <th>Header 2</th>
  </tr>
  <tr>
    <td>Data 1</td>
    <td>Data 2</td>
  </tr>
</table>
```

Header 1	Header 2
Data 1	Data 2

Tables always begin with the <table> tag. The <th> tag stands for **table header**, and contains table column headers. The <tr> tag creates a **table row**, and the <td> tag stands for **table data**.

Special Characters

Use character or "escape" codes in your HTML to render special characters in your content.

< Less Than: <
> Greater Than: >
© Copyright symbol: ©
& Ampersand: &

A full list is available at htmlandcssbook.com