

HTML BASICS

Acknowledgements

- *Slides for this course are from:*
 - Fundamentals of Web Development by Connolly and Hoar
 - Murach's HTML5 and CSS3 by Zak Ruvalcaba and Anne Boehm. Fresno, CA: Mike Murach & Associates
 - Internet and the World Wide Web. How to Program. P. Deitel, H. Deitel and A. Deitel.
 - Principles of Web Design, Joel Sklar, Course Technology, Cengage Learning
 - JavaScript and jQuery the Missing Manual by David Sawyer McFarland, O'Reilly
 - Code.org
 - Other Textbooks / Online Resources
 - Rachel Adler (my own thoughts/code)

Tags

- **Most elements have opening and closing tags, Ex:**
 - `<h1>heading goes here</h1>`
 - `<p>paragraph goes here</p>`
- **Some Exceptions:**
 - `
`
 - ``

Images: Attributes of the element

- src, alt, height, width

An img element

```

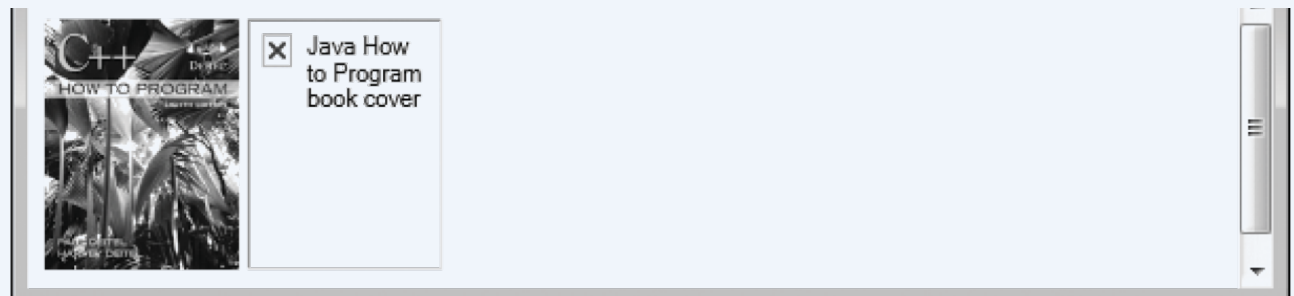
```



Images

- `src` attribute specifies the location
- `alt` attribute
 - contains text that is displayed if the client cannot render the image
 - makes web pages more accessible to users with disabilities, especially vision impairments
- `width` and `height` are optional attributes
 - If omitted, the browser uses the image's actual width and height

```
1 <!DOCTYPE html>
2
3 <!-- Fig. 2.6: picture.html -->
4 <!-- Including images in HTML5 files. -->
5 <html>
6   <head>
7     <meta charset = "utf-8">
8     <title>Images</title>
9   </head>
10
11  <body>
12    <p>
13      <img src = "cpphtp.png" width = "92" height = "120"
14        alt = "C++ How to Program book cover">
15      <img src = "jhtp.png" width = "92" height = "120"
16        alt = "Java How to Program book cover">
17    </p>
18  </body>
19 </html>
```



Links

`Click Here`
Click here is a link to www.google.com



Links, cont.

- **absolute reference** – For an **external site** a complete URL with http:// and full path is required.
- **relative referencing** - When referencing a resource on the same server as your HTML (don't need http)

Link to external site

```
<a href="http://www.centralpark.com">Central Park</a>
```

Link to resource on external site

```
<a href="http://www.centralpark.com/logo.gif">Central Park</a>
```

Link to another page on same site as this page

```
<a href="index.html">Home</a>
```


Relative Link Type	Example
1 Same Directory To link to a file within the same folder, simply use the file name.	To link to <code>example.html</code> from <code>about.html</code> (in Figure 2.17), use: <code></code>
2 Child Directory To link to a file within a subdirectory, use the name of the subdirectory and a slash before the file name.	To link to <code>logo.gif</code> from <code>about.html</code> , use: <code></code>
3 Grandchild/Descendant Directory To link to a file that is multiple subdirectories <i>below</i> the current one, construct the full path by including each subdirectory name (separated by slashes) before the file name.	To link to <code>background.gif</code> from <code>about.html</code> , use: <code></code>
4 Parent/Ancessor Directory Use <code>../</code> to reference a folder <i>above</i> the current one. If trying to reference a file several levels above the current one, simply string together multiple <code>../</code> .	To link to <code>about.html</code> from <code>index.html</code> in <code>members</code> , use: <code></code> To link to <code>about.html</code> from <code>bio.html</code> , use: <code></code>
5 Sibling Directory Use <code>../</code> to move up to the appropriate level, and then use the same technique as for child or grandchild directories.	To link to <code>about.html</code> from <code>index.html</code> in <code>members</code> , use: <code></code> To link to <code>background.gif</code> from <code>bio.html</code> , use: <code></code>

Links: SEO and Accessibility

- **SEO (search engine optimization) and accessibility guideline** - The content of a link should be text that clearly indicates where the link is going.

Go view our [product list](#).

Read about the [services we provide](#).

View your [shopping cart](#).

To learn more about JavaScript, visit the [official JavaScript web site](#).

Open in New Window/Tab

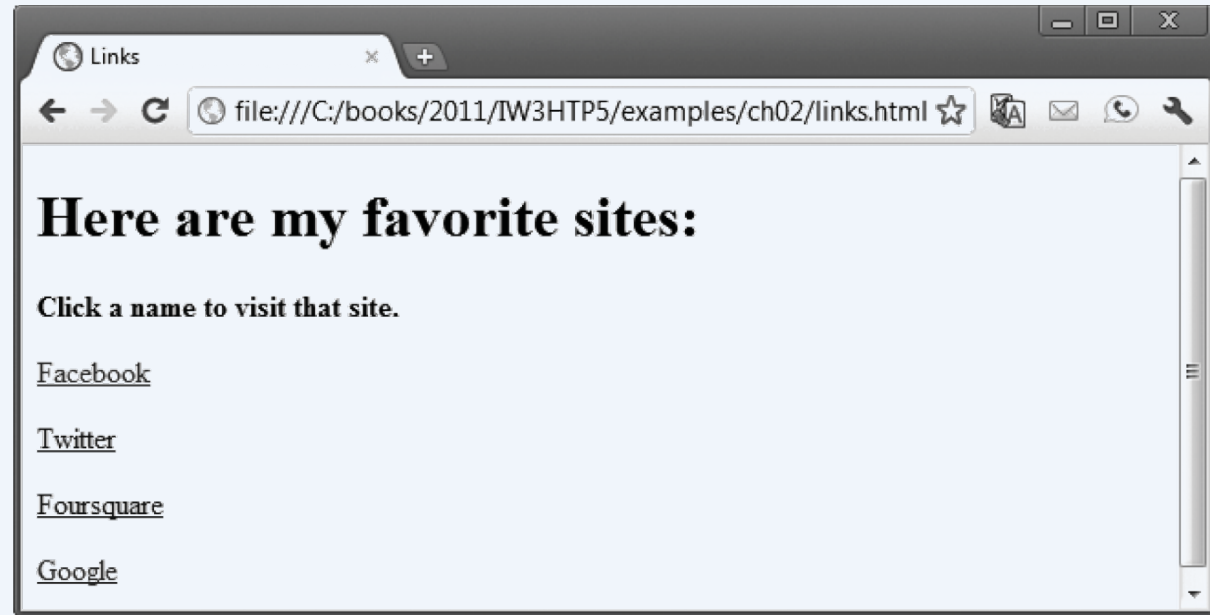
Link:

```
<a href="http://rachelfadler.com"> Professor Adler's Homepage</a>
```

Open in New Tab:

```
<a href="http://rachelfadler.com" target=_blank> Professor Adler's  
Homepage</a>
```

Link Example



```
1 <!DOCTYPE html>
2
3 <!-- Fig. 2.3: links.html -->
4 <!-- Linking to other web pages. -->
5 <html>
6   <head>
7     <meta charset = "utf-8">
8     <title>Links</title>
9   </head>
10
11  <body>
12    <h1>Here are my favorite sites:</h1>
13    <p><strong>Click a name to visit that site.</strong></p>
14
15    <!-- create four text hyperlinks -->
16    <p><a href = "http://www.facebook.com">Facebook</a></p>
17    <p><a href = "http://www.twitter.com">Twitter</a></p>
18    <p><a href = "http://www.foursquare.com">Foursquare</a></p>
19    <p><a href = "http://www.google.com">Google</a></p>
20  </body>
21 </html>
```

Ordered and Unordered Lists

<p>We have books on a variety of languages, including</p>

JavaScript

PHP and MySQL

Servlets and JSP

ASP.NET

<p>You will need to complete the following steps:</p>

Enter your billing information.

 Enter your shipping information.

Confirm your order.

Use:

We have books on a variety of languages, including

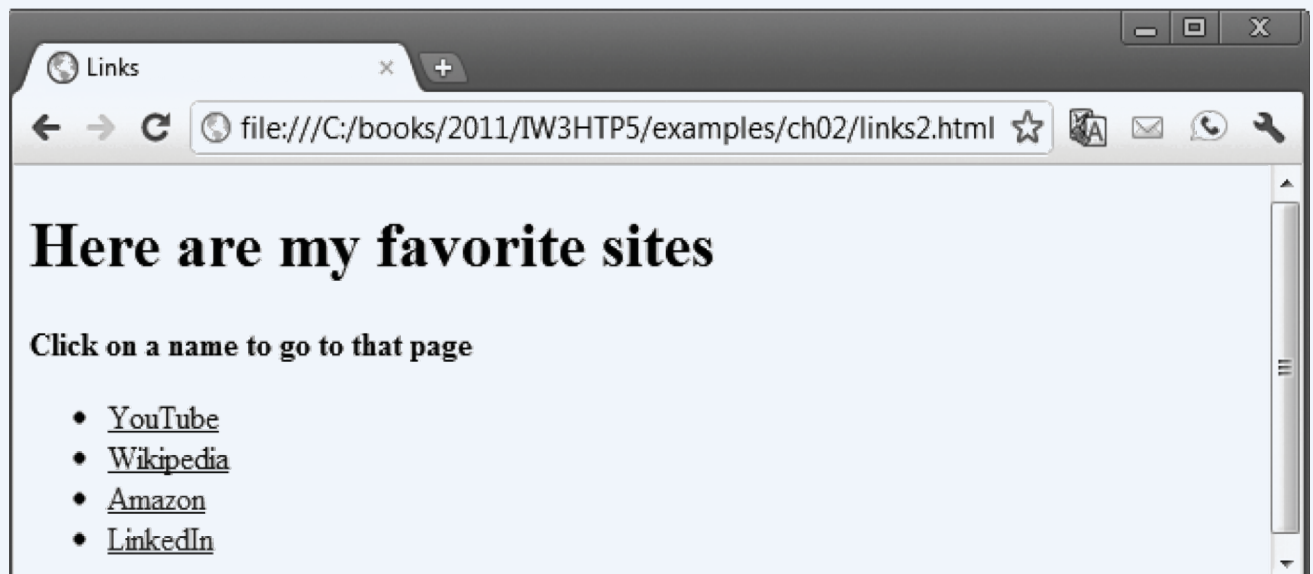
- JavaScript
- PHP and MySQL
- Servlets and JSP
- ASP.NET

You will need to complete the following steps:

1. Enter your billing information.
2. Enter your shipping information.
3. Confirm your order.

Another Example

```
1 <!DOCTYPE html>
2
3 <!-- Fig. 2.10: links2.html -->
4 <!-- Unordered list containing hyperlinks. -->
5 <html>
6   <head>
7     <meta charset = "utf-8">
8     <title>Links</title>
9   </head>
10
11  <body>
12    <h1>Here are my favorite sites</h1>
13    <p><strong>Click on a name to go to that page</strong></p>
14
15    <!-- create an unordered list -->
16    <ul>
17      <!-- the list contains four list items -->
18      <li><a href = "http://www.youtube.com">YouTube</a></li>
19      <li><a href = "http://www.wikipedia.org">Wikipedia</a></li>
20      <li><a href = "http://www.amazon.com">Amazon</a></li>
21      <li><a href = "http://www.linkedin.com">LinkedIn</a></li>
22    </ul>
23  </body>
24 </html>
```



Ordered lists nested within an unordered list

<h1>How to use the WinZip Self Extractor program</h1>

Before you start the WinZip Self Extractor

Create a text file that contains the message you want to be displayed when the executable starts.

Create a batch file that copies the exercises, and store it in the main folder for the files to be zipped.

Create the zip file.

How to create an executable file

<ol start="4">

Run the WinZip Self Extractor program and click through the first three dialog boxes.

Enter the name of the zip file in the fourth dialog box.

Click the Next button to test the executable.

How to use the WinZip Self Extractor

- Before you start the WinZip Self Extractor
 1. Create a text file that contains the message you want to be displayed when the executable starts.
 2. Create a batch file that copies the exercises, and store it in the main directory for the files to be zipped.
 3. Create the zip file.
- How to create an executable file
 4. Run the WinZip Self Extractor program and click through the first three dialog boxes.
 5. Enter the name of the zip file in the fourth dialog box.
 6. Click the Next button to test the executable.

Descriptive List

Components of the Internet architecture

client

A computer that accesses the web pages of a web application using a web browser.

web server

A computer that holds the files for each web application.

local area network (LAN)

A small network of computers that are near each other and can communicate with each other over short distances.

wide area network (WAN)

A network that consists of multiple LANs that have been connected together over long distances using routers.

Internet exchange point

Large routers that connect WANs together.

`<h2>Components of the Internet architecture</h2>`

`<dl>`

`<dt>client</dt>`

`<dd>A computer that accesses the web pages of a web application using a web browser.</dd>`

`<dt>web server</dt>`

`<dd>A computer that holds the files for each web application.</dd>`

`<dt>local area network (LAN)</dt>`

`<dd>A small network of computers that are near each other and can communicate with each other over short distances.</dd>`

`<dt>wide area network (WAN)</dt>`

`<dd>A network that consists of multiple LANs that have been connected together over long distances using routers.</dd>`

`<dt>Internet exchange point</dt>`

`<dd>Large routers that connect WANs together.</dd>`

`</dl>`

Strong vs. Bold / Emphasis vs. Italics

<i> vs.

 vs.

 is always **bold**, <i> is always *italics*. They are styles (part of fonts)

 and are implemented as bold and italics, but there are cases where in the future that can be modified (since it's implemented by the browser).

Example: that will bold the text, which will not help a blind person, but if you use it may mean something else when using a screen reader.

 and <i> are always bold and italics.

 and are semantic for “strong” or “emphasized” and are generally bold and italics.

Common HTML character entities

Entity	Character
&	&
<	<
>	>
©	©
®	®
™	™
¢	¢
°	°
±	±
‘	‘ (opening single quote).
’	’ (closing single quote or apostrophe).
“	“ (opening double quote).
”	” (closing double quote).
 	A non-breaking space. It will always be displayed.

HTML5 semantic elements

- **Accessibility and SEO guideline**
 - Use HTML5 semantic elements to indicate the structure of your pages.
 - header
 - section
 - article
 - nav
 - aside
 - footer

A page with header, section, and footer elements

```
<body>
  <header>
    <h1>San Joaquin Valley Town Hall</h1>
  </header>
  <section>
    <p>Welcome to San Joaquin Valley Town Hall. We
      have some fascinating speakers for you this
      season!</p>
  </section>
  <footer>
    <p>&copy; Copyright 2012 San Joaquin Valley Town
      Hall.</p>
  </footer>
</body>
```

San Joaquin Valley Town Hall

Welcome to San Joaquin Valley Town Hall. We have some fascinating speakers for you this season!

© Copyright 2012 San Joaquin Valley Town Hall.

Header and Footer

- Most website pages have a recognizable header and footer section.
- **Header** - typically contains the site logo and title, horizontal navigation links, and perhaps one or two horizontal banners.
- **Footer** - contains less important material, such as smaller text versions of the navigation, copyright notices, information about the site's privacy policy, and perhaps twitter feeds or links to other social sites.

<header> and <footer> can be used not only for *page* headers and footers, but also for header and footer elements within other HTML5 containers, such as <article> or <section>

```
<header>

<h1>Fundamentals of Web Development</h1>
...
</header>
<article>
  <header>
    <h2>HTML5 Semantic Structure Elements</h2>
    <p>By <em>Randy Connolly</em></p>
    <p><time>September 30, 2015</time></p>
  </header>
  ...
</article>
```

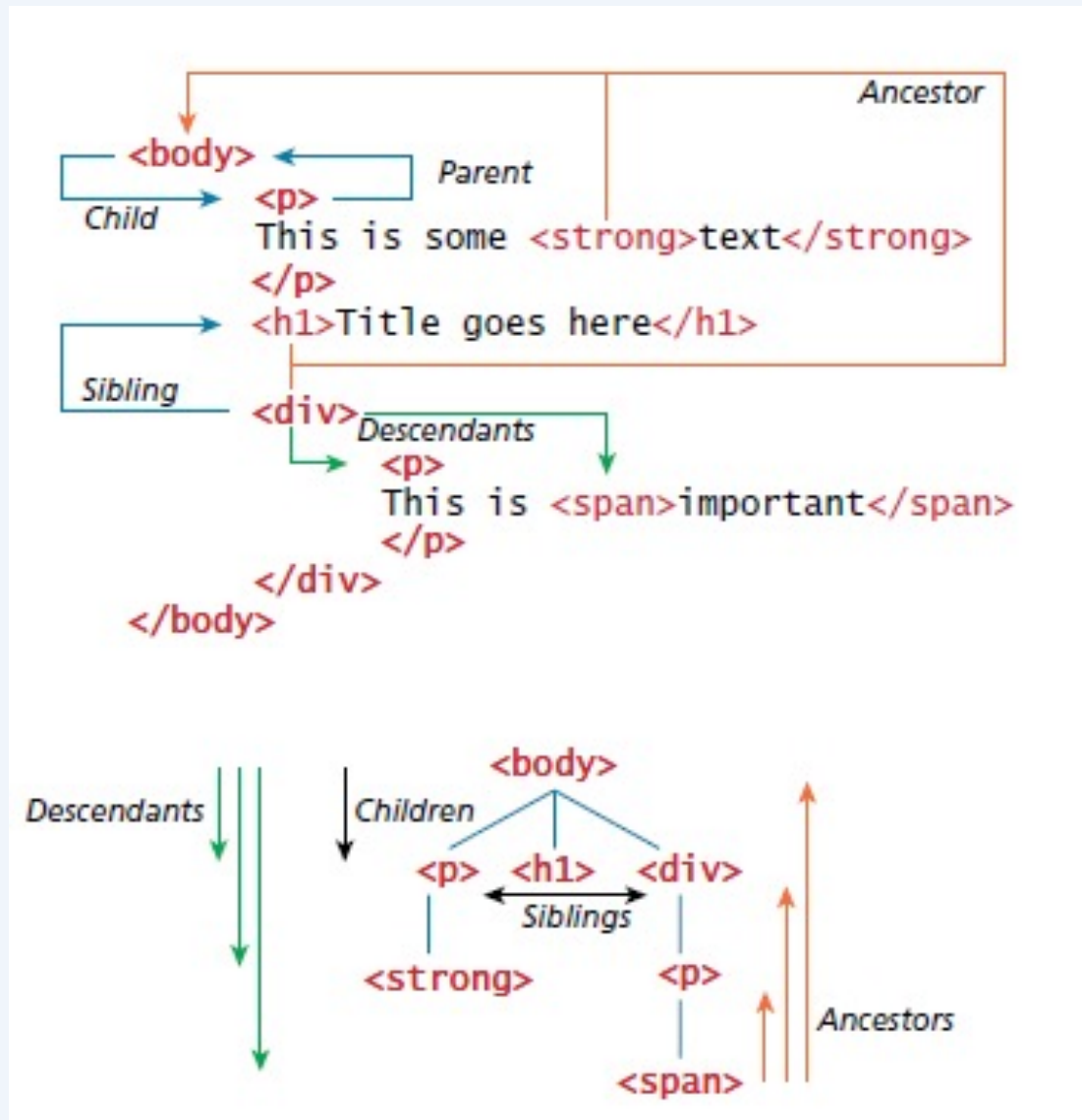
Navigation – Nav Example

```
<header>
  
  <h1>Fundamentals of Web Development</h1>
  <nav role="navigation">
    <ul>
      <li><a href="index.html">Home</a></li>
      <li><a href="about.html">About Us</a></li>
      <li><a href="browse.html">Browse</a></li>
    </ul>
  </nav>
</header>
```

Divisions

- When semantic elements don't apply we will use
- `<div>` element is also a container for text and other inline HTML elements. It is used to create a logical grouping of content.
- We will use this when we learn css.

Nested HTML Elements



Naming recommendations for folders and files

- Create names for folders and files that consist of lowercase letters, numbers, underscores or hyphens, and the period.
- Use filenames that clearly indicate what a page contains. This is good for search engine optimization.

HTML Standards

- World Wide Web Consortium (W3C):
www.w3.org.
- Web Hypertext Application Technology Working Group (WHATWG):
www.whatwg.org.