



HTML and CSS

8th Edition

Text - Images



Objectives

- HTML5's Document Outline
- Creating Headings
- Adding Comments
- Identify appropriate semantics for text elements.
- Mark important and emphasized text.
- Specifying Time
- Create superscripts and subscripts.
- Note edits, insertions, and irrelevant texts.
- Mark up code or a file name.



Objectives

- Use preformatted text.
- Specify fine print.
- Insert line breaks and spans.
- Create gauges and progress bars.
- Getting Images
- To Insert an Image on a Page
- Offering Alternate Text
- Specifying Image Size



Understanding HTML5's Document Outline

- Each HTML document has an underlying outline, like a table of contents
- HTML5 provides four sectioning content elements that mark distinct sections within a document
 - article
 - aside
 - nav
 - section
- Each sectioning element has its own h1-h6 hierarchy
 - So you can have more than one h1 in a page



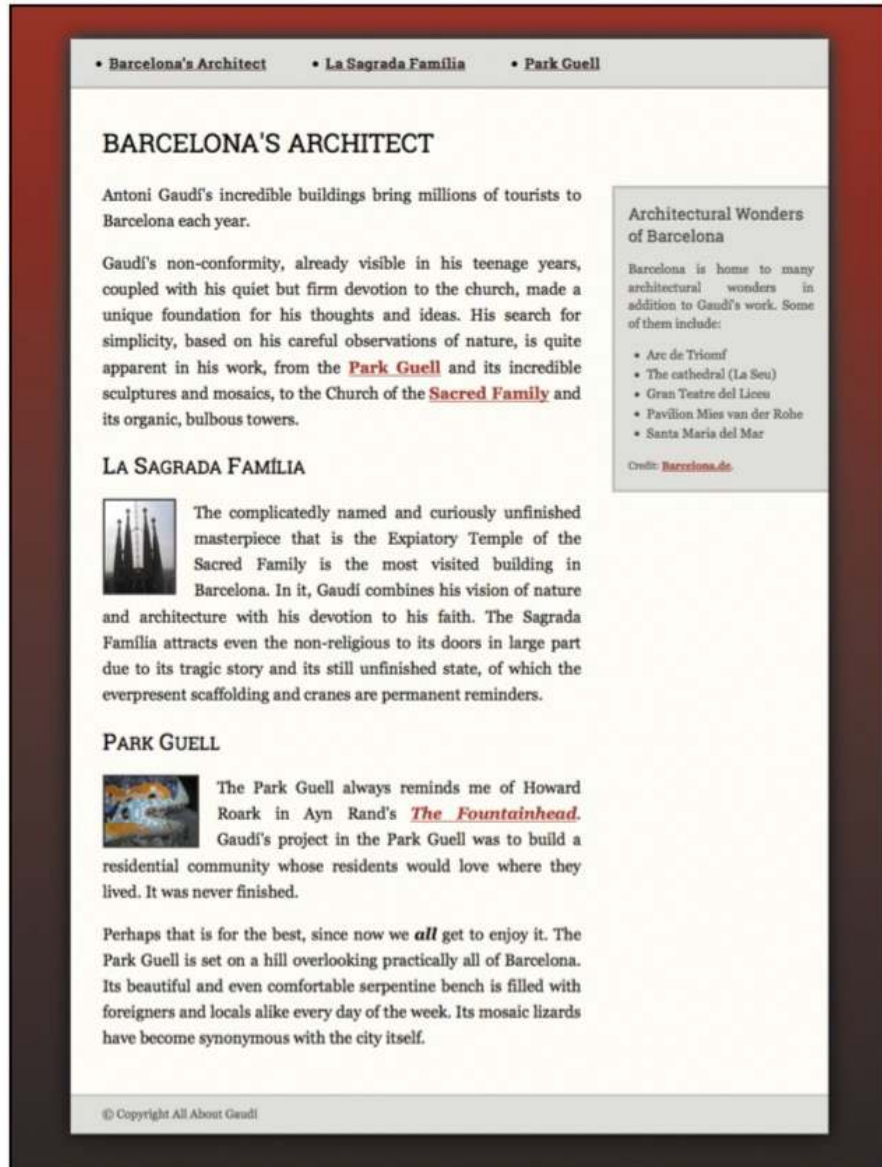
Understanding HTML5's Document Outline

- Sometimes, you have content that doesn't really fit the section, article, aside, header, footer semantic layout
- Use `<div>` for these
- `<div>content</div>`
- **div** is the only one besides **h1–h6** that predates HTML5. Until HTML5, **div** was the de facto choice for surrounding chunks of content such as a page's header, footer, main content, insets, and sidebars so you could style them with CSS. But **div** had no semantic meaning then, and it still doesn't today.



Understanding HTML5's Document Outline

- That's why HTML5 introduced **header**, **footer**, **main**, **article**, **section**, **aside**, and **nav**. These types of building blocks were so prevalent on webpages that they deserved their own elements *with* meaning. **div** doesn't go away in HTML5, you'll just have fewer occasions to use it than in the past.
- A **div** element doesn't have any of its own styling by default except that it starts on a new line . However, you can apply styles to **div** to implement your designs.



```

...
<body>
<div>
  <header role="banner">
    <nav role="navigation">
      ... [ul with links] ...
    </nav>
  </header>

  <main role="main">
    <article>
      <h1 id="gaudi">Barcelona's
      → Architect</h1>
      ... [rest of article] ...

      <h2 id="sagrada-familia" lang="es">
      → La Sagrada Família</h2>
      ... [image and paragraph] ...

      <h2 id="park-guell">Park Guell</h2>
      ... [another image and
      → paragraphs] ...
    </article>
  </main>

  <aside role="complementary">
    <h1>Architectural Wonders of
    → Barcelona</h1>
    ... [rest of aside] ...
  </aside>

  <footer role="contentinfo">
    <p><small>&copy; Copyright All About
    → Gaudí</small></p>
  </footer>
</div>
</body>
</html>

```

With CSS

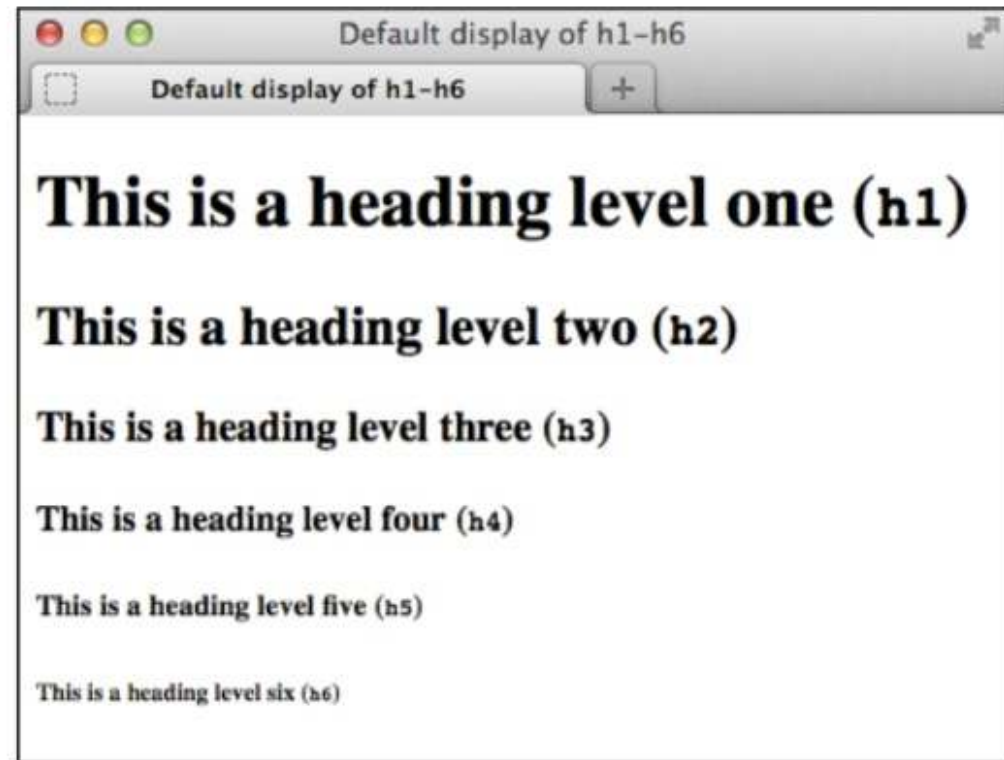


Creating Headings

- HTML provides for up to six levels of headers in your Web page, to divide your page into manageable chunks
- In the body, type `<hn>` where n is a number from 1 to 6
- Type the contents of the header
- Type `</hn>`, where n is the same number

```
<h1>Biography</h1>
```

```
<h4>Personal Life</h4>
```





Adding Comments

- Comments are important to remind yourself (or future editors) what you were trying to do
- Comments only appear when document is opened with a text editor, or when source is viewed. Otherwise, they're invisible.
- `<!-- This is a comment -->`
- View your commented page before publishing, to avoid
- sharing your (possibly) private comments with the public
- Remember: anybody who views the page source can view the comments!
 - No passwords
 - No information you don't want the public to have

```
<!-- This paragraph doesn't display  
→ because it's commented out.  
<p>Antoni Gaudí's incredible  
→ buildings bring millions of  
→ tourists to Barcelona each year.  
→ </p>  
-->
```



Text

- Most webpage content is text.
- Different HTML semantics are appropriate for different types of text.



Antoni Gaudí

Many tourists are drawn to Barcelona to see Antoni Gaudí's incredible architecture.

Barcelona celebrated the 150th anniversary of Gaudí's birth in 2002.

La Casa Milà

Gaudí's work was essentially useful. La Casa Milà is an apartment building and real people live there.

La Sagrada Família

The complicatedly named and curiously unfinished Expiatory Temple of the Sacred Family is the most visited building in Barcelona.



Adding a Paragraph

- HTML does not recognize the returns or other extra whitespace that you enter in your text editor.
- **P element** starts a new paragraph in your webpage.
- **To create a new paragraph:**
 - Type `<p>`.
 - Type the contents of the new paragraph.
 - Type `</p>` to end the paragraph.



Adding a Paragraph

```
<html>
.....
<body>
<h1>Antoni Gaudí</h1>
<p>Many tourists are drawn to Barcelona
→ to see Antoni Gaudí's incredible
→ architecture.</p>
<p>Barcelona celebrated the 150th
→ anniversary of Gaudí's birth in
→ 2002.</p>
<h2 lang="es">La Casa Milà</h2>
<p>Gaudí's work was essentially useful.
→ <span lang="es">La Casa Milà</span> is
→ an apartment building and real people
→ live there.</p>
<h2 lang="es">La Sagrada Família</h2>
<p>The complicatedly named and curiously
→ unfinished Expiatory Temple of the
→ Sacred Family is the most visited
→ building in Barcelona.</p>
</body>
</html>
```



Antoni Gaudí

Many tourists are drawn to Barcelona to see Antoni Gaudí's incredible architecture.

Barcelona celebrated the 150th anniversary of Gaudí's birth in 2002.

La Casa Milà

Gaudí's work was essentially useful. La Casa Milà is an apartment building and real people live there.

La Sagrada Família

The complicatedly named and curiously unfinished Expiatory Temple of the Sacred Family is the most visited building in Barcelona.



Specifying Fine Print

- **Small element** represents side comments and fine print.
 - Used for disclaimers, caveats, legal restrictions, copyrights, attribution, for satisfying licensing requirements.
 - Meant for brief portions of inline text, not for text spanning multiple paragraphs or other elements.



To Specify Fine Print

- Type `<small>`.
- Type the text that represents a legal disclaimer, note, attribution, and so on.
- Type `</small>`.

```
...
<body>

<p>Order now to receive free shipping.
<small>(Some restrictions may apply.)
→ </small></p>

...

<footer role="contentinfo">
  <p><small>&copy; 2013 The Super
  → Store. All Rights Reserved.
  → </small></p>
</footer>

</body>
</html>
```

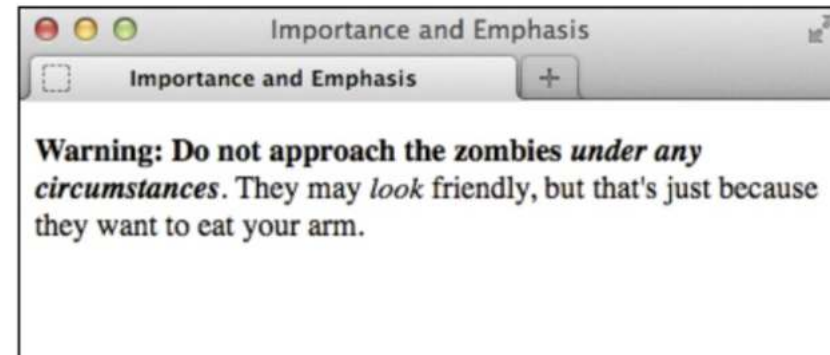




Marking Important and Emphasized Text

- **Strong element** denotes important text.
- **Em element** conveys emphasis.
- Can be used individually or together as content requires.
- Browsers typically display strong text in boldface and em text in italics.
- If em is a child of a strong element, its text will be both italicized and bold

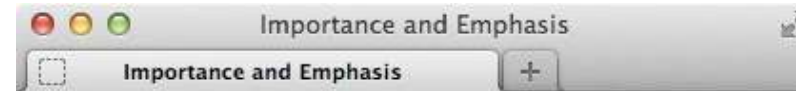
```
<html>
...
<body>
<p> <strong>Warning: Do not approach the
→ zombies <em>under any circumstances</em>
→ </strong>. They may <em>look</em>
→ friendly, but that's just because they want
→ to eat your arm.</p>
</body>
</html>
```





To Mark Important and Emphasized Text

- To mark important text:
 - Type ``.
 - Type the text that you want to mark as important.
 - Type ``.
- To emphasize text:
 - Type ``.
 - Type the text that you want to emphasize.
 - Type ``.



Warning: Do not approach the zombies *under any circumstances*. They may *look* friendly, but that's just because they want to eat your arm.



The b Element in Brief

- HTML5 redefines the b element.
- **B element** represents span of text to which attention is being drawn.
- The b element renders bold by default.



The *i* Element in Brief

- HTML5 redefines the *i* element.
- **i** element represents span of text in an alternate voice or mood, or offset from normal prose indicating a different quality of text.
- The *i* element displays in italics by default.



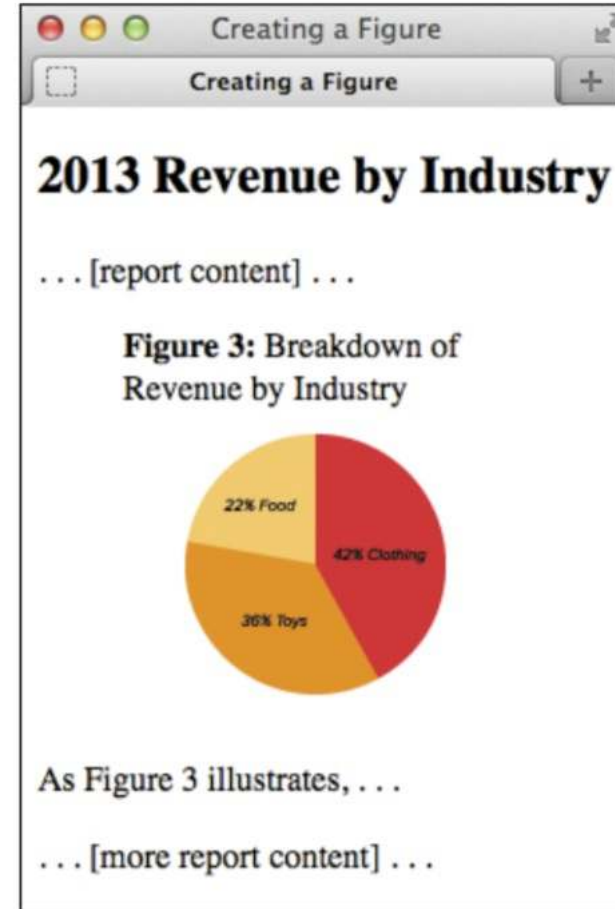
Creating a Figure

- **Figure element:** Contains a chart, a photo, a graph, an illustration, a code segment, or similar self-contained content.
- **Figcaption element:** A figure's caption or legend at either the beginning or the end of a figure's content.



To Create a Figure and Figure Caption

```
...  
<body>  
...  
<article>  
  <h1>2013 Revenue by Industry</h1>  
  
  <p>... [report content] ...</p>  
  
  <figure>  
    <figcaption><b>Figure 3:</b>  
    → Breakdown of Revenue by  
    → Industry</figcaption>  
  
      
  </figure>  
  
  <p>As Figure 3 illustrates, ... </p>  
  
  <p>... [more report content] ...</p>  
</article>  
...  
</body>  
</html>
```





To Create a Figure and Figure Caption

- Type `<figure>`.
- Optionally, type `<figcaption>` to begin the figure's caption.
- Type the caption text.
- Type `</figcaption>` if you created a caption.
- Create your figure by adding code for images, videos, data tables, and so on.
- If you didn't include a `figcaption` before your figure's content, optionally add one after the content.
- Type `</figure>`.



Creating Superscripts and Subscripts

- **Superscripts:** Letters or numbers raised slightly relative to the main body text.
 - Common uses include marking trademark symbols, exponents, and footnotes.
- **Subscripts:** Letters or numbers lowered slightly relative to the main body text.
 - Subscripts are common in chemical notation.
- The **sub and sup elements** tend to throw off line height between lines of text.
 - Can be set straight with a bit of CSS.



To Create Superscripts or Subscripts

```
...
<body>
<article>
  <h1>Famous Catalans</h1>
  <p>... Actually, Pablo Casals' real
  → name was <i>Pau</i> Casals, Pau
  → being the Catalan equivalent of Pablo
  → <a href="#footnote-1" title="Read
  → footnote 1"><sup>1</sup></a>.</p>

  <p>... Pau Casals is remembered in this
  → country for his empassioned speech
  → against nuclear proliferation at the
  → United Nations <a href="#footnote-2"
  → title="Read footnote 2"><sup>2</sup></a>
  → </a> ...</p>

  <footer>
    <p id="footnote-1"><sup>1</sup>It
    → means Paul in English.</p>
    <p id="footnote-2"><sup>2</sup>In
    → 1963, I believe.</p>
  </footer>
</article>
</body>
</html>
```



Famous Catalans

When I was in the sixth grade, I played the cello. There was a teacher at school who always used to ask me if I knew who "Pablo Casals" was. I didn't at the time (although I had met Rostropovich once at a concert). Actually, Pablo Casals' real name was *Pau* Casals, Pau being the Catalan equivalent of Pablo¹.

In addition to being an amazing cellist, Pau Casals is remembered in this country for his empassioned speech against nuclear proliferation at the United Nations² which he began by saying "I am a Catalan. Catalonia is an oppressed nation."

¹It means Paul in English.

²In 1963, I believe.



Noting Edits and Inaccurate Text

- There are two elements for noting edits: the ins element and the del element.
- **Ins element** represents content that has been added
- **Del element** marks content that has been removed. You may use them together or individually.



Ins Element

To mark newly inserted text:

- Type `<ins>`.
- Type the new content.
- Type `</ins>`.

```
...  
<body>  
<h1>Today's Showtimes</h1>  
<p>Tickets are available for the following  
→ times today:</p>  
  
<ol>  
  <li><ins>2 p.m. (this show just added!)  
→   </ins></li>  
  <li><s>5 p.m.</s> SOLD OUT</li>  
  <li><s>8:30 p.m.</s> SOLD OUT</li>  
</ol>  
  
</body>  
</html>
```



Today's Showtimes

Tickets are available for the following times today:

1. 2 p.m. (this show just added!)
2. ~~5 p.m.~~ SOLD OUT
3. ~~8:30 p.m.~~ SOLD OUT



Del Element

- **To mark deleted text:**
 - Place the cursor before the text or element you wish to mark as deleted.
 - Type ``.
 - Place the cursor after the text or element you wish to mark as deleted.
 - Type ``.

```
...  
<body>  
  
<h1>Charitable Gifts Wishlist</h1>  
  
<p>Please consider donating one or more  
→ of the following items to the village's  
→ community center:</p>  
  
<ul>  
  <li><del>2 desks</del></li>  
  <li>1 chalkboard</li>  
  <li><del>4 solar-powered tablets  
  → </del></li>  
  <li><ins>1 bicycle</ins></li>  
</ul>  
  
</body>  
</html>
```



Charitable Gifts Wishlist

Please consider donating one or more of the following items to the village's community center:

- ~~2 desks~~
- 1 chalkboard
- ~~4 solar-powered tablets~~
- 1 bicycle



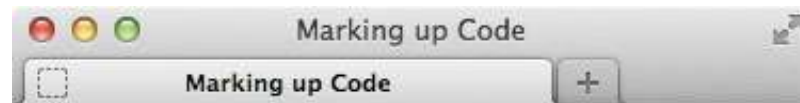
Marking Up Code

- **Code element** indicates that the text is code samples, file names, or program names.
 - Renders as a monospaced font by default.
 - To show standalone block of code (outside of a sentence), wrap the code element with a pre element to maintain its formatting.



To Mark Up Code or a File Name

- Type `<code>`.
- Type the code or file name.
- Type `</code>`.



The `showPhoto()` function displays the full-size photo of the thumbnail in our `<ul id="thumbnails">` carousel list.

This CSS shorthand example applies a margin to all sides of paragraphs: `p { margin: 1.25em; }`. Take a look at `base.css` to see more examples.

```
...
<body>

<p>The showPhoto() function
→ displays the full-size photo of the
→ thumbnail in our &lt;ul id=
→ "thumbnail"&gt; carousel list.</p>

<p>This CSS shorthand example applies a
→ margin to all sides of paragraphs: p
→ { margin: 1.25em; }. Take a look
→ at base.css to see more
→ examples.</p>

</body>
</html>
```



To Use Preformatted Text

- Type `<pre>`.
- Type or paste the text, with all the necessary spaces, returns, and line breaks. Unless it is code, do not mark up the text with any HTML, such as `p` elements.
- Type `</pre>`.



Add this to your style sheet if you want to display a dotted border underneath the `abbr` element whenever it has a `title` attribute.

```
abbr[title] {  
    border-bottom: 1px dotted #000;  
}
```



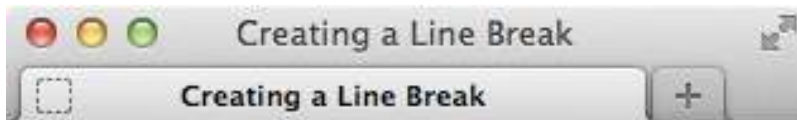
Creating a Line Break

- **Br element:** forces a line break manually.
 - Subsequent content moves to new line.
 - Last resort because it mixes presentation with HTML.
- Never use br to simulate spacing between paragraphs.
 - Instead, mark two paragraphs with p elements and define spacing between with CSS margin property.
- br element is suitable for creating line breaks in poems, street addresses, and short lines of text.



To Insert a Line Break

- Type `
` (or `
`) where the line break should occur.
 - There is no separate end br tag because it's an empty element (or void); it lacks content.



53 North Railway Street
Okotoks, Alberta
Canada T1Q 4H5

53 North Railway Street
Okotoks, Alberta
Canada T1Q 4H5

```
...  
<body>  
  
<p>53 North Railway Street<br />  
Okotoks, Alberta<br />  
Canada T1Q 4H5</p>  
  
<p>53 North Railway Street <br />Okotoks,  
→ Alberta <br />Canada T1Q 4H5</p>  
  
</body>  
</html>
```



Creating Spans

- **Span element:** Like div element, it has no semantic meaning.
 - Span is only appropriate around a word or phrase, while div is for blocks of content.
- Use span to apply any of the following to a snippet of content:
 - Attributes, like class, dir, id, lang, title.
 - Styling with CSS
 - Behavior with JavaScript
- Span has no semantic meaning, so use it as a last resort.



To Add Span

- Type ``.
- Optional:
 - Type `id="name"`.
 - Type `class="name"`.
 - Type attributes and their values.
- Type `>`.
- Create content in span.
- Type ``.

```
...  
<body>  
  
<h1 lang="es">La Casa Milà</h1>  
  
<p>Gaudí's work was essentially useful.  
→ <span lang="es">La Casa Milà</span> is  
→ an apartment building and <em>real people  
→ </em> live there.</p>  
  
</body>  
</html>
```



La Casa Milà

Gaudí's work was essentially useful. La Casa Milà is an apartment building and *real people* live there.



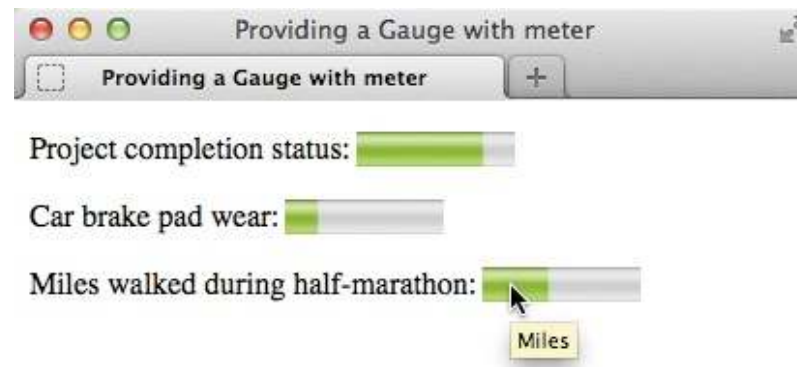
The Meter Element

- **Meter element:** Indicates fractional value or measurement within known range.
 - Displays a gauge.
 - Used for voting results, tickets sold, numerical test grades, and disk usage.

```
<p>Project completion status: <meter  
→ value="0.80">80% completed</meter>  
→ </p>
```

```
<p>Car brake pad wear: <meter low=  
→ "0.25" high="0.75" optimum="0"  
→ value="0.21">21% worn</meter></p>
```

```
<p>Miles walked during half-marathon:  
→ <meter min="0" max="13.1" value="5.5"  
→ title="Miles">4.5</meter></p>
```



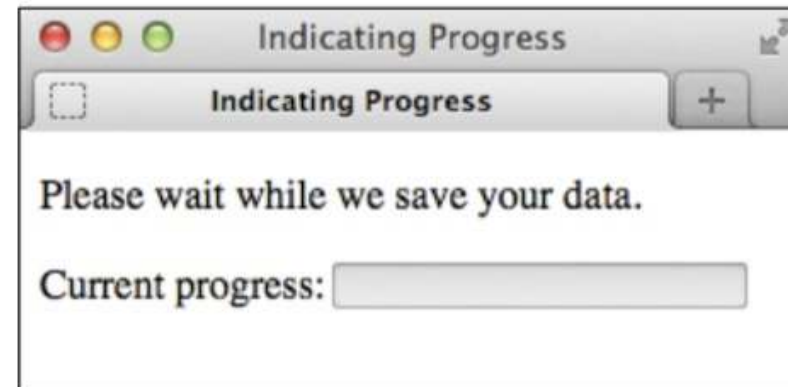


The Progress Element

- **Progress element:** Use for a progress bar.
 - You might see in a web application to indicate progress while saving or loading data.
 - Supporting browsers display a progress bar based on the values of the attributes.
 - Include text for older browsers to display.

```
<p>Please wait while we save your  
→ data.</p>
```

```
<p>Current progress: <progress  
→ max="100" value="0">0% saved  
→ </progress></p>
```





Images



Getting Images

- Ways to get images:
 - Buy or download ready-made images.
 - Digitize photographs or hand-drawn images with a scanner.
 - Use a digital camera.
 - Draw images from scratch in an image editing program like Adobe Photoshop.
- Once you've got them in your computer, you can adapt them for use on the web.



Inserting Images on a Page

- Images on a webpage appear automatically, as long as the browser is set up to view them.

```
...  
<body>  
<h1>Barcelona's Market</h1>  
  
  
  
<p>This first picture shows one of the fruit  
→ stands in the <span lang="es">Mercat de la  
→ Boquería</span>, the central market that  
→ is just off the Rambles. It's an incredible  
→ place, full of every kind of food you  
→ might happen to need. It took me a long  
→ time to get up the nerve to actually take  
→ a picture there. You might say I'm kind  
→ of a chicken, but since I lived there,  
→ it was just sort of strange. Do you take  
→ pictures of your supermarket?</p>  
</body>  
</html>
```





To Insert an Image on a Page

- Place the cursor in the HTML code where the image will appear.
- Type ****.



Offering Alternate Text

- **Alt attribute** adds descriptive text that will appear if the image does not appear.
- **To offer alternate text:**
 - Within the `img` tag, after the `src` attribute and value, type `alt="`.
 - Type the alternate text.
 - Type `"`.

```
...  
<body>  
<h1>Barcelona's Market</h1>  
  
  
  
<p>The <span lang="es">Mercat de la Boquería  
→ </span> is the central market that is just  
→ off the Rambles. It's an incredible place,  
→ full of every kind of food you might  
→ happen to need....</p>  
</body>  
</html>
```





Why Images Might Not Appear

- An image may not appear for a variety of reasons:
 - You coded the wrong URL in the src attribute
 - You forgot to upload the image to the web server.
 - Visitor might have a poor connection.
 - A browser can be set up to not load images.



Specifying Image Size

- Specify image size in code and browser will reserve its space. Text will fill in around image's space as image loads, and layout will remain stable.
- Use browser or image editing program to get exact dimensions of image.



To Specify the Size of Your Image in HTML

- Determine the size of your image.
- Within the `img` tag, after the `src` attribute, type **`width="x"`**
`height="y"`
 - Use the values you found for the width and height to specify the values for *x* and *y* in pixels.

```
...
<body>
<h1>Barcelona's Market</h1>



<p>The <span lang="es">Mercat de la Boquería
→ </span> is the central market that is just
→ off the Rambles. It's an incredible place
→ ...</p>

</body>
</html>
```