

# CPET 499/ITC 250 Web Systems

## Chapter 2 Introduction to HTML

### Text Book:

- \* Fundamentals of Web Development, 2015, by Randy Connolly and Ricardo Hoar, published by Pearson
- \* E-Book on Building Web Applications with HTML, 2012, by Paul I. Lin,  
[http://www.etcs.ipfw.edu/~lin/CECourses/2\\_HTML/CE\\_02WebHtmlIndex.html](http://www.etcs.ipfw.edu/~lin/CECourses/2_HTML/CE_02WebHtmlIndex.html)

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<http://www.etcs.ipfw.edu/~lin>

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## Topics

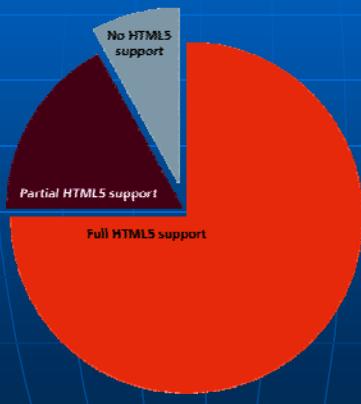
- What is HTML
- HTML Syntax
- Semantic Markup
- Structure of HTML Documents
- Quick Tour of HTML Elements
- HTML Semantic Structure Elements
- Summary

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## HTML Syntax

- References of HTML standards
  - **HTML 5** - <http://www.w3.org/TR/2014/REC-html5-20141028/>
- Figure 2.3 Browser usage and HTML support



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## HTML Syntax

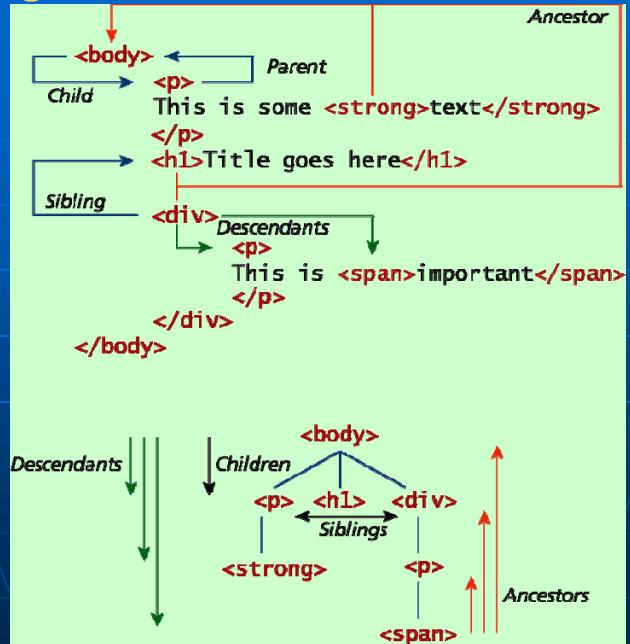
- Figure 2.4 The parts of an HTML element



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**Figure 2.5 HTML document outline**



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**Figure 2.6 The proper nesting of HTML**

The diagram compares correct and incorrect nesting of HTML elements. The top section, titled "Correct nesting", shows the code: <h1>Share Your <strong>Travels</strong></h1>. The bottom section, titled "Incorrect nesting", shows the code: <h1>Share Your <strong>Travels</h1></strong>. In the correct nesting example, the <strong> element is properly nested within the <h1> element. In the incorrect nesting example, the <strong> element is placed outside the <h1> element, which is incorrect.

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**Figure 2.8 One of the simplest possible HTML5 documents**

The figure shows a screenshot of a web browser window titled "A Very Small Document". The address bar says "listing02-01.html". The main content area displays the text "This is a simple document with not much content". To the left of the code, there is a yellow box containing the HTML code. A blue arrow points from the code in the yellow box to the browser window. The code is:

```
1 <!DOCTYPE html>
<title>A Very Small Document</title>
<p>This is a simple document with not much content</p>
```

At the bottom of the slide, it says "CPET 499/ITC 250 Web Systems, Paul I. Lin" and the number "7".

**Figure 2.9 Structure elements of an HTML5 document**

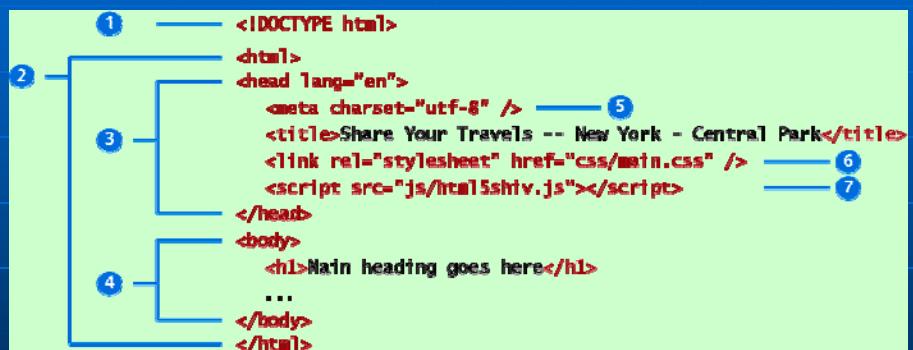


Figure  
2.10

```
<body>
  <h1>Share Your Travels</h1>
  <h2>New York - Central Park</h2>
  <p>Photo by Randy Connolly</p>
  <p>This photo of Conservatory Pond in
    <a href="http://www.centralpark.com/">Central Park</a> in
    New York City was taken on October 22, 2015 with a
    <strong>Canon EOS 30D</strong> camera.</p>
  

  <h3>Reviews</h3>
  <div>
    <p>By Ricardo on <time>September 15, 2015</time></p>
    <p>Easy on the HDR buddy.</p>
  </div>

  <div>
    <p>By Susan on <time>October 1, 2015</time></p>
    <p>I love Central Park.</p>
  </div>
  <p><small>Copyright © 2015 Share Your Travels</small></p>
</body>
```

Figure 2.11 Share Your Travels – New York  
Central Park

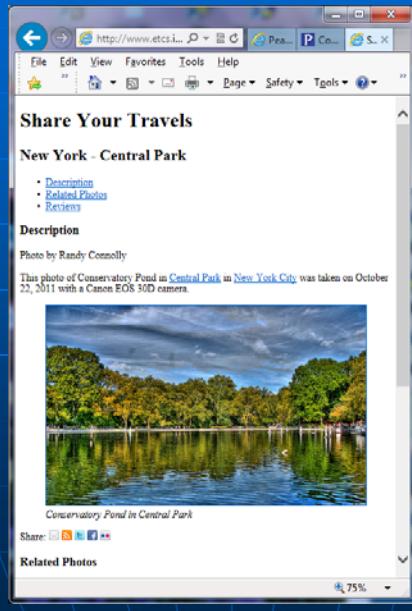


Figure 2.15 Two parts of a link

The diagram illustrates two examples of HTML links. The first example shows a link to 'Central Park' with the URL 'http://www.centralpark.com'. It is annotated with 'Destination' pointing to the URL and 'Label (text)' pointing to the text 'Central Park'. The second example shows a link to 'index.html' containing an image logo, with the URL 'index.html'. It is annotated with 'Label (image)' pointing to the image part of the link.

```
<a href="http://www.centralpark.com">Central Park</a>
_____
Destination           Label (text)
_____
<a href="index.html"></a>
_____
Label (image)
```

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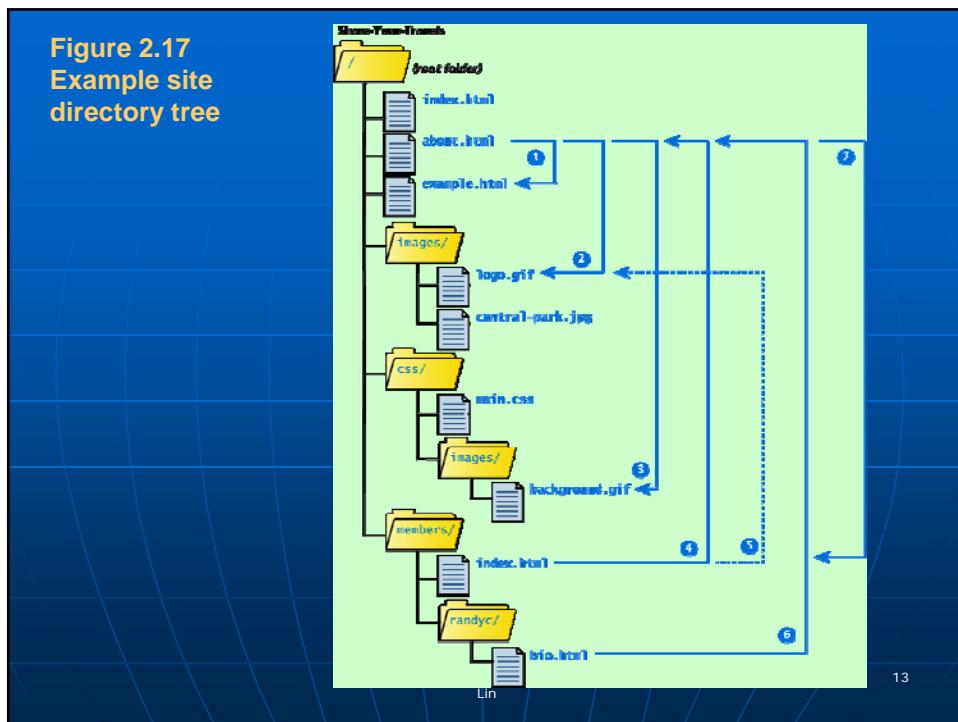
Figure 2.16  
Different link  
destinations

The diagram lists several types of link destinations with their descriptions:

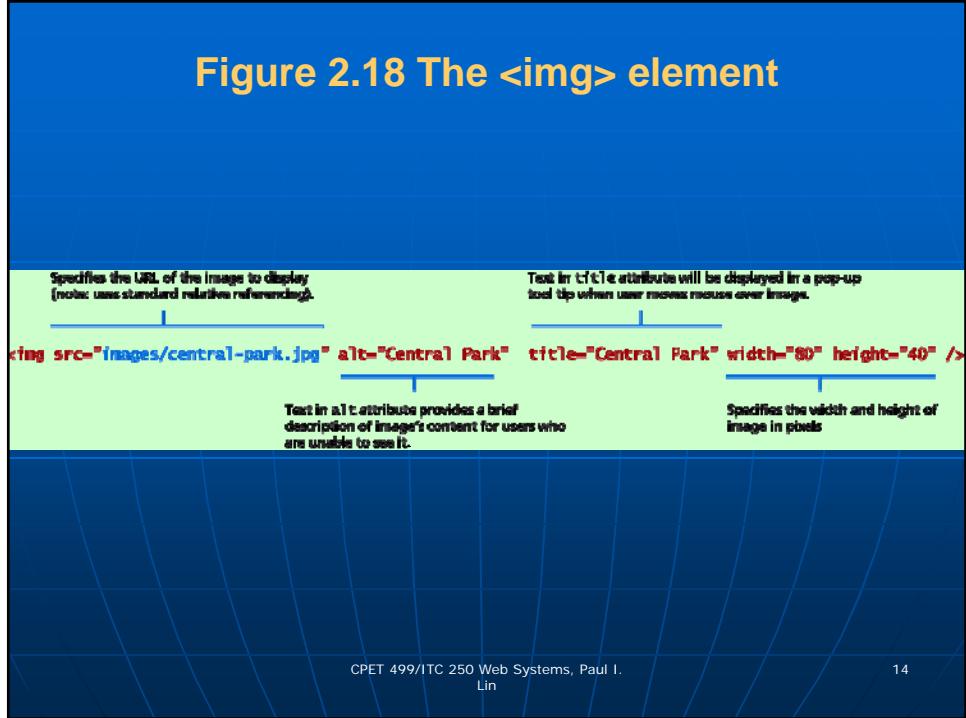
- Link to external site: [Central Park](http://www.centralpark.com)
- Link to resource on external site: [Central Park](http://www.centralpark.com/logo.gif)
- Link to another page on same site as this page: [Home](index.html)
- Link to another place on the same page: [Go to Top of Document](#top)
- Defines anchor for a link to another place on same page:
- Link to specific place on another page: [Reviews for product X](productX.html#Reviews)
- Link to email: [Someone](mailto:person@somewhere.com)
- Link to JavaScript function: [See This](javascript:OpenAnnoyingPopup();)
- Link to telephone (automatically dials the number when user clicks on it using a smartphone browser): [Call toll free \(800\) 922-0579](tel:+18009220579)

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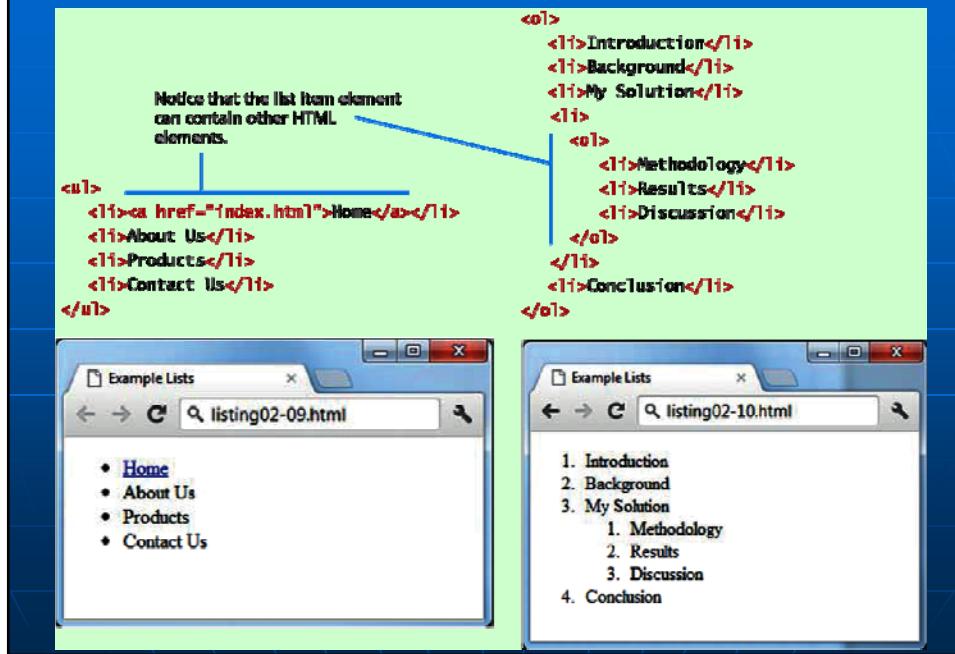
**Figure 2.17**  
**Example site**  
**directory tree**



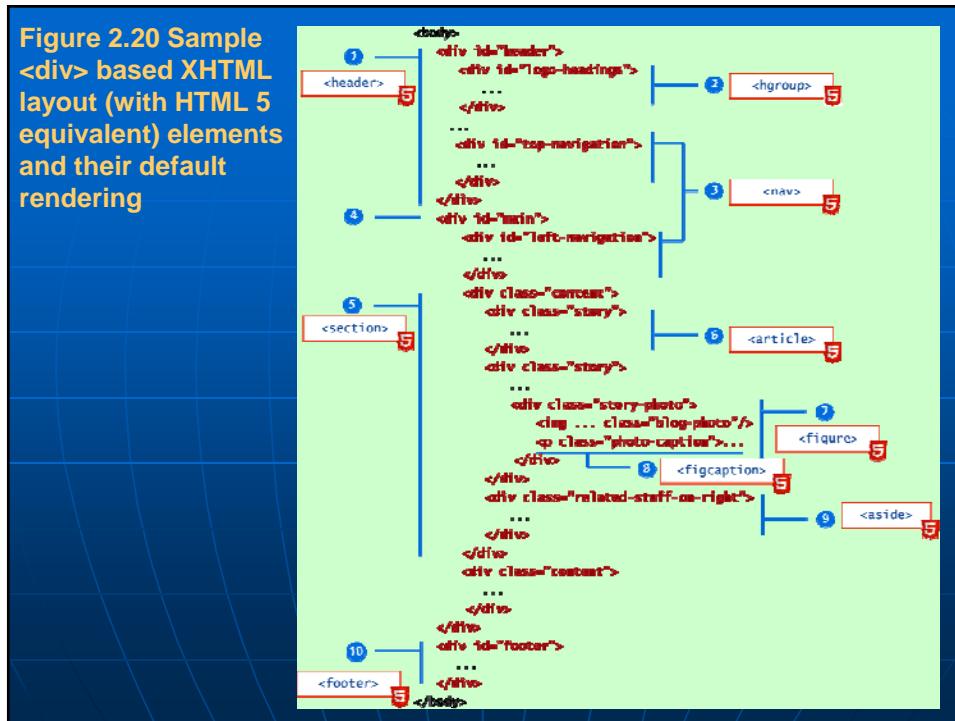
**Figure 2.18 The <img> element**



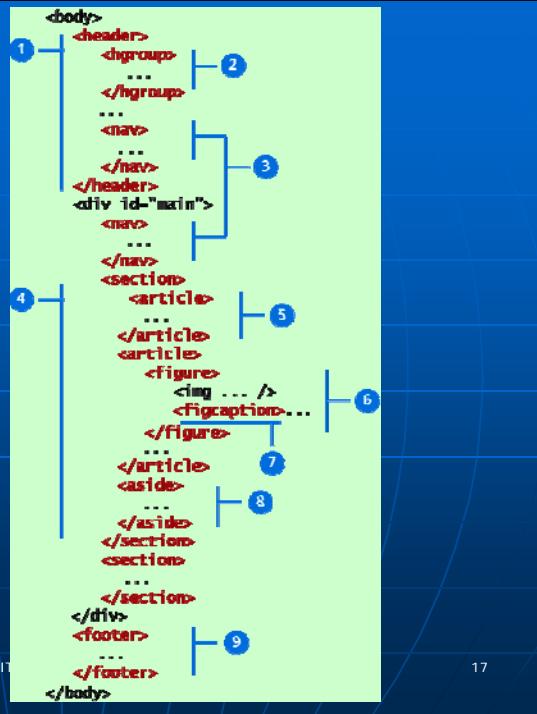
**Figure 2.19 List elements and their default rendering**



**Figure 2.20 Sample <div> based XHTML layout (with HTML 5 equivalent) elements and their default rendering**



**Figure 2.21 Sample layout using new HTML 5 semantic structure elements**



**Figure 2.22 The figure and figcaption elements in the browser**

Figure could be moved to a different location in document  
...  
But it has to exist in the document (i.e., the figure isn't optional).

```
<p>This photo was taken on October 22, 2011 with a Canon EOS 300 camera.</p>
<figure>
  <img alt="Central Park Conservatory Pond" data-bbox="511 718 711 818"/>
  <caption>Conservatory Pond in Central Park</caption>
</figure>
<p>It was a wonderfully beautiful autumn Sunday, with strong sunlight and expressive clouds. I was very fortunate that my one day in New York was blessed with such weather!</p>
```

This photo was taken on October 22, 2011 with a Canon EOS 300 camera.



Conservatory Pond in Central Park

It was a wonderfully beautiful autumn Sunday, with strong sunlight and expressive clouds. I was very fortunate that my one day in New York was blessed with such weather!

Figure 2.23 Complete Project 1 – pp. 90-92

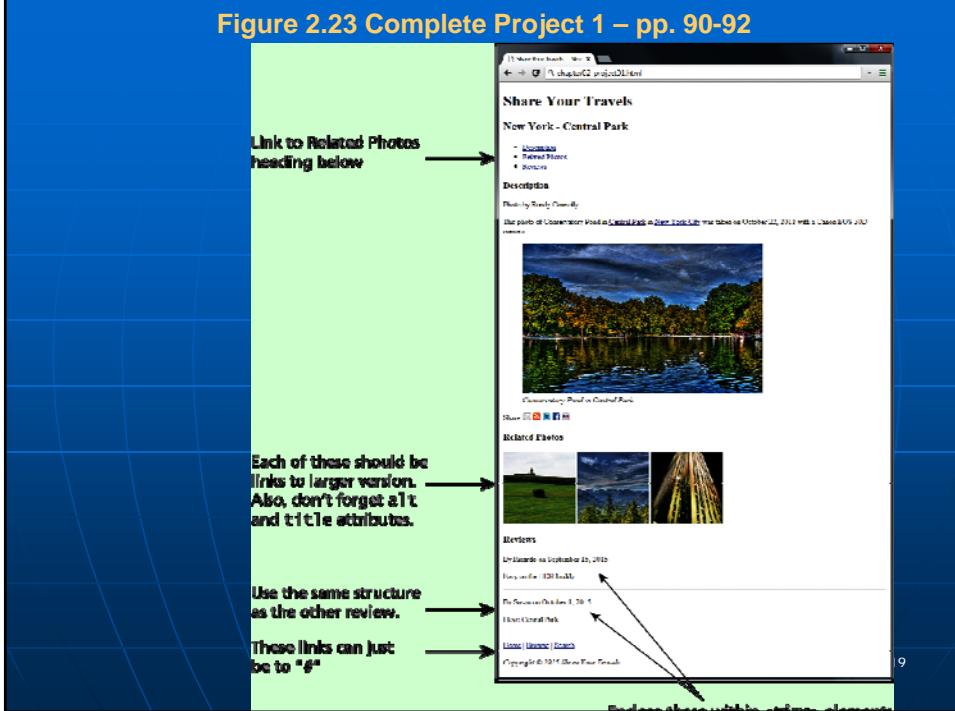
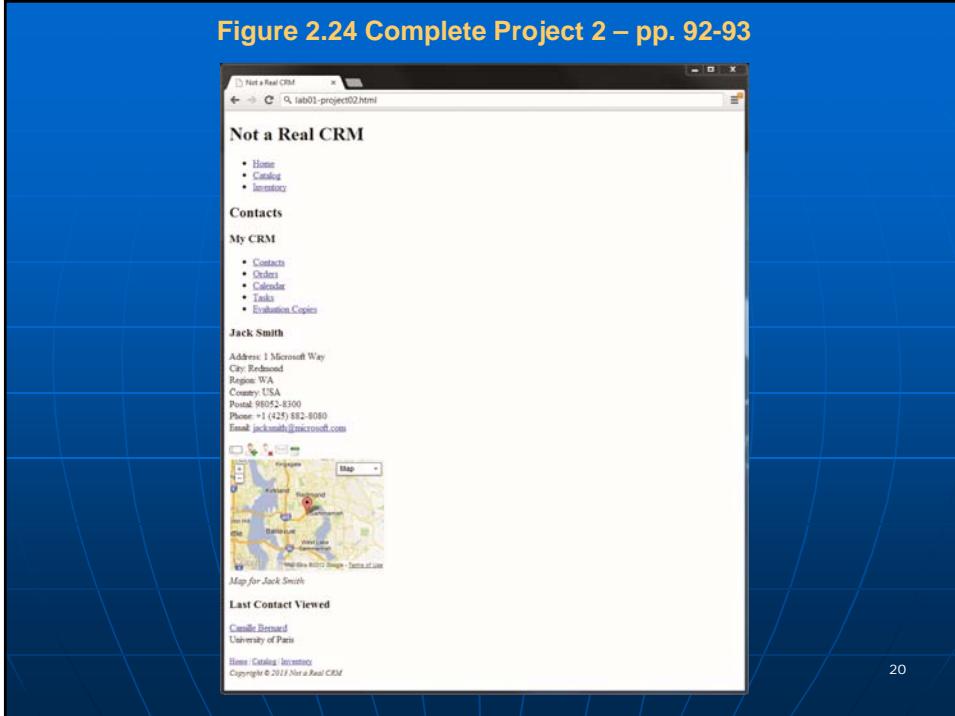
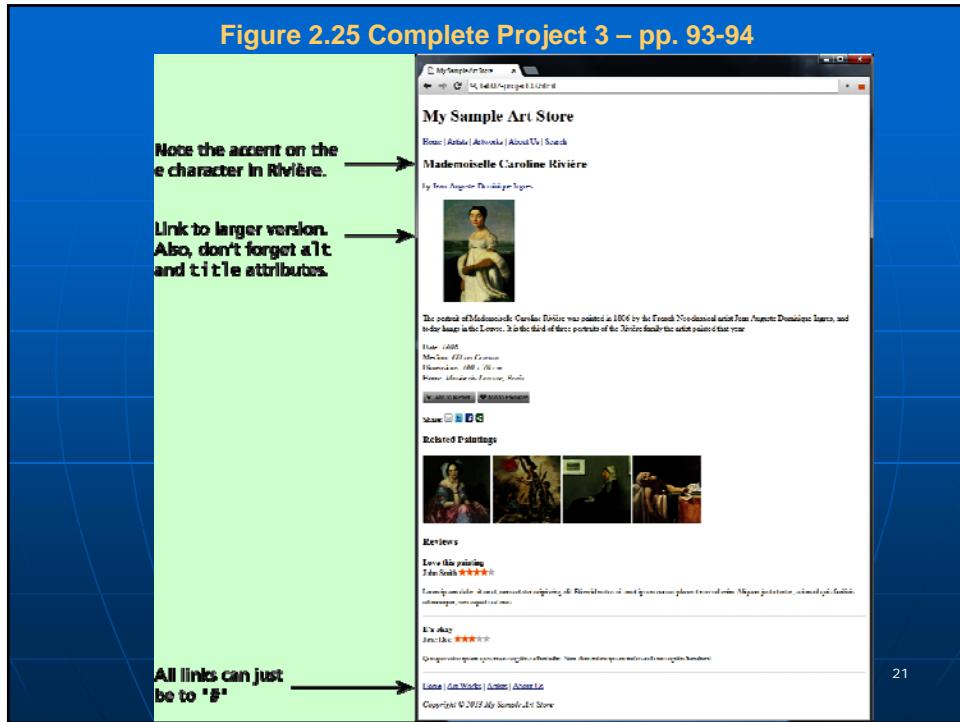


Figure 2.24 Complete Project 2 – pp. 92-93



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Figure 2.25 Complete Project 3 – pp. 93-94



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## Summary