HTML5 and CSS3 Illustrated

Unit B:
Getting Started with HTML

UNIT
B
HTML5 and CSS3

Objectives

- Assess the history of HTML

- Compare HTML and XHTML

- Create an HTML document

- Set up the document head and body

- Add Web page text

Objectives (continued)

- Preview your Web page
- Implement one-sided tags
- Validate your HTML code

Assessing the History of HTML

- The <u>World Wide Web Consortium (W3C)</u> is responsible for maintaining HTML standards

- HTML is constantly under transformation

- W3C incorporates new features in HTML while keeping the language consistent

Assessing the History of HTML (continued)

- HTML 4 codified HTML as a <u>semantic language</u>

- <u>Cascading Style Sheets (CSS)</u> is a presentational language: how to present HTML

- <u>Deprecated features</u>: can still be used but their use is not recommended

Comparing HTML and XHTML

- XHTML makes HTML comply with the rules of XML

- Flexibility is an important part of HTML

- XML and XHTML do not tolerate errors

- XHTML and HTML exist in parallel

Comparing HTML and XHTML (continued)

- Differences Between HTML and XHTML

aspect	HTML	XHTML
Tag nesting	Tags may be closed out of order	Tags must be closed in the order opened
Tag case	Tags may be written in upper or lower case	Tags must be written in lower case
Tag closure	Closing tags may be omitted for some elements	All opening tags must be matched with closing tags
Attribute name/value pairs	Value may occur without attribute name	Name/value pair required
Empty elements	Empty elements do not need to be closed	Empty elements must be closed
Script and Style elements	Elements may be placed within HTML document	Elements must be in separate documents and linked to XHTML document
Attribute values	Values may be enclosed within quotes	Values must be enclosed within quotes
ID and Name attributes	Either attribute may be used	ID attribute may be used, but Name attribute prohibited
Character codes for special characters	Codes recommended	Codes required

Creating an HTML Document

- HTML document consists of text to be displayed and tags

- Create document by hand-coding in a text editor or by using suitable program

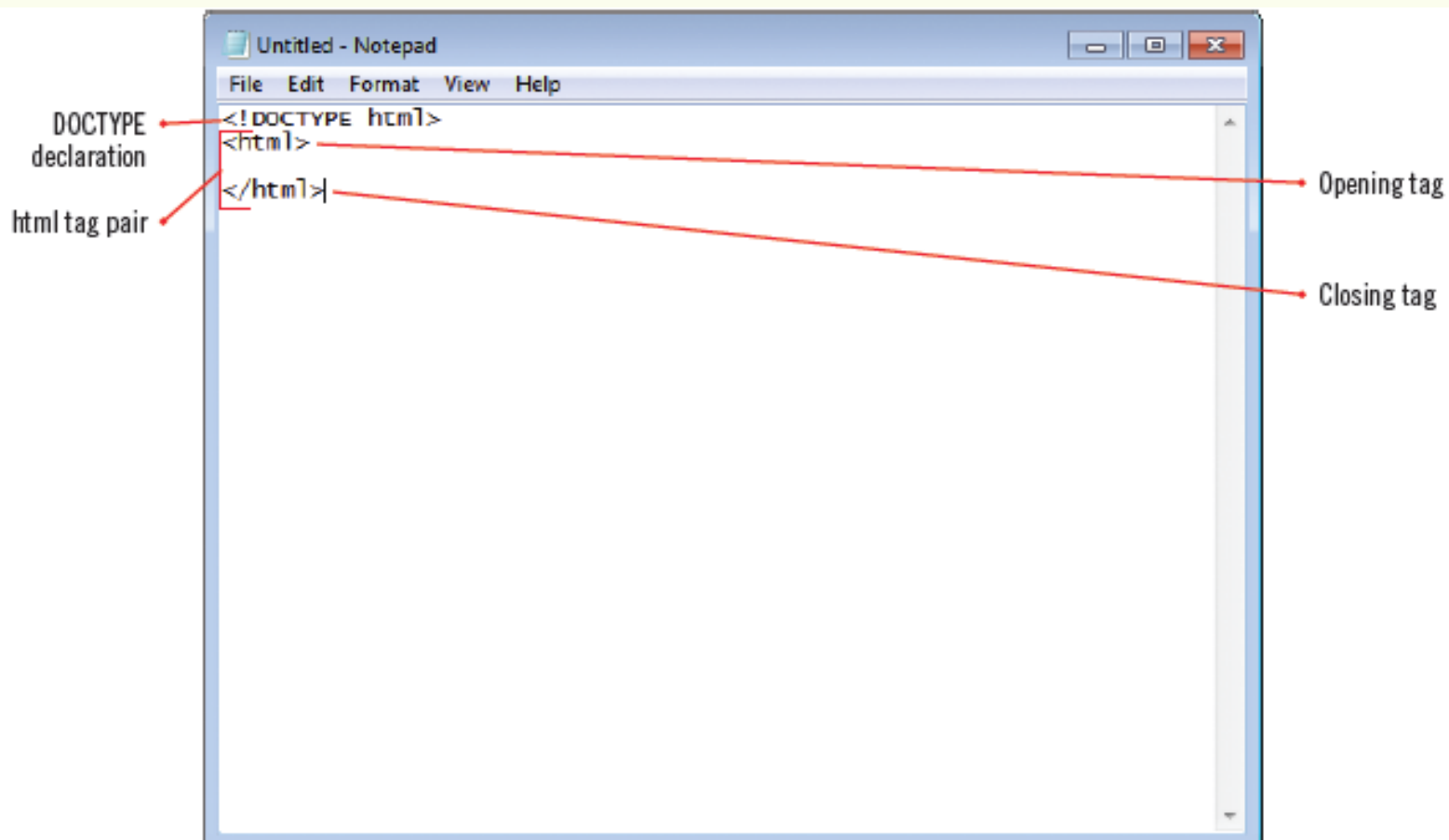- Most tags occur in pairs, but one-sided tags are used by themselves

Creating an HTML Document (continued)

- Start document with <!DOCTYPE html> declaration

- Add <html> and </html> tags to define beginning and end of Web page

- For clarity of structure, press [ENTER] twice between any two opening and closing tags

Creating an HTML Document (continued)

- Basic structure of a Web page

Setting Up the Document Head and Body

- HTML document divided into head and body sections

  - ➢ Head: contains elements that are not part of the main Web page

  - ➢ Body: elements that are visible in the main window of a Web browser

- Head and body tags are nested within html tags

Setting Up the Document Head and Body (continued)

- For clarity of structure, nested elements are:

  - ➢ On new lines

  - ➢ Indented by two spaces relative to parent element

- To add head section:

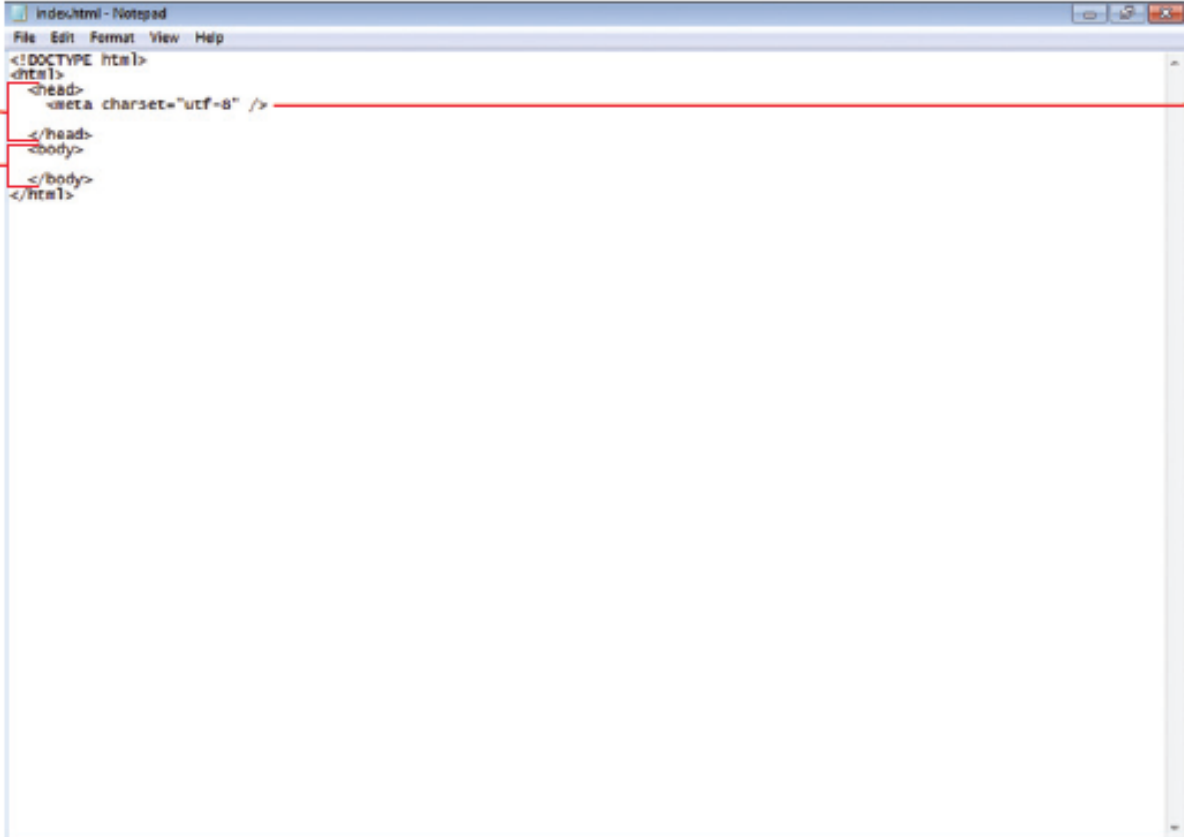 - ➢ Add <head> and </head> tags in new lines within the html tags

Setting Up the Document Head and Body (continued)

- To add body portion, add <body> and </body> tags in new lines within the html tags

- Add <meta charset="utf-8"/> to specify character encoding

- HTML attributes specify details about the element properties

Setting Up the Document Head and Body (continued)

- Completed Web page structure

head section — meta tag specifies character encoding

body section

```
index.html - Notepad
File  Edit  Format  View  Help
<!DOCTYPE html>
<html>
   <head>
      <meta charset="utf-8" />
   </head>
   <body>
   </body>
</html>
```

Adding Web Page Text

- Type the text for the Web page

- Add HTML tags to specify the element type for each text item
  - \<title> and \</title>: text that appears in the Web browser's title bar
  - \<h1> and \</h1>: highest level heading
  - \<p> and \</p>: paragraph of text
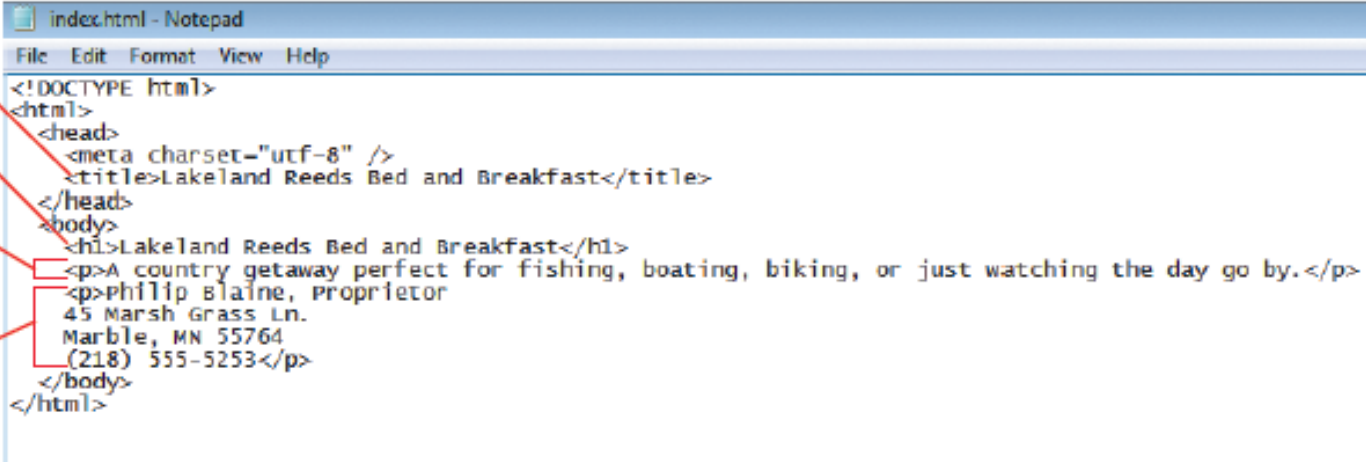
Adding Web Page Text (continued)

- HTML comments add information not shown in the Web browser
  - Comments defined by <!-- … -->

Adding Web Page Text (continued)

- Title, h1, and p elements entered

title element →
h1 element →
p element for business description →
p element for contact information →

```
index.html - Notepad
File  Edit  Format  View  Help
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8" />
    <title>Lakeland Reeds Bed and Breakfast</title>
  </head>
  <body>
    <h1>Lakeland Reeds Bed and Breakfast</h1>
    <p>A country getaway perfect for fishing, boating, biking, or just watching the day go by.</p>
    <p>Philip Blaine, Proprietor
    45 Marsh Grass Ln.
    Marble, MN 55764
    (218) 555-5253</p>
  </body>
</html>
```

Previewing Your Web Page

- To preview a Web page open it in one or more user agents
  - Allows page writer to research problems and correct them before publishing the page

- Use file manager to open Web page in one or more browsers

- Note differences in the way the page is displayed in different browsers

Implementing One-Sided Tags

- Some HTML elements, such as line breaks, require a single tag
  - Represent a specific occurrence of an item or behavior

- One sided tag are of the form

-
: line break

Implementing One-Sided Tags (continued)

- HTML document containing line breaks


```
index.html - Notepad

File   Edit   Format   View   Help

<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8" />
    <title>Lakeland Reeds Bed and Breakfast</title>
  </head>
  <body>
    <h1>Lakeland Reeds Bed and Breakfast</h1>
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    <p>Philip Blaine, Proprietor<br />45 Marsh Grass Ln.<br />Marble, MN 55764<br />(218) 555-5253</p>
  </body>
</html>
```

Line break elements inserted to break up contact information onto multiple lines in browsers

Implementing One-Sided Tags (continued)

- Web page displaying line breaks

Lakeland Reeds Bed and Breakfast

A country getaway perfect for fishing, boating, biking, or just watching the day go by.

Philip Blaine, Proprietor
45 Marsh Grass Ln.
Marble, MN 55764
(218) 555-5253

Line break elements divide up contact information onto multiple lines

Validating Your HTML Code

- Code validation: automated process for comparing your code against HTML5 coding standards
  - Useful for identifying the source of a specific problem

- You can use online tools to validate your code

Summary

- HTML is a coding language which has standards but is constantly under transformation

- An HTML document is a text document which defines a structure of the text to be displayed

- The structure of the text to be displayed is defined by the use of tags

Summary (continued)

- Tags can include attributes which specify their properties

- Two-sided tags enclose the text that they relate to

- One-sided tags are for specific occurrences

- Problems in a Web page can be identified by rendering it in a Web browser or by validating the code

HTML 5 and CSS 3 - Illustrated Complete