

Web Development & Design Foundations with HTML5 8th Edition

CHAPTER 2 KEY CONCEPTS

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Learning Outcomes

In this chapter, you will learn how to ...

- Describe HTML, XHTML, and HTML5
- Identify the markup language in a web page document
- Use the html, head, body, title, and meta elements to code a template for a web page
- Configure the body of a web page with headings, paragraphs, line breaks, divs, lists, and blockquotes
- Configure text with phrase elements
- Configure a web page using new HTML5 header, nav, main, and footer elements
- Configure special characters
- Use the anchor element to link from page to page
- Create absolute, relative, and e-mail hyperlinks
- Code, save, and display a web page document
- Test a web page document for valid syntax

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What is HTML?

HTML:

The set of markup symbols or codes placed in a file intended for display on a Web browser page.

The World Wide Web Consortium (<http://w3c.org>) sets the standards for HTML and its related languages.

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HTML Elements

- Each markup code represents an HTML **element**.
- Each element has a purpose.
Most elements are coded as a pair of tags: an opening tag and a closing tag.
- Tags are enclosed in angle brackets, "<" and ">" symbols.

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What is HTML5 ?

Newest version of HTML/XHTML
Supported by modern browsers
Intended to be backwards compatible
Adds new elements
Adds new functionality

- Edit form data
- Native video and audio
- And more!



Source: W3C <http://www.w3.org/html/logo/>

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Document Type Definition

Document Type Definition (DTD)

- doctype statement
- identifies the version of HTML contained in your document.
- placed at the top of a web page document

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DTD Examples

XHTML 1.0 Transitional DTD

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd>
```

HTML5 DTD

```
<!DOCTYPE html>
```

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Example HTML5 Web Page

```
<!DOCTYPE html>
<html lang="en">
<head>
<title>Page Title Goes Here</title>
<meta charset="utf-8">
</head>
<body>
... body text and more HTML5 tags go here ...
</body>
</html>
```

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Head & Body Sections

Head Section

Contains information that describes the web page document

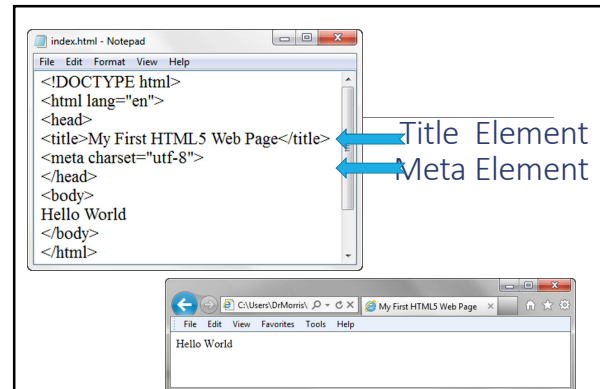
```
<head>
...head section info goes here
</head>
```

Body Section

Contains text and elements that display in the web page document

```
<body>
...body section info goes here
</body>
```

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Heading Element

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

Heading Level 1

Heading Level 2

Heading Level 3

Heading Level 4

Heading Level 5

Heading Level 6

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Paragraph Element

Paragraph element

```
<p> ...paragraph goes here... </p>
```

- Groups sentences and sections of text together.
- Block Display – Configures empty space above and below

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Line Break Element

Line Break element

- Stand-alone, or void tag

...text goes here **
**
This starts on a new line....

- Causes the next element or text to display on a new line

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Blockquote Element

Blockquote element

- Indents a block of text for special emphasis

<blockquote>
...text goes here...
</blockquote>

- Block Display – Configures empty space above and below

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Phrase Elements

Indicate the context and meaning of the text

Element	Example	Usage
	bold text	Text that has no extra importance but is styled in bold font by usage and convention
	emphasized text	Causes text to be emphasized in relation to other text; usually displayed in italics
<i>	italicized text	Text that has no extra importance but is styled in italics by usage and convention
<mark>	mark text	Text that is highlighted in order to be easily referenced (HTML5 only)
<small>	small text	Legal disclaimers and notices ("fine print") displayed in small font-size
	strong text	Strong importance; causes text to stand out from surrounding text; usually displayed in bold
<sub>	sub-text	Displays a subscript as small text below the baseline
<sup>	sup-text	Displays a superscript as small text above the baseline

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Proper Nesting

CODE:

```
<p><i>Call for a free quote for your web development needs:
<strong>888.555.5555 </strong></i></p>
```

BROWSER DISPLAY:

*Call for a free quote for your web development needs: **888.555.5555***

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HTML Lists

Unordered List

Ordered List

Description List

formerly called a definition list

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Unordered List

Displays a bullet, or list marker, before each entry in the list.

 Contains the unordered list

 Contains an item in the list

- TCP
- IP
- HTTP
- FTP

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Unordered List Example

```
<ul>
  <li>TCP</li>
  <li>IP</li>
  <li>HTTP</li>
  <li>FTP</li>
</ul>
```

- TCP
- IP
- HTTP
- FTP

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Ordered List

Displays a numbering or lettering system to itemize the information contained in the list

```
<ol>
Contains the ordered list
  ◦ type attribute determines numbering scheme of
    list, default is numerals

<li>
Contains an item in the list
```

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Ordered List Example

```
<ol>
  <li>Apply to school</li>
  <li>Register for course</li>
  <li>Pay tuition</li>
  <li>Attend course</li>
</ol>
```

1. Apply to school
2. Register for course
3. Pay tuition
4. Attend course

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Description List

Useful to display a list of terms and descriptions or a list of FAQ and answers

- <dl>
 Contains the description list
- <dt>
 Contains a term/phrase/sentence
 Configures empty space above and below the text
- <dd>
 Contains a description of the term/phrase/sentence
 - Indents the text
 - Configures empty space above and below the text

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Description List Example

```
<dl>
  <dt>IP</dt>
    <dd>Internet Protocol</dd>
  <dt>TCP</dt>
    <dd>Transmission Control Protocol</dd>
</dl>
```

IP
Internet Protocol
TCP
Transmission Control Protocol

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Checkpoint

1. Describe the features of a heading element and how it configures the text.
2. Describe the difference between ordered lists and unordered lists.
3. Describe the purpose of the blockquote tag.

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Special Characters

- Display special characters such as quotes, copyright symbol, etc.

Character	Code
©	©
<	<
>	>
&	&
	

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Div Element

Configures a structural block area or “division” on a web page with empty space above and below.

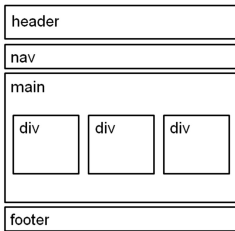
Can contain other block display elements, including other div elements

```
<div>Home Services Contact</div>
```

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HTML5 Structural Elements



header Element

```
<header></header>
```

Contains the web page document's headings

nav Element

```
<nav></nav>
```

Contains web page document's main navigation

main Element

```
<main></main>
```

Contains the web page document's main content

footer Element

```
<footer></footer>
```

Contains the web page document's footer

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HTML5 Structural Elements



```
<body>
```

```
<header> document headings go here </header>
```

```
<nav> main navigation goes here </nav>
```

```
<main> main content goes here </main>
```

```
<footer> document footer information goes here </footer>
```

```
</body>
```

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Anchor Element

- Specifies a hyperlink reference (href) to a file
- Text between the `<a>` and `</a>` is displayed on the web page.

```
<a href="contact.html">Contact Us</a>
```

- href Attribute
 - Indicates the file name or URL

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Absolute & Relative Hyperlinks

Absolute link

- Link to a different website

```
<a href="http://yahoo.com">Yahoo</a>
```

Relative link

- Link to pages on your own site

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

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E-Mail Hyperlink

Automatically launch the default mail program configured for the browser
If no browser default is configured, a message is displayed

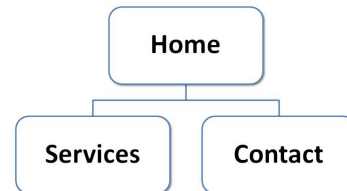
```
<a href="mailto:me@gmail.com">me@gmail.com</a>
```

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Hyperlinks

Hands-On Practice



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Checkpoint

1. Describe the purpose of special characters.
2. Describe when to use an absolute link.
Is the http protocol used in the href value?
3. Describe when to use a relative link. Is the http protocol used in the href value?

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Writing Valid HTML

Check your code for syntax errors

- Benefit:
 - Valid code → more consistent browser display

W3C HTML Validation Tool

- <http://validator.w3.org>

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Summary

This chapter introduced you to HTML.
You will use these skills over and over again as you create web pages.

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