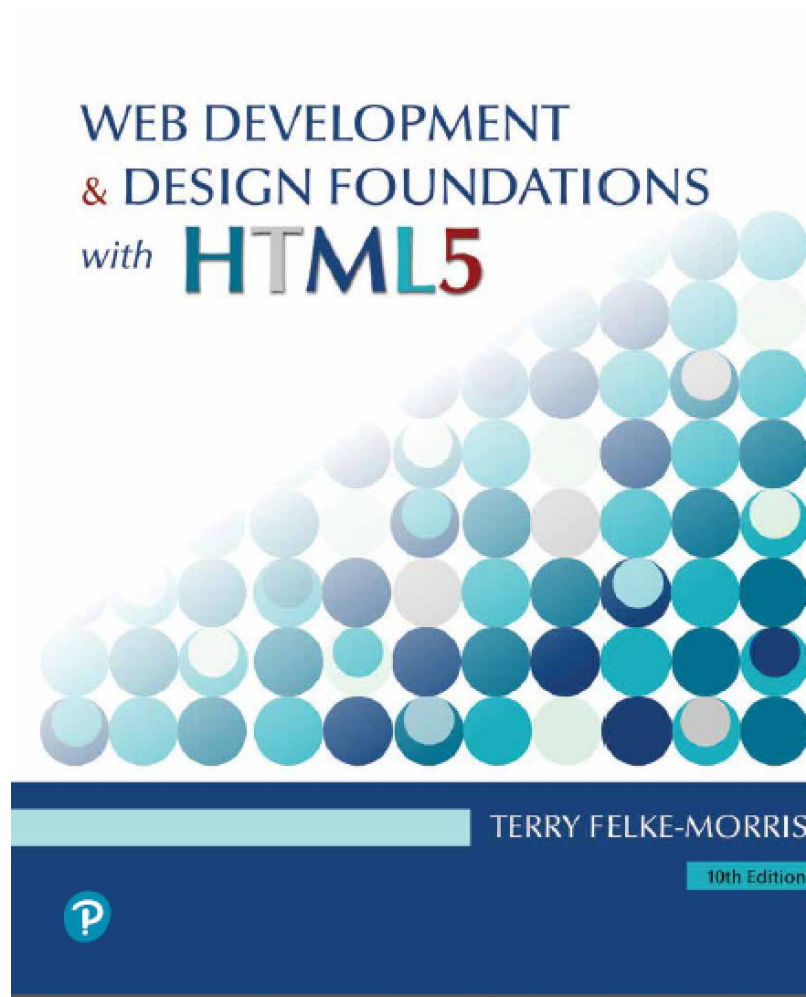


Web Development & Design Foundations with HTML5

Tenth Edition



Chapter 2

HTML Basics

Learning Outcomes (1 of 2)

- Describe HTML, XHTML, and HTML5
- What is a markup language in a web page document
- Use elements to code a template for a web page
- Configure the body of a web page
- Code Special Characters
- Create Absolute, Relative, & E-mail Hyperlinks
- Test a Web Page for Valid Syntax

What is HTML?

- Hypertext mark up language
- Create and display web content
- Display data in a formatted manner
- Has tags and attributes to define structure of a web page.
- Tags are enclosed in angle brackets, “<” and “>” symbols.
- Extension - .html or .htm

HTML vs XML

Key Attributes	XML	HTML
Full Form	Extensible markup language.	Hyper text markup language
Focus on	What data is about ? Describe the data.	How data looks like ? Displaying data
Tag type	User Defined	Predefined
Data Storage	Stored in separate xml file.	Stored in the Tags
Case sensitive	Yes	No
Extension	.xml	.html and .htm

What is HTML5 ?

- Newest version of HTML
- 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/>

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

<!DOCTYPE html>

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>
```

Head & Body Sections

Head Section

Contains information that describes the web page document

<head>

...head section info goes here

</head>

Body Section

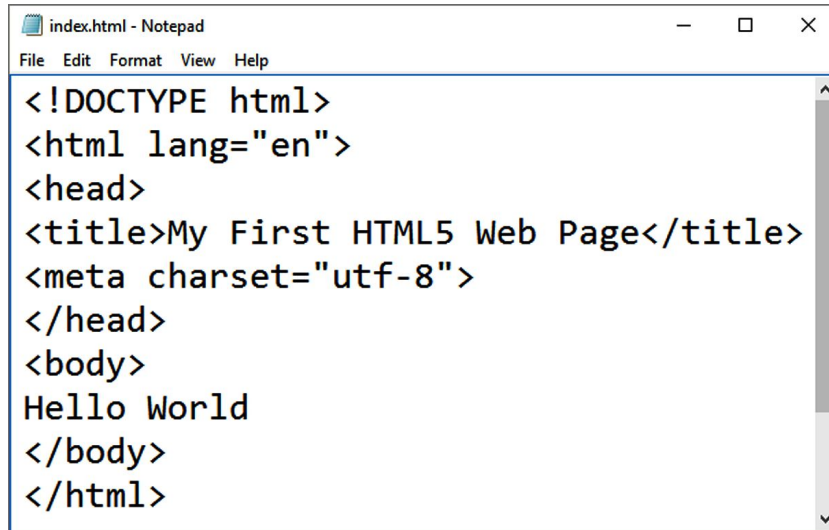
Contains text and elements that display in the web page document

<body>

...body section info goes here

</body>

Figure 2.3 Code displayed in Notepad. Courtesy of Microsoft Corporation.

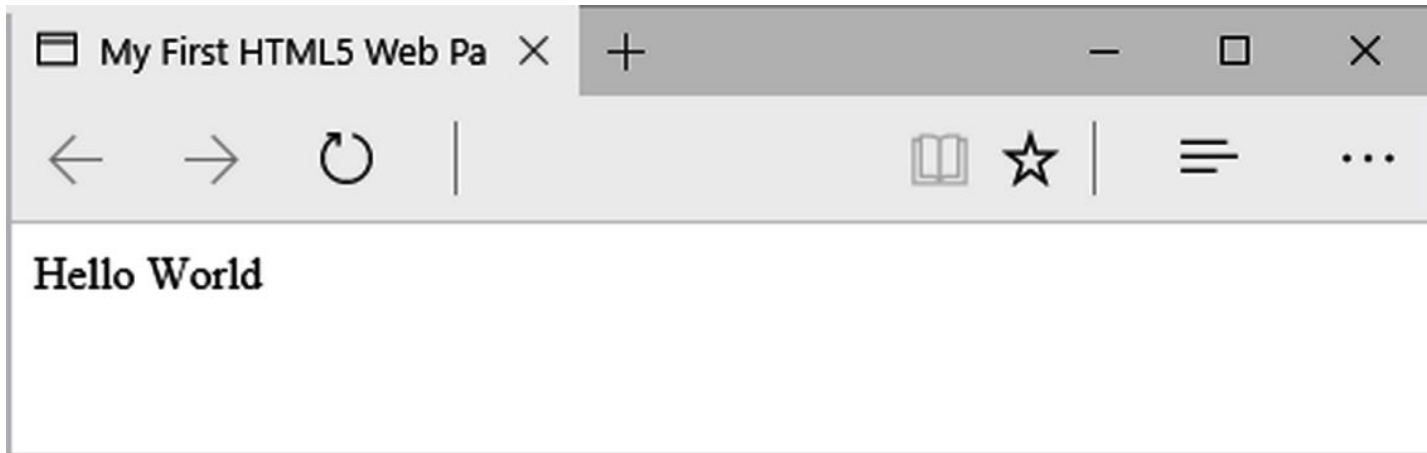


A screenshot of a Notepad window titled 'index.html - Notepad'. The window contains the following HTML code:

```
<!DOCTYPE html>
<html lang="en">
<head>
<title>My First HTML5 Web Page</title>
<meta charset="utf-8">
</head>
<body>
Hello World
</body>
</html>
```

Title Element
Meta Element

Figure 2.5 Web page displayed by Microsoft Edge. Courtesy of Microsoft Corporation.



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

Paragraph Element

Paragraph element

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

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

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

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

Table 2.1 Phrase Elements

Indicate the context and meaning of the text

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

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

HTML Lists

Unordered List

Ordered List

Description List

Unordered List

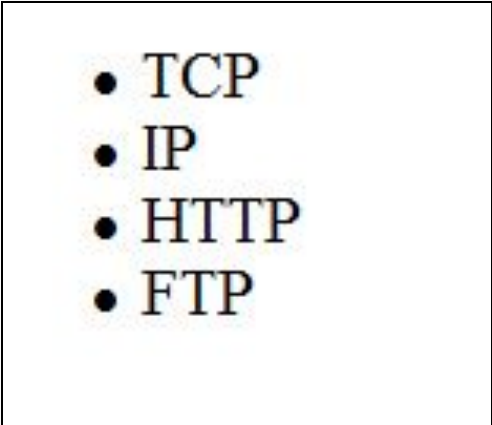
Displays a bullet, or list marker, before each entry in the list.

``

Contains the unordered list

``

Contains an item in the list

- 
- TCP
 - IP
 - HTTP
 - FTP

Unordered List Example

TCP

IP

HTTP

FTP

- TCP
- IP
- HTTP
- FTP

Ordered List

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

``

Contains the ordered list

- type attribute determines numbering scheme of list, default is numerals

``

Contains an item in the list

Ordered List Example

Apply to school

Register for course

Pay tuition

Attend course

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

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

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

Special Characters

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

Character	Code
©	©
<	<
>	>
&	&
	

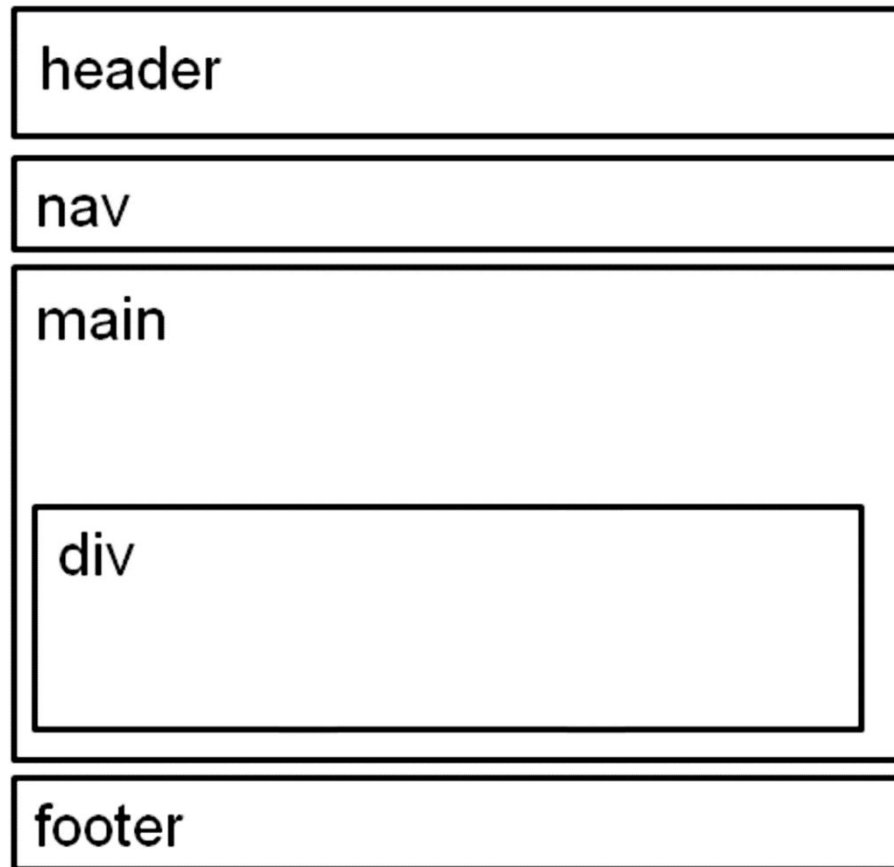
Div Element

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>
```

Figure 2.20 Wireframe for Casita Sedona



HTML5 Structural Elements (1 of 3)

header Element

`<header></header>`

Contains the web page
document's headings

nav Element

`<nav></nav>`

Contains web page
document's main navigation

HTML5 Structural Elements (2 of 3)

main Element

`<main></main>`

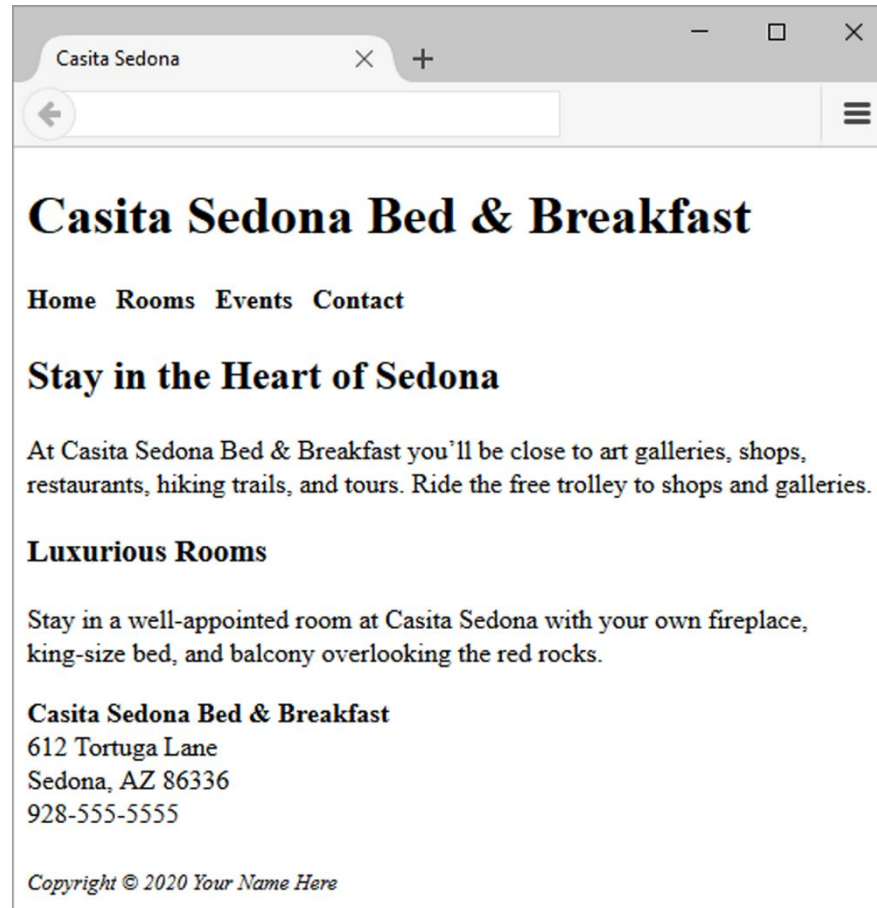
Contains the web page
document's main content

footer Element

`<footer></footer>`

Contains the web page
document's footer

Figure 2.21 Casita Sedona web page



HTML5 Structural Elements (3 of 3)

<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>

More Structural Elements (1 of 2)

Aside Element

- block display; contains a sidebar, a note, or other tangential content

Section Element

- contains a “section” of a document, such as a chapter or topic
- block display

More Structural Elements (2 of 2)

Article Element

- contains an independent entry, such as a blog posting, comment, or e-zine article that could stand on its own
- block display

Time Element

- represents a date or a time
- could be useful to date articles or blog posts
- inline display

Figure 2.22 The blog page.



A Element (Anchor Element)

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

`Contact Us`

- href Attribute
 - Indicates the file name or URL

Opening a Link in a New Browser Window

The target attribute on the anchor element opens a link in a new browser window or new browser tab.

```
<a href="https://google.com" target="_blank">Search  
Google</a>
```

Absolute & Relative Hyperlinks

Absolute link

- Link to a different website

Yahoo

Relative link

- Link to pages on your own site

Home

E-Mail Hyperlink

Automatically launch the default mail program configured for the browser

If no browser default is configured,
a message is displayed

me@gmail.com

Site Map

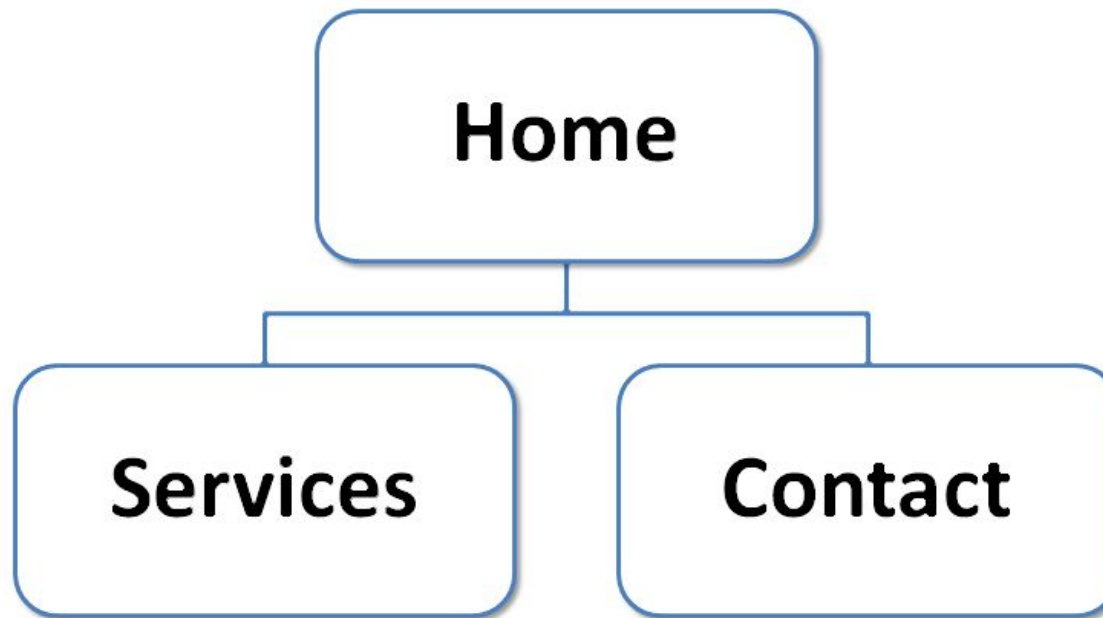


Figure 2.24 Site map

Writing Valid HTML

Check your code for syntax errors

Benefit:

Valid code ☐

more consistent browser display

Tool ☐

CSS HTML Validator