Web Design with HTML5 & CSS3
8th Edition

Chapter 7

Improving Web Design with New Page Layouts

SHELLY
CASHMAN
SERIES.
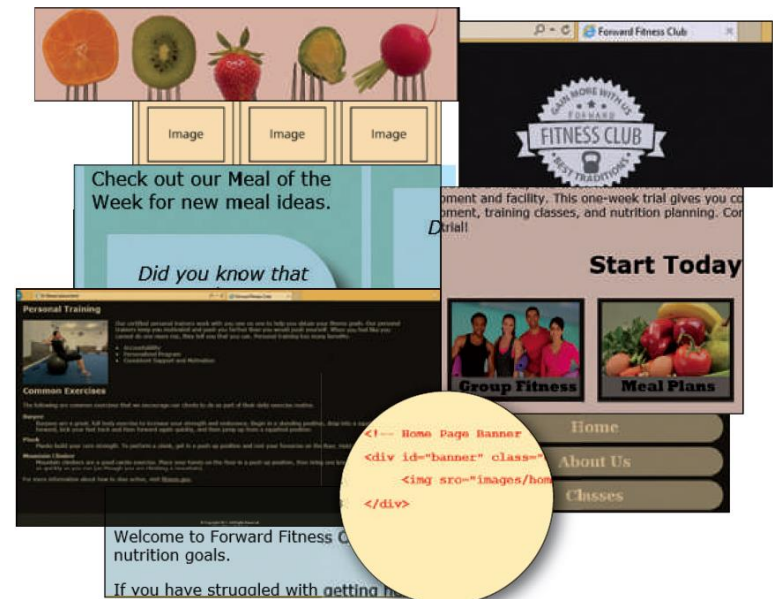
Chapter Objectives

1. Explain when to use article, aside, and section elements

2. Define figure and figcaption elements

3. Redesign wireframes for tablet and desktop viewports

4. Explain and use the opacity property

5. Describe and use the text-shadow property

Chapter Objectives

6. Add a banner image to a website

7. Insert and style a figure element

8. Insert and style a section element

9. Insert and style an article element

10. Insert and style an aside element

11. Create a three-column layout

12. Describe and use the overflow property

Topics

1. Introduction
2. Project – Use HTML5 Structural Elements to Redesign a Website
3. Using HTML5 Semantic Elements
4. Redesigning the Home Page
5. Updating the About Us Page
6. Updating the Contact Us Page
7. Creating the Nutrition Page
8. Summary

3. Using HTML5 Semantic Elements

Table 7–1 HTML5 Semantic Elements

| Element	Description
\<article> … \</article>	Indicates the start and end of an article area of a webpage. Contains content such as forum or blog posts.
\<aside> … \</aside>	Indicates the start and end of an aside area of a webpage. Contains information about nearby content and is typically displayed as a sidebar.
\<details> … \</details>	Indicates the start and end of a details area of a webpage. Contains additional information that the user can display or hide. Note that this element is not supported by all major browsers at the time of this publication.
\<figure> … \</figure>	Indicates the start and end of a figure area of a webpage. Contains pictures and images.
\<figcaption> … \</figcaption>	Indicates the start and end of a figure caption area of a webpage. Defines a caption for a figure element.
\<section> … \</section>	Indicates the start and end of a section area of a webpage. Contains a specific grouping of content on a webpage.
\<summary> … \</summary>	Indicates the start and end of a summary area of a webpage. Contains a visible heading for the details element on a webpage. Note that this element is not supported by all major browsers at the time of this publication.
\<time> … \</time>	Indicates the start and end of a time area of a webpage. Contains a date/time on a webpage.

3.1 Article Element

- The **article element** is

  - a complete, self-contained composition in a document, page, application, or site

  - independently distributable or reusable, e.g. in syndication

- The start and end tags of article elements are <article> and </article>

- Content placed between these tags will appear on a webpage as part of the `article` element

3.1 Article Element

- Articles may be nested within other HTML elements, such as the `main` element, the `section` element, or other `article` elements

- Articles are commonly used to contain news articles, blog and forum posts, or comments

3.1 Article Element
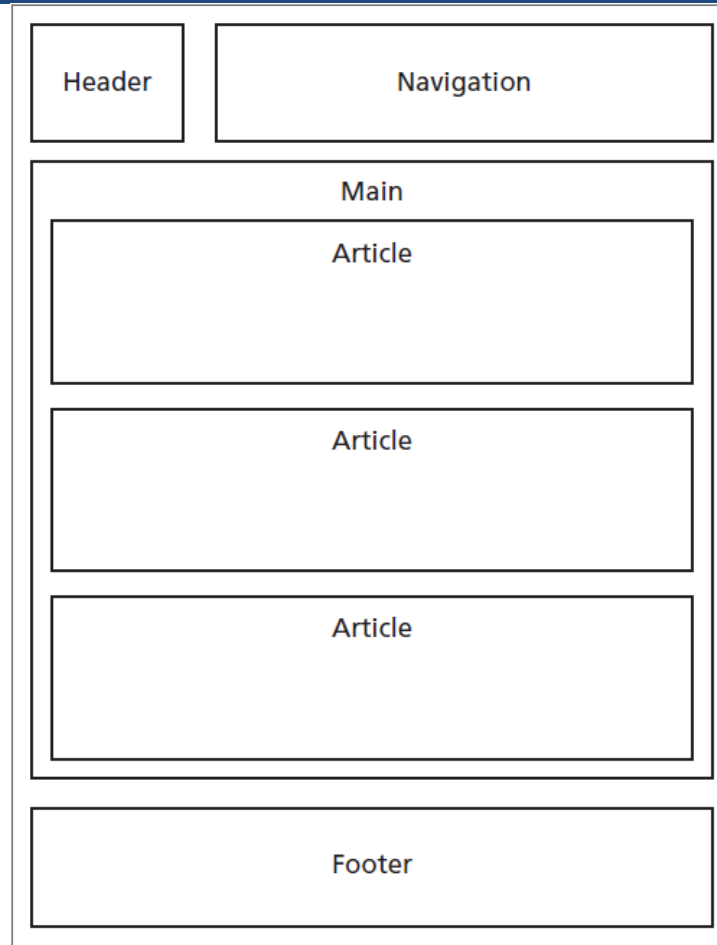
Figure 7–4

3.2 Aside Element

- The `aside` element is used as a **sidebar** that contains additional information about a particular item mentioned within another element

- For example, if an article on a webpage contains a recipe and a list of ingredients, one could include an `aside` element with more information about one of the key ingredients, such as its origin or where to purchase it

- It can be nested within `article` elements or within `main` or `section` elements

3.2 Aside Element
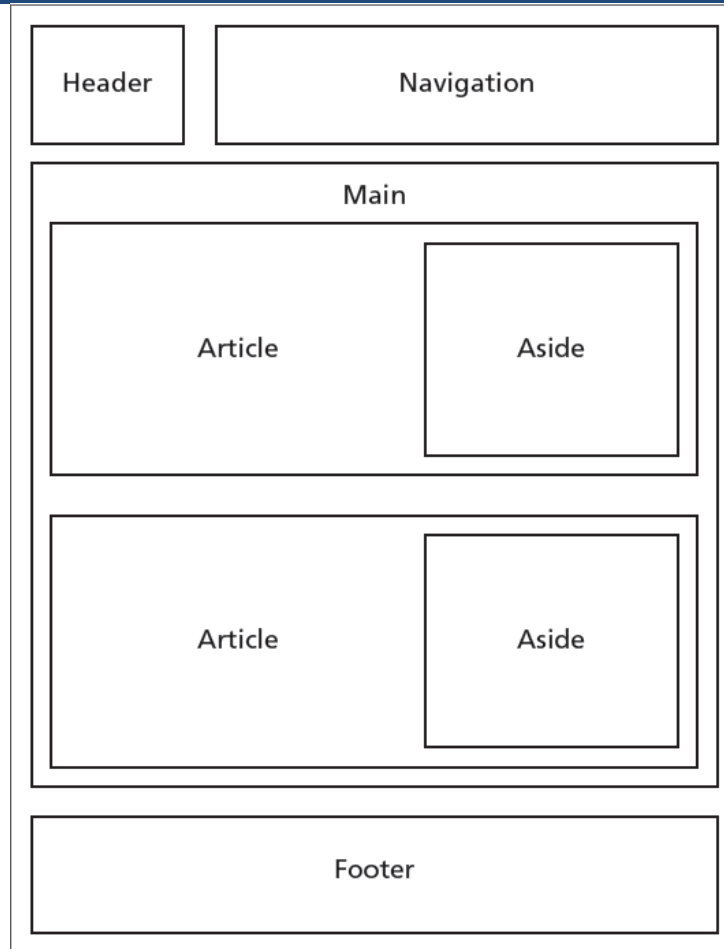
Figure 7–6

3.3 Section Element

- The **section element** is an element that
  – represents a generic section of a document or application
    - a section is a thematic grouping of content
    - the theme of each section should be identified as a child of the section element
  – is not a generic container element. A general rule is that the section element is appropriate only if the element's contents would be listed explicitly in the document's outline

3.3 Section Element

- The following is an example of a several **section** elements nested within an article element

```
<article>
    <h1>Tutorials: Cooking Basics</h1>
        <p>Watch our tutorials to learn
        the basics of good cooking.</p>
<section>
    <h1>Tutorial 1</h1>
    <p>Assembling basic kitchen tools.</p>
</section>
…
</article>
```

3.3 Section Element
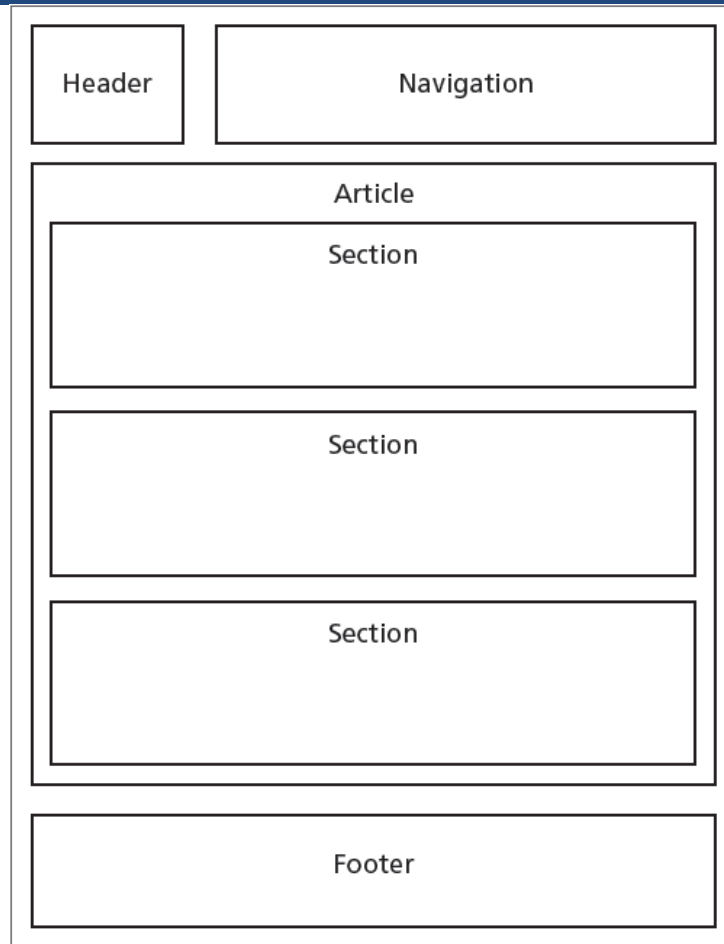
Figure 7-8

3.4 Figure and Figure Caption Elements

- The **figure element** is used to group content, such as illustrations, diagrams, and photos

- The figure element represents some flow content that is self-contained and is typically referenced as a single unit from the main flow of the document

- A `figure` element can contain one or more `img` elements

3.4 Figure and Figure Caption Elements

- The `figure` element may contain an optional **figure caption** element, which is used to provide a caption for the figure element

- The start and end tags of the `figure caption` element are <figcaption> and </figcaption>

3.4 Figure and Figure Caption Elements

- The following is an example of the `figure` element and the `figure caption` element

```
<figure>
    <figcaption>New York City Highlights</figcaption>
    <img src="ny1.jpg" alt="Statue of Liberty">
    <img src="ny2.jpg" alt="Central Park">
    <img src="ny3.jpg" alt="New York at Night">
</figure>
```

3.4 Figure and Figure Caption Elements
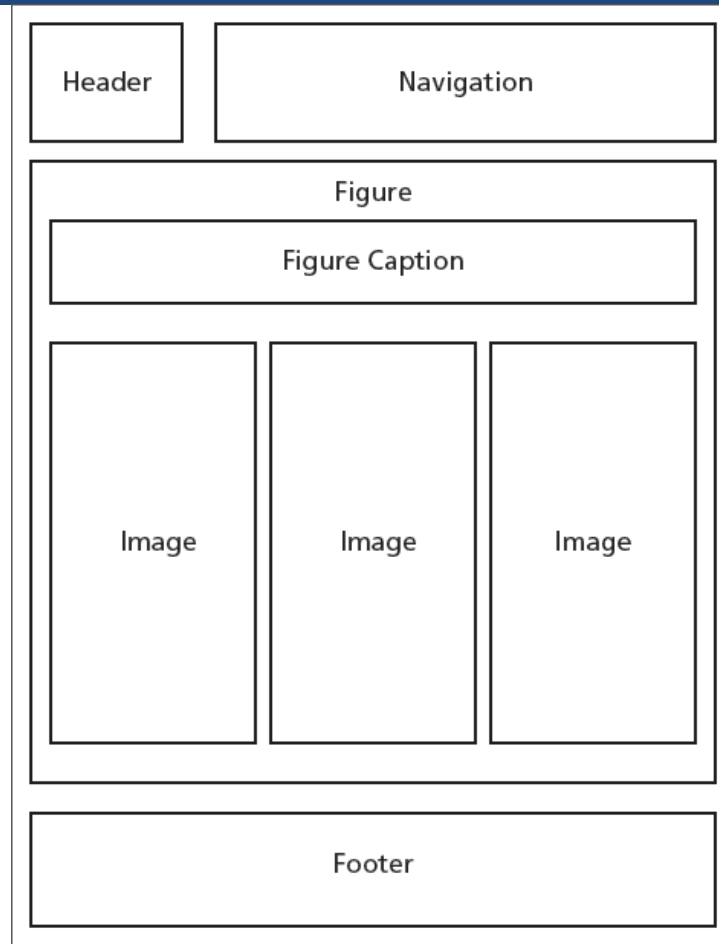
Figure 7–10

3.5 Website Layout

- A **banner** is a graphic that spans the width of a webpage and usually brands a website, often by displaying its name or an identifying image

- The CSS3 **opacity** property specifies the transparency of an element

- The **text-shadow** property applies a shadow to text
  - h-shadow value – designates the horizontal position of the shadow
  - v-shadow value – designates the vertical position of the shadow

3.5 Website Layout

- An example of a style rule that applies a text shadow to an element is shown below

```
h1 {
    text-shadow: 0.2em 0.1em #292933;
}
```

In this example, a text shadow with a horizontal position of 0.2em, a vertical position of 0.1em, and a dark gray color is applied to an h1 element

4. Redesigning the Home Page

Home page wireframe for tablet viewport
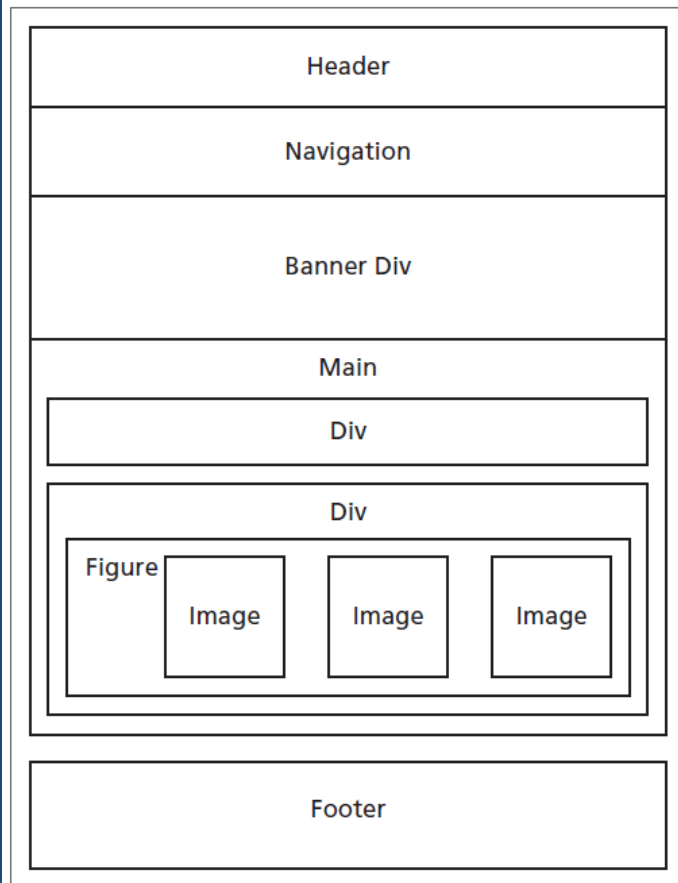
Figure 7-14

Home page wireframe for desktop viewport
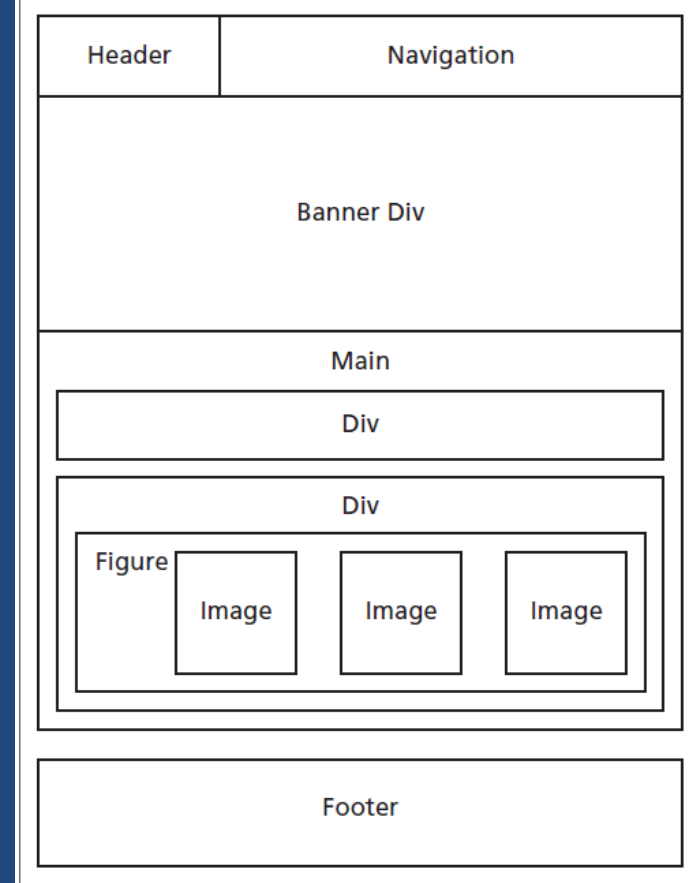
Figure 7-15

4.1 To Add a New div Element to the Home Page
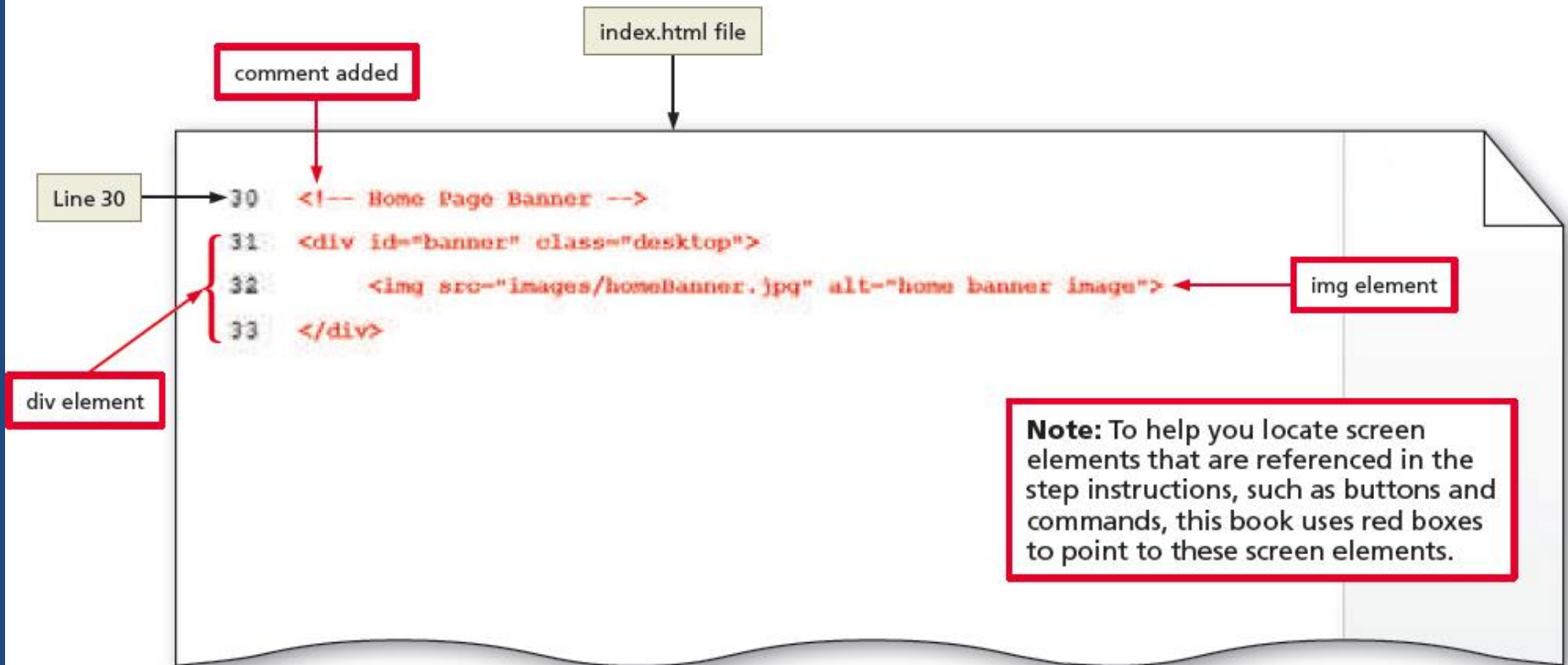
Figure 7–16

4.1 To Add a New div Element to the Home Page
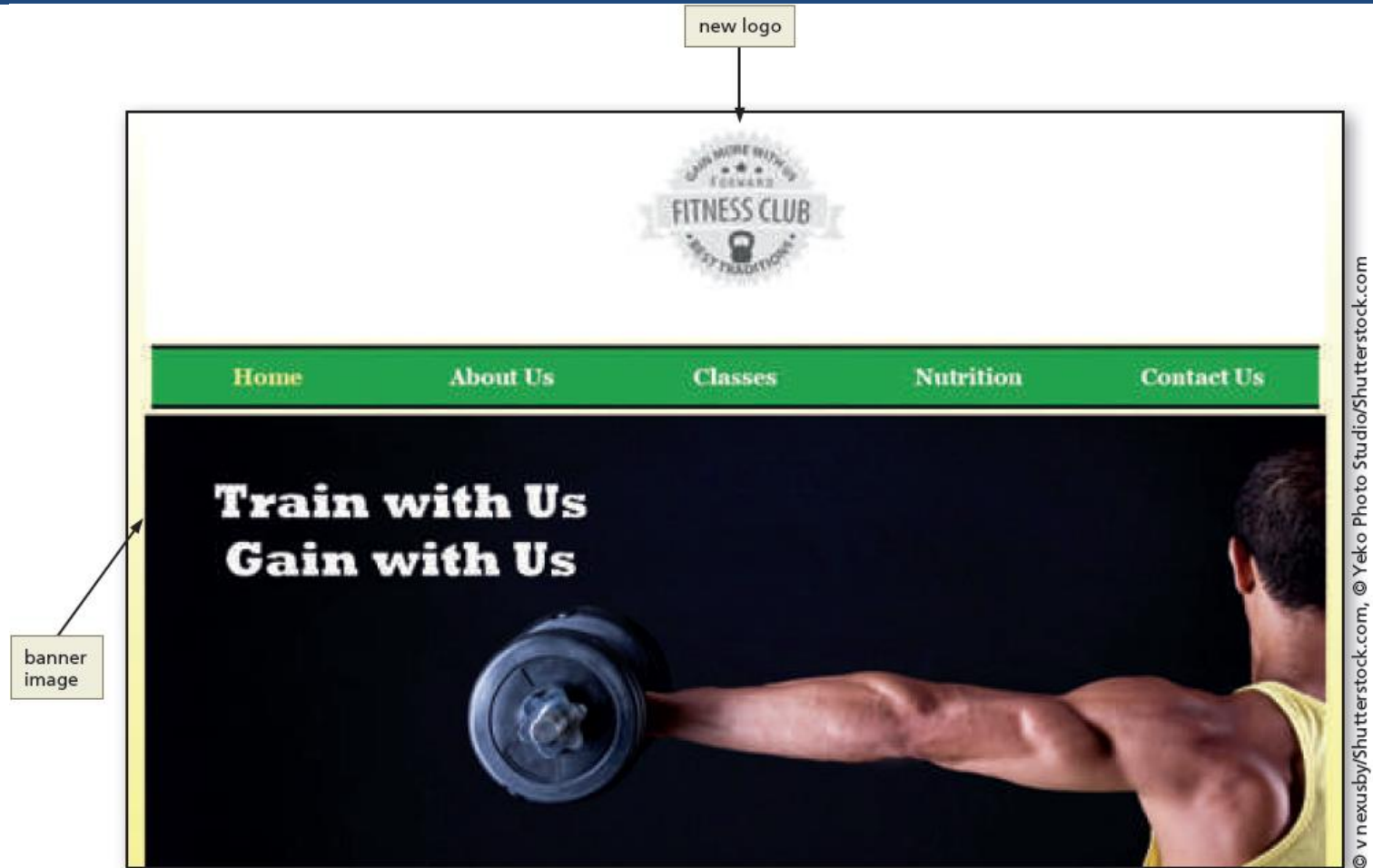
Figure 7–17

4.2 To Add a figure Element to the Home Page

heading element

index.html file

Line 59

```
59    <h1>Start Today!</h1>
60
61    <figure>
62        <a href="classes.html"><img src="images/group.jpg" alt="group fitness"></a>
63        <a href="nutrition.html"><img src="images/nutrition.jpg" alt="good nutrition"></a>
64        <a href="contact.html"><img src="images/signup.jpg" alt="sign up icon"></a>
65    </figure>
```

figure element

anchor elements

img elements

Figure 7–18

4.2 To Add a figure Element to the Home Page

Figure 7–19

comment

Line 189

```
189  /* Style for anchor elements within the figure element */
190  figure a {
191      background-color: transparent;
192      padding: 0;
193      text-decoration: none;
194  }
195
196  }
```

style rule for figure a

media query closing brace
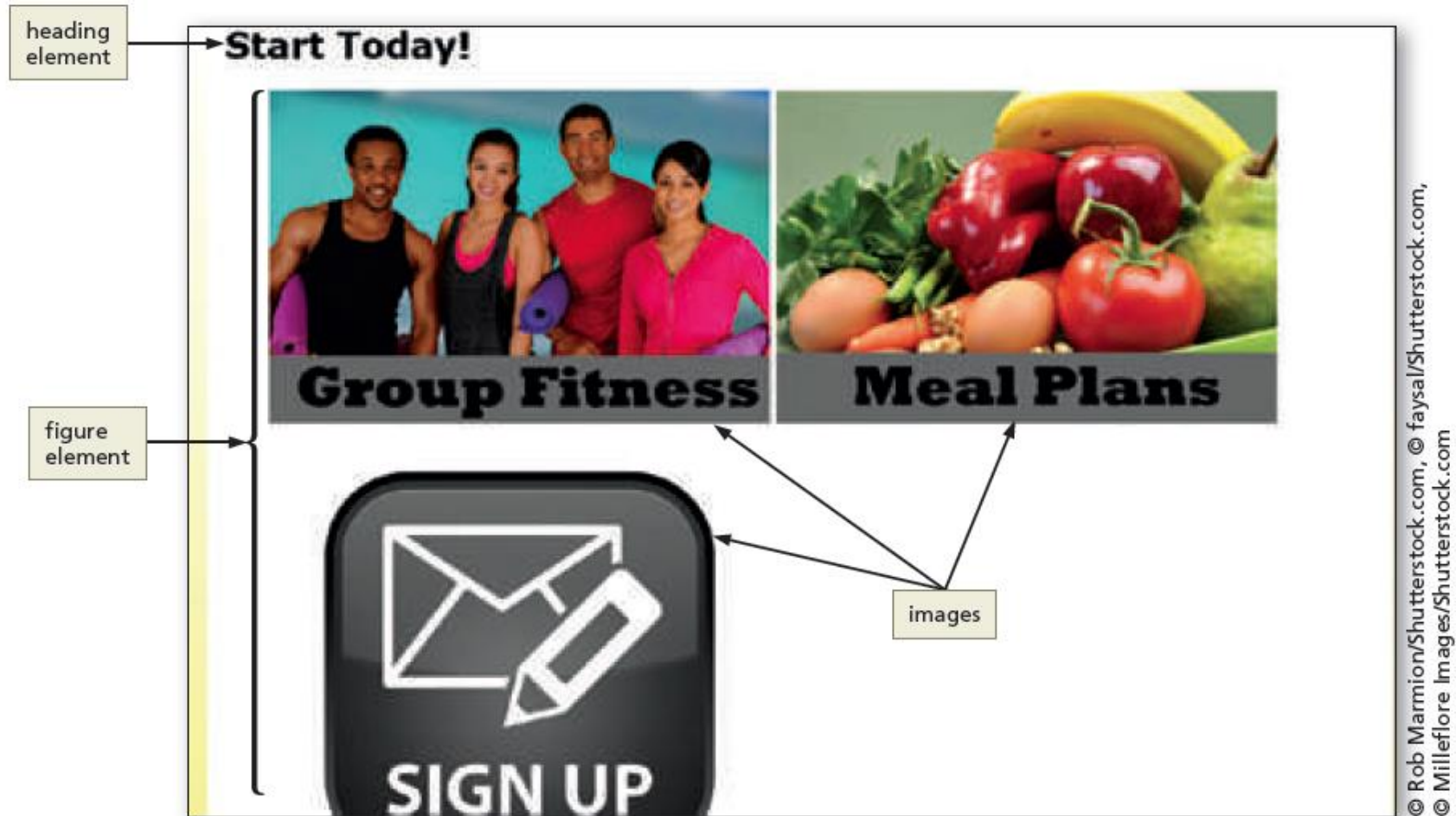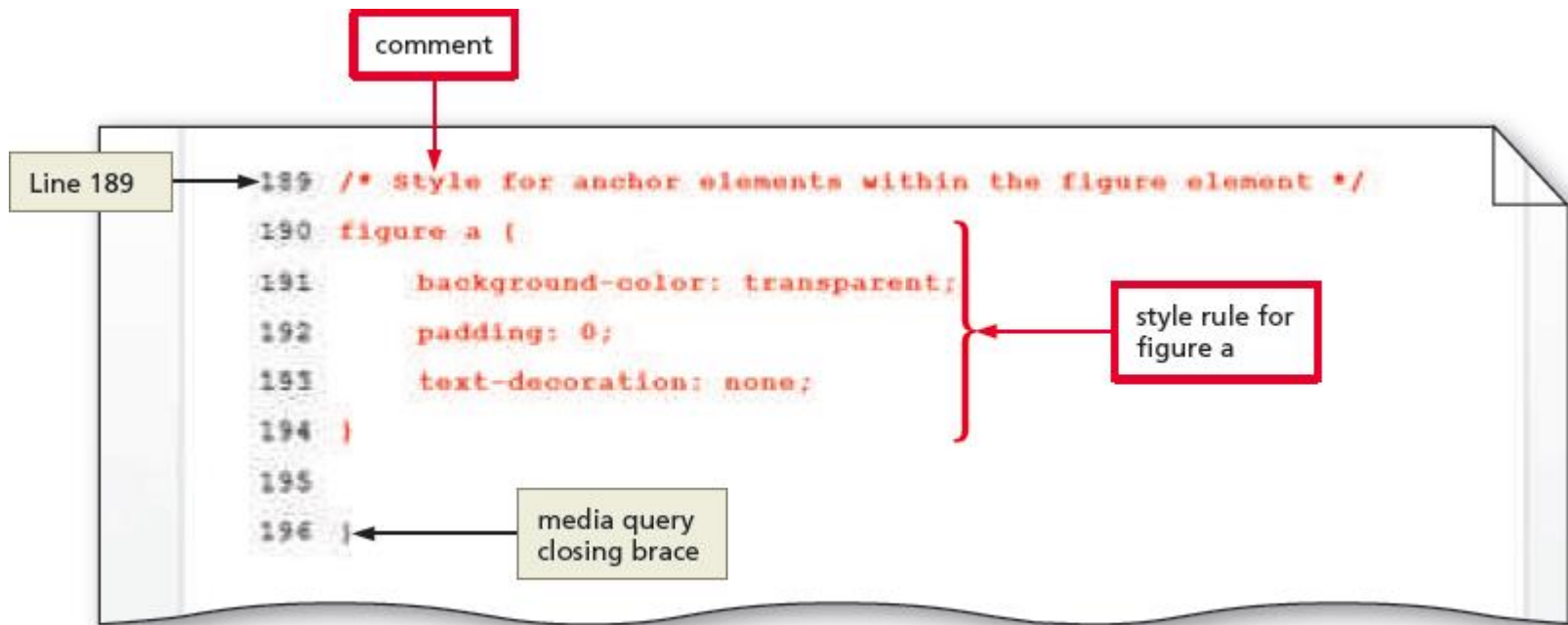
Figure 7–35

Break

Break

5. To Add Section Elements to the About Us Page
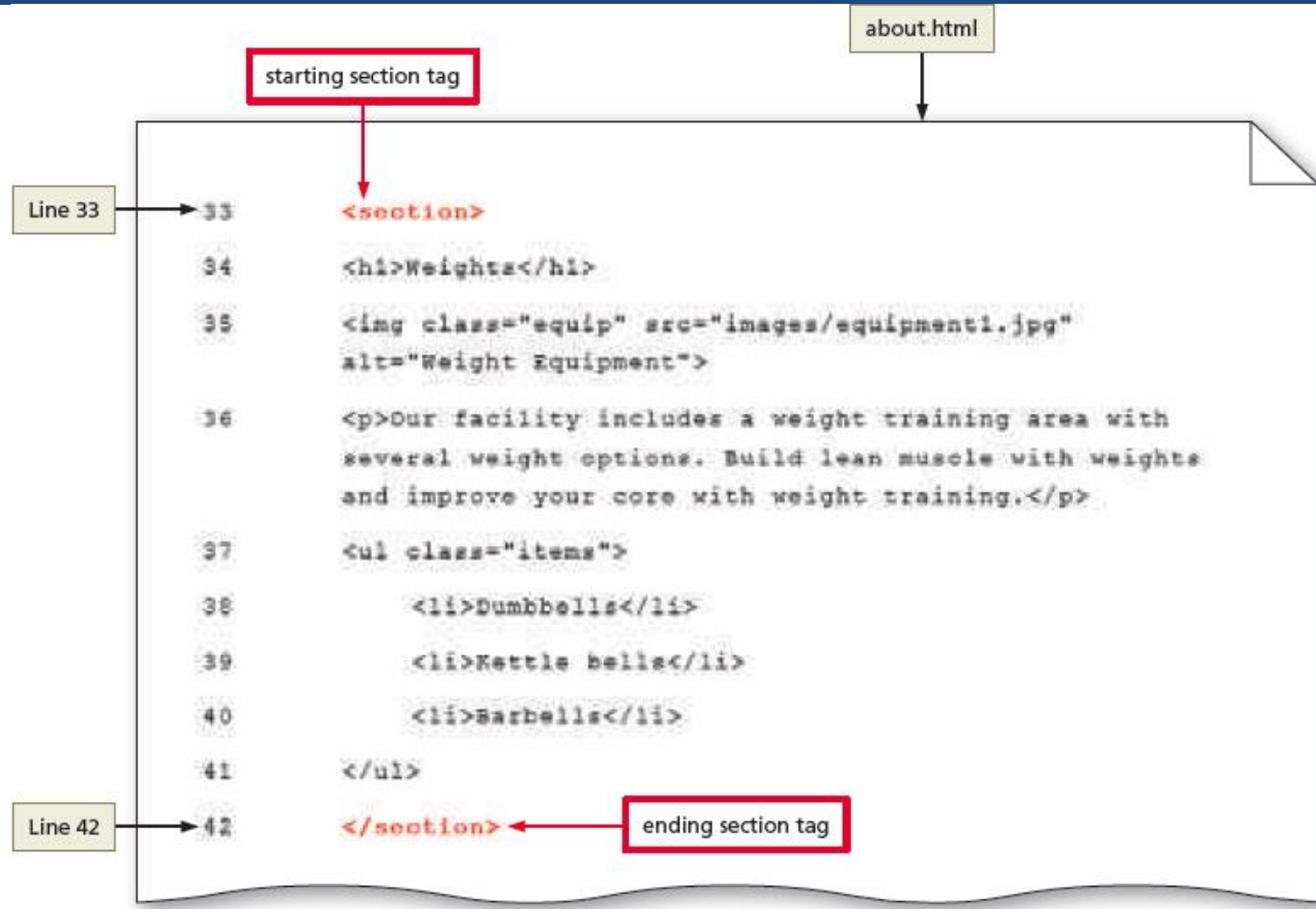
Figure 7–54

Figure 7–60

5.1 To Style the About Us Page for a Tablet Viewport

Personal Training

Our certified personal trainers work with you one on one to help you obtain your fitness goals. Our personal trainers keep you motivated and push you farther than you would push yourself. When you feel like you cannot do one more rep, they tell you that you can. Personal training has many benefits.

- Accountability
- Personalized Program
- Consistent Support and Motivation

section style rules applied for tablet viewport

Common Exercises

The following are common exercises that we encourage our clients to do as part of their daily exercise routine.

Burpee
Burpees are a great, full body exercise to increase your strength and endurance. Begin in a standing position, drop into a squat and extend your hands forward, kick your feet back and then forward again quickly, and then jump up from a squatted position.

Plank
Planks build your core strength. To perform a plank, get in a push up position and rest your forearms on the floor. Hold the position as long as you can.

Mountain Climber
Mountain climbers are a good cardio exercise. Place your hands on the floor in a push up position, then bring one knee up to your chest and then switch as quickly as you can (as though you are climbing a mountain).

For more information about how to stay active, visit fitness.gov.

Photo courtesy of Jessica Minnick

link formatting is modified

Figure 7–61

7. Creating the Nutrition Page

Nutrition page wireframe for tablet viewport

Header

Navigation

Banner Div

Main

Article	Article	Article
Image	Image	Image
Aside	Aside	Aside

Footer
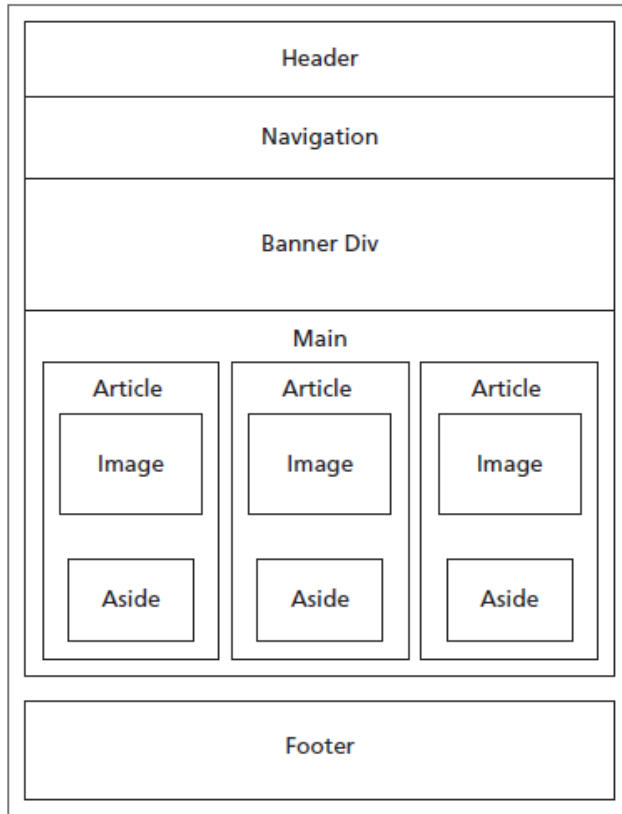
Figure 7–70

Nutrition page wireframe for desktop viewport

Header	Navigation

Banner Div

Main

Article	Article	Article
Image	Image	Image
Aside	Aside	Aside

Footer
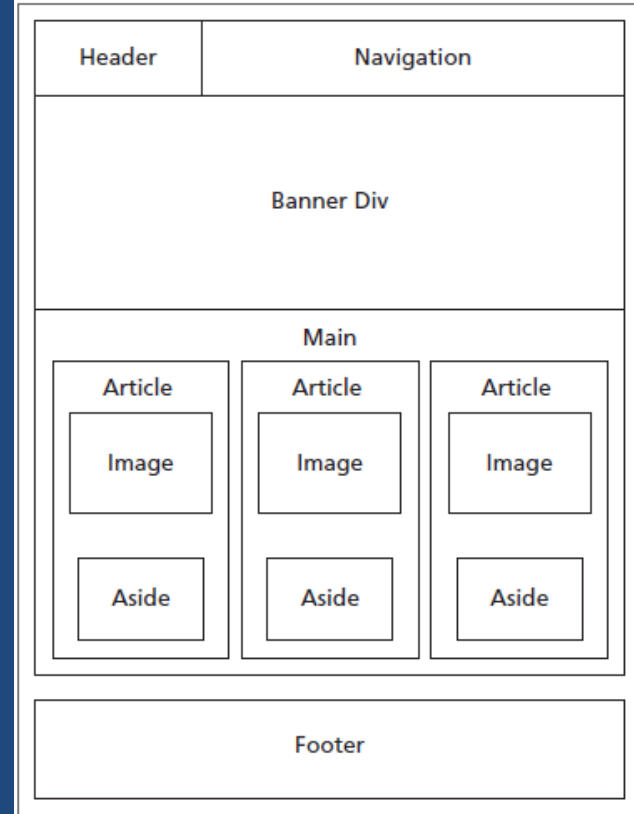
Figure 7–71

7. Creating the Nutrition Page

- **Overflow property** – It is used to specify how to manage content when it "spills over" into another element

7.1 To Create the Nutrition Page

Figure 7–72

Figure 7–73

Figure 7–74

7.2 To Add article & aside Elements to the Nutrition Page
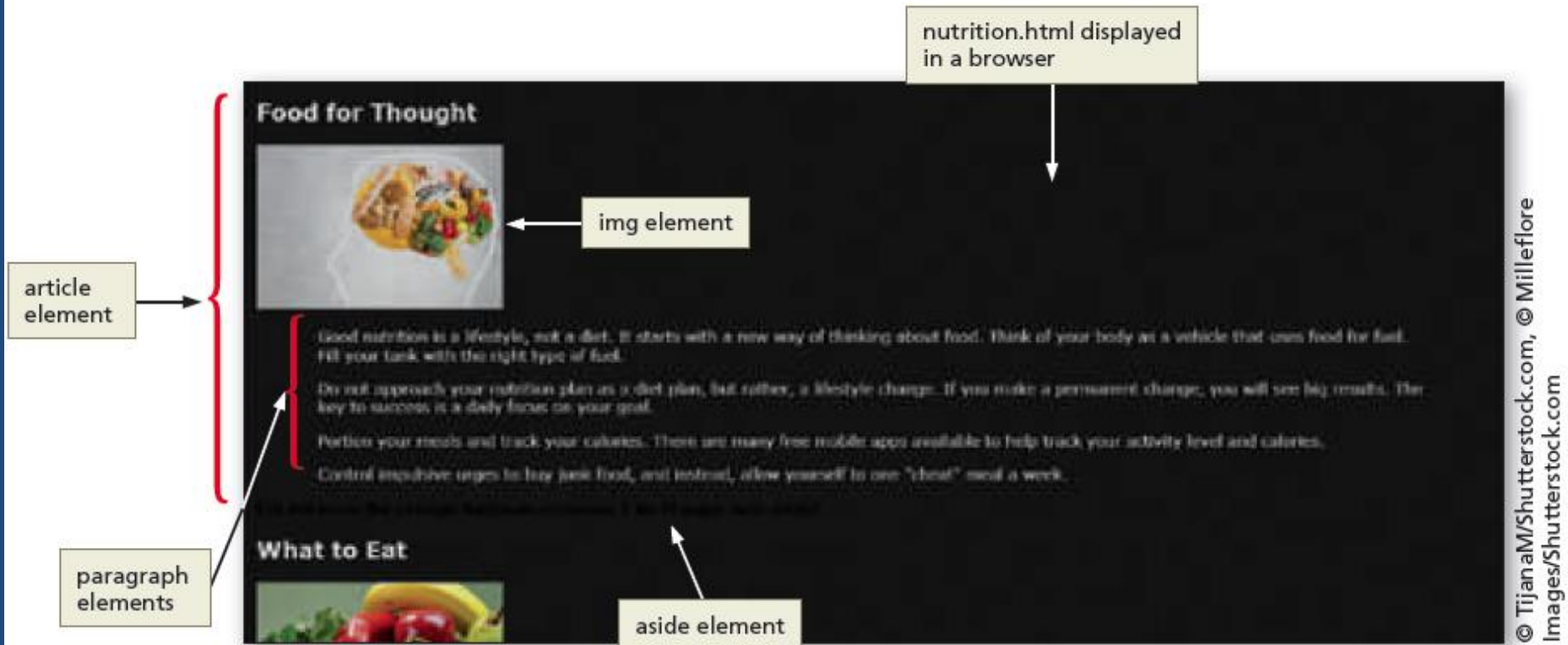
Figure 7–79

7.3 To Create a Three-Column Layout for the Nutrition Page in a Tablet Viewport

comment added

styles.css file

Line 229

```
229   /* Style for article element */
230   article {
231       background-color: #C1D9CA;
232       float: left;
233       margin: 0.5%;
234       padding: 0.5%;
235       text-align: center;
236       width: 31%;
237   }
```

style rule for article element
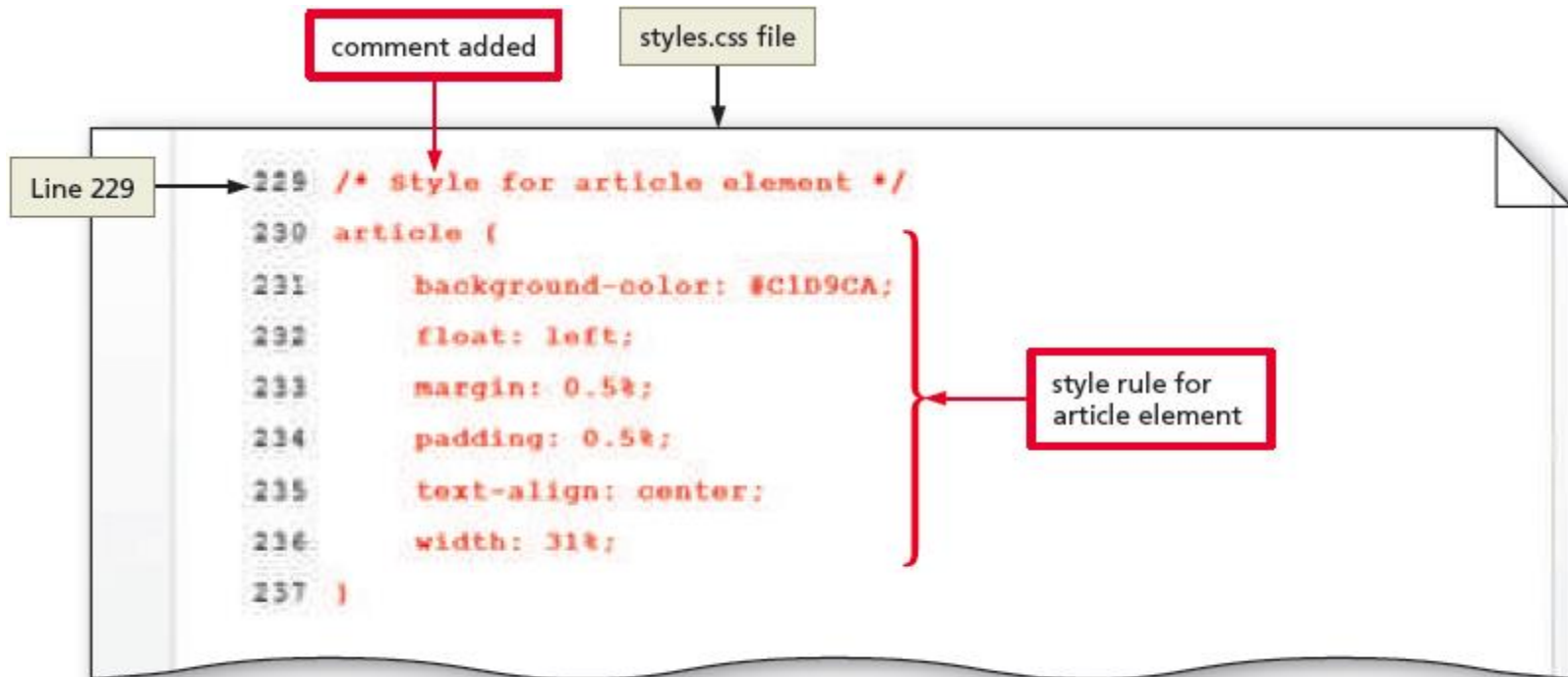
Figure 7–82

7.3 To Create a Three-Column Layout for the Nutrition Page in a Tablet Viewport
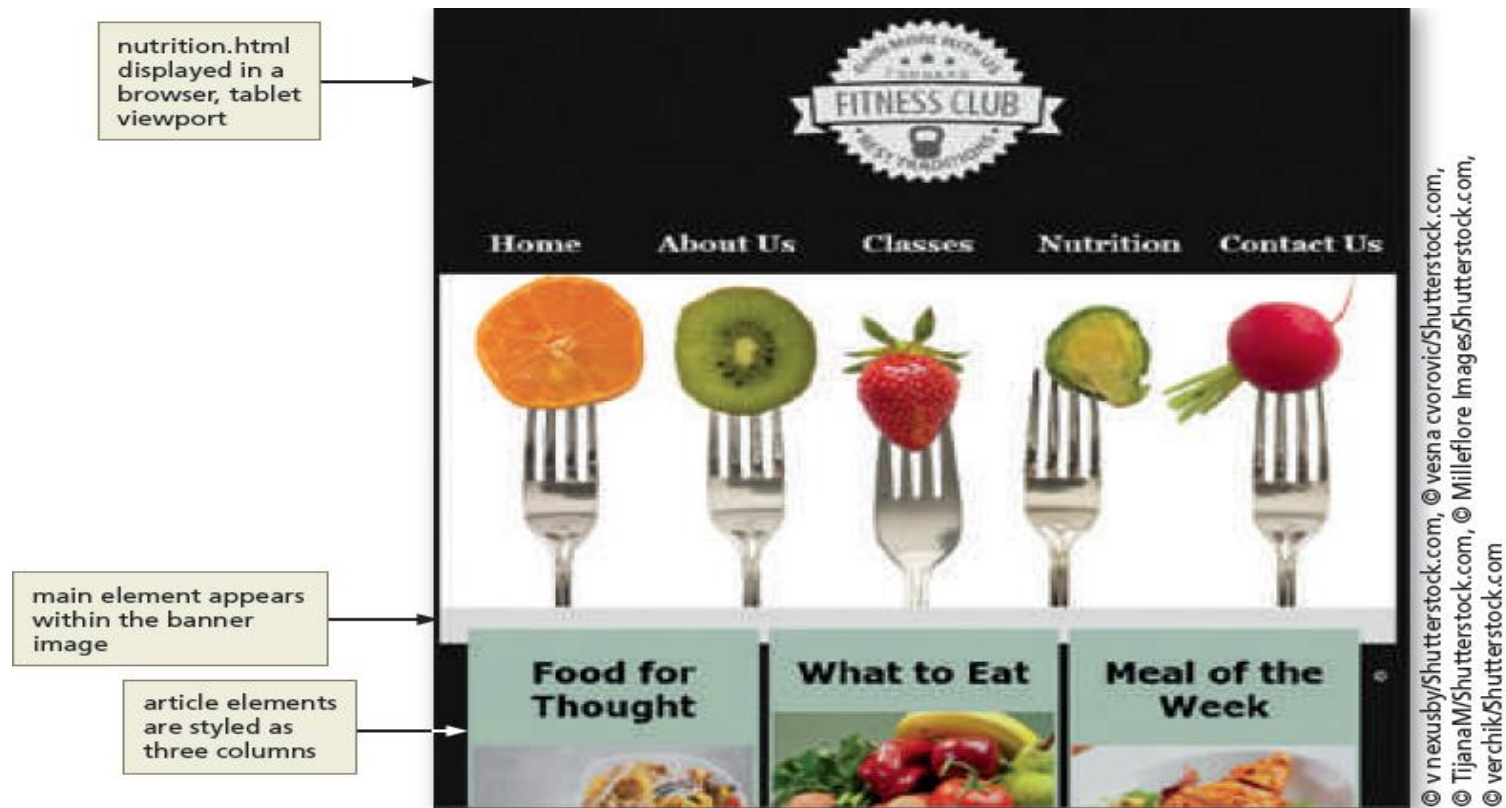
Figure 7-83

7.4 To Apply the Overflow Property to the main Element Style Rule

- The **main** element is not in the correct area in Figure 7–83

- The `float` property used within the article style rule displaces the `main` element to the banner image area

- To correct this issue, apply an `overflow` property with a value of `auto` to the `main` style rule contained within the tablet media query

  - Use `overflow: auto;` to add a property and value

main element appears below banner image

Figure 7–84

7.5 To Style the article Element for the Nutrition Page

comment added

Line 240

```
240    /* Style for image element contained within the main article
       element */
241    main article img {
242         border: solid 0.1em #1D1D1C;
243         margin-left: auto;
244         margin-right: auto;
245    }
```

style rule for main article img element
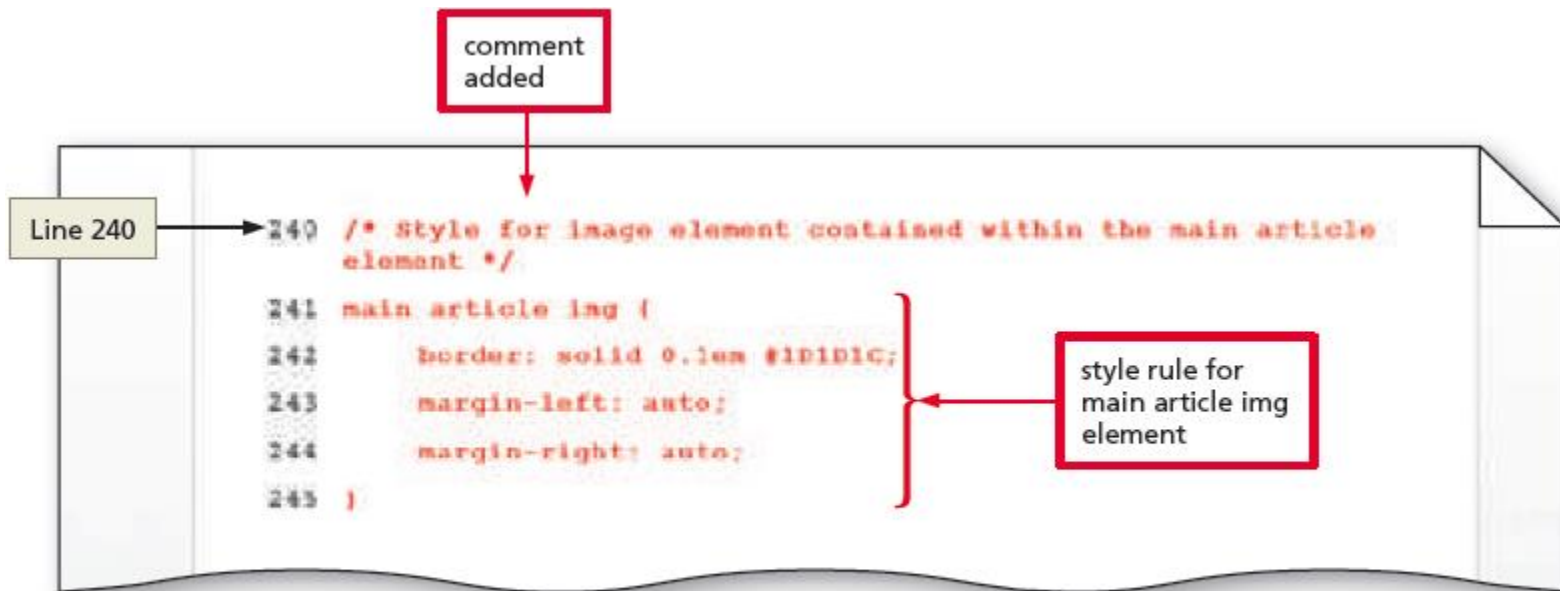
Figure 7–85

7.5 To Style the aside Element for the Nutrition Page

Figure 7–89

7.5 To Style the aside Element for the Nutrition Page

Figure 7–90

HTML5 & CSS3
8th Edition

Chapter 7 Complete