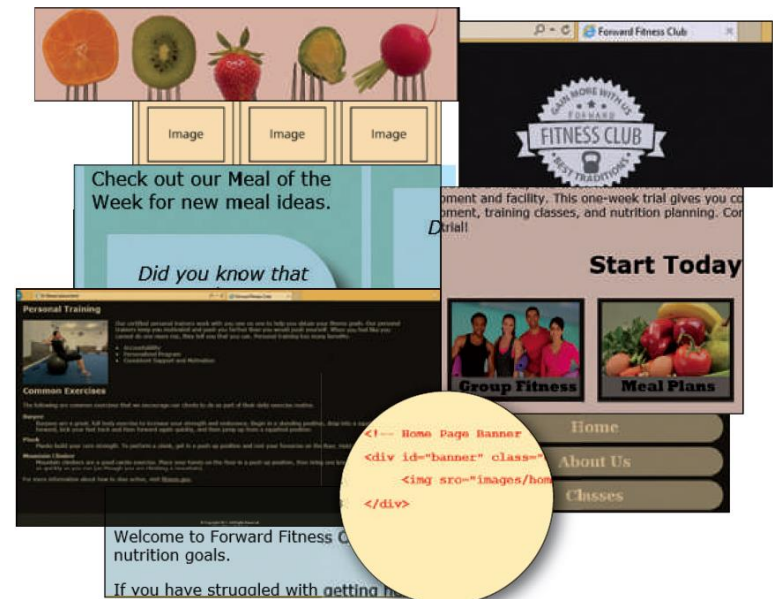


# Web Design with HTML5 & CSS3 8<sup>th</sup> Edition

## Chapter 7

### Improving Web Design with New Page Layouts



# 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
<code>&lt;article&gt; ... &lt;/article&gt;</code>	Indicates the start and end of an article area of a webpage. Contains content such as forum or blog posts.
<code>&lt;aside&gt; ... &lt;/aside&gt;</code>	Indicates the start and end of an aside area of a webpage. Contains information about nearby content and is typically displayed as a sidebar.
<code>&lt;details&gt; ... &lt;/details&gt;</code>	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.
<code>&lt;figure&gt; ... &lt;/figure&gt;</code>	Indicates the start and end of a figure area of a webpage. Contains pictures and images.
<code>&lt;figcaption&gt; ... &lt;/figcaption&gt;</code>	Indicates the start and end of a figure caption area of a webpage. Defines a caption for a figure element.
<code>&lt;section&gt; ... &lt;/section&gt;</code>	Indicates the start and end of a section area of a webpage. Contains a specific grouping of content on a webpage.
<code>&lt;summary&gt; ... &lt;/summary&gt;</code>	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.
<code>&lt;time&gt; ... &lt;/time&gt;</code>	Indicates the start and end of a time area of a webpage. Contains a date/time on a webpage.

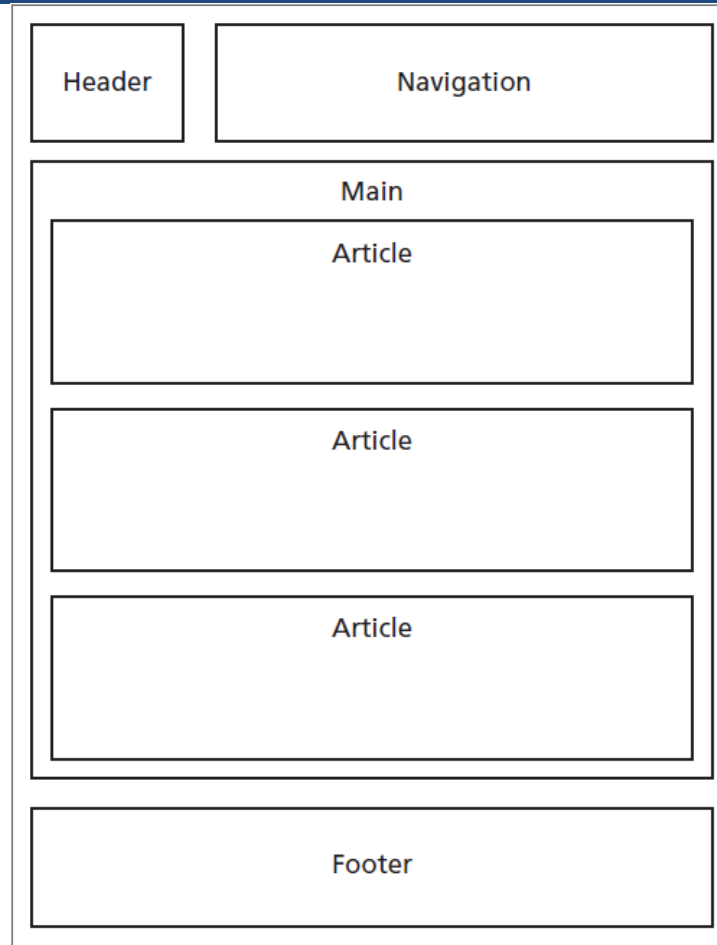
# 3.1 Article Element

- 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



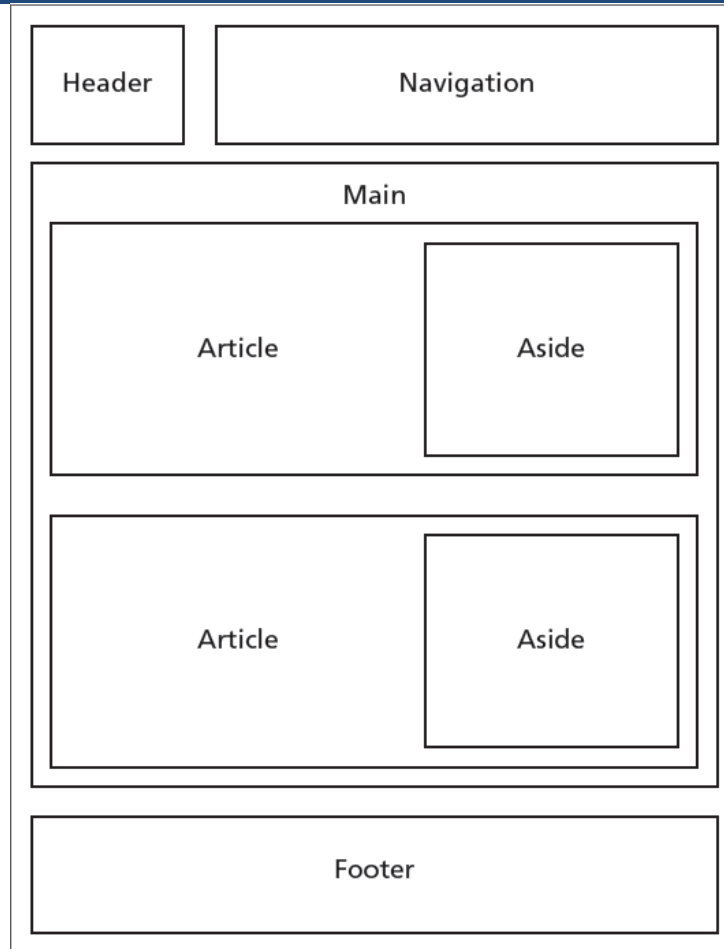
**Figure 7-4**



## 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

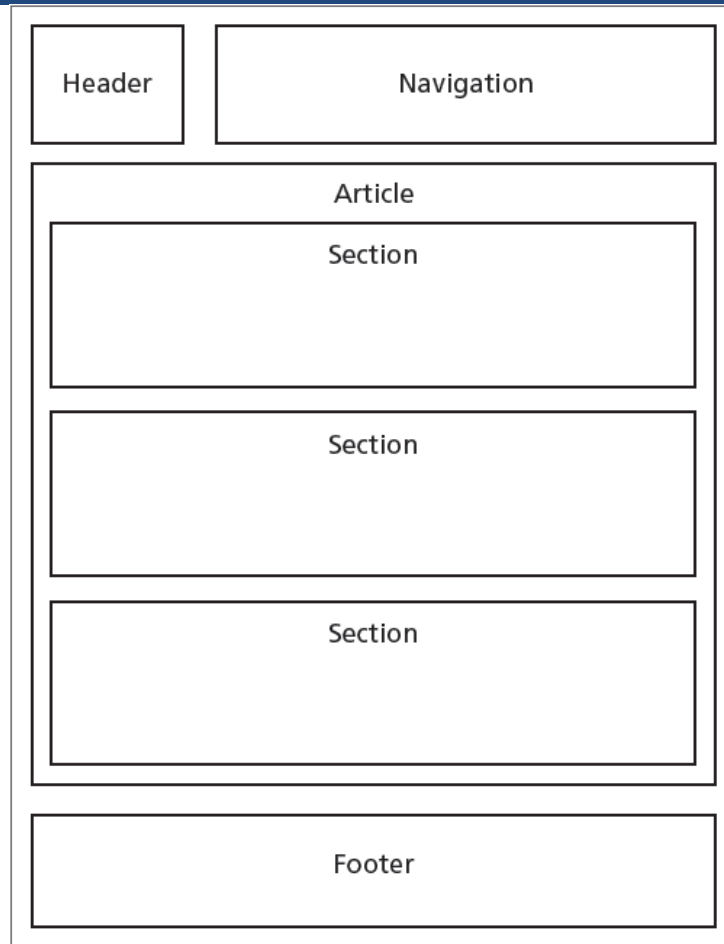
- The **section element** is an element that
  - represents a generic section of a document or application
    - a section is a thematic grouping of content
    - the theme of each section should be identified as a child of the section element
  - is not a generic container element. A general rule is 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>`

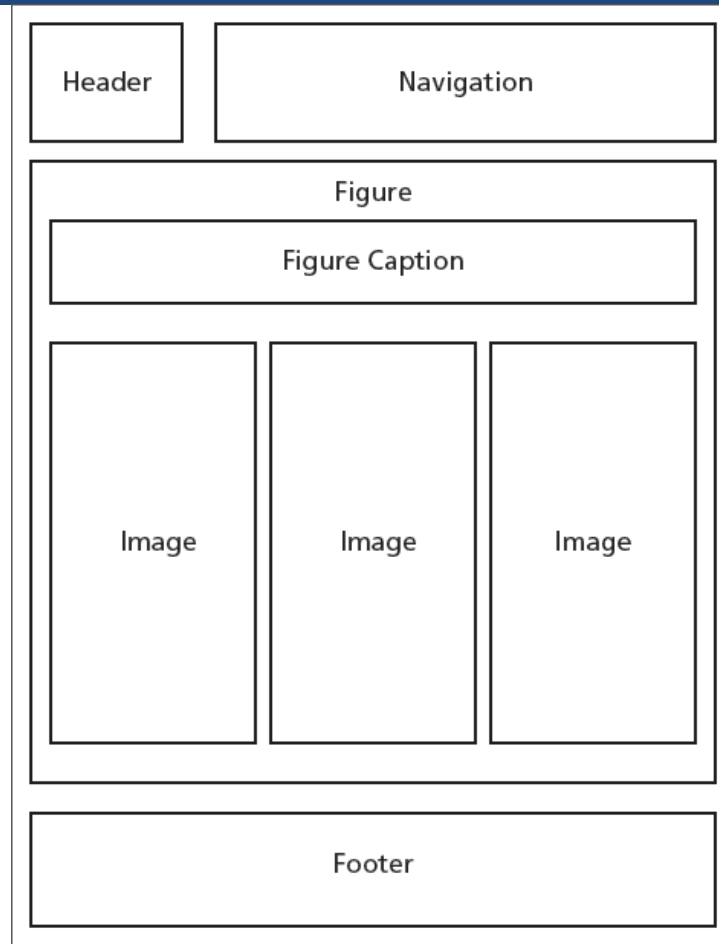
## 3.4 Figure and Figure Caption Elements

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

```
<figure>
  <figcaption>New York City Highlights</figcaption>
  
  
  
</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

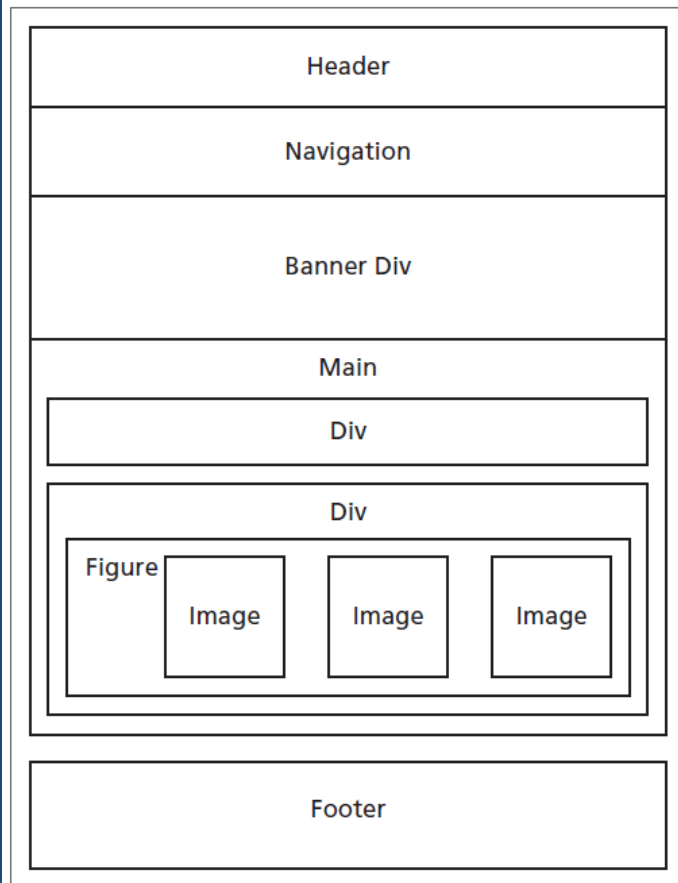


Figure 7-14

Home page wireframe for desktop viewport

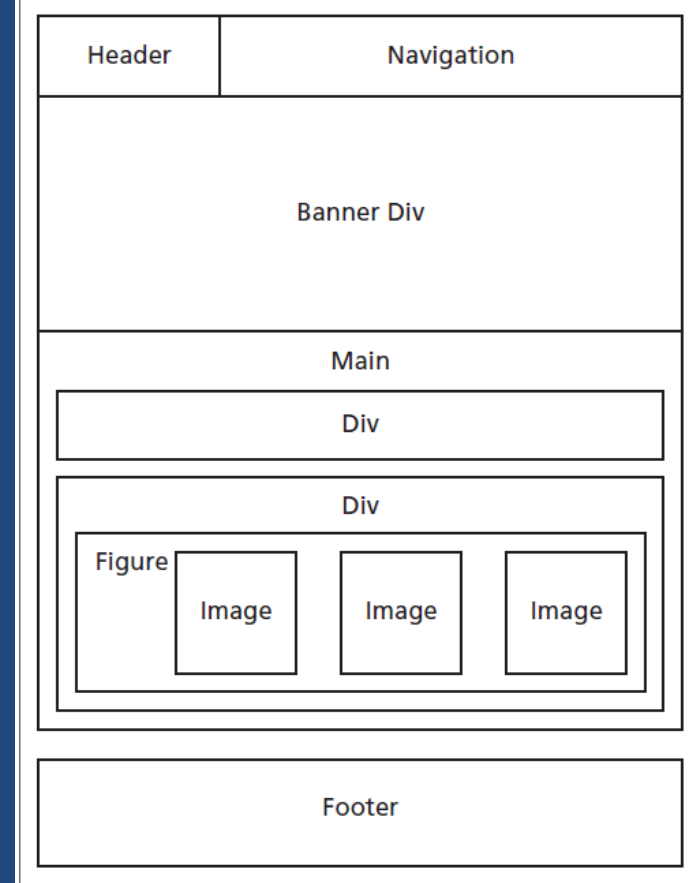


Figure 7-15

# 4.1 To Add a New div Element to the Home Page

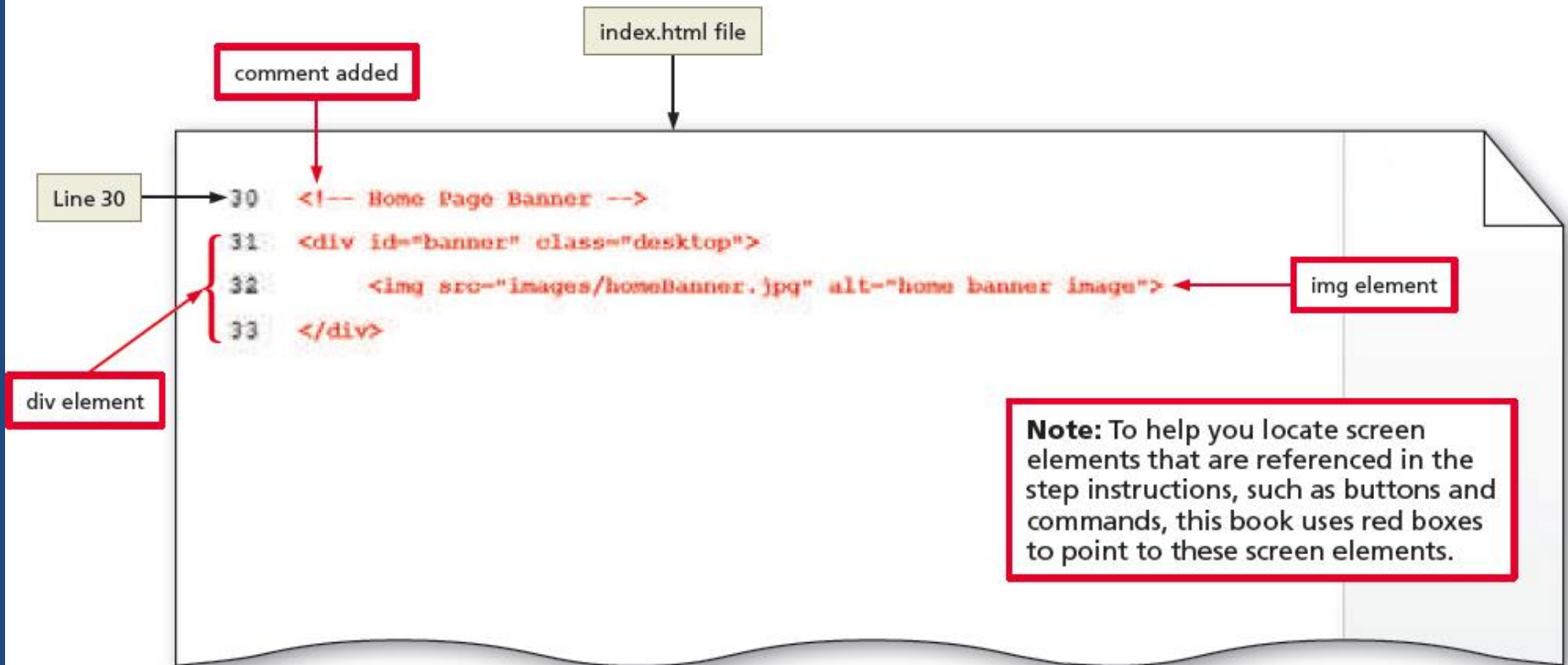


Figure 7-16

# 4.1 To Add a New div Element to the Home Page

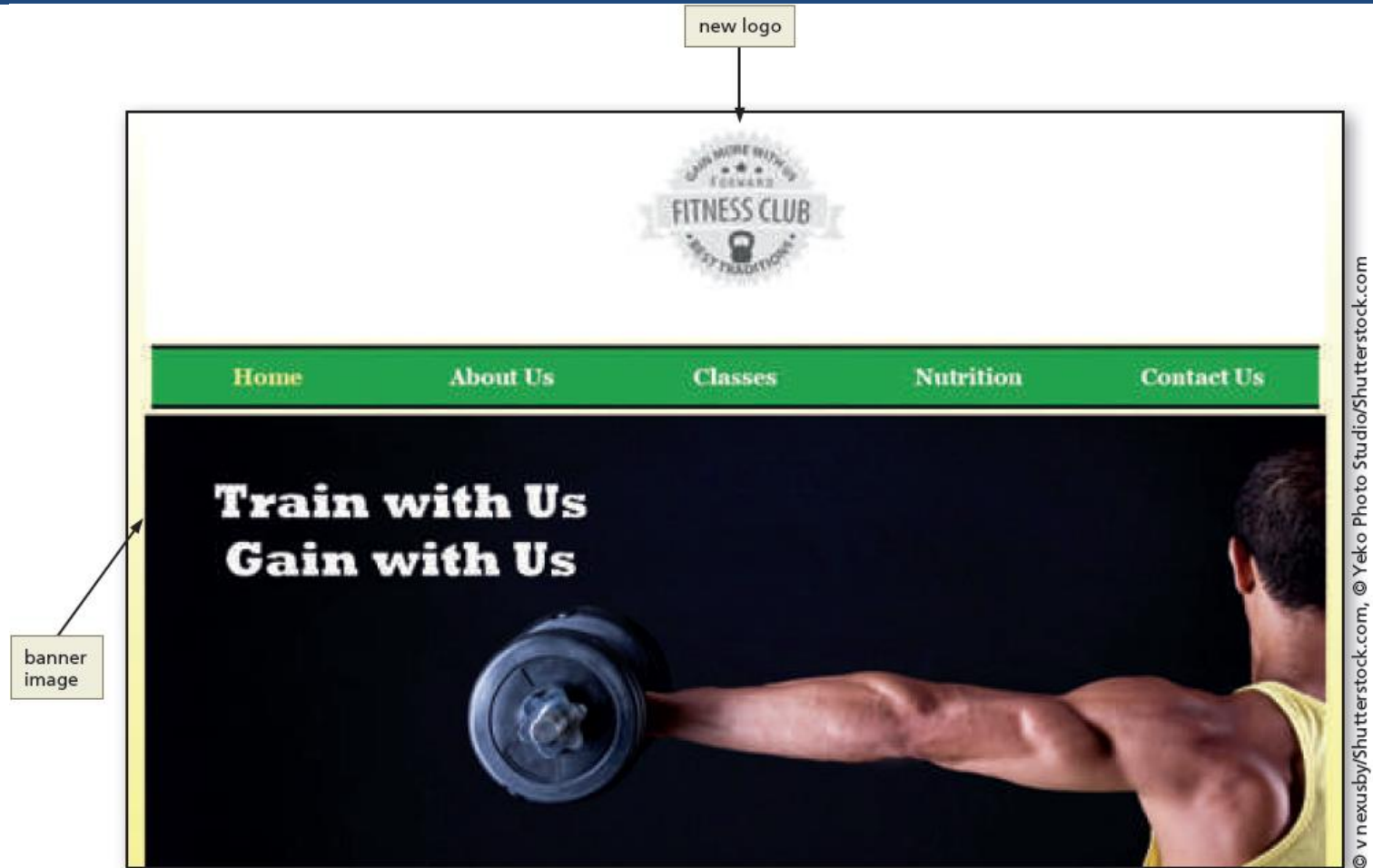


Figure 7-17

## 4.2 To Add a figure Element to the Home Page



Figure 7-18

## 4.2 To Add a figure Element to the Home Page

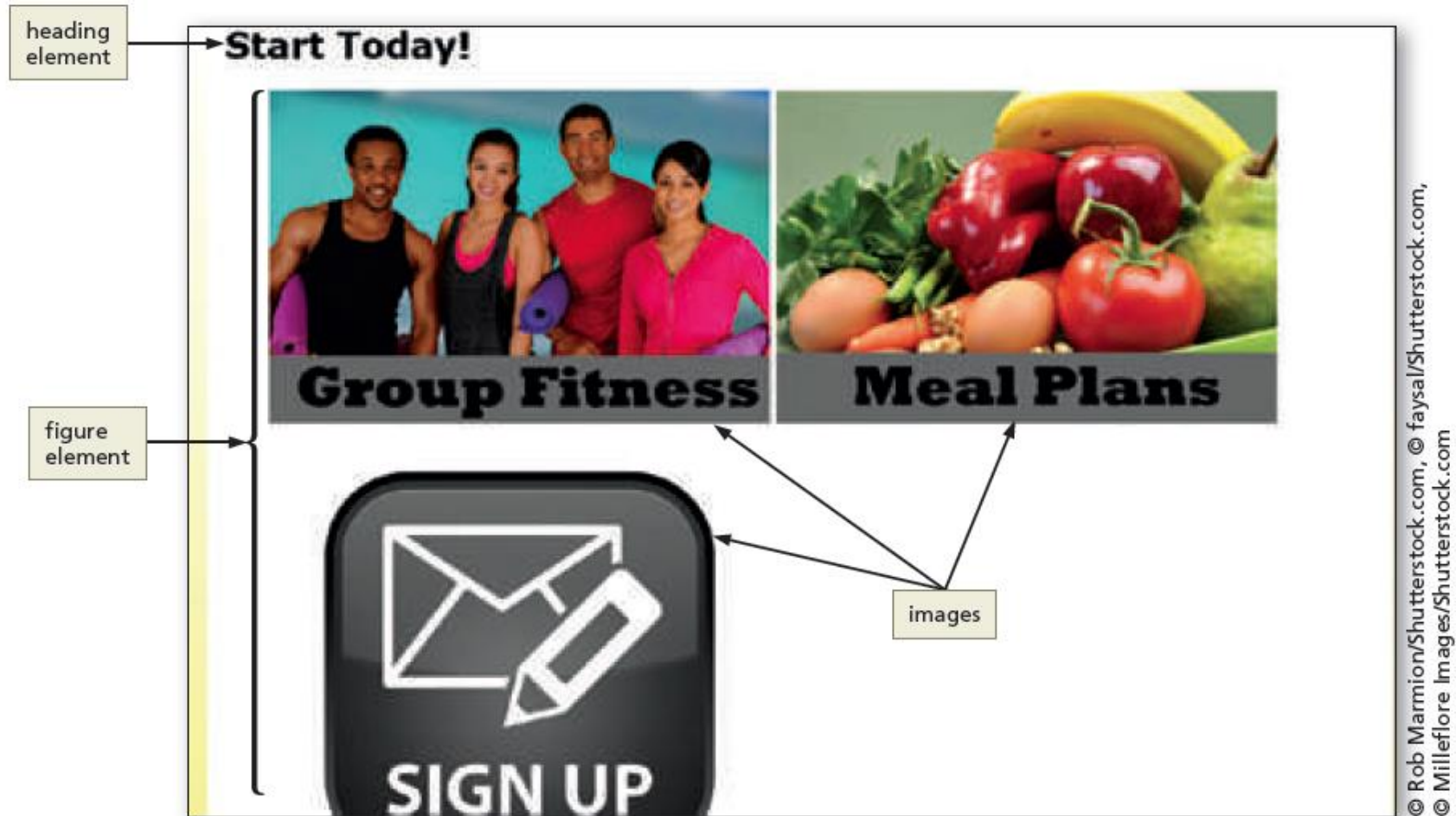


Figure 7-19



## 4.3 To Add New Style Rules to the Tablet Viewport

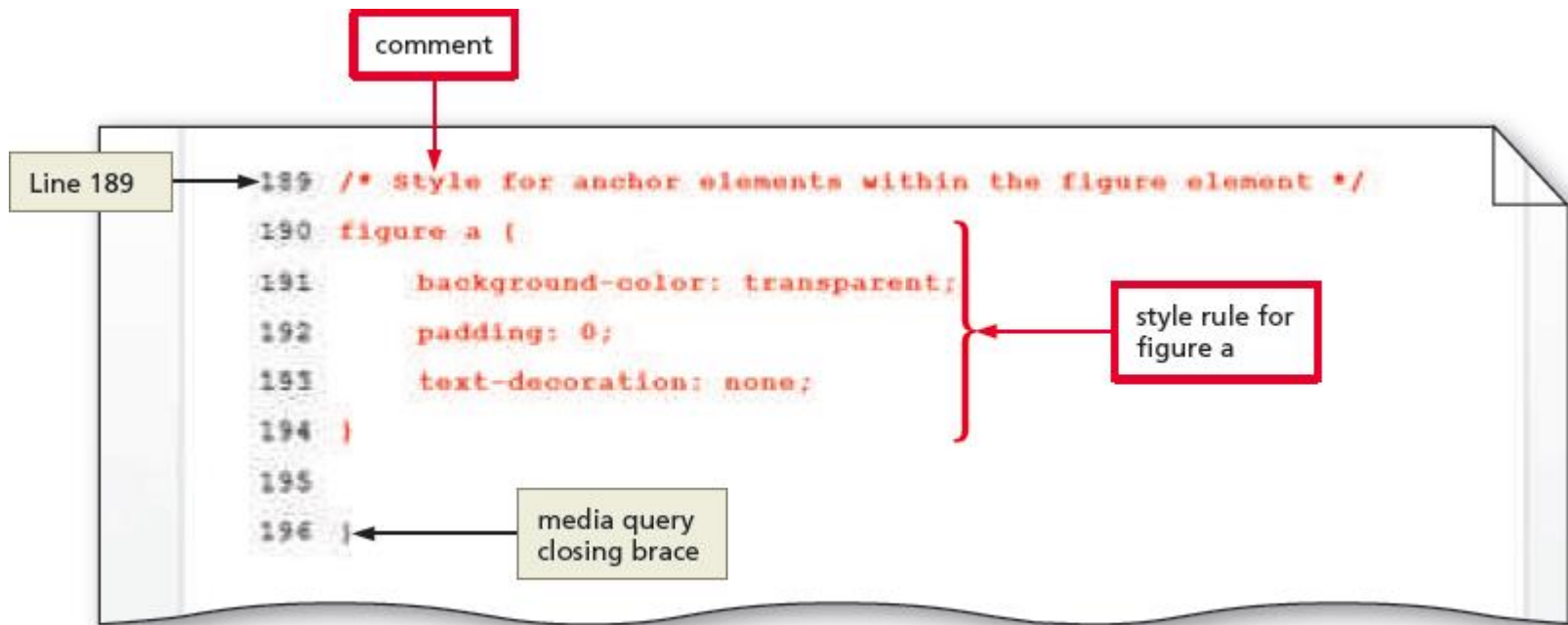


Figure 7-35

# Break

Break

# 5. To Add Section Elements to the About Us Page

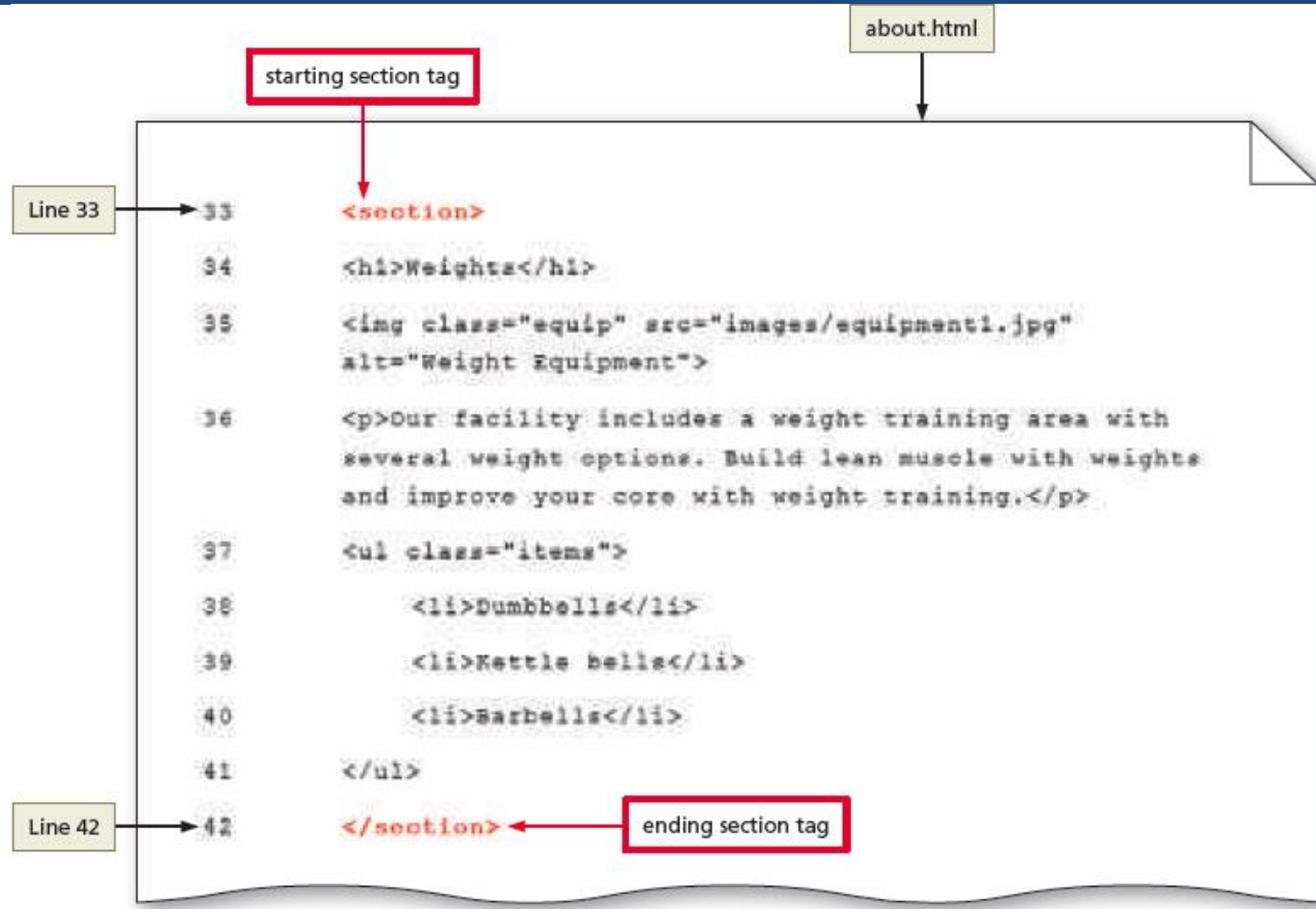


Figure 7-54

# 5.1 To Style the About Us Page for a Tablet Viewport

```
202 /* Style for h1 element within the section element */
203 section h1 {
204     text-align: left;
205 }
206
207 /* Style for anchor element within the section element */
208 section a {
209     background-color: transparent;
210     color: #1B1D1C;
211     font-weight: normal;
212     padding: 0;
213     text-decoration: underline;
214 }
215
216 }
```

Diagram annotations:

- Line 202: comment
- Line 203: style rule for section h1
- Line 207: comment
- Line 208: style rule for section a
- Line 216: tablet media query closing brace

Figure 7-60

# 5.1 To Style the About Us Page for a Tablet Viewport

section style rules applied for 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

## 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](http://fitness.gov).

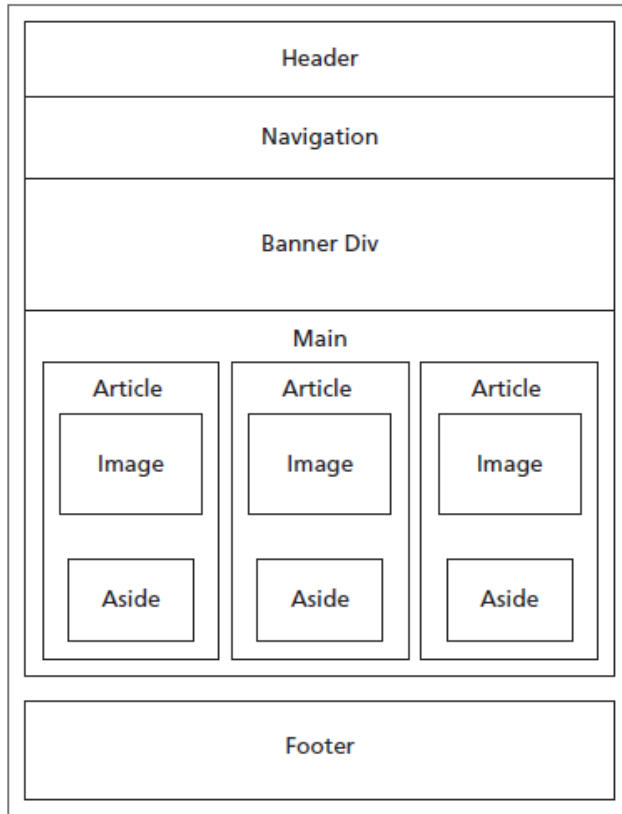
Photo courtesy of Jessica Minnick

Figure 7-61

link formatting is modified

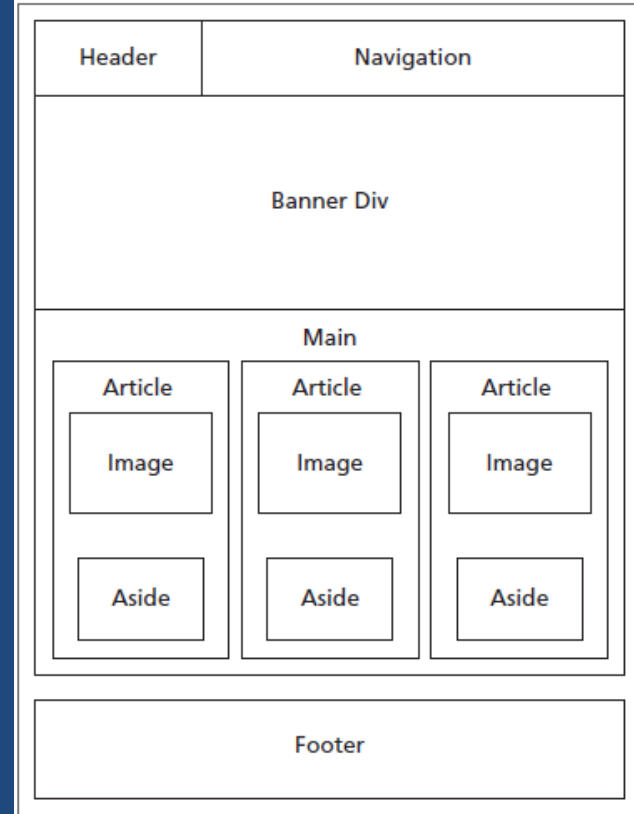
# 7. Creating the Nutrition Page

**Nutrition page wireframe for tablet viewport**



**Figure 7-70**

**Nutrition page wireframe for desktop viewport**



**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



# 7.2 To Add article & aside Elements to the Nutrition Page

```
nutrition.html file
Line 38 38 <article>
39      <h2>Food for Thought</h2>
40      
41      <p>Good nutrition is a lifestyle, not a diet. It starts
paragraph elements with a new way of thinking about food. Think of your body
as a vehicle that uses food for fuel. Fill your tank with
the right type of fuel.</p>
42      <p>Do not approach your nutrition plan as a diet plan,
but rather, a lifestyle change. If you make a permanent
change, you will see big results. The key to success is a
daily focus on your goal.</p>
43      <p>Portion your meals and track your calories. There are
many free mobile apps available to help track your
activity level and calories.</p>
44      <p>Control impulsive urges to buy junk food, and instead,
allow yourself to one "cheat" meal a week.</p>
```

Figure 7-73

## 7.2 To Add article & aside Elements to the Nutrition Page

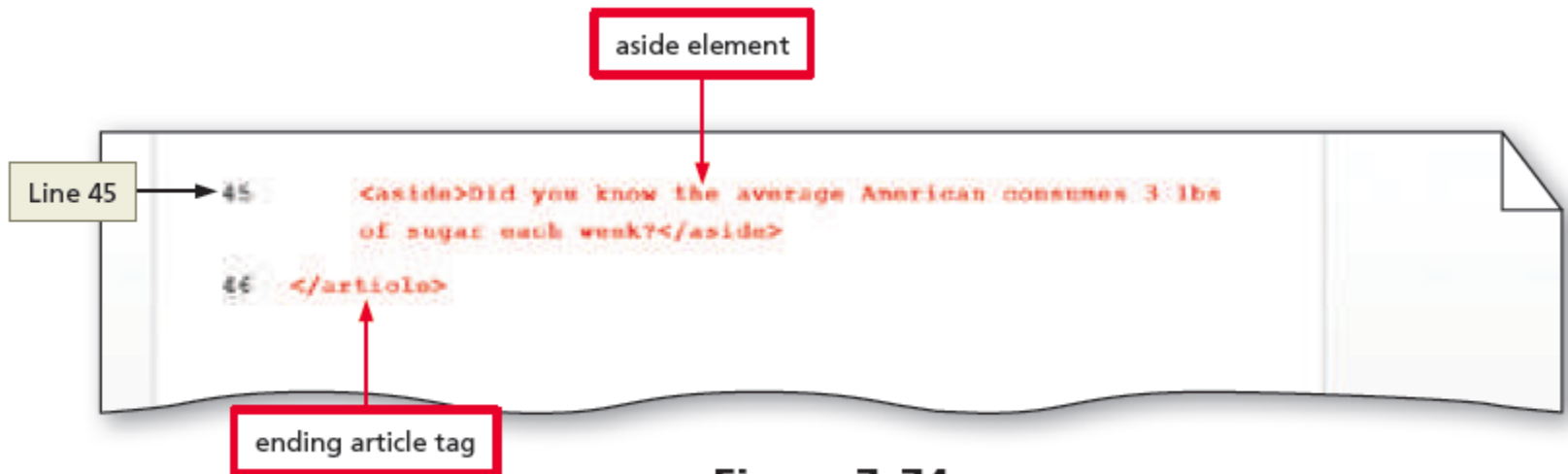


Figure 7-74

## 7.2 To Add article & aside Elements to the Nutrition Page

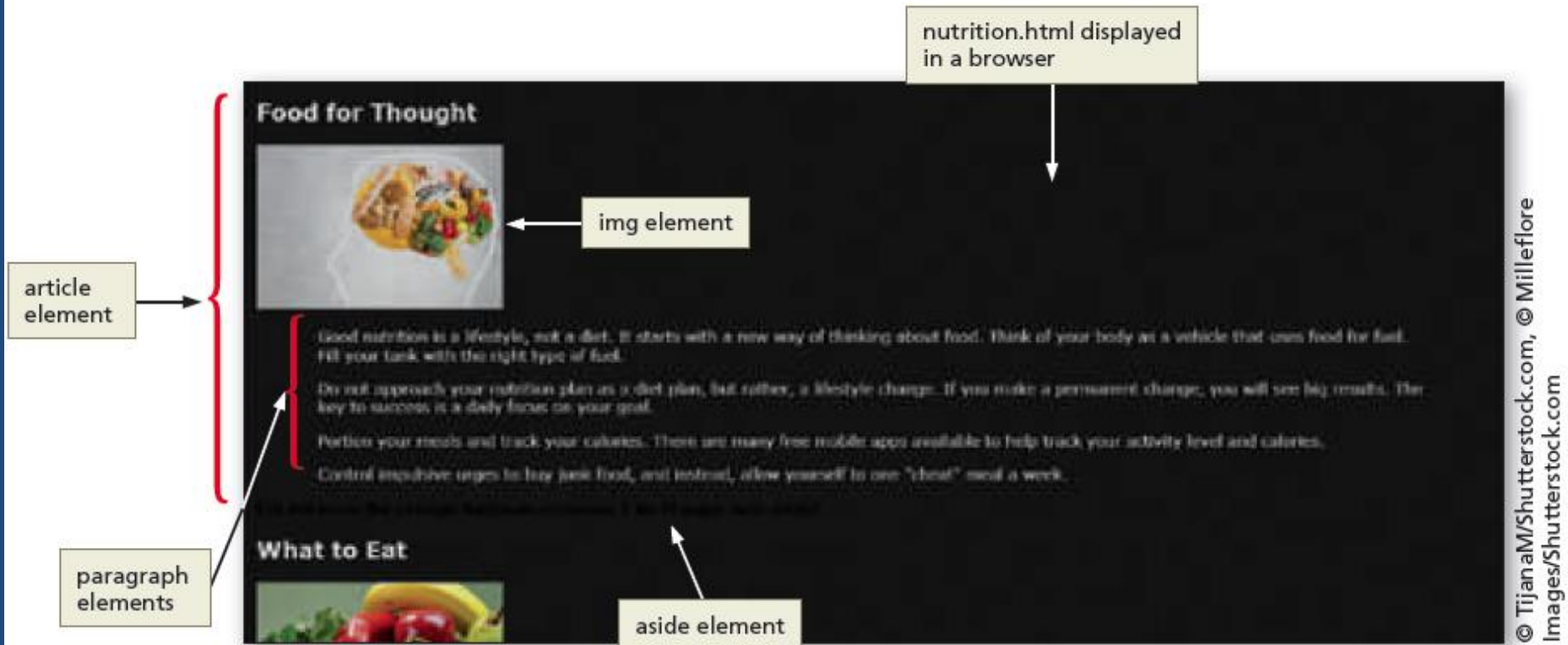


Figure 7-79

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

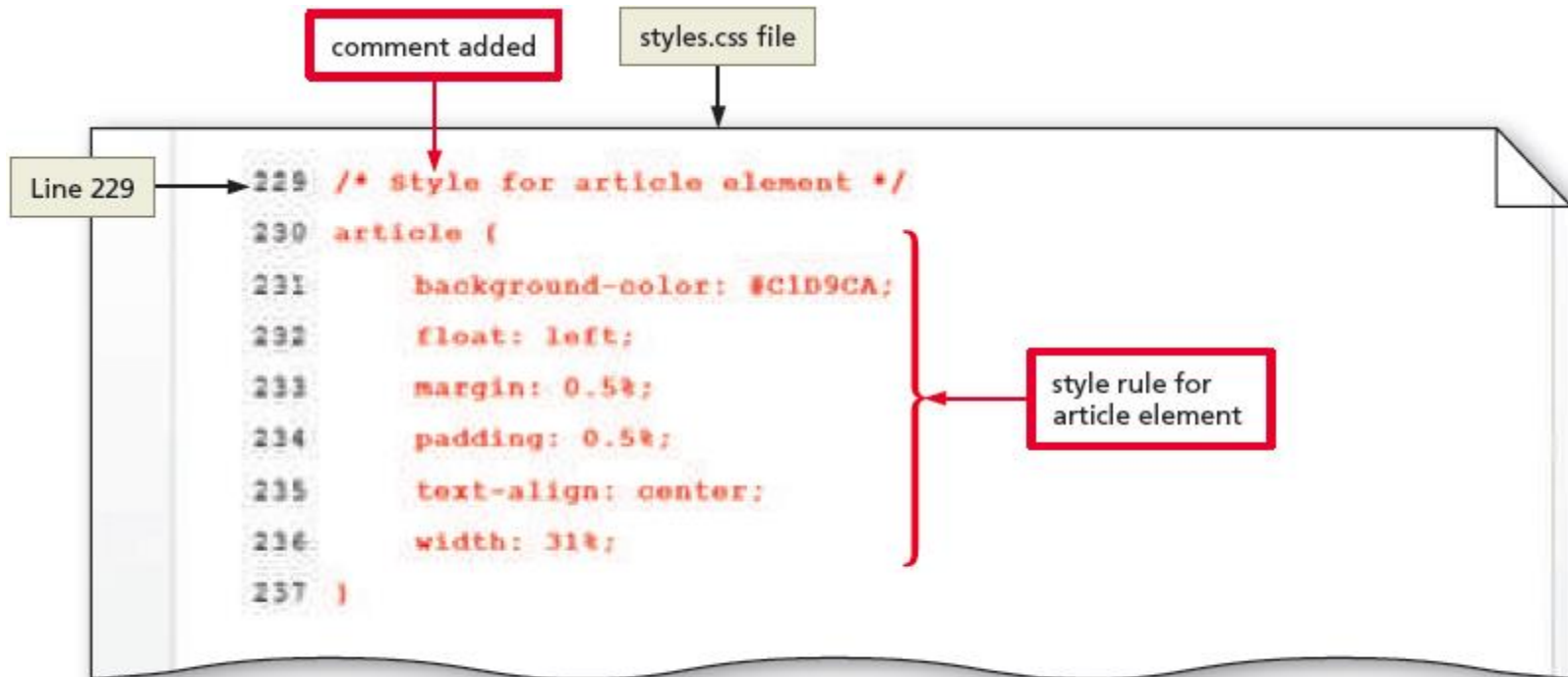


Figure 7-82

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

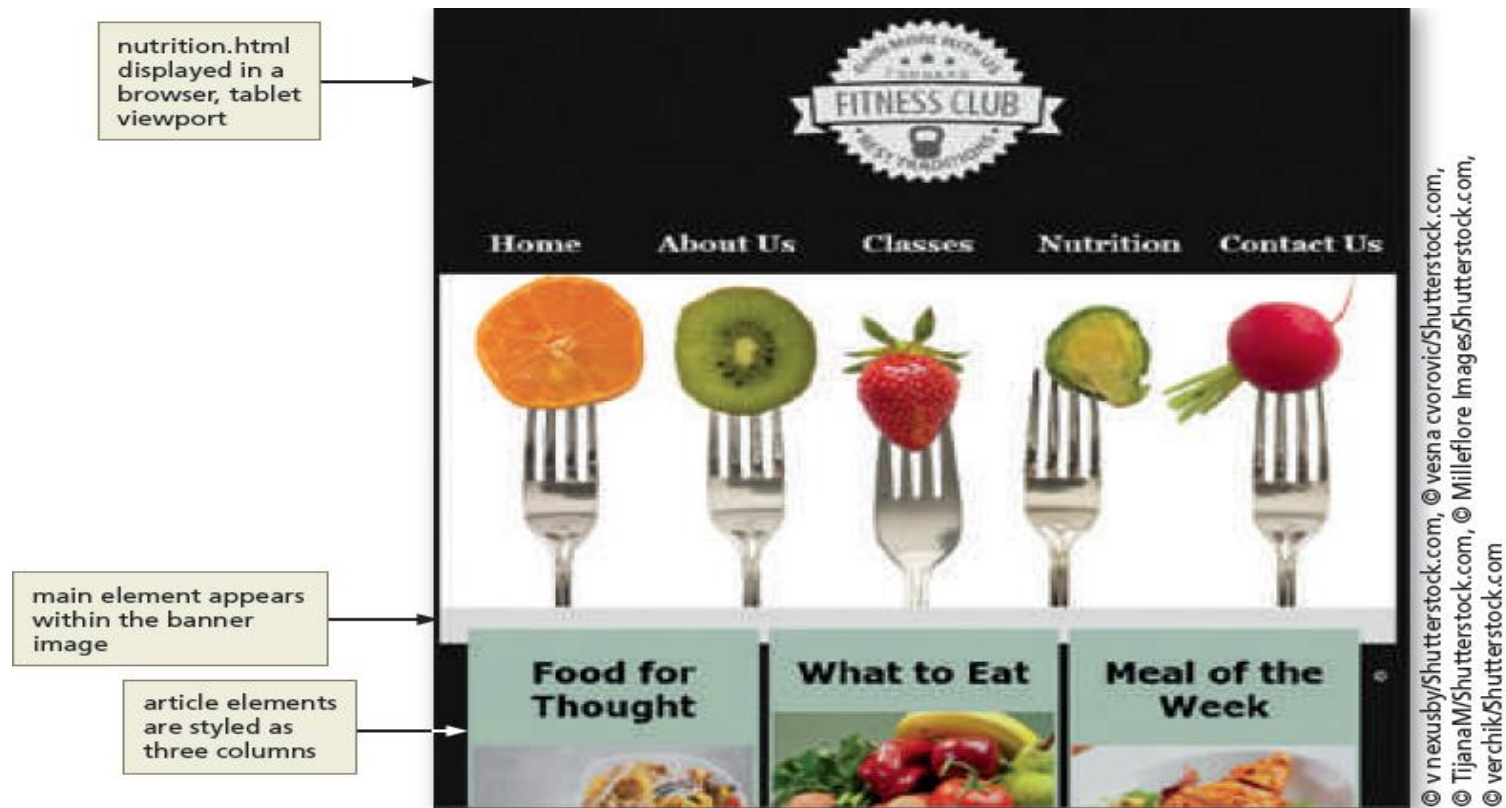


Figure 7-83

## 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

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



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Figure 7-84

## 7.5 To Style the article Element for the Nutrition Page

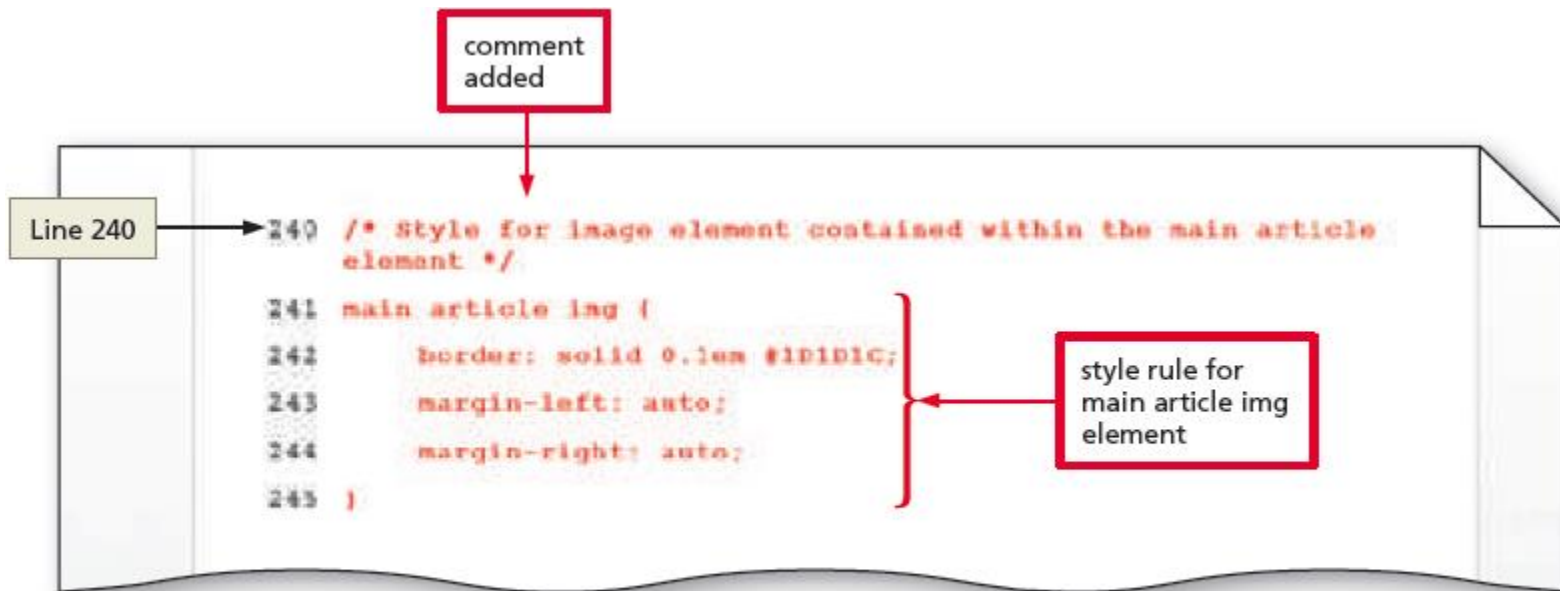


Figure 7-85



## 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

aside elements are formatted

nutrition plan as a diet plan, but rather, a lifestyle change. If you make a permanent change, you will see big results. The key to success is a daily focus on your goal.

Portion your meals and track your calories. There are many free mobile apps available to help track your activity level and calories.

Control impulsive urges to buy junk food, and instead, allow yourself to one "cheat" meal a week.

- Fat, such as olive oil, nuts, and seeds

Limit the consumption of bread, pasta, white potatoes, and processed food. These foods are high in carbohydrates.

When you shop for groceries, shop the outside aisles and buy organic when possible. Stock up on fresh vegetables, almond flour, and flax seed.

Check out our Meal of the Week for new meal ideas.

- 1 tsp lemon juice
- 1 tsp olive oil
- 1 tsp sea salt
- ¼ tsp pepper

Instructions:  
Combine all ingredients in a plastic bag and marinate for at least an hour. Preheat oven to 350 degrees. Bake chicken for 30-35 minutes or until juices run clear. Broil on high for two minutes or until brown. Serve with a fresh side salad.

*Did you know the average American consumes 3 lbs of sugar each week?*

*Did you know that avocados are a good source of Vitamin B7?*

*Did you know the average active adult should consume 2,000 calories a day?*

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Figure 7-90

# HTML5 & CSS3

## 8<sup>th</sup> Edition

### Chapter 7 Complete

The collage includes several overlapping screenshots from a fitness website:

- A banner with images of fruits (orange, kiwi, strawberry, kiwi, apple) and three placeholder boxes labeled "Image".
- A section titled "Check out our Meal of the Week for new meal ideas." with a sub-section "Did you know that".
- A "Start Today" section with a "FITNESS CLUB" badge and a "Start Today" button.
- A "Personal Training" section with a description and a "Common Exercises" list.
- A "Group Fitness" section with a photo of people and a "Meal Plans" section with a photo of food.
- A navigation menu with "Home", "About Us", and "Classes" buttons.
- A footer area with the text "Welcome to Forward Fitness" and "If you have struggled with getting".

A yellow circular callout contains the following HTML code:

```
<!-- Home Page Banner -->  
<div id="banner" class="... -->  
  
</div>
```