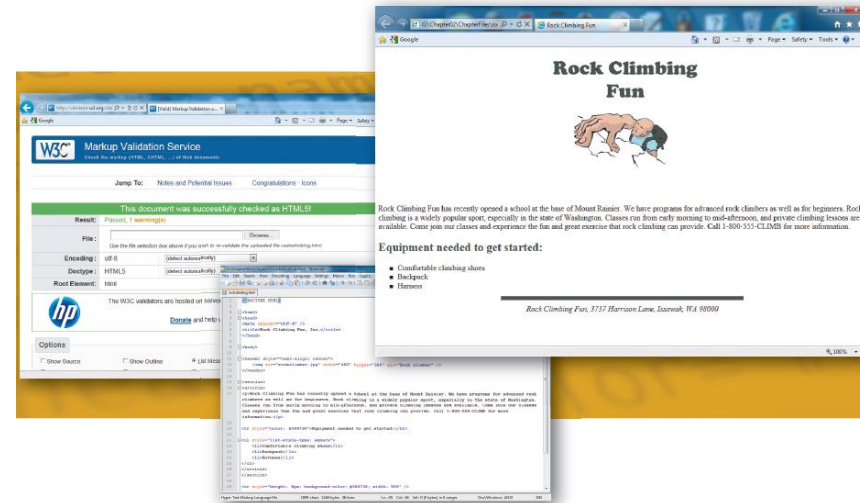


HTML5 & CSS

8th Edition

Chapter 2

Building a Webpage Template with HTML5



Objectives

1. Explain how to manage website files
2. Describe and use HTML5 semantic elements
3. Determine the elements to use when setting the structure of a webpage
4. Design and build a semantic wireframe
5. Create a webpage template
6. Insert comments in an HTML document

Objectives

7. Add static content to a webpage template
8. Insert symbol codes and other character entities
9. Describe the benefits of validating web documents
10. Validate an HTML template
11. Create a home page from an HTML template
12. Add unique content to a webpage

Topics

1. Introduction
2. Project – Plan and Build a Website
3. Designing a Website
4. Using HTML5 Semantic Elements
5. Creating a Webpage Template
6. Using Symbol Entities
7. Validating HTML Documents
8. Creating a Home Page Using a Webpage Template
9. Summary

3. Designing a Website

Designing a website includes the following:

- Planning
- Articulating the website's purpose
- Identifying the target audience
- Creating a site map and wireframe
- Selecting graphics and colors to use in the site
- Determining whether to design for an optimal viewing experience across a range of devices

3. Designing a Website

Table 2–1 Forward Fitness Club Website Plan

| | |
|-------------------------------|---|
| Purpose of the Website | To promote fitness services and gain new clients. The Forward Fitness Club mission: to facilitate a healthy lifestyle and help our clients meet their fitness and nutrition goals. |
| Target Audience | Forward Fitness Club customers are adults between the ages of 18 and 50 within the local community. |
| Multiplatform Display | Forward Fitness Club recognizes the growth in smartphone and tablet usage and wants a single website that provides an optimal viewing experience regardless of whether visitors are using a desktop, laptop, tablet, or smartphone. |
| Wireframe and Site Map | The initial website will consist of five webpages arranged in a hierarchal structure with links to the home page on every page. Each webpage will include a header area, navigation area, main content area, and footer area. |
| Graphics | Forward Fitness Club wants to display its fitness equipment and logo to help with local branding. Photos of the facility, members, and staff will increase visual appeal. |
| Color | Forward Fitness Club wants to use its logo colors, green and yellow, to promote health, strength, and a bright future. |
| Typography | To make the content easy to read, the website will use a serif font style for paragraphs, lists, and other body content, while providing contrast by using a sans serif font style for headings. |
| Accessibility | Standard accessibility attributes, such as alternative text for graphics, will be used to address accessibility. See Appendix D for an accessibility reference list. |

3.1 Site Map

- **Site map** indicates how the pages in a website relate to each other
- For example, the webpages of the Forward Fitness Club website will include the following content:
 - Home page: Introduces the fitness center and its mission statement
 - About Us page: Showcases the facility's equipment and services

3.1 Site Map

- Classes page: Includes a schedule of available group training and fitness classes
- Nutrition page: Provides nutrition tips and simple meal plans
- Contact Us page: Provides a phone number, email address, physical address, and form for potential clients to request additional information about the fitness center's services

3.1 Site Map

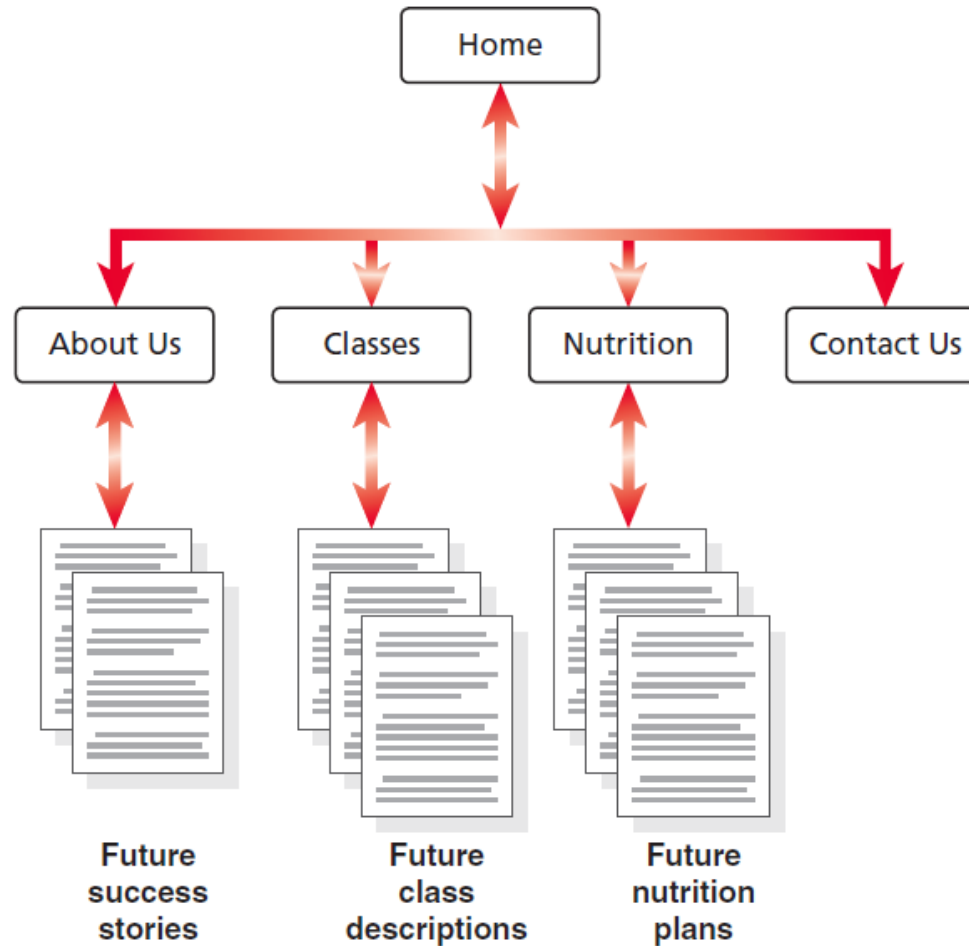
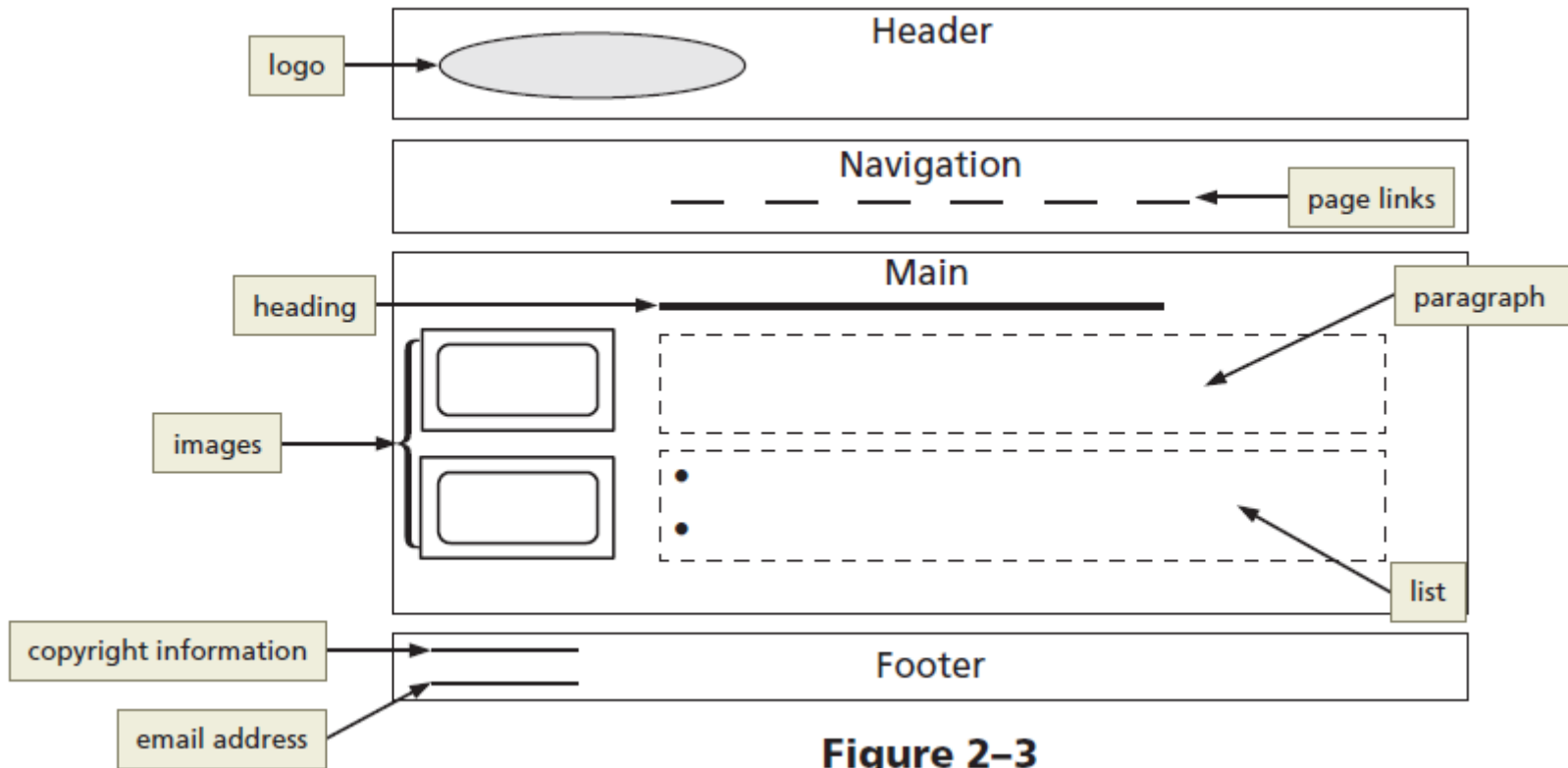


Figure 2-2

3.2 Wireframe

- **Wireframe** depicts the layout of a webpage, including its major content areas



3.3 File Management

- Websites use several types of files, including HTML files, image files, media such as audio and video files, and CSS files
- Each site must follow a systematic method to organize its files
- The main folder, also called the **root folder**, contains all files and other folders for the website

3.3 File Management

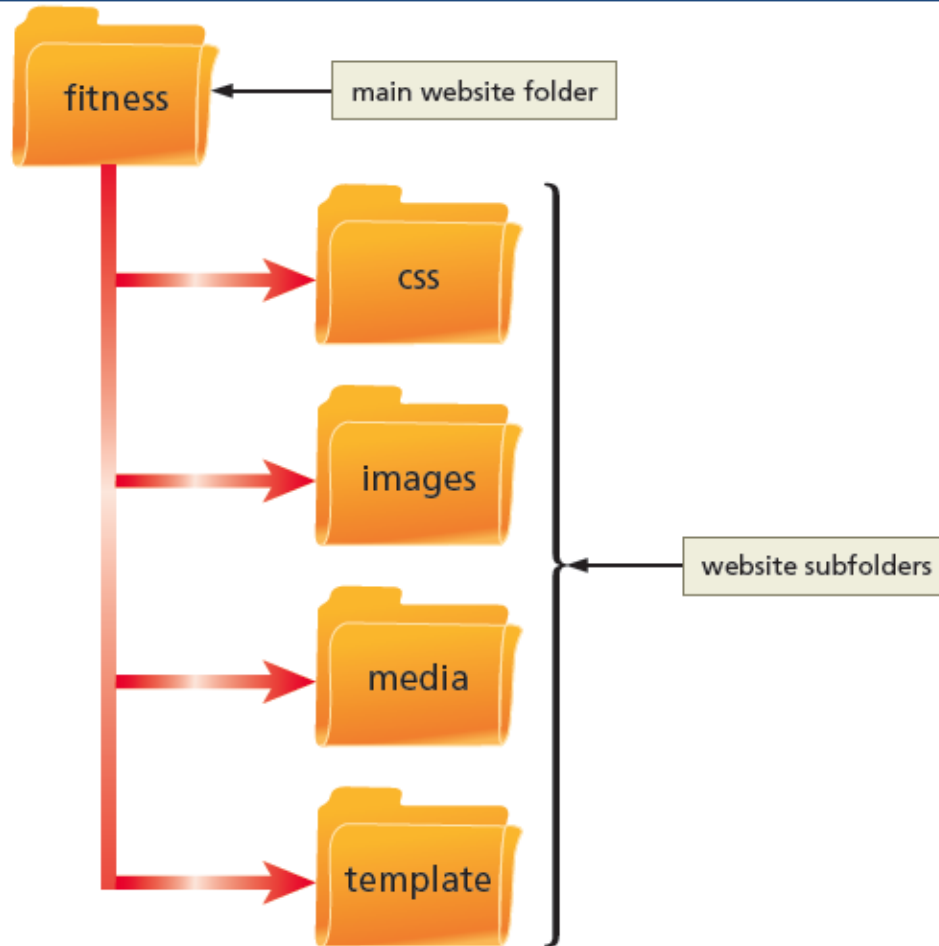


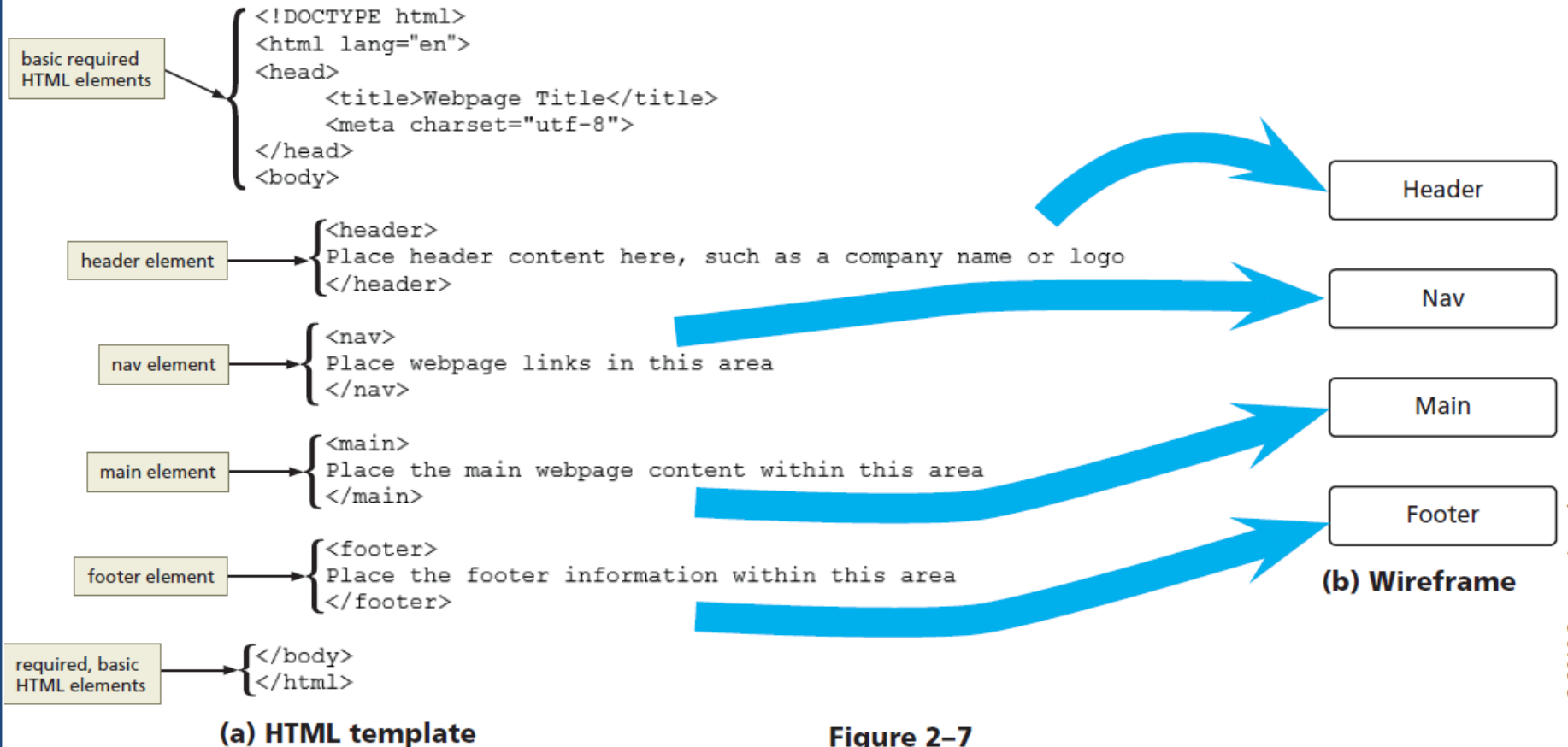
Figure 2-4

4. Using HTML5 Semantic Elements

Table 2–2 HTML5 Semantic Elements

| Element | Description |
|---|---|
| <code><header>...</header></code> | Indicates the header information on the webpage. Header content typically consists of a business name or logo and is commonly positioned immediately after the opening <code><body></code> tag. |
| <code><nav>...</nav></code> | Indicates the start and end of a navigation area within the webpage. The <code>nav</code> element contains hyperlinks to other webpages within a website and is commonly positioned immediately after the closing <code></header></code> tag. |
| <code><main>...</main></code> | Indicates the start and end of the main content area of a webpage. Contains the primary content of the webpage. Only one main element can appear on a page. |
| <code><footer>...</footer></code> | Indicates the start and end of the footer area of a webpage. Contains the footer content of the webpage. |
| <code><section>...</section></code> | Indicates the start and end of a section area of a webpage. Contains a specific grouping of content on the webpage. |
| <code><article>...</article></code> | Indicates the start and end of an article area of a webpage. Contains content such as forum or blog posts. |
| <code><aside>...</aside></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. |

4. Using HTML5 Semantic Elements



5. Creating a Webpage Template

The following steps create a basic webpage template:

1. Open an editor, tap or click File on the menu bar, and then tap or click New to open a new blank document
2. Tap or click File on the menu bar and then tap or click Save As to display the Save As dialog box
3. Navigate to the fitness folder and then double-tap or double-click the template folder to open it

5. Creating a Webpage Template

4. In the File name box, type `fitness` to name the file
5. Tap or click the Save button to type and tap or click Hyper Text Markup Language to select the file format
6. Tap or click the Save button to save the template in the template folder
7. On Line 1 of the text editor, type `<!DOCTYPE html>` to define a new HTML5 document (Figure 2-8)

5. Creating a Webpage Template



Figure 2-8

5. Creating a Webpage Template

8. Press the `ENTER` key to add Line 2 and then type `<html lang="en">` to add a starting `<html>` tag that defines the language as English
9. Press the `ENTER` key to add Line 3 and then type `<head>` to add a starting `<head>` tag (Figure 2–9)

5. Creating a Webpage Template

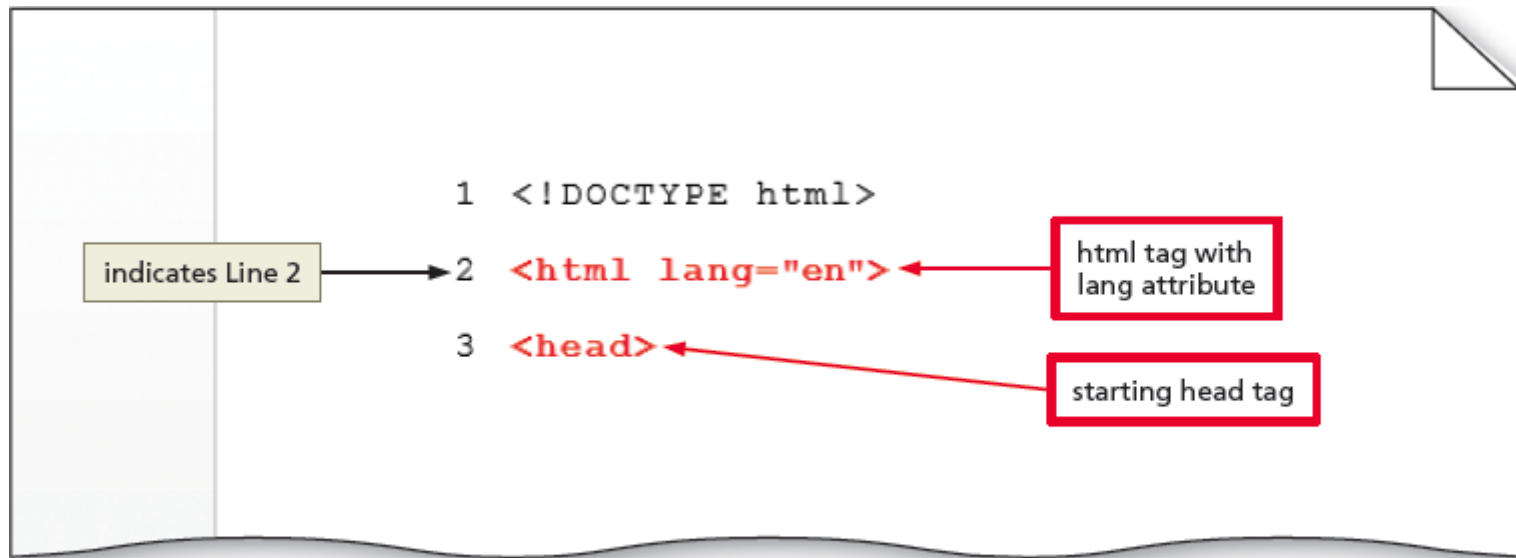


Figure 2-9

5. Creating a Webpage Template

10. Add the following HTML elements to complete the template using the `SPACEBAR` or `TAB` key to indent Lines 4 and 5

11. Use the `SHIFT+TAB` keys to stop indenting

```
10.<title></title>
```

```
11.<meta charset="utf-8">
```

```
12.</head>
```

```
13.<body>
```

```
14.</body>
```

```
15.</html>
```

12. Save the changes

5. Creating a Webpage Template

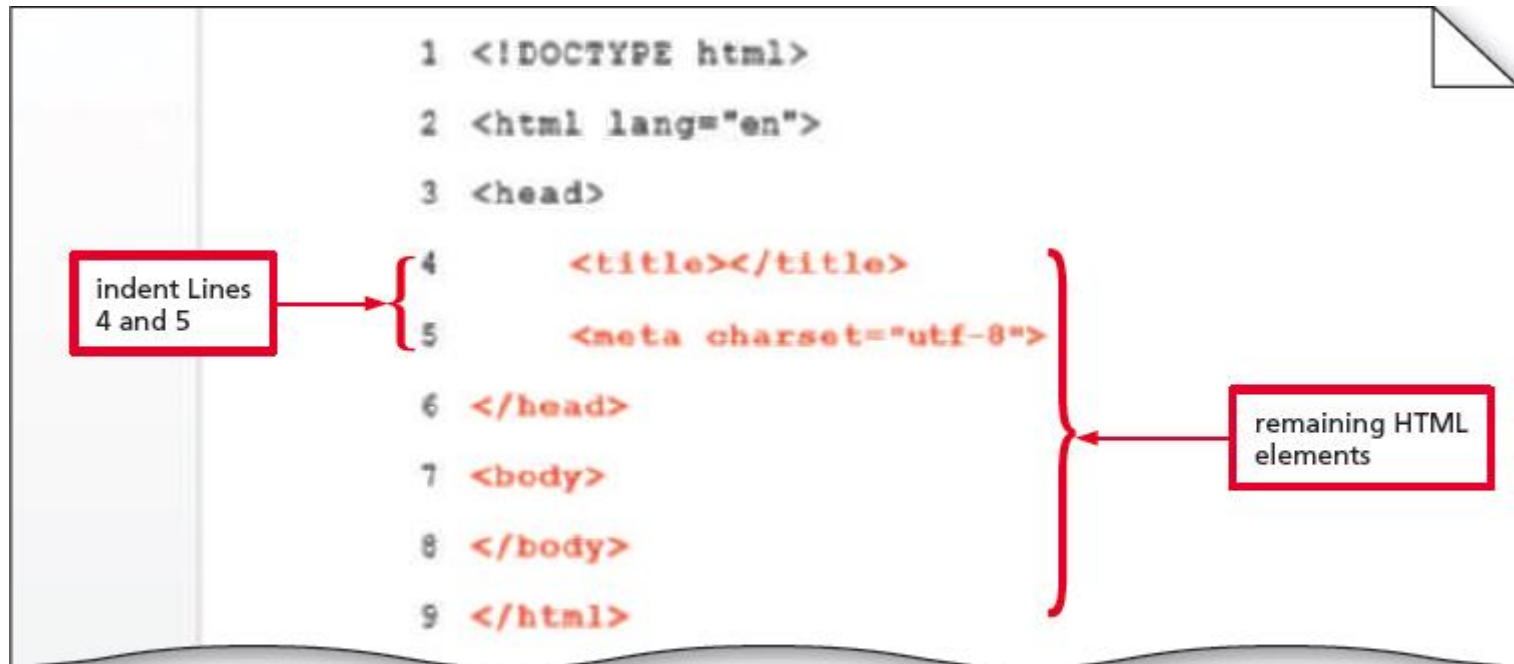


Figure 2-10

5. Creating a Webpage Template

- Add HTML5 Semantic Elements

The following steps insert HTML5 structural elements within the body tags:

13. Place an insertion point after the beginning `<body>` tag and press the enter key twice to insert new Lines 8 and 9
14. On Line 9, press the `TAB` key and then type `<header>` to add a starting header tag
15. Press the `ENTER` key to insert a new Line 10 and then type `</header>` to add an ending header tag (Figure 2–11)

5. Creating a Webpage Template

- Add HTML5 Semantic Elements

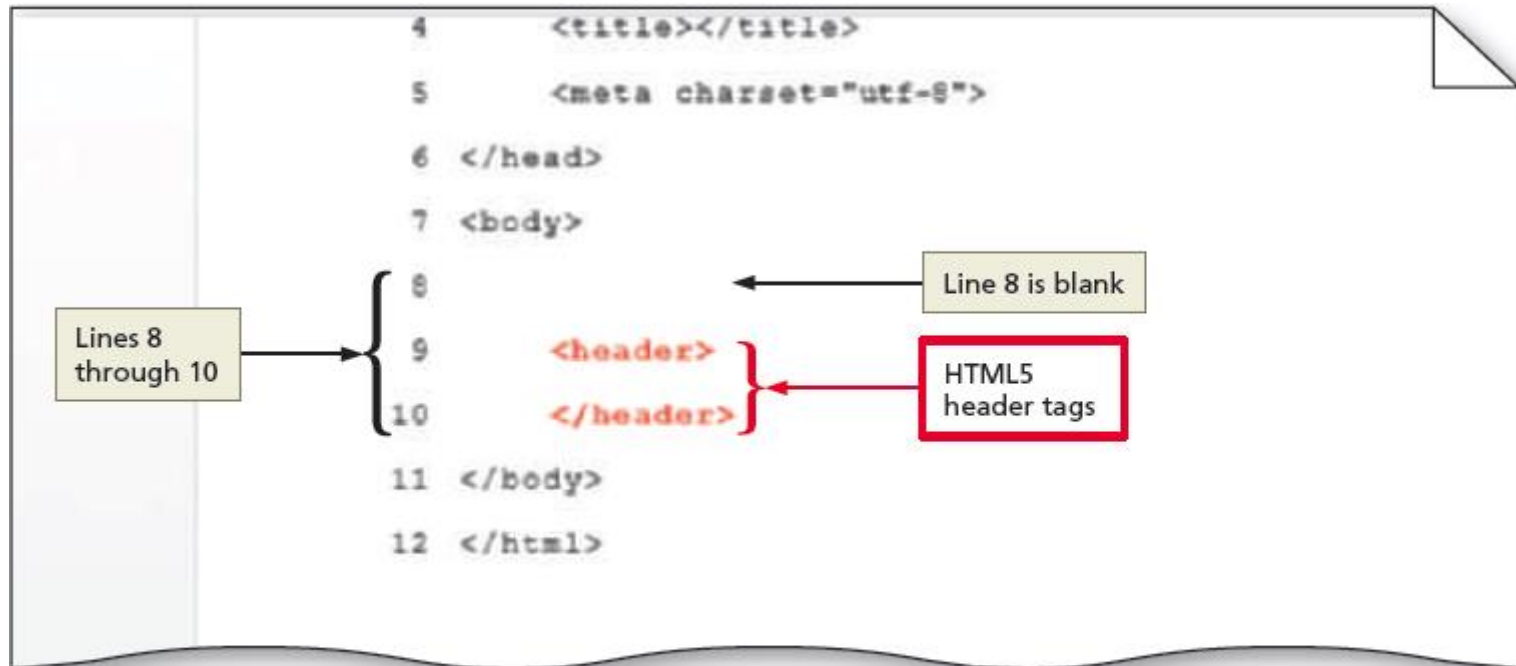


Figure 2-11

5. Creating a Webpage Template

- Add HTML5 Semantic Elements

16. Add the following HTML5 tags to complete the wireframe, indenting each line and inserting a blank line after each ending tag:

```
<nav>
```

```
</nav>
```

```
  (blank line)
```

```
<main>
```

```
</main>
```

```
  (blank line)
```

```
<footer>
```

```
</footer>
```


5. Creating a Webpage Template

- Add HTML5 Semantic Elements

- Save the changes

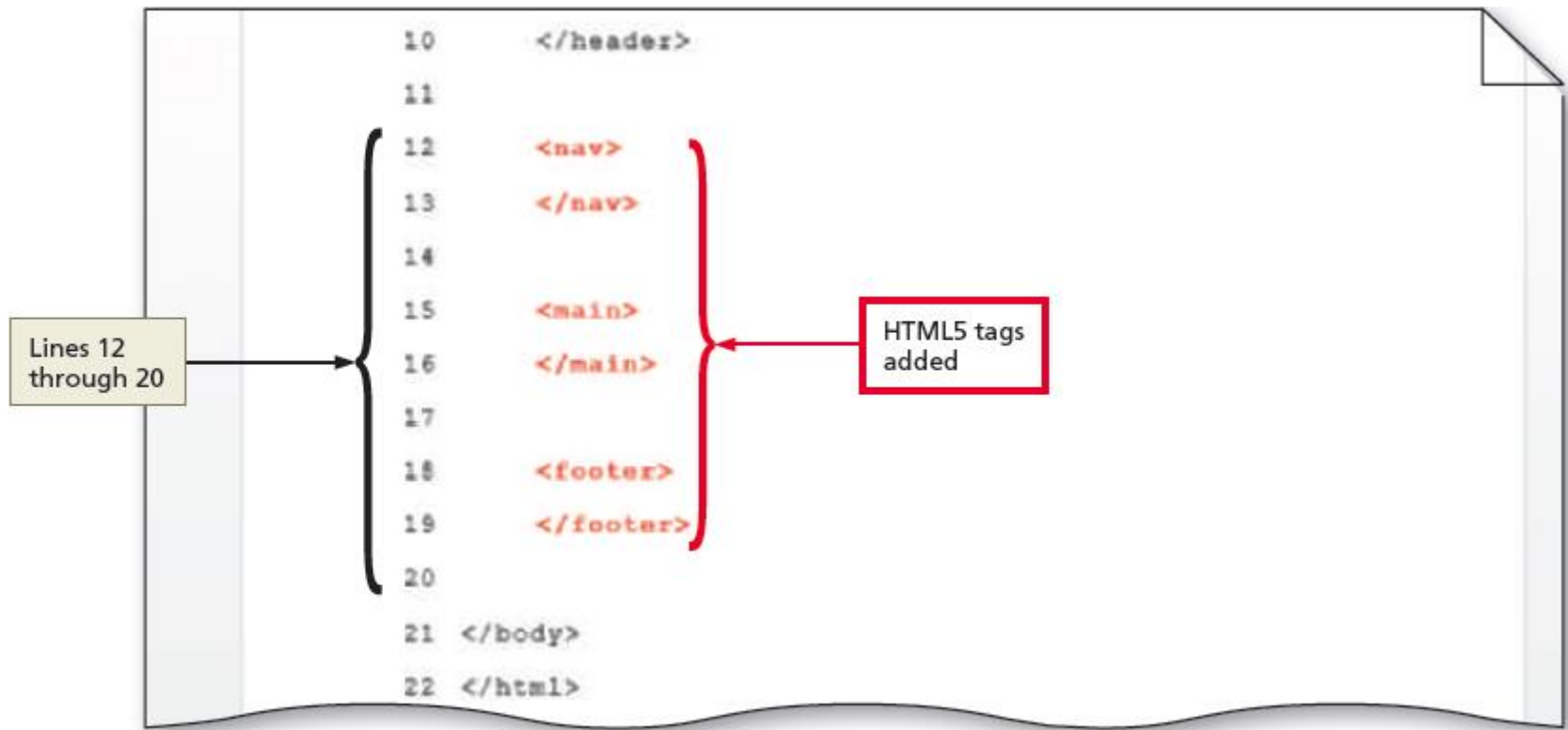


Figure 2-12

5. Creating a Webpage Template

- Add a Title

The following steps add a webpage title to a template:

17. Place an insertion point after the beginning `<title>` tag and type **Forward Fitness Club** to add a webpage title
18. Save the changes and then view the page in a browser to display the webpage title

5. Creating a Webpage Template

- Add a Title

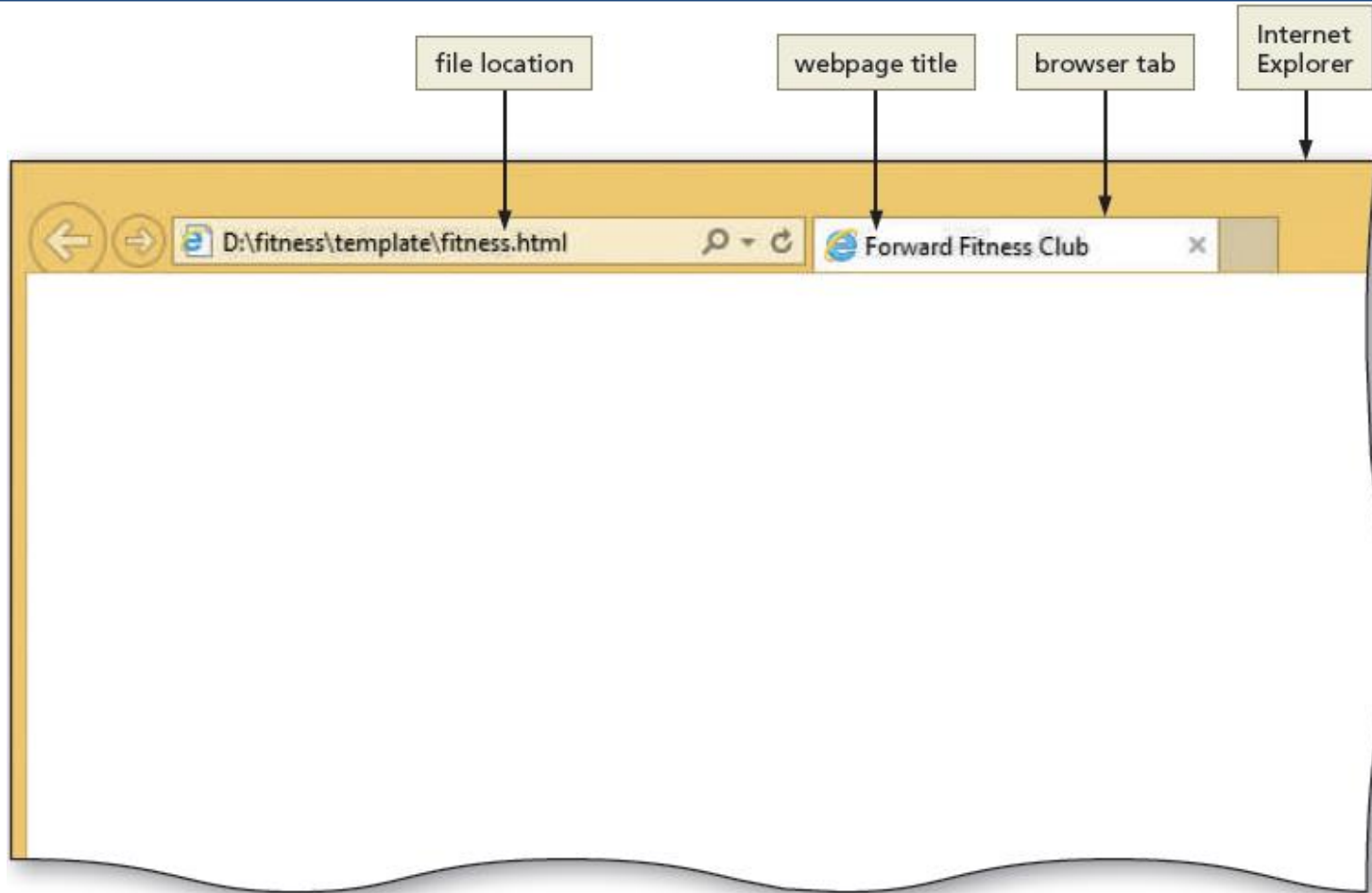


Figure 2-13

5.1 Comments

- Comments can provide additional information about the areas within the webpage
- Add a comment before a tag using the following tag:
`<! - - Place your comment here - - >`
- **Word wrap** causes text lines to break at the right edge of the window and appear on a new line

5.1 Comments

- Add Comments

The following steps add comments to a webpage template:

- Place the insertion point after the `<!DOCTYPE html>` tag and then press the `ENTER` key to insert a new Line 2
- Type `<!-- This website template was created by: Student's First Name Student's Last Name -->` on Line 2 to add a comment at the beginning of the document that identifies the author (Figure 2-14)

5.1 Comments

- Add Comments



Figure 2-14

5.1 Comments

- Add Comments

- Place the insertion point on the blank Line 9 and press the `ENTER` key to insert a new Line 10
- On Line 10, press the `TAB` key and then type `<!-- Use the header area for the website name or logo -->` to add a comment identifying the type of information to include in the header area (Figure 2-15)

5.1 Comments

- Add Comments

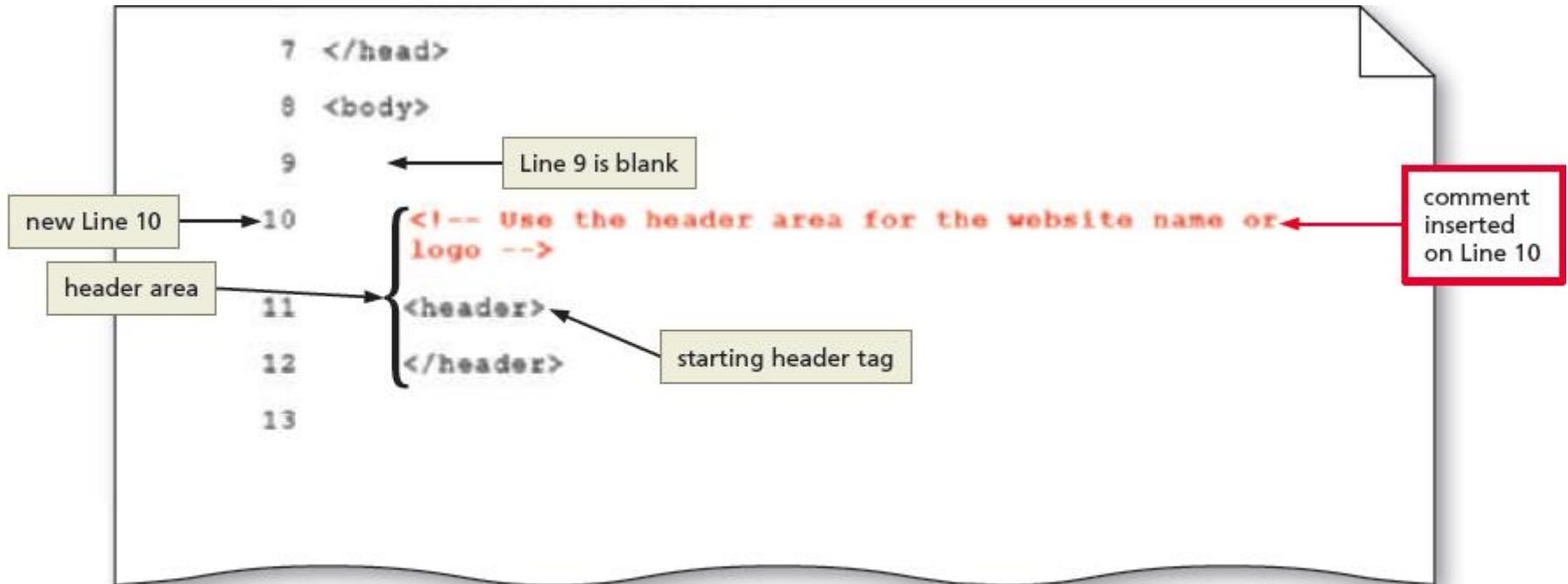


Figure 2-15

5.1 Comments

- Add Comments

- Place the insertion point on the blank Line 13 and press the `ENTER` key to insert a new Line 14
- On Line 14, type `<! - - Use the nav area to add hyperlinks to other pages within the website - - >` to add a comment above the navigation area (Figure 2-16)

5.1 Comments

- Add Comments

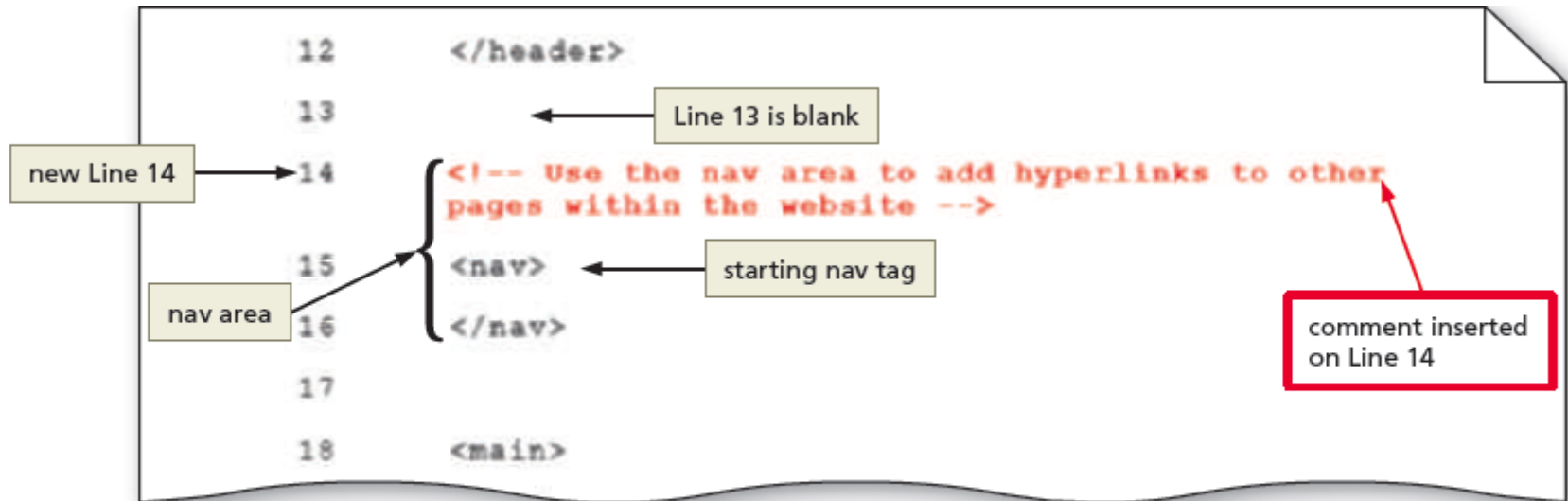


Figure 2-16

5.1 Comments

- Add Comments

- Place the insertion point on the blank Line 17 and press the `ENTER` key to insert a new Line 18
- On Line 18, type `<! - - Use the main area to add the main content of the webpage - - >` to add a comment above the main area
- Place the insertion point on the blank Line 21 and press the `ENTER` key to insert a new Line 22
- On Line 22, type `<! - - Use the footer area to add webpage footer content - - >` to add a comment above the footer area (Figure 2-17)

5.1 Comments

- Add Comments

- Save the changes

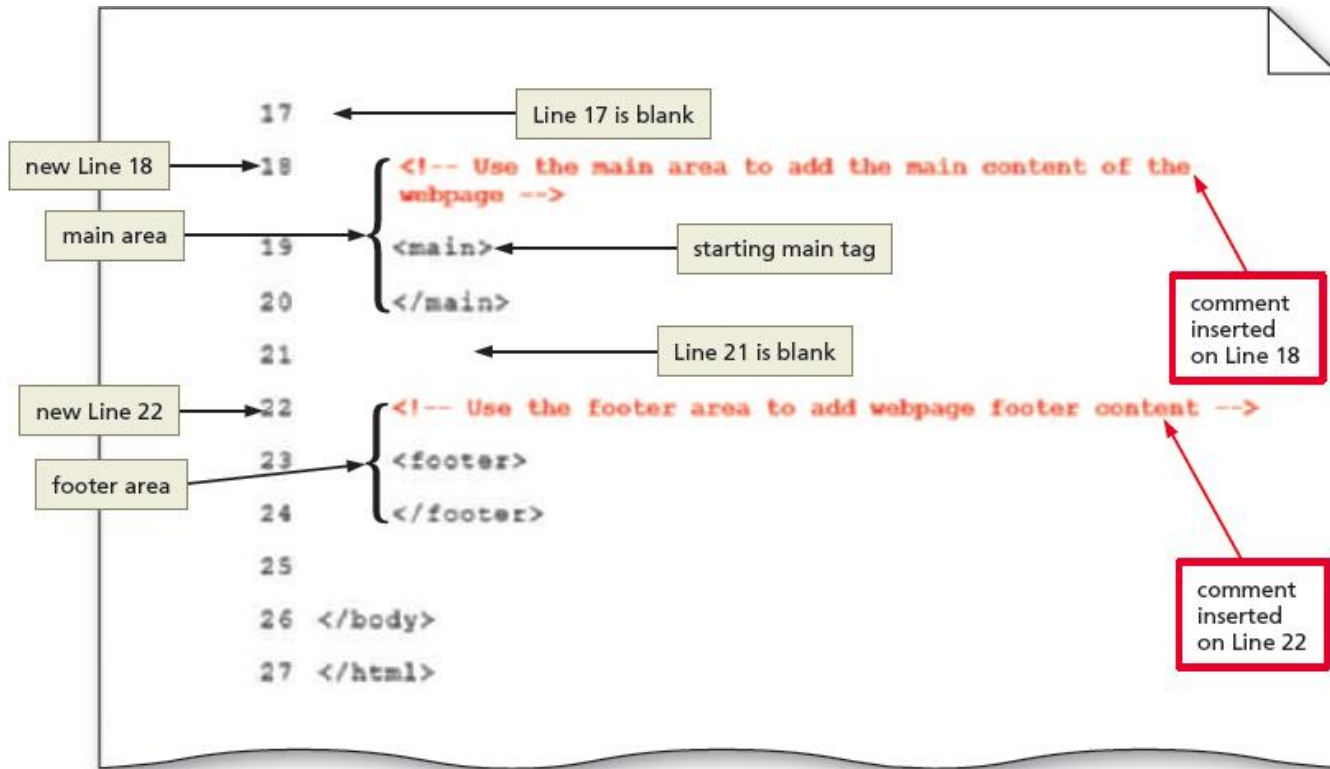


Figure 2-17

BREAK

Break!

5.2 Webpage Content

- Static content can be added to a webpage that will appear on every webpage, such as the business name or logo, the webpage links, and the footer information
- Following is an example of content added between header tags:

```
<header>Forward Fitness Club</header>
```

6. Using Symbol Entities

- Symbols can be added to an HTML webpage by typing its HTML entity name or entity number
- Inserting an **HTML character entity** in the code displays a reserved HTML character on the webpage
- **Entity name** is an abbreviated name
- **Entity number** is a combination of the pound sign (#) and a numeric code

6. Using Symbol Entities

Table 2–3 Common Symbol Entities

| Character | Description | Entity Name | Entity Number |
|-----------|----------------------|-------------|---------------|
| © | Copyright symbol | © | © |
| ® | Registered trademark | ® | ® |
| € | Euro | € | € |
| & | Ampersand | & | & |
| < | Less than | < | < |
| > | Greater than | > | > |
| | Nonbreaking space | | |

7. Validating HTML Documents

- After the creation of an HTML file, the document is **validated** to verify the validity of the HTML code
- A **validator** checks for errors, indicates where they are located, and suggests corrections
- If the validator detects an error in an HTML code, it displays a warning in the header bar
- A Result line below the header bar shows the number of errors in the document

8. Creating a Home Page Using a Webpage Template

The following steps create the home page for the fitness website using the webpage template:

- Tap or click File on the menu bar and then tap or click Save As to display the Save As dialog box
- Tap or click the Up One Level button to display the contents of the fitness folder
- In the File name text box, type index to name the file
- Tap or click the Save button to save the index file in the fitness folder

8. Creating a Home Page Using a Webpage Template

- Place an insertion point after the beginning `<main>` tag and press the `ENTER` key twice to insert two new lines, in this case, Lines 26 and 27
- On Line 27, press the `TAB` key and then type `<p>Welcome to Forward Fitness Club. Our mission is to help our clients meet their fitness and nutrition goals.</p>` to add paragraph tags and content to the page (Figure 2-29)

8. Creating a Home Page Using a Webpage Template

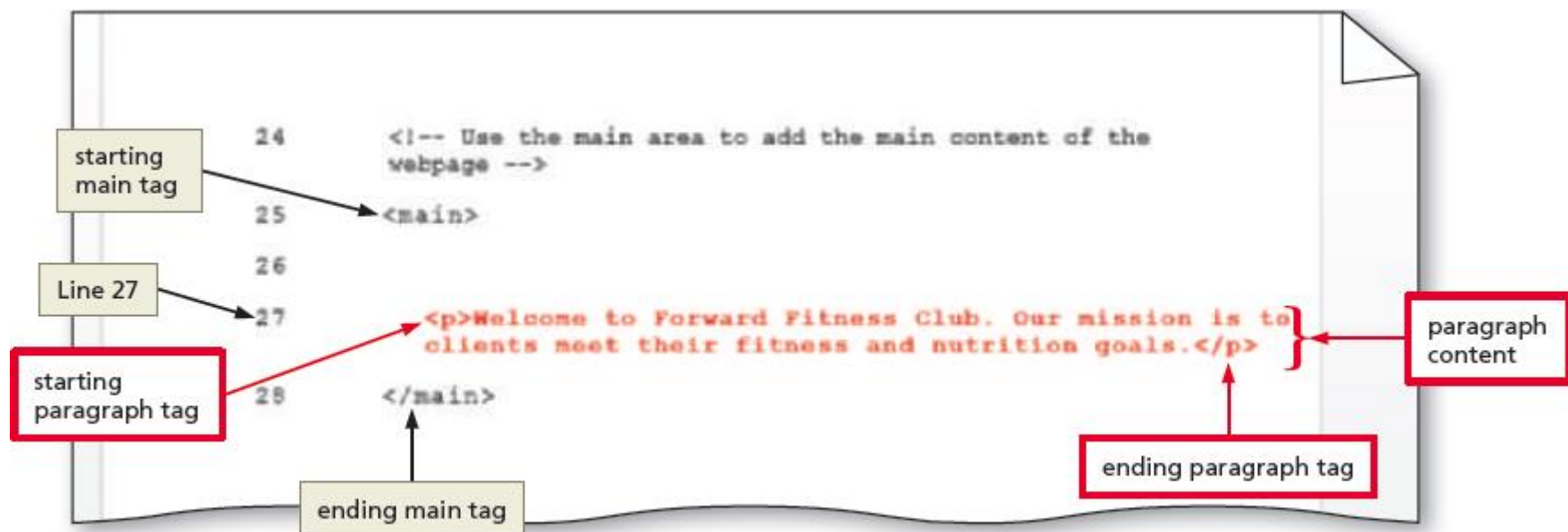


Figure 2-29

8. Creating a Home Page Using a Webpage Template

- Press the `ENTER` key two times to insert two new lines and then type the contents within paragraph tags, as shown on Line 29, to add a second paragraph to the page
- Press the `ENTER` key two times to insert two new lines and then type another paragraph, as shown on Line 31, to add a third paragraph to the page (Figure 2-30)

8. Creating a Home Page Using a Webpage Template

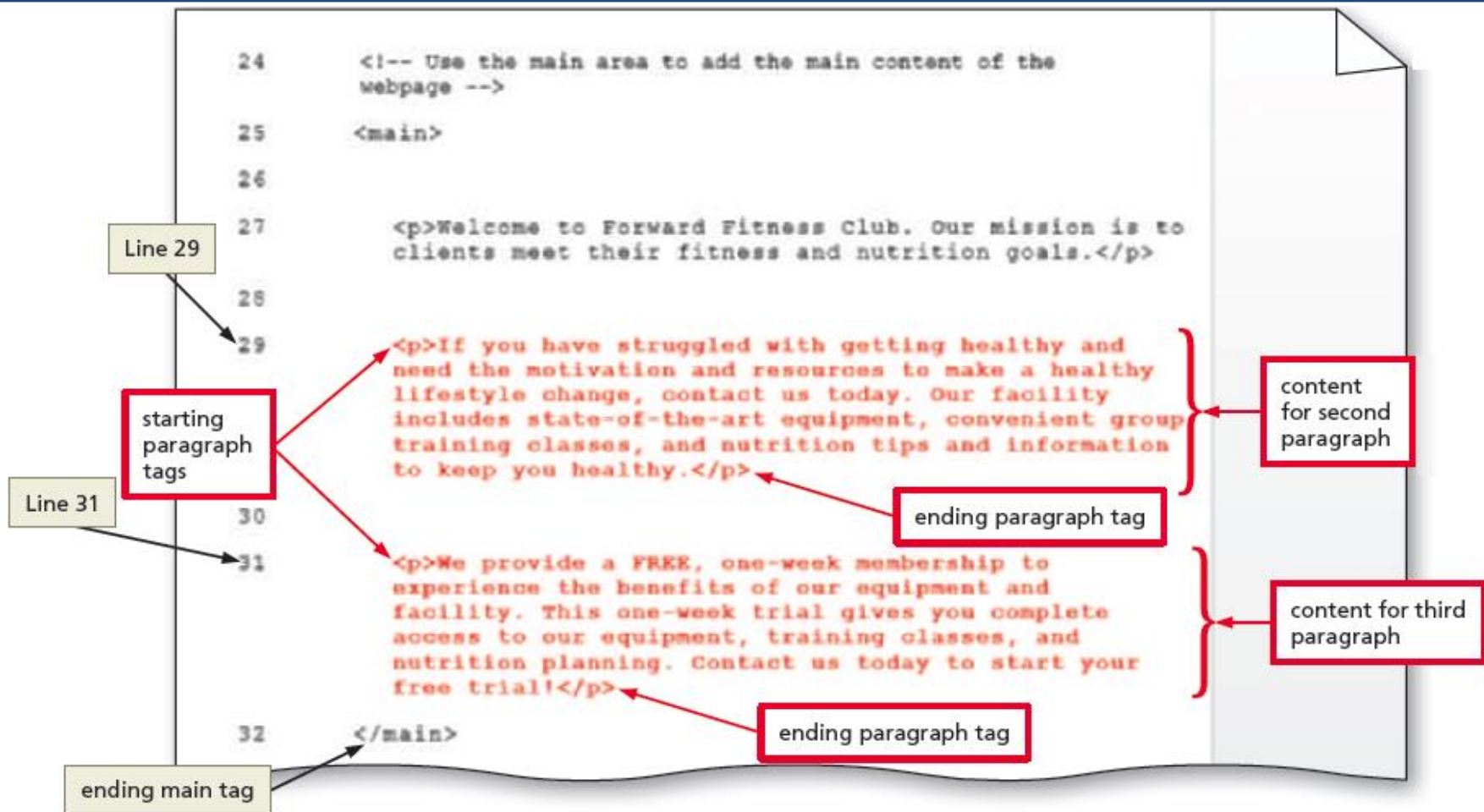


Figure 2-30

8. Creating a Home Page Using a Webpage Template

- Press the `ENTER` key to insert a new blank line above the ending `</main>` tag
- Check the spelling of the document and the changes

8.1 Display a Home Page in the Default Browser

- By using a command in an HTML editor, one can open an HTML file from a file viewer such as File Explorer or Finder
- When an HTML file is given a double-tap or double-click, it opens in the default browser on the computer
- To open an HTML file in a different browser, press and hold or right-click the HTML file, tap or click Open with, and then tap or click an alternate browser

HTML

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Chapter 2

Building a Webpage Template with HTML5

