

ILLUSTRATED SERIES™

HTML5 and CSS3

Complete

FIRST EDITION

Sasha Vodnik

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Sasha Vodnik

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Library of Congress Control Number: 2011934600

ISBN-13: 978-1-111-52798-3

ISBN-10: 1-111-52798-9

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Printed in the United States of America
1 2 3 4 5 6 7 8 9 18 17 16 15 14 13 12 11

UNIT
A

HTML5 and CSS3

Preparing to Create a Web Site

Files You Will Need:

To view a list of files needed for this unit, see the Data Files Grid in the back of the book.

People and organizations around the world share information using the **World Wide Web**, or Web for short. You can make your own information available on the Web by creating **Web pages**, which are documents formatted to be accessible on the Web, and then publishing them as **Web sites**, which are available to anyone with Web access. Many options are available for creating Web pages, but no matter which method you use, the first step involves a thoughtful planning process.  You have just been hired as a Web design intern by Great Northern Web Solutions. For your first project, the art director, Faduma Egal, has assigned you to create a new Web site for Lakeland Reeds Bed & Breakfast, one of Great Northern's clients. Before you start writing Lakeland's Web pages, you'll begin your work by creating a plan for the Web site, setting up a structure for the client's files, and considering the impact of usability, accessibility, and browser compatibility on the pages you'll be creating.

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OBJECTIVES

- Assemble a project plan
- Create a storyboard
- Implement Web accessibility standards
- Evaluate Web site usability
- Manage Web browser compatibility issues
- Practice good file management
- Configure your FTP client
- Upload Web site files

Assembling a Project Plan

Whether you intend to make a single Web page or a large set of interrelated pages available, making information accessible on the Web starts with careful planning. This critical first step involves identifying the goals and objectives, as well as the target audience, of the Web site. Whether you're brainstorming for a personal site or meeting with a client regarding a site you've been hired to create, you sum up your work in this first step with a **project plan**, which is also known as a design document.  You hold a planning meeting with Philip Blaine, owner of Lakeland Reeds B&B, to discuss the components he would like included in his new Web site. Figure A-1 shows the project plan you develop based on this meeting.

DETAILS

Important topics to consider in Web site planning include:

- **Identifying Web site goals and objectives**

You want to ask a client a variety of questions to help understand goals and objectives for the site. For example, "What is the mission of the organization? Why do you want a Web site? What are the short-term goals of the Web site? What are the long-term goals of the Web site? What do you hope to gain by having a Web presence? Who is your target audience? Do your objectives support the needs of your target audience?" The more thorough you are in asking questions of the client, the better prepared you will be to design the Web site.

- **Identifying the target audience**

It can be helpful to know the target audience for a Web site when choosing a layout and design. Web sites should look different based upon who will be visiting the site and why they are interested in the content. Some potential questions to ask about the target audience might be, "Who are the typical members of your audience? What is the mix of genders? What is the age range? What professions are they in? What is the average education level? Why will people visit this Web site? Will your visitors be using Microsoft Windows, Apple OS X, or another operating system? What size monitors are most common, and at what resolution will the site be viewed? Which Web browsers will they use to view the Web site?" While your client may not have ready answers to all of these questions, getting even a few answers can help prepare you for the design phase.

QUICK TIP

Listing exclusions in the project plan will help reduce the potential for scope creep, which is the expansion of a project beyond the original goals and objectives.

- **Identifying the type of Web site**

Identifying the type of Web site the owner wants can help to focus the scope of the project. A Web site usually has one of a small number of main functions: a Web presence serving as an online informational brochure; providing important information for special interest groups and nonprofit organizations; showcasing examples of different types of works and designs commonly used by Web design individuals and agencies; providing multiple levels of information with page templates; extracting information from databases; or conducting the sale of products or services and other business transactions through the Internet. It is important to clearly define what the site will include, as well as what the site won't include.

- **Developing a budget**

Every Web site design project should include a budget that is presented to the client prior to completing any work. The budget should be included in the project plan, which becomes part of the contract.

- **Creating a timeline**

You should always provide the Web site owner with a timeline that includes the delivery date of the final Web site, along with various implementation milestones along the way. The timeline should always identify who is responsible for which tasks.

FIGURE A-1: Lakeland Reeds Bed and Breakfast project plan

<p>Great Northern Web Solutions</p> <p>Project plan for Lakeland Reeds Bed and Breakfast</p> <p>Objectives:</p> <ul style="list-style-type: none"> • Make general info about the facility and contact info available online • Enable prospective guests to view the accommodations and grounds • Allow prospective guests to book a stay online <p>Target audience:</p> <ul style="list-style-type: none"> • 35+ • Live in southern Canada and the upper Midwest U.S. • Want to "get away from it all" • Not sure about technical details of users; it's likely many will not be very experienced with the Web <p>Site type:</p> <ul style="list-style-type: none"> • Billboard (while the client wants some e-commerce functionality, they will accomplish this by linking to another site that takes reservations; thus, no advanced functionality is required for this site) <p>Budget:</p> <ul style="list-style-type: none"> • Hien is preparing a few detailed options for the client; this section will be updated when the budget is finalized and the contract is signed <p>Timeline:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Milestone</th><th>Date</th><th>Who's responsible</th></tr> </thead> <tbody> <tr> <td>Design mockup submitted for approval</td><td>April 1, 2013</td><td>Project manager</td></tr> <tr> <td>Draft site published to testing server</td><td>April 15, 2013</td><td>Project manager</td></tr> <tr> <td>Feedback received from client</td><td>April 22, 2013</td><td>Phillip Blaine</td></tr> <tr> <td>Client feedback incorporated</td><td>May 1, 2013</td><td>Project manager</td></tr> <tr> <td>Final feedback from client</td><td>May 8, 2013</td><td>Phillip Blaine</td></tr> <tr> <td>Final feedback incorporated</td><td>May 22, 2013</td><td>Project manager</td></tr> <tr> <td>Final signoff from client</td><td>June 5, 2013</td><td>Phillip Blaine</td></tr> <tr> <td>Site goes live</td><td>June 5, 2013</td><td>Project manager</td></tr> </tbody> </table> <p>Client contact info:</p> <p>Phillip Blaine Lakeland Reeds Bed and Breakfast 45 Marsh Grass Ln. Marble, MN 55764 (218) 555-5253</p>	Milestone	Date	Who's responsible	Design mockup submitted for approval	April 1, 2013	Project manager	Draft site published to testing server	April 15, 2013	Project manager	Feedback received from client	April 22, 2013	Phillip Blaine	Client feedback incorporated	May 1, 2013	Project manager	Final feedback from client	May 8, 2013	Phillip Blaine	Final feedback incorporated	May 22, 2013	Project manager	Final signoff from client	June 5, 2013	Phillip Blaine	Site goes live	June 5, 2013	Project manager
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Deciding how much to charge

Estimating the amount of time a project will take can be difficult, especially for new Web designers. If you work for a Web design agency, the budget will typically be developed by your supervisors. If you are a freelance Web designer, you must place a value on your time that takes many things into consideration, such as the cost of computer equipment and software, supplying your own insurance,

advertising, and other expenses. There really is no set hourly or project fee in this industry, as it varies dramatically depending upon the geographic market, competition, and experience level of the Web designer. New Web designers often barter, or trade, their skills for products or services offered by a Web site owner as a means of building a portfolio.

Creating a Storyboard

When you create a Web page or a Web site, it can be helpful to start by getting a clear idea of what you're trying to build. Web designers typically accomplish this by creating a **Storyboard**, which is a sketch that outlines the components of each Web page and their places in the layout, as well as the links between the pages in a Web site. On a Web design team, often people responsible for art or design create the storyboard and hand it off to the developers to make into a Web page or Web site.  You work with Karl Dixon, one of your colleagues in the art department, to create a storyboard for the Lakeland Reeds Web site based on the project plan you developed.

DETAILS

Storyboarding a Web site involves a few main steps:

- **Identify components to include**

Before you start sketching, it's important to get a firm handle on all the elements that the Web site you're working on must include. A good place to start is your project plan, which should include a thorough inventory of items that must be part of the Web site; for instance, an existing logo and color scheme that a client already uses in all of their printed materials. You should augment this list with any other essential design elements based on your understanding of the site's target audience and functionality; for example, most multi-page Web sites need a standardized navigation section that provides links to each of the pages.

QUICK TIP

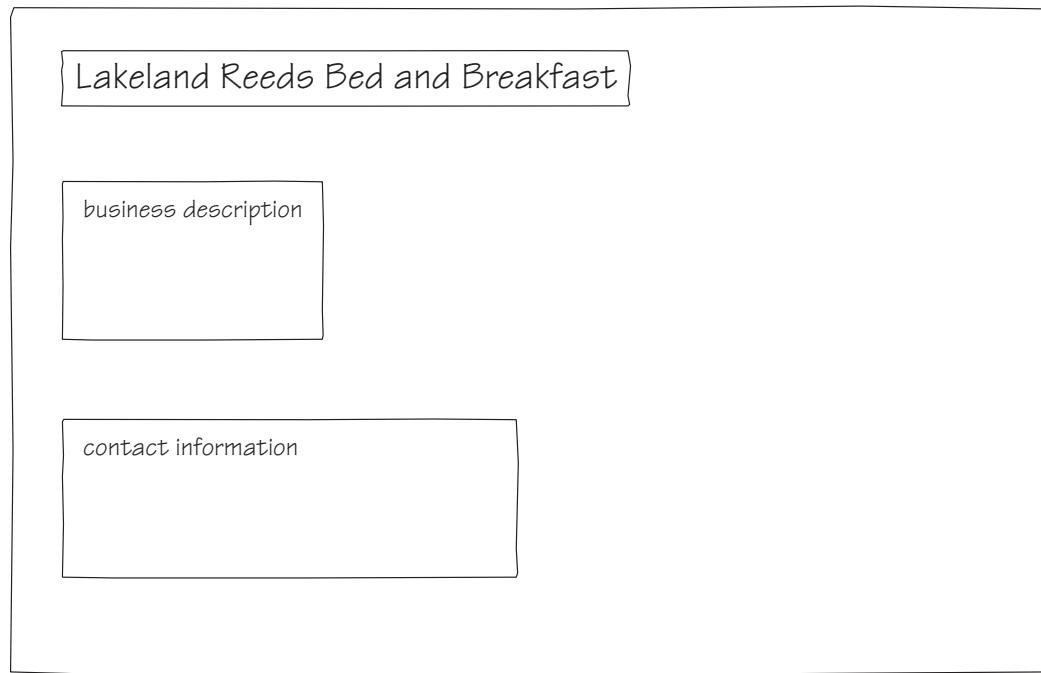
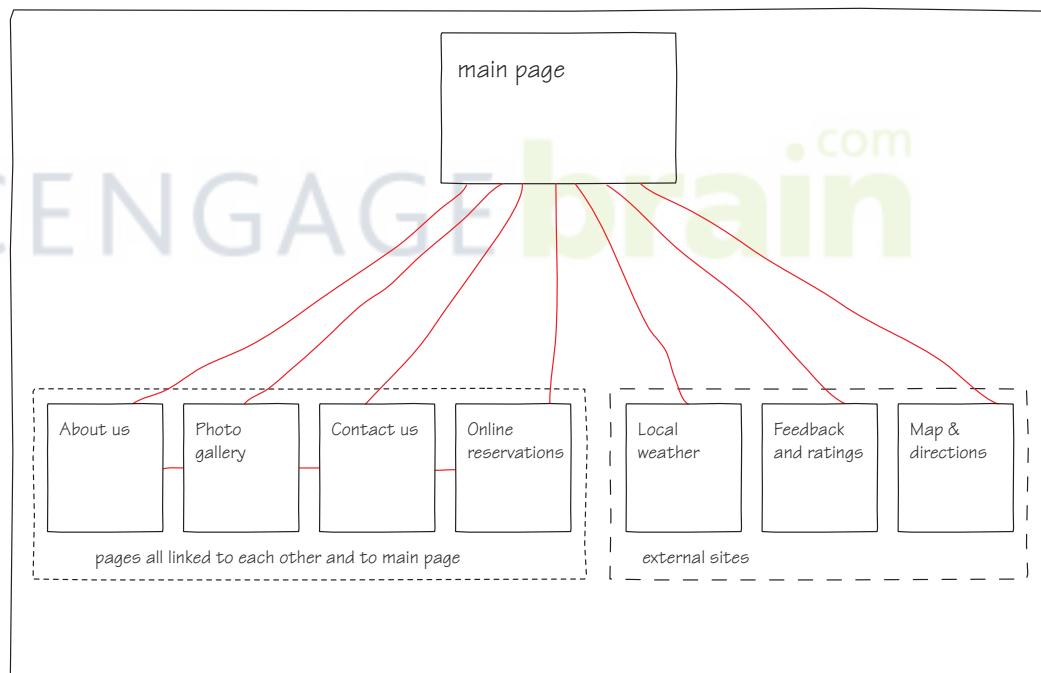
Many common Web page designs use columns that are about a third of the width of the page to approximate traditional aesthetic proportions.

- **Sketch possible layouts and then select one**

The next step is to place the elements in a layout that's functional, usable, and, ideally, aesthetically pleasing. This step is often the job of a graphic designer; however, it's a skill that many Web developers without artistic backgrounds have built with study and practice. Whoever does this step, it often involves a series of sketches that either lay out a set of choices or progressively fine-tune a theme. For a simple Web site, a single layout should suffice for all the site's pages; however, if some pages have requirements that are best served by distinct layouts, these layouts need to be finalized in this step as well. Figure A-2 shows the layout for the pages of the Lakeland Reeds Web site.

- **Map the relationships between Web pages**

Any time you're creating a Web site or a single Web page with links to other Web sites, it's helpful to map out the relationships between pages. This map is a crucial tool when you create the navigation system for the Web site. Figure A-3 lists the pages of the Lakeland Reeds Web site and illustrates the relationships between them, as well as links to external pages.

FIGURE A-2: Lakeland Reeds main Web page sketch**FIGURE A-3:** Lakeland Reeds Web site relationships sketch

Creating a Web site from a template

An alternative to creating a layout for your Web site is to download a **template**, which is a generic layout that includes a color scheme and element positions, but which uses placeholder images and text. Some templates are available to download and use for free, while others must be purchased from the designer. A Web developer can

simply replace the placeholder items with elements specific to the Web site being developed. While a template is not as specifically tailored to the companies or topics of the Web sites where it is used, it can save time in the Web development process and can be an invaluable tool when a site needs to be up right away.

Implementing Web Accessibility Standards

Once you make a Web page publicly available on the Internet, users can access it using a wide variety of **user agents**, which are programs and devices that interpret Web documents. Many Web users view pages with the default settings in popular Web browsers such as Internet Explorer, Firefox, Chrome, and Safari. Some users with disabilities may use custom browser settings, or even specialized software or hardware, to access the Web. While laws in many countries spell out mandatory accessibility standards for government Web sites, building a high level of accessibility into any Web pages you create widens the potential audience for your work, as illustrated in Figure A-4. Thus, as a Web developer, it's important that you understand and implement Web accessibility standards as you create your Web pages in order to make them adaptable to the needs of different users and the capabilities of different user agents. A widely used reference for implementing Web accessibility is the **Web Content Accessibility Guidelines (WCAG)** maintained by the World Wide Web Consortium.  To help ensure that the Lakeland Reeds B&B Web site is widely accessible, you review the main tenets of Web accessibility standards.

DETAILS

The WCAG describe techniques for helping your Web content meet the following goals as broadly as possible:

- **Perceivable**

All of the contents of your Web pages need to be accessible in whatever format a given user is accessing it. This includes ensuring that any information that you convey visually is also available by non-visual means, such as text descriptions for images and videos. Many people with visual impairments access the Web using devices called **screen readers** that read aloud Web page text and descriptions that a user selects. In addition, any audio content should be accompanied by transcripts or written descriptions, which can substitute for many users with auditory impairments.

- **Operable**

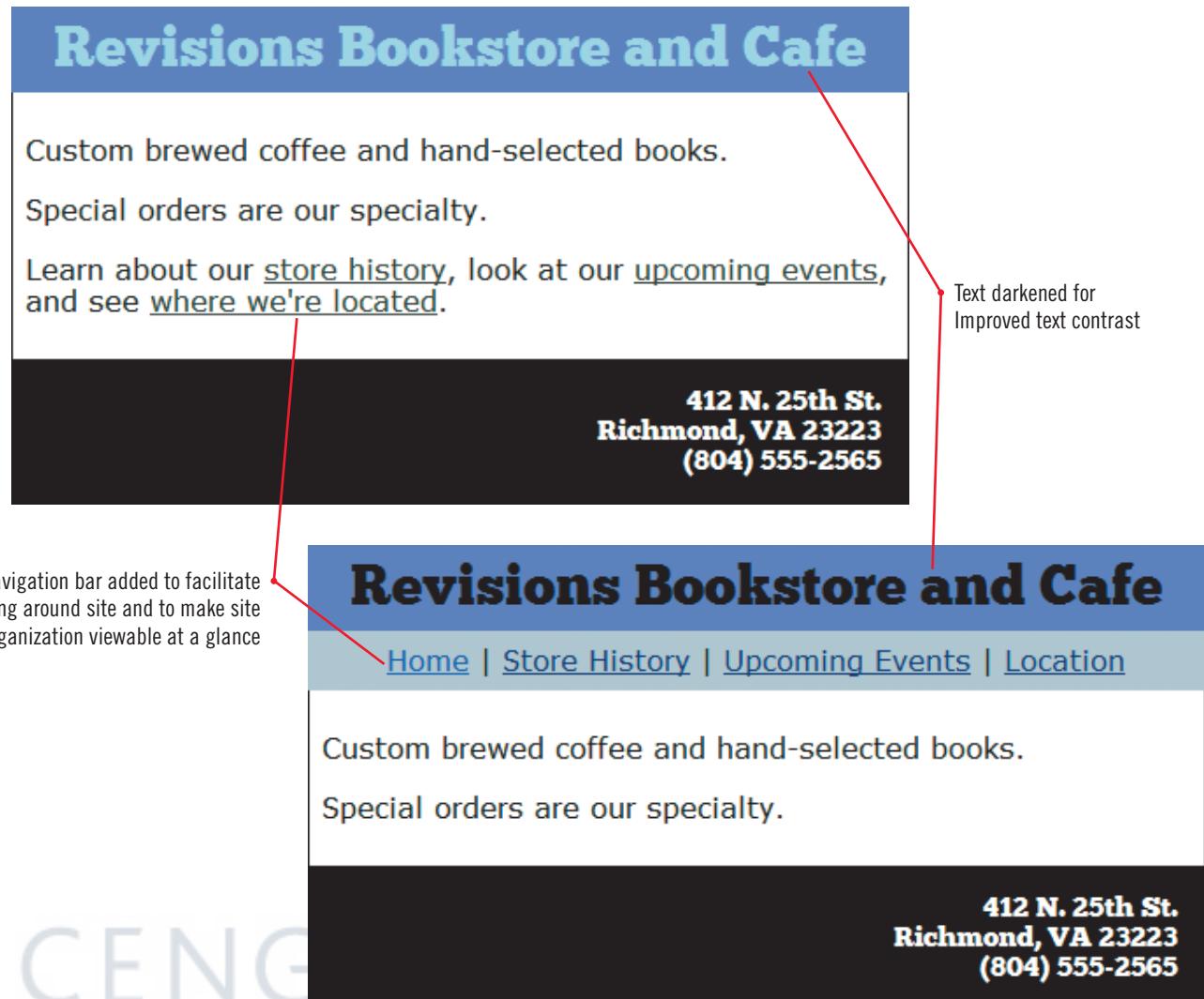
Users interface with computers in different ways. While many users scroll Web pages and click links using a mouse, ensuring that no elements of your Web pages rely on the use of a mouse makes your Web pages more accessible to people with some physical impairments. Web pages also need to allow users to explore and read them at their own paces, and should allow scrolling or self-updating features to be paused, stopped, or hidden. Designs should not include elements known to cause seizures, such as certain frequencies of flashing. Finally, navigation within the site and to external pages should be clearly indicated, easy to understand, and, ideally, redundant.

- **Understandable**

The language that a Web page is written in should be indicated, and means should be included for users to understand any specialized vocabulary used. Links should not make unexpected drastic changes to the way a Web page is displayed; some warning should be given. When possible, forms that accept user input should include means for identifying common errors and allowing users to correct them.

- **Robust**

Web pages should be coded according to Web standards, ensuring that they can be accessed by the widest possible variety of programs and devices.

FIGURE A-4: A Web page before and after an accessibility redesign

Web accessibility is a team effort

In addition to Web developers' work creating a site, other factors significantly influence Web accessibility. The developers of user agents make decisions that affect how their software and devices interact with Web content, which impacts whether users can access content in specific ways. In addition, some Web content is produced using software that automates the Web development process, and

the accessibility choices of the makers of these packages affects the accessibility of the content produced using them. Thus, while Web developers have a crucial role to play in building and maintaining a Web that's available to everyone, it can be useful to see your role as part of a larger team and to recognize when you run against a limitation that you can't realistically fix.

Evaluating Web Site Usability

Even among Web sites on similar topics or in a common area, there's often wide variety in how easy it is for users to accomplish their goals in visiting, whether accessing information or making purchases. It can be tempting to ignore evaluating a Web site's ease of use, known as **usability**, among the many tasks necessary to create and maintain it. However, usability is critically important in determining whether your users are satisfied or frustrated when they leave your Web site, whether the users make return visits, and whether they recommend the site to friends and colleagues. In addition, designing a usable Web site from the beginning is often much easier than improving the usability of an existing Web site. Thinking about who will use your site and what they'll want from it is an important starting point in creating a usable Web resource.  As you prepare to work on the Lakeland Reeds Web site, you review Web usability guidelines.

DETAILS

The most usable Web sites share the following attributes, which are highlighted in Figure A-5:

- **Consistent and cohesive**

All the pages on a Web site should be visually similar enough that users can tell that they're on the same site. Visual design, including a color scheme and logo, plays an important role. In addition, page elements, such as site navigation links, should appear in a consistent place on every page. Your Web site designs should also make use of elements that are standard on most other Web sites, making your Web site instantly familiar to even first-time visitors. Thus, an important part of creating a new Web design is exploring other Web sites sharing similar audiences or topics to get a clear understanding of the standard elements that users may expect to see.

- **Navigable**

Users often have a specific goal when they visit most Web sites. It's important that your site's opening page makes it clear how users can accomplish the task before them, whether the user wants to find information on a specific topic, buy a product, or make a reservation. In addition, each page should include links that make it clear to users how to move to other areas of the site.

- **Understandable**

The contents of your Web pages need to make sense to your users. Write text in as simple and straightforward a manner as possible, avoiding technical jargon unless your site targets a specific audience that understands it. Limit your Web page designs to the elements you need; overloading a page with too many options and too much information can overwhelm users and prevent them from getting what they need from your site.

FIGURE A-5: Usability features across a single Web site

Colors, logo, and layout are the same for all pages, so it's obvious at a glance that they're part of the same site

Pages share consistent navigation features, and the user's current location on the site is marked

Each page is narrowly focused and contains simple relevant text and graphics

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Testing usability

Even when you create a Web site with usability in mind, it's easy to overlook some of your users' needs and quirks. Especially for larger Web sites, a crucial part of improving a site's usability is **usability testing**, in which a developer sits down with potential or actual users of the site, asks them to accomplish a task, notes how they go about

it and whether they are successful, and asks for their feedback. Often observation of users can point out blind spots that developers have overlooked. Users' feedback may also suggest features that would add a lot of value for your site's visitors.

Managing Web Browser Compatibility Issues

Although everyone who views a given Web page is accessing the same document, different Web browsers translate and display the code differently. In addition to specialized hardware and software such as screen readers, several main Web browsers are in wide use, including Internet Explorer, Firefox, Chrome, and Safari on desktops, notebooks, and tablets, and a number of platform-specific browsers on handheld devices. In addition, each user may be accessing your Web page with an older or newer version of a given browser, and using Windows, OS X, Android, iOS, or another operating system; this multiplies the potential differences in how your page may be presented. While it may be impossible for your Web site to look identical in all versions of all user agents, you can take steps to ensure it looks as close to your original design as possible in many common configurations.  You prepare for your work on the Lakeland Reeds site by brushing up on development practices for maximizing the consistency of your Web pages across different user agents.

DETAILS

Tips for maximizing browser compatibility:

- **Practice good coding habits**

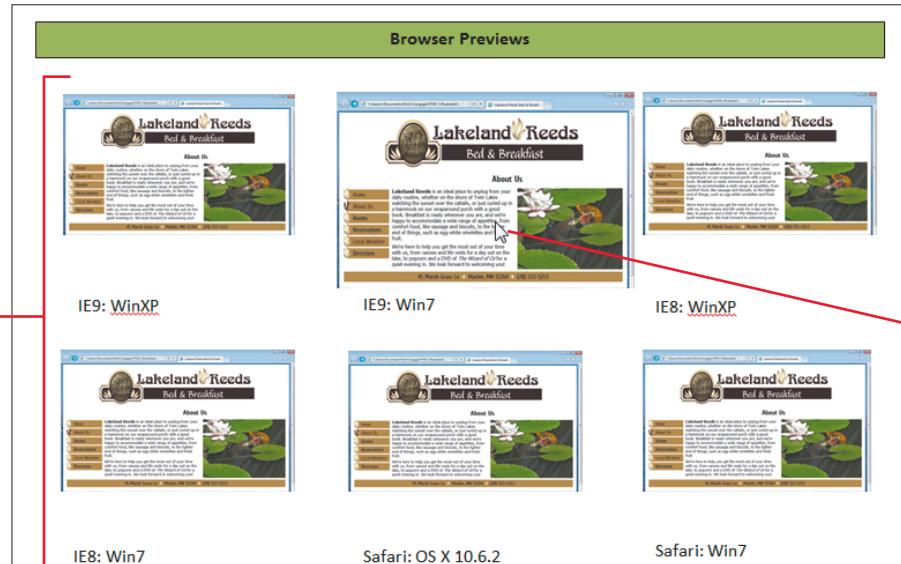
While most Web browsers ignore minor coding errors, not all browsers are as forgiving with all errors. Therefore, as you learn Web page code and begin to practice working with it, it is important to stick to good coding habits.

- **Test your Web site with different user agents**

Because different user agents may render the same code differently, the only way to experience potential discrepancies is to test your Web site in different user agents. While only the largest companies and Web design studios generally own the hardware necessary for exhaustive testing, you should research the user agent configurations that visitors to your site are most likely to be running and make sure you have the hardware and software to test these setups. In addition, software and Web services such as the one shown in Figure A-6 allow you to simulate the user experience in different Web browsers; these can be invaluable in maximizing the visual compatibility of your pages.

- **Validate your HTML and CSS code**

Sometimes a Web page can display as expected in a user agent in spite of code that doesn't conform to specifications. In this case, it can be useful to put your code through an automated comparison against Web coding standards, a process known as **validation**. Several reputable Web sites offer validation services free of charge. In addition to double-checking code that seems error-free, validation can also help to identify the specific source of an error in your code if the error is difficult to track down.

FIGURE A-6: Gallery of browser previews generated by a Web site

*Unholy Vault Designs/Shutterstock.com
Jason Bucy*

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Practicing Good File Management

Another important step in preparing to create a Web site is to set up a folder and document structure for your Web site on your computer. It's important to keep all the files for your Web site in a common location so you can easily locate them when you want to make changes. In addition, as your Web site becomes larger, the number of individual files will likely mushroom, making organization a must. The main directory on the computer, USB drive, or shared network drive where you will save all of the files for your Web site is known as the **local root folder**. Using this folder only for files that are ready to be published helps you avoid erroneously publishing old or unfinished files.  Faduma has supplied you with an automatically generated placeholder Web page for Lakeland Reeds. You create a local root folder for the site and move the provided files into it in preparation for publishing them to the Web.

STEPS

1. Open your file manager, navigate to the drive and folder where you store your Data Files, open the **Unit A folder**, then open the **Unit folder**
2. **Create a new folder inside the Unit folder**
3. **Rename the new folder wwwroot**

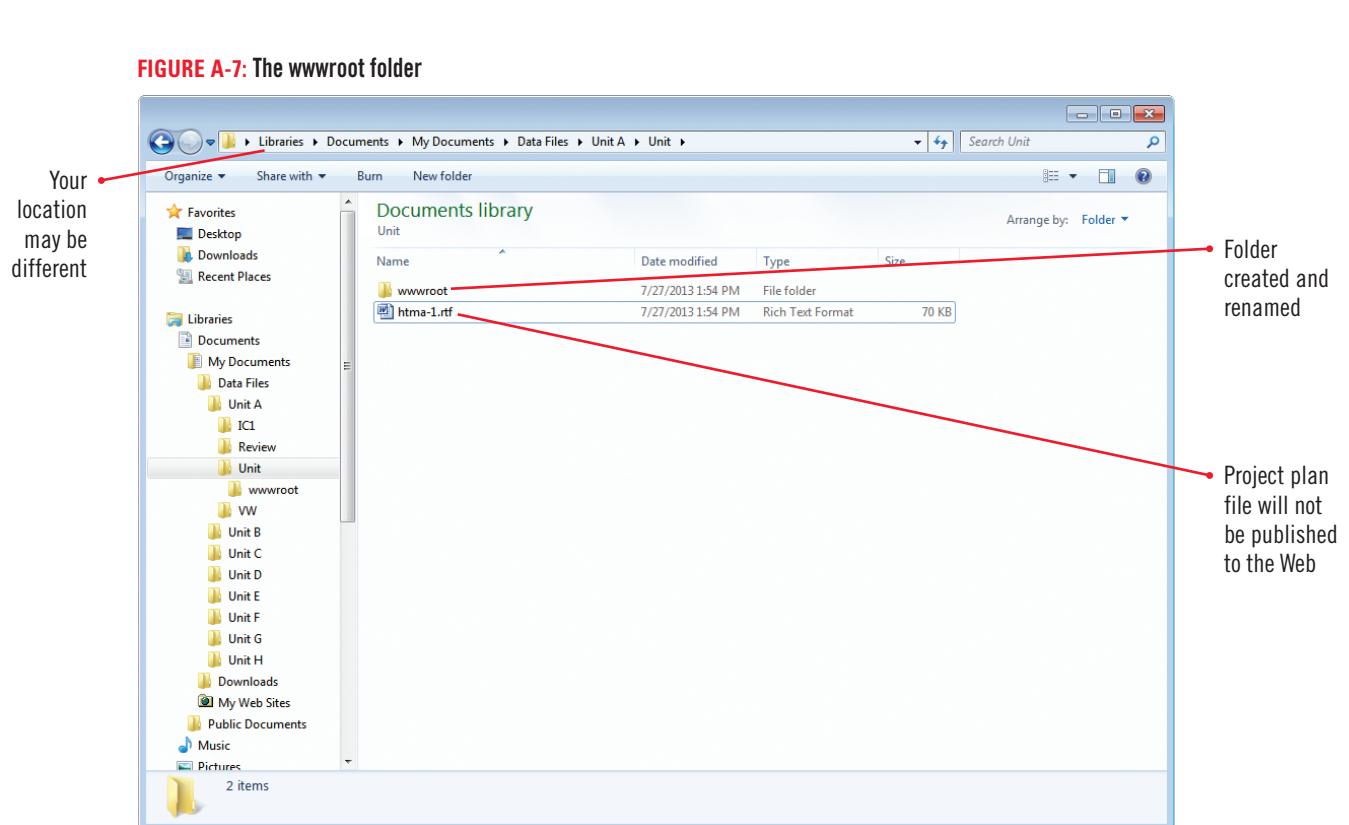
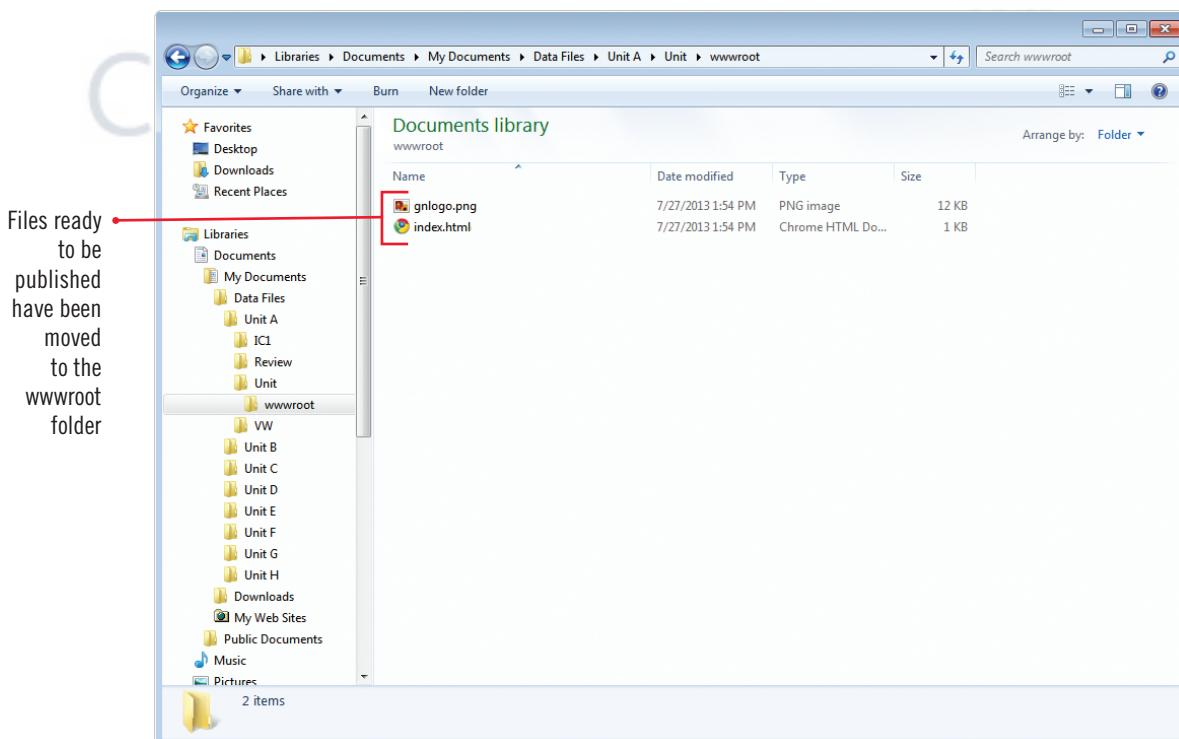
You'll use the wwwroot folder to store the folders and files for the Lakeland Reeds Web site that are ready to be published to the Web.

4. **Move the index.html file to the wwwroot folder, then move the gnlogo.png file to the wwwroot folder**

As shown in Figure A-7, the only file left in the Unit folder is htma-1.rtf, which contains your project plan for the Web site. While this file is related to your work on the Web site, you will not publish it to the Web, so it does not go in the wwwroot folder.

5. **Open the wwwroot folder**

As Figure A-8 shows, the index.html and gnlogo.png files appear in the wwwroot folder.

FIGURE A-7: The wwwroot folder**FIGURE A-8: Files to be published**

Configuring Your FTP Client

As you develop a Web site, you store your Web documents on your local computer. However, to make your site available to anyone with access to the Web, you need to copy the files to a **Web server**, which is a computer optimized to store and share Web documents and that has an extremely high-speed Internet connection. The most common method of transferring documents to a Web server is **File Transfer Protocol (FTP)**, which is a means of communication specifically created for moving files between two networked computers. While FTP capability is built into most popular operating systems, downloading and installing a dedicated FTP program makes the process much easier. Many such programs, known as **FTP clients**, are downloadable for free online.  Before you begin work on the Lakeland Reeds Web site, you configure your FTP client to prepare for uploading your files to the Web.

STEPS

TROUBLE

These steps are for FileZilla, a free FTP client available at www.filezilla-project.org. If you are using a different FTP client, obtain configuration instructions from your instructor or technical support person, or from the documentation that came with the program.

1. Open your FTP client
2. Click **File**, then click **Site Manager**

FileZilla opens the Site Manager dialog box, which provides options for setting up a new connection to a Web server.

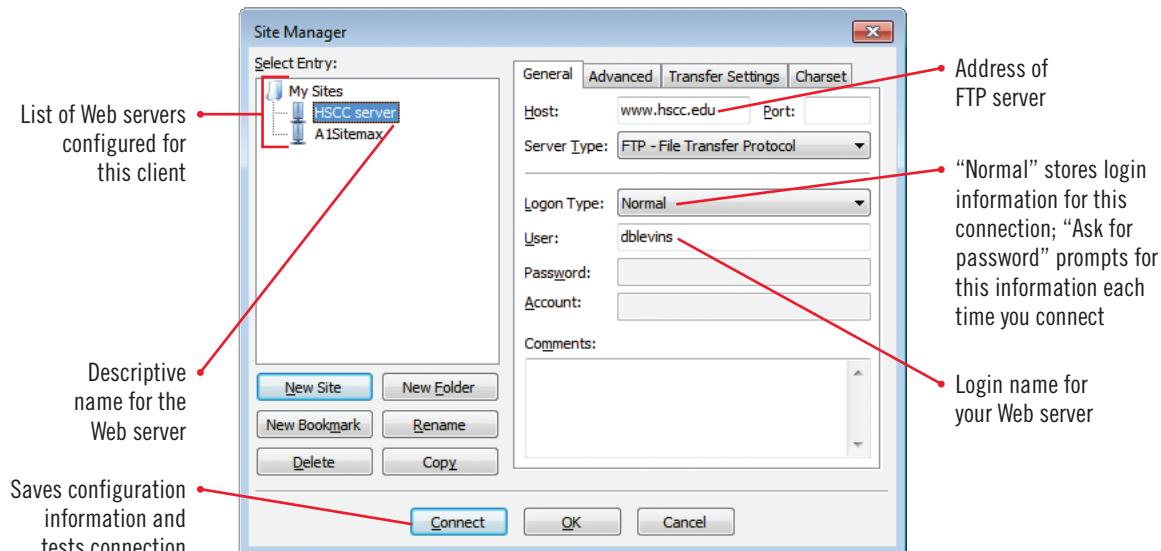
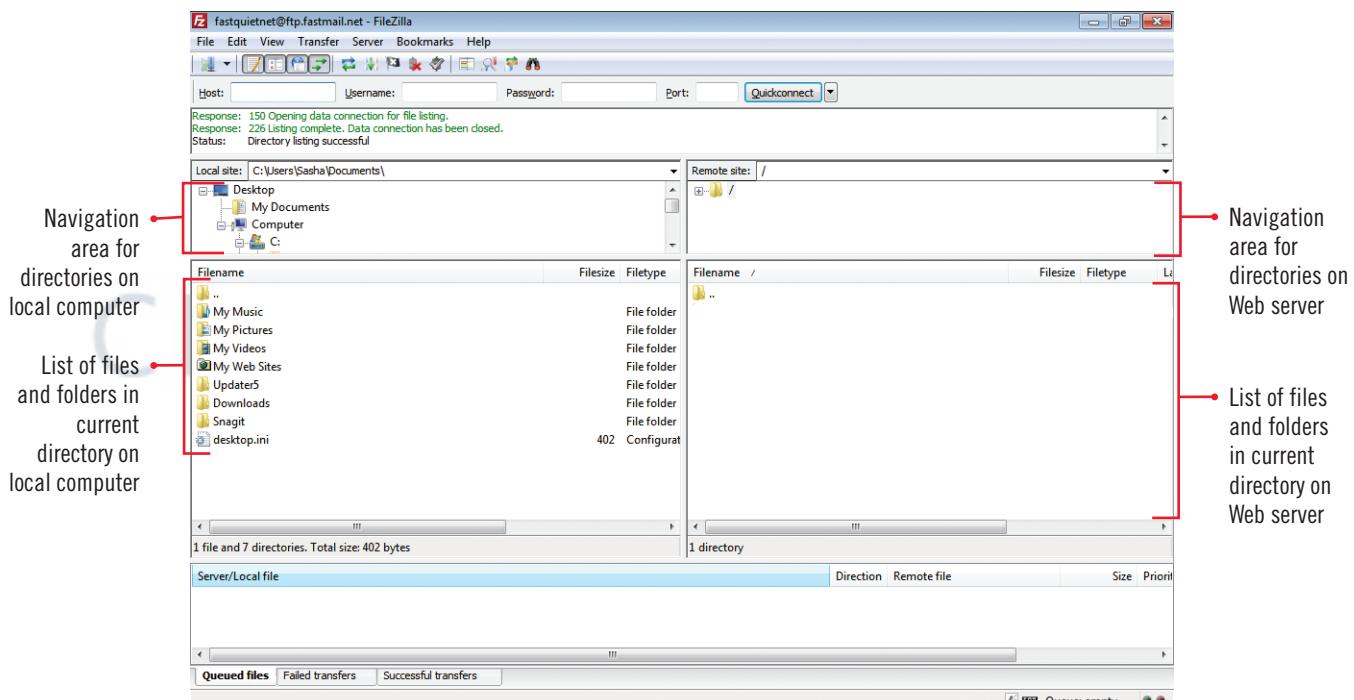
3. Click the **New Site button**, type a descriptive name for the Web server you are configuring, such as the name or abbreviation of your school or Web hosting company, then press **[Enter]**
4. Click the **Host** box, then type the FTP address provided by your instructor, technical support person, or Web host
5. Click the **Logon Type** list arrow, then click **Ask for password**
6. Click the **User** box, then type the user name provided by your instructor or technical support person

Figure A-9 shows the completed Site Manager dialog box.

7. Click **Connect**, type your password, click the **Remember password for this session** check box to uncheck it, then click **OK**
8. Click the **Close** button  to end your FTP connection and exit FileZilla

TROUBLE

If you aren't able to connect to your Web server, ask your instructor or technical support person about other configuration options you might need to select.

FIGURE A-9: Site Manager dialog box**FIGURE A-10: View of connected Web server**

Configuring a testing server

As part of the Web development process, it's useful to upload your pages to your Web server for testing purposes before actually making them available to the public. The final upload location for pages on your Web server is not a good location for this purpose, because all pages you upload there are immediately available to the entire World Wide Web, even pages that still contain errors or don't display properly. Instead, Web developers often maintain a separate

testing server for their projects, which is a location available on a local network or on the Web that is non-publicized and may even require a password for access. When using an FTP client to access a testing server, you use the same local source folder as for final files. The target location, however, may be a different folder on the same Web server, or a different Web host altogether.

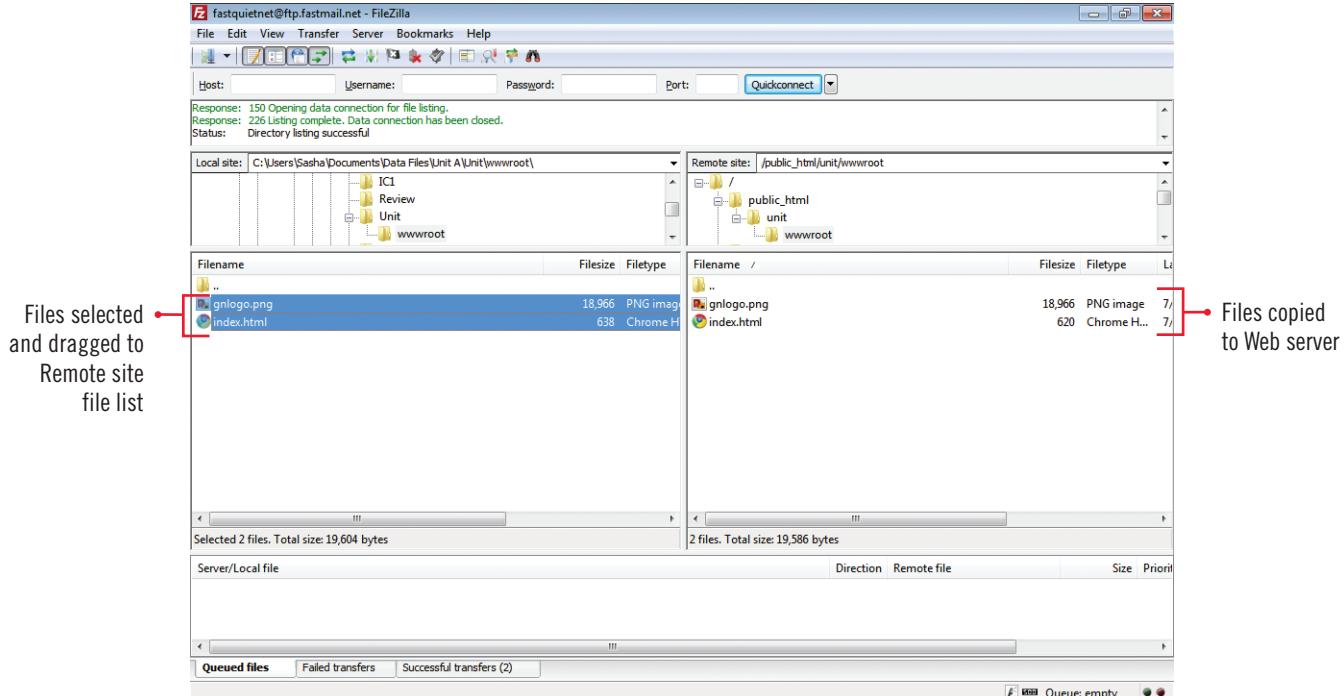
Uploading Web Site Files

Once your FTP client is configured to access your Web server, you can upload the files for your Web site and make them available via the Web.  You upload the placeholder Web page for the Lakeland Reeds Web site to the Web host and verify that it was uploaded correctly.

1. Open your FTP client and connect to your Web server
2. Use the Local site directory tree on the left side of the FileZilla window to navigate to the drive and folder where you store your Data Files, open the **Unit A folder**, open the **Unit folder**, then open the **wwwroot folder**
 The files you moved into the wwwroot folder appear in the Local site file list below the directory tree.
3. Use the Remote site directory tree on the right side of the FileZilla window to Navigate to the folder designated for your Web pages on the Web server
 Any Web documents that you copy to this directory are available on the Web.
4. Right-click a blank area of the Remote site file list, click **Create directory**, type **unit**, press **[Enter]**, then double-click the **unit folder** to open it
5. Repeat Step 4 to create a new directory named **wwwroot**, within the **unit directory** and then open the new directory
6. In the Local site file list, click **gnlogo.png**, press and hold **[Ctrl]** (Windows) or **[command]** (Mac), click **index.html**, release **[Ctrl]** or **[command]**, then drag the selected files to the **Remote site file list** and release the mouse button
7. If necessary, enter your password, click the **Remember password for this session** check box to uncheck it, then click **OK** for each file
 The files are copied to your Web server, as shown in Figure A-11.
8. Click the **Close button** to end your FTP connection and exit FileZilla
9. Open your Web browser, then navigate to the Web publishing address provided by your instructor or technical support person
 The Lakeland Reeds placeholder page displays, as shown in Figure A-12.
10. Close your Web browser

TROUBLE

If you do not see the Web page shown in Figure A-12, be sure you added the /unit/wwwroot directory path to the end of the default path to your Web documents.

FIGURE A-11: Web site files copied to Web server

CENGAGE **brain** .com

FIGURE A-12: Lakeland Reeds placeholder Web page

Practice

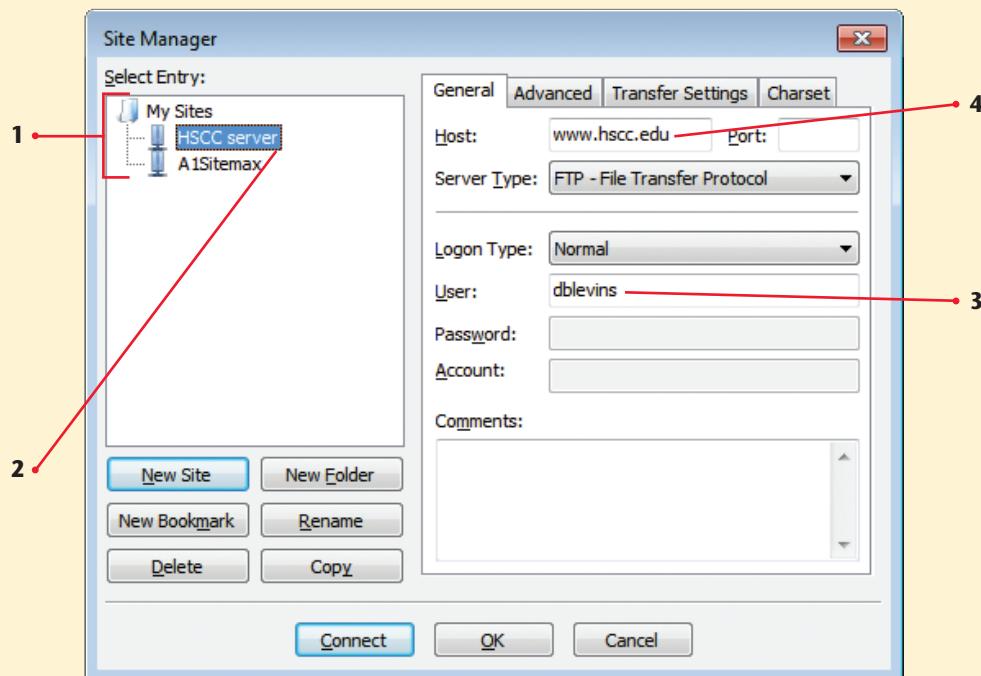
Concepts Review



For current SAM information, including versions and content details, visit SAM Central (<http://www.cengage.com/samcentral>). If you have a SAM user profile, you may have access to hands-on instruction, practice, and assessment of the skills covered in this unit. Since various versions of SAM are supported throughout the life of this text, check with your instructor for the correct instructions and URL/Web site for accessing assignments.

Label each item in the FTP client dialog box shown in Figure A-13.

FIGURE A-13



Match each term with the statement that best describes it.

- 5. usability**
- 6. local root folder**
- 7. storyboard**
- 8. File Transfer Protocol**
- 9. validation**
- 10. user agent**
- 11. Web server**

- a. an automated comparison of the code for a Web page against Web coding standards
- b. a Web site's ease of use
- c. a computer optimized to store and share Web documents, with an extremely high-speed Internet connection
- d. a program or device that interprets Web documents
- e. a means of communication specifically created for moving files between two networked computers
- f. a sketch that outlines the components of each Web page and their places in the layout, as well as the links between the pages in a Web site
- g. the main directory on the computer, USB drive, or shared network drive where you save all of the files for a Web site

Select the best answer from the list of choices.

12. The process of identifying the goals and objectives, as well as the target audience, of the Web site is summed up in the _____.

- a. Web server
- b. user agent
- c. project plan
- d. storyboard

13. On a Web design team, often people responsible for art or design create the _____ and hand it off to the developers to make into a Web page or Web site.

- a. storyboard
- b. validator
- c. FTP client
- d. user agent

14. What is one advantage of using a template to create a Web site?

- a. It is guaranteed to create an accessible site.
- b. It can save time in the development process.
- c. You can publish the resulting site without an FTP client.
- d. It doesn't require you to use multiple user agents to check the Web pages you create.

15. What is one advantage of building a high level of accessibility into any Web pages you create?

- a. It widens the potential audience for your work.
- b. It doesn't require you to use multiple user agents to check the Web pages you create.
- c. It eliminates the need to create a storyboard.
- d. You can publish the resulting site without an FTP client.

16. Making a Web site consistent, cohesive, navigable, and understandable helps improve its _____.

- a. project plan
- b. accessibility
- c. storyboard
- d. usability

17. A Web developer can get valuable feedback on a Web site by sitting down with potential or actual users and watching them attempt to accomplish a task, a process known as _____.

- a. storyboarding
- b. validation
- c. usability testing
- d. uploading

Skills Review

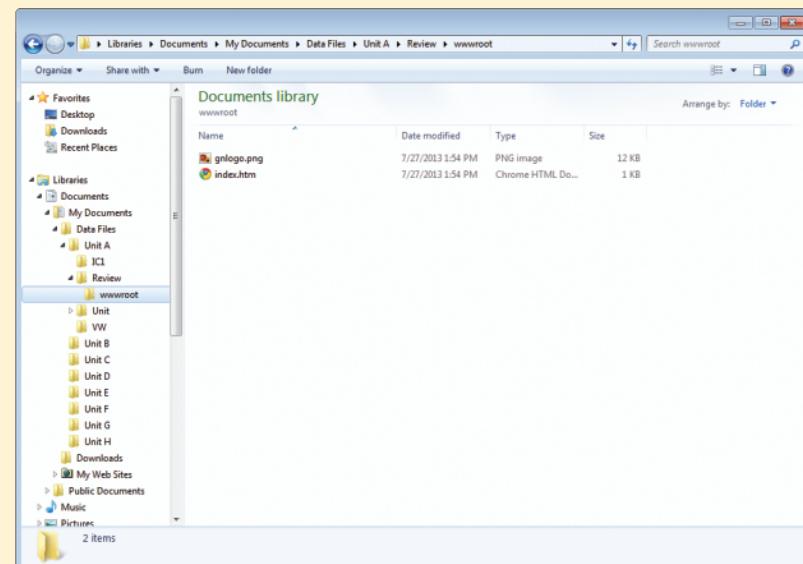
1. Practice good file management.

- a. Open your file manager.
- b. Navigate to the drive and folder where you store your Data Files, open the Unit A folder, then open the Review folder.
- c. Create an empty folder inside the Review folder and rename it **wwwroot**.
- d. Click and drag the index file to the wwwroot folder, then click and drag the gnlogo file to the wwwroot folder.
- e. View the contents of the wwwroot folder and compare your screen to Figure A-14.

2. Upload Web site files.

- a. Open your FTP client and connect to your Web server. If you are using an FTP client other than FileZilla, use the steps provided for your client instead of the steps below to upload the contents of the wwwroot folder to your Web server.
- b. In the Local site directory tree, navigate to the drive and folder where you store your Data Files, open the Unit A folder, open the Review folder, then open the wwwroot folder.

FIGURE A-14



Skills Review (continued)

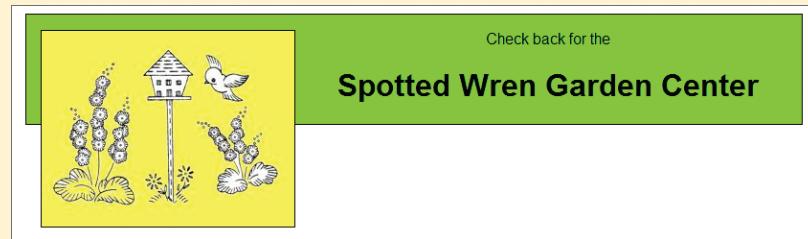
- c. Use the Remote site directory tree on the right side of the FileZilla window to navigate to the folder designated for your Web pages on the Web server.
- d. Right-click a blank area of the Remote site file list, create a new folder named **review**, then open the review folder.
- e. Repeat Step d to create a new directory named **wwwroot** within the review directory, then open the new directory.
- f. In the Local site file list, select the files gnlogo.png and index.html, then drag the files to the Remote site file list.
- g. If necessary, enter your password, click the Remember password for this session check box to uncheck it, then click OK for each file.
- h. Close your FTP connection and exit your FTP client.
- i. Open your Web browser, then navigate to the Web publishing address provided by your instructor or technical support person to view the files you uploaded. Be sure to add the /review/wwwroot directory to the end of your default Web publishing address.
- j. Close your Web browser.

Independent Challenge 1

Spotted Wren Garden Center, a local garden shop and plant store, has hired you to create a Web site for their business. Sarah Nguyen, the shop's owner and manager, would like you to create a Web presence as a new avenue of marketing, as well as a means to keep regular customers up to date on seasonal specials and new products. You start your work on the site by setting up a folder structure on your local machine for the Web site, copying the placeholder files that a colleague has created for you to the appropriate folder, creating the necessary folders on your Web server, and uploading and previewing the placeholder files.

- a. In your file manager, navigate to the drive and folder where you store your Data Files, open the Unit A folder, then open the IC1 folder.
- b. Create a new folder within the IC1 folder named **wwwroot**.
- c. Move the index and birdhouse files to the wwwroot directory.
- d. Open your FTP client and connect to your Web server.
- e. In the Local site directory tree, navigate to the drive and folder where you store your Data Files, open the Unit A folder, open the IC1 folder, then open the wwwroot folder.
- f. Use the Remote site directory tree on the right side of the FileZilla window to navigate to the folder designated for your Web pages on the Web server.
- g. Create a new folder named **ic1** on the remote server, then open the ic1 folder and create a folder named **wwwroot** within it.
- h. Drag the files index.html and birdhouse.jpg to the Remote site file list to upload them to the Web server, entering your password if necessary.
- i. Close your FTP connection, exit your FTP client, then view the page you just uploaded in your Web browser, which should look like the one shown in Figure A-15. Be sure to include **/ic1/wwwroot** in the Web address.
- j. Close your Web browser.

FIGURE A-15



Independent Challenge 2

To help build your Web design skills, you have volunteered to create a Web site for the Murfreesboro Recreational Soccer League (MRSL). The league organizes recreational leagues every summer and fall for local, nonprofessional soccer players to get exercise and have fun. You start your work on the site by preparing directory structures on your local computer and your Web server, and researching potential accessibility and usability elements.

- a. In your file manager, navigate to the drive and folder where you store your Data files, open the Unit A folder, then open the IC2 folder.
- b. Create a new folder within the IC2 folder named **wwwroot**.
- c. Open your FTP client and connect to your Web server.
- d. Use the Remote site directory tree on the right side of the FileZilla window to navigate to the folder designated for your Web pages on the Web server.
- e. Create a new folder named **ic2** on the remote server, then open the ic2 folder and create a folder named **wwwroot** within it. Your remote directory structure should resemble the one shown in Figure A-16.
- f. Close your FTP connection, then exit your FTP client.

Advanced Challenge Exercise



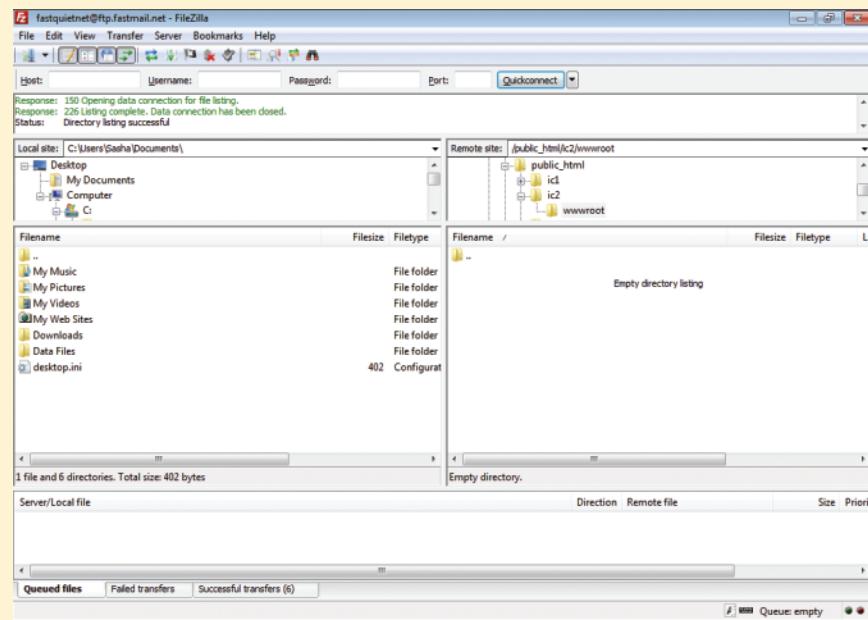
- Open your Web browser, then use the search engine of your choice to find and explore at least two recreational sports Web sites.
- Using the “Implementing Web Accessibility” section of this unit as a guide, write a paragraph about each Web site that assesses the site’s design in terms of accessibility. Specify at least three details of each Web site and explain why you feel they help or hinder the site’s accessibility.
- Using the “Evaluating Web Site Usability” section of this unit as a guide, write a paragraph about each Web site that assesses the site’s design in terms of usability. Specify at least three details of each Web site and explain why you feel they help or hinder the site’s usability.

Independent Challenge 3

In your new job creating sites for a Web design firm, you’ve been assigned a new client, Hotel Natoma. The hotel’s business manager, Diego Merckx, wants to use the Web to showcase the facility and its amenities. You start your work on the site by preparing directory structures on your local computer and your Web server, and researching potential browser compatibility issues to watch for by exploring similar Web sites.

- a. In your file manager, navigate to the drive and folder where you store your Data files, open the Unit A folder, then open the IC3 folder. Create a **wwwroot** folder within the IC3 folder.
- b. Open your FTP client, connect to your Web server, and use the Remote site directory tree on the right side of the FileZilla window to Navigate to the folder designated for your Web pages on the Web server.

FIGURE A-16



Independent Challenge 3 (continued)

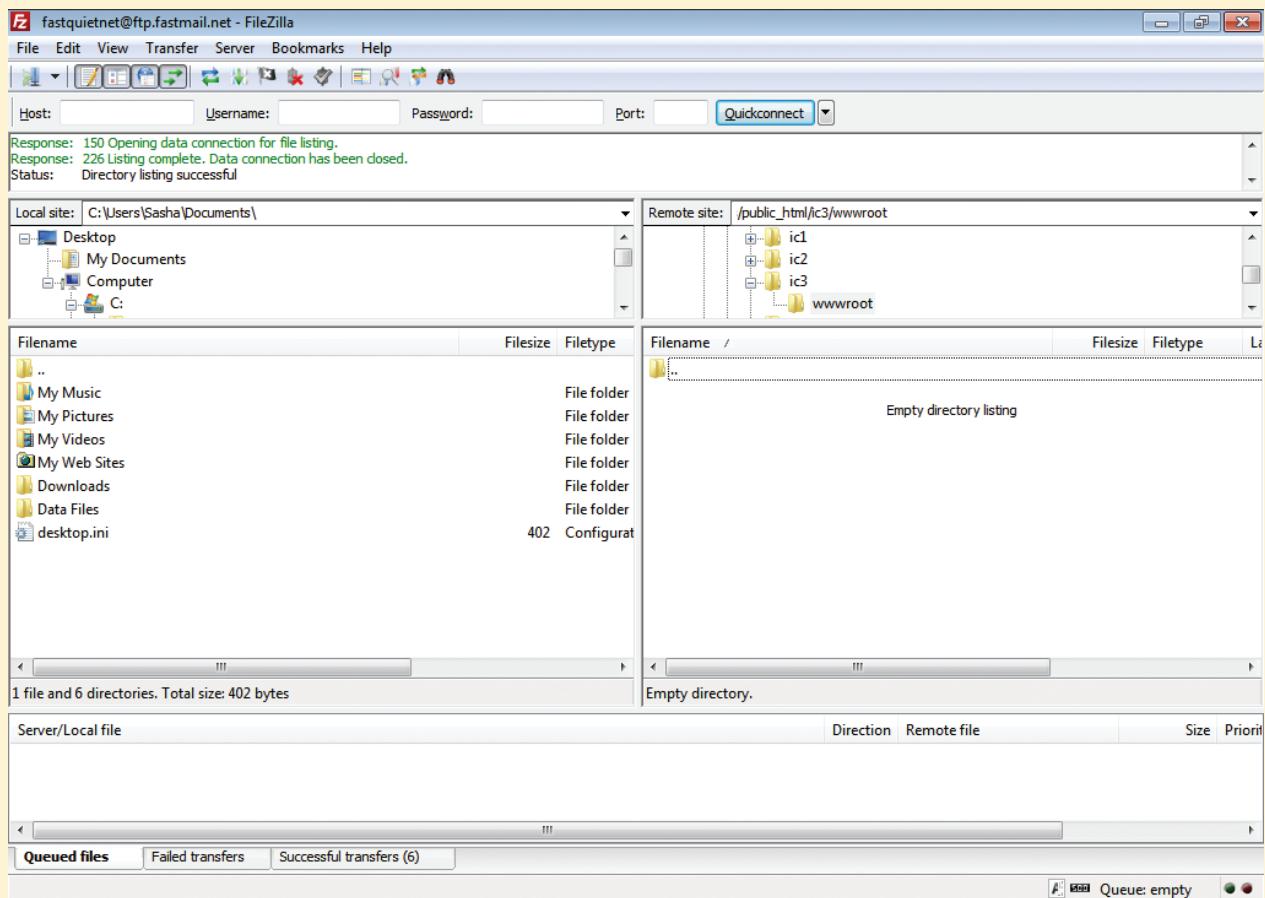
- c. Create a new folder named **ic3** on the remote server, then create a folder named **wwwroot** within the ic3 folder.
Your remote directory structure should resemble the one shown in Figure A-17.
- d. Close your FTP connection, then exit your FTP client.

Advanced Challenge Exercise



- Open your Web browser, then use the search engine of your choice to find and explore at least two Web sites for small hotels.
- Using a search phrase such as “check browser compatibility,” use the search engine of your choice to find a Web site that allows you to check a site’s browser compatibility in multiple browsers for free.
- Use the browser compatibility site to use at least three browsers to compare the appearance of one of the hotel sites you explored. Save browser screenshots to the location where you store your Data Files and write a paragraph summarizing any differences in appearance that you notice.

FIGURE A-17



Real Life Independent Challenge

This Independent Challenge requires an Internet connection.

For this Independent Challenge, you will choose a topic or organization of personal interest and create a Web site for or about it. As a first step, you will create a project plan, survey other similar sites, and create a storyboard. Throughout this book, you will design and build the site.

This Real Life Independent Challenge will build from unit to unit, so you must complete the Real Life Independent Challenge in each unit to complete your Web site.

- a. Create a project plan for your Web site using the components outlined in the "Assembling a Project Plan" section of this unit and the sample project plan in the htma-1.rtf data file. Include your name at the bottom of the project plan as the contact person. Your course syllabus may be helpful in creating a timeline of components to add to the site, as well as indicating a final publishing date.
- b. Open your Web browser, then use the search engine of your choice to find and explore at least two other sites similar to the one you are planning. Write a summary of each site, noting the ways in which the site's focus is similar to and different from the one you are planning, and describing specific aspects of the site that you find less appealing or more appealing. Using the "Implementing Web Accessibility" and "Evaluating Web Site Usability" sections of this unit as a guide, assess the design of each Web site in terms of accessibility and usability.
- c. Sketch a storyboard for your Web site, including at least one and no more than five Web pages. If you have a background in graphic design, or have a friend or colleague who's willing to help, sketch an arrangement of elements and include colors, graphics, and any other page elements the site should include.
- d. Use your FTP client to connect to your Web server. Create a folder named **rlic**, then create a folder named **wwwroot** within the new folder.

Visual Workshop

Use your file manager and your FTP client to create the folder paths shown in Figure A-18.

FIGURE A-18

