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The Internet

Comprehensive

Tenth Edition

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NEW PERSPECTIVES

The Internet

10th Edition

COMPREHENSIVE

Jessica Evans

Ralph Hooper
The University of Alabama

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MODULE 1

Browser Basics

Using Web Browser Software

OBJECTIVES

Session 1.1

- Define the terms associated with the Internet and the World Wide Web
- Differentiate between web servers and web clients
- Identify the name of the language used to create webpages and understand how it is used
- Identify the shared features of Google Chrome, Microsoft Edge, and Mozilla Firefox
- Ensure easy access to previously visited websites
- Efficiently navigate the web
- Identify and manage cookies
- Use the associated private browsing mode
- Use the Help features provided by each browser
- Save and print webpages

Session 1.2

- Use Chrome's omnibox to complete calculations and conversions
- Use Chrome to translate webpages from one language to another
- Customize your Chrome browser with extensions and themes
- Scroll and zoom webpages easily and efficiently using Chrome
- Use the Edge address bar to search
- Use the Reading List and Reading View in Edge
- Customize Edge by modifying default settings for searching and reading view
- Use Edge to make and share web notes
- Subscribe to RSS feeds
- Share webpages on social media
- Customize your Firefox browser with Add-ons
- Use the Firefox Find feature

Case | *Arden Valley Independent School District*

Dr. Susan Murphy, the recently selected superintendent of the Arden Valley Independent School District, has just returned from the National Education Association Leadership Summit in Chicago, Illinois. Among the many sessions she attended at the conference, one session in particular, entitled "Gaps in School Acceptable Use Policies," has motivated her to do a review of the Arden Valley school district's acceptable use policies. You are serving as an intern in the superintendent's office this semester and will help Dr. Murphy with her review. Dr. Murphy is especially concerned about how the school district handles intellectual property (IP) rights. She believes that many of those involved in properly obtaining and citing these rights, such as students, teachers, and administrators, might not have sufficient knowledge about the process. Dr. Murphy has created the following list of questions to begin her review.

1. How does U.S. copyright law define fair use as it applies to school districts?
2. What can the school district do to help people make ethical choices concerning IP rights?
3. What types of IP rights does the acceptable use policy need to cover?
4. Are there online tutorials that students, teachers, and administrators can view to increase their knowledge of IP issues?
5. What are the legal implications for individuals and for the school district if there is a breach of IP rights?
6. What legal steps can the school district take to protect itself against a violation of IP rights by a student or employee?
7. Does the current policy on the use of software by the district adequately cover all possible instances of IP rights violations, and does it spell out the consequences of these violations?

As a first step in finding out answers to her questions, Dr. Murphy has asked you to compile a list of online references about copyright issues. While you are still learning about the Internet, you agree to give it "the old college try."

Dr. Murphy suggests beginning your search with the website for the United States Copyright Office at http://www.copyright.gov.

To help Dr. Murphy with her questions, you will first need to learn more about using a web browser.

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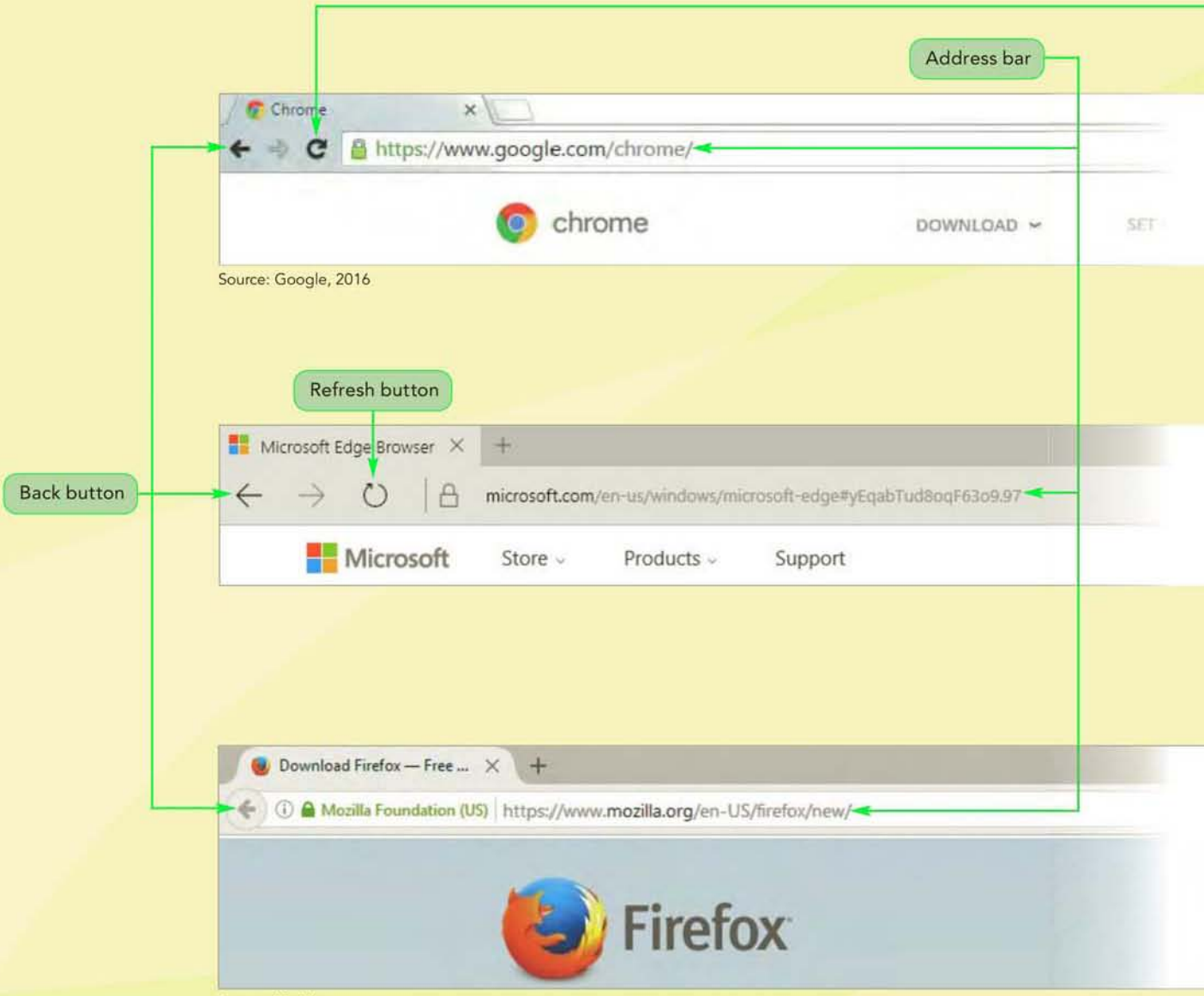
SESSION 1.1 VISUAL OVERVIEW:



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Source: Mozilla

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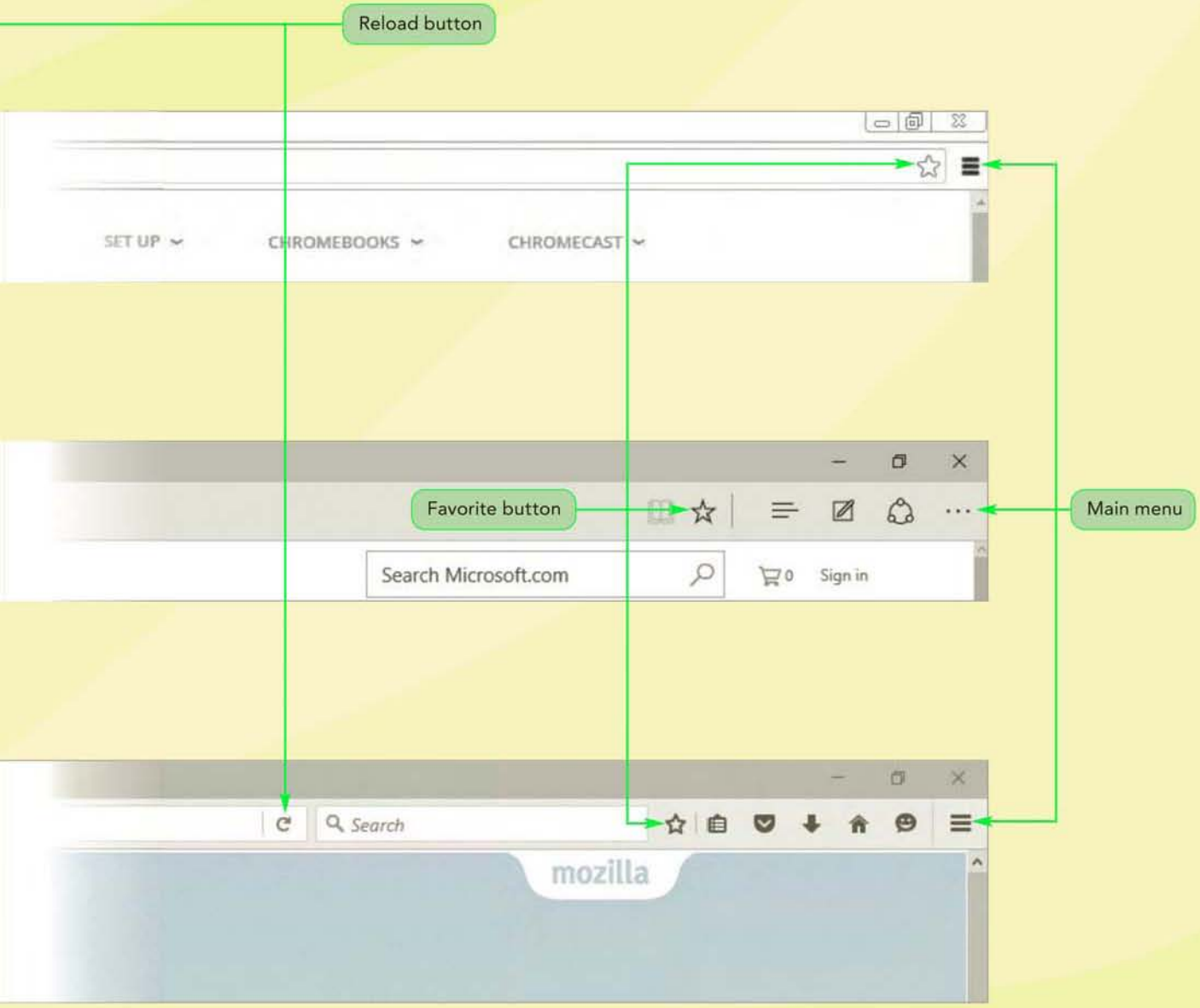
CHROME, EDGE, AND FIREFOX BROWSERS



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Understanding the Internet and the Web

Computers that are connected to each other form a **network**. When networks are connected to each other, the system is called an **interconnected network** or **internet** (with a lowercase "i"). The **Internet** (with an uppercase "I") is a specific interconnected network that connects computers all over the world using a common set of standards. Although it began as a computer science project sponsored by the U.S. military, the Internet today allows people and businesses all over the world to communicate with each other in a variety of ways.

The part of the Internet known as the **World Wide Web** (or the **web**) is a collection of files that reside on computers called **web servers** that are connected to each other through the Internet. Most of the files on a computer, including a computer connected to the Internet, are private; that is, only the computer's users can access those files. The web contains millions of files made publicly available by their rights holders or owners. Anyone who has a computer connected to the Internet can obtain access to these files.

When you use an Internet connection to log on to the web, your computer becomes a **web client**. A **web browser** is the software that allows your computer to connect to, locate, retrieve, and display web content. You can read Appendix A to learn more about the history of the Internet and the web and the technologies behind their operation.

INSIGHT

Choosing a Browser

There is a variety of web browsers available on the Internet. Some of the most popular browsers are Google Chrome, Microsoft Edge, and Mozilla Firefox. Microsoft Edge comes pre-installed on computers running the Windows 10 operating system. You can download and install the Chrome and Firefox browsers for free, enabling you to choose the one you want to use. All web browsers have similar features, but some are more robust and others are more streamlined. To help evaluate and decide which web browser is right for your needs, you should read browser reviews, explore product pages, take tours or demos of the browsers, and try them.

PROSKILLS

Algorithms, Programs, and Software

An algorithm is a step-by-step set of instructions that tells a computer what to do. An algorithm meets the following conditions:

1) The steps are ordered.
2) The steps are unambiguous.
3) The steps are executable.
4) There exists halting criteria so that the number of steps is finite.

A program, also called computer software or software, is the result of an algorithm, in which the steps are encoded using a programming language such as C++ that has been entered into the computer.

Computer software can execute many problems or "tasks" at the same time. For example, a browser is a type of software that is able to manage a variety of tasks such as displaying websites, finding websites, searching for websites, etc.

Web authors and browser designers use the hypertext markup language (HTML) to determine how content and tasks appear on a website.

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Working with Hypertext Markup Language and Hyperlinks

The public files on web servers are ordinary text files, much like the files created and used by word-processing software. To enable web browser software to read these files, the text must be formatted according to a generally accepted standard. The standard used on the web is **Hypertext Markup Language (HTML)**. HTML uses codes, or **tags**, that tell the web browser software how to display the text contained in the text file. For example, a web browser can read the following line of code:

```
<b>A Review of the Book <i>Wind Instruments</i></b>
```

In this example, the code recognizes the and tags as instructions to display the entire line of text in bold and the and tags as instructions to display the text enclosed by those tags in italic. A text file that contains HTML tags is called an **HTML document**.

HTML provides a variety of text formatting tags that can be used to indicate headings, paragraphs, bulleted lists, numbered lists, and other text enhancements in an HTML document. (You will learn more about HTML tags in Module 8.) The real power of HTML lies in its anchor tag. The **HTML anchor tag** enables web designers to link HTML documents to each other. Anchor tags in HTML documents create **hypertext links**, which are instructions that point to other HTML documents or to another section of the same document. Hypertext links are also called **hyperlinks** or **links**. An example of the use of an anchor tag to create a link is illustrated by the following line of code:

```
<a href="http://www.cengage.com">Cengage Learning</a>
```

When the code is placed in an HTML document, the browser displays the words "Cengage Learning." When the phrase is pointed at with the cursor, the cursor changes to a hand shape, and when the phrase is clicked, the browser displays the URL: http://www.cengage.com. Normally, links such as this one would appear underlined and in blue font; click on them and the color changes to indicate previous use. It is the code author's job to enter instructions for indicating how a link interacts with the user. You will learn more about writing code in Module 8.

You can share linked HTML documents on any computer anywhere in the world as long as there is an Internet connection. When a web browser displays an HTML document, it is often referred to as a **webpage**.

Starting a Browser

This introduction assumes you have at least one of the following browsers installed on your computer: Google Chrome, Mozilla Firefox, or Microsoft Edge. You can download and install Chrome and Firefox free from the Internet. Microsoft Edge comes installed with Windows 10 and replaces Internet Explorer (IE) as Microsoft's entry in the browser market. If you have all three browsers installed on your computer, you can try all of the features discussed in this module. However, even if you have only one of these browsers available, you should still read about and study all of the browsers, and as you read the module, make frequent reference to the Visual Overviews. Typically, your desktop will have a browser shortcut icon, which you can double-click to launch the browser.

When your browser opens, you might notice similarities and differences between it and other browsers you have used in the past. Different browsers have their own version of the address bar for opening webpages, the back and forward buttons for navigating among previously visited pages, the tabs for open webpages, and the browser menu button. Users can customize their browser features to suit their personal needs.

Session 1.1 Visual Overviews for Chrome, Edge, and Firefox show possible configurations that a user could set up. However, you might choose to customize your

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browsers differently. Throughout this module you are encouraged to refer frequently to the Visual Overview to review the basic concepts illustrated for each browser. We will learn about the specifics for customizing Chrome, Edge, and Firefox in Session 1.2.

Navigating Webpages

To identify a particular webpage's exact location on the Internet, web browsers rely on an address called a **Uniform Resource Locator** or **URL,** which is the address of a specific webpage. Every webpage has a unique URL, similar to the mailing address for a home or business. A URL is a four-part addressing scheme that communicates the following information to the web browser:

- the protocol to use when transporting the file
- the domain name of the computer on which the file resides
- the path for the folder or directory on the computer in which the file resides
- the name of the file

For example, in the URL http://www.loc.gov/rr/rarebook/digitalcoll/digitalcoll-audubon.html, the *"http://"* is the **transfer protocol**, which is the set of rules used to move files between computers. The two most common protocols used to transfer files on the Internet are Hypertext Transfer Protocol (HTTP) and File Transfer Protocol (FTP). The second part of the URL, the domain name, is the *"www.loc.gov"* in the above example; this references the location of the computer on which the webpage resides. The *"www"* indicates a connection to the web. The *"loc"* represents the name of the website (Library of Congress), and *".gov"* identifies the website as a United States government site. The *"/rr/rarebook/digitalcoll/"* portion of the URL provides the path for the folder in which the webpage file is located, and the last portion of the URL, *"digitalcoll-audubon.html,"* is the filename.

Entering a URL in the Address Bar

You can use the Address bar to enter a specific URL and go directly to that webpage. For example, you can enter the complete URL for a website, such as http://www.npr.org, to load that webpage in the browser. You might notice that as you begin to type, a list opens, displaying pages you have previously visited that begin with the letters you are typing; you can select a URL and press the Enter key to return to that webpage. Browsers will try to complete partial URLs that you type in the Address bar. For example, if you type npr.org, your browser will convert it to http://www.npr.org and load the webpage at that URL.

If you do not see the URL you want in the Address bar list, you can enter a partial URL or a search word; this will open the search engine. A **search engine** performs a search based on the text you type in a search box—in this case, the Address bar—and displays the search results. You can click any link in the search results to go to its webpage. You will learn more about search engines in Module 3.

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INSIGHT

Understanding Home Pages

On the web, the term "home page" has two possible definitions. The first definition indicates the main webpage on a particular website; all the pages on the site link back to it. This webpage is the first page that opens when you visit a website. The file name most commonly given to such a webpage is index.html. The html file extension tells the browser that this is an HTML-coded text file. The browser should interpret this type of HTML file before displaying it.

The second definition of a home page is the page that opens when you start your web browser. One of the skills you will learn in this module is how to customize your browser so that your home page can be whatever webpage you desire. In fact, you can customize your browser to open with multiple home pages, if you like, each in its own tab. You might notice that the computer you use at the school's library automatically opens to its main webpage.

Dr. Murphy wants you to begin your research on copyright issues.

To load the United States Copyright Office home page:

1. Open Google Chrome.
2. Click in the **Address bar** to select the URL, and then type **http://www.copyright.gov**. This is the URL for the United States Copyright Office website.

   Trouble? The Address bar might display a list of suggested URLs as you type; ignore these suggestions and continue typing.
3. Press the **Enter** key. The home page of the United States Copyright Office website loads, as shown in Figure 1-1.

Figure 1-1 Home page of the United States Copyright Office

Source: Copyright.gov

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PROSKILLS

Written Communication: The Importance of Organization on a Website

Websites are a form of written communications media similar to printed brochures, magazines, and newsletters. By visiting different websites, you can come up with your own ideas and plans for building one. Web designers design, plan, and organize how a website will look and function. They also make sure to reflect an organization's communications goals by carefully displaying information so that visitors to the site will be able to access what they are looking for efficiently. For example, the U.S. Copyright Office's home page includes links to information that it believes website visitors will be seeking, such as the following:

- ABOUT US
- NEWS
- LAW AND POLICY
- PUBLICATIONS
- CONTACT US

On the U.S. Copyright Office's website, each of these headings leads to a set of related topics. Another important point in organizing the website is that the navigation tools should appear in the same place and in the same form on every page. This consistent structure helps visitors to the site familiarize themselves with its functionality. The use of common color combinations and consistent headers and graphics reinforces the message and validity of the website.

When writing, clearly organize thoughts and ideas around a theme that conveys your message while guiding readers to the most important information in a direct way. You can accomplish this on a website by understanding what your site's visitors will be looking for and structuring your site to organize that information and make it easy to find.

Clicking Links

Most sites provide helpful links that allow users to navigate from one webpage to another. Some of these web links take users to pages hosted on other websites, such as the Congress.gov link at the bottom of the U.S. Copyright Office home page, which directs your browser to the official website of the U.S. Congress. The U.S. Copyright Office home page also provides a link to news and press releases that it has archived; clicking the link takes you directly to an organized list of resources. Another type of link typically found on a webpage is a mailto link, such as the U.S. Copyright Office Webmaster link displayed on the bottom-right of the home page. Clicking this link opens an email addressed to loc.gov. It is easy and efficient to navigate the web using links. You will use links to open the Copyright Law webpage and then to go further into the laws by selecting links to more detailed information.

To use links to navigate the United States Copyright Office website:

1. On the United States Copyright Office home page, point to the **LAW AND POLICY** link, as shown in Figure 1-2. The pointer changes to the shape of a hand with a pointing index finger, and a drop-down menu appears.

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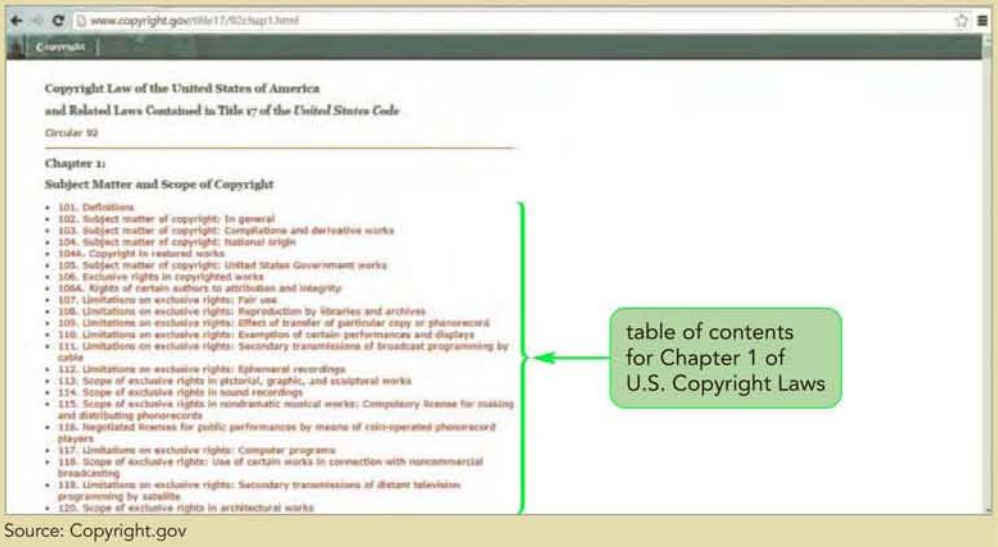
Figure 1-2 Pointing to a hyperlink

Source: Copyright.gov

2. Click the **Copyright Law** link. The Copyright Law of the United States webpage opens in the browser window.
3. On the Copyright Law webpage, click the **HTML** link for **Chapter 1: Subject Matter and Scope of Copyright**. The Chapter 1 page opens in the browser window as shown in Figure 1-3.

Figure 1-3 Chapter 1 of Copyright Laws



Source: Copyright.gov

4. On the Chapter 1 webpage, click the **101. Definitions** link. You are directed to a location farther down the Chapter 1 webpage. This is an example of a link applied to a named location on the same webpage rather than a link to an entirely different webpage.

Dr. Murphy was right; this is a great place to start building online resources for copyright issues.

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Navigating Visited Webpages

The Back and Forward buttons on the Navigation bar allow you to navigate among the pages you have just visited. When you first start a browser session, these buttons are grayed out or otherwise unavailable. After visiting more than one webpage in a browsing session, the Back button changes, indicating that it is active and available. Clicking the Back button returns the browser to the previous webpage. You can continue clicking the Back button until you reach the first page you viewed when you started the browsing session. Once you click the Back button, the Forward button activates, and you can click the Forward button to return to pages you have visited.

As you move among your visited pages, you might want to reload or refresh a webpage. The Reload/Refresh button loads a new copy of the webpage that currently appears in the browser window. Browsers store a copy of every webpage they display on your computer's hard drive. Storing this information increases the speed at which they can display pages as you navigate back and forth through visited sites because the browser can load the pages from a local disk drive instead of reloading them from the remote web server. When you click the Reload/Refresh button, your browser contacts the web server to see if the webpage has changed since it was stored locally. If it has changed, your browser gets the new page from the web server; otherwise, it loads the copy stored on your computer. Use the Back, Forward, and Reload/Refresh buttons to navigate among the webpages you visited on the USCO website.

To navigate among visited pages on the United States Copyright Office website:

1. Click the **Back** button to return to the top of the Chapter 1 page.
2. Click the **Back** button to return to the Copyright laws of the United States page.
3. Click the **Forward** button to return to the Chapter 1 page.
4. Click the **Back** button to return to the Copyright laws of the United States page.
5. Click the **Back** button to return to the Copyright Office home page.
6. Click the **Reload** button in the Address bar to load a new copy of the home page. You might see a change in the story headline, but you should see no other changes, as most of the page elements do not update frequently.

Using the Page Tabs

So far, you have used the same tab for all of the webpages you have visited. You can open additional page tabs on the tab row next to the Address bar and load different webpages on each tab instead of opening additional webpages in separate browser windows. This tabbed browsing technique is especially useful when you need to open many pages or navigate frequently back and forth among multiple webpages.

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REFERENCE

Using Tabbed Browsing

- Click the New tab button on the tab row.
- In the Address bar, enter the URL for the webpage you want to open in the new tab.

or

- Right-click a link on the displayed webpage, and then choose to open in a new tab on the shortcut menu.

or

- Press the Ctrl key as you click a link on the displayed webpage.
- To close a Tab, click the close tab button on that page's tab.

Changing Your Home Page

REFERENCE

Changing the Default Home Page in Chrome

- Click the Chrome Menu button, and then select Settings to go to the Chrome Settings page in a new tab.
- Under On startup, select the Open a specific page or set of pages radio button, and then click Set pages to open the Startup pages dialog box.
- If you have already opened the pages you want to appear upon startup in one or more tabs, you can simply click the Use current pages button to set these pages as your home pages. Click OK to complete the home page selection.

or

- If you want to set the home page or pages from the Startup pages dialog box, you can enter the URL for a page, press Enter, and then repeat the process to add as many home pages as desired. When you have finished selecting home pages, click OK.

REFERENCE

Changing the Default Home Page in Firefox

- Navigate to the webpage you want to have as your home page.
- Drag and drop that tab onto the home button.
- Click Yes to set that page as your home page. If you want to have multiple home pages, open each webpage in a separate tab.
- Click the Firefox Menu button, and then click the Options icon to open a new Options tab. Select the General pane.
- Since you have already opened the pages that you want to appear upon startup in one or more tabs, you can simply click the Use Current Pages button to set these pages as home pages.

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REFERENCE

Changing the Default Home Page in Edge

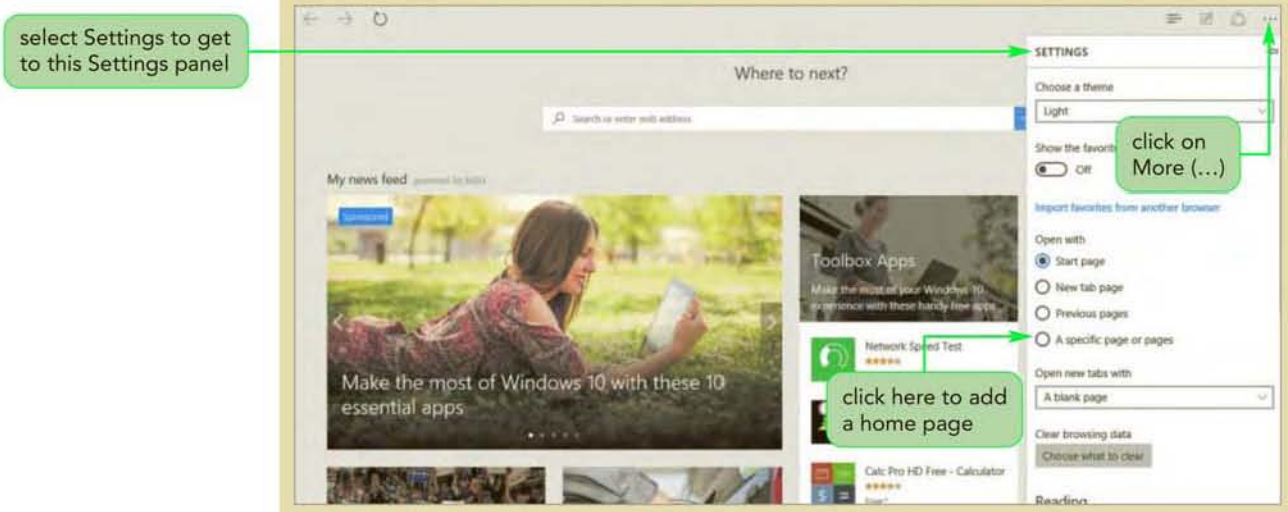
- Click on More (...), and then click Settings, to open the SETTINGS panel.
- Under Open with, select the A specific page or pages radio button.
- In the drop-down box select Custom.
- You will see a box open in which you can enter a web address. Enter the URL of the desired home page. Press ENTER. If you want another home page, enter another web address. Press ENTER.

Dr. Murphy has asked you to configure the Edge browser on her computer so that when she opens Edge the following three homepages appear: the U.S. Copyright Office, the Library of Congress, and the National Education Association. You will set three home pages for the Edge browser on Dr. Murphy's computer so that she can use tabbed browsing to navigate the websites she will be visiting frequently.

To configure the Edge browser to your computer:

1. Open **Edge**. (These instructions assume that you currently have only one home page.)
2. Click on **More (...)**.
3. Next, click on **Settings** to open the SETTINGS panel as shown in Figure 1-4.

Figure 1-4 The Settings panel in Edge



4. Under Open with, choose the radio button for A specific page or pages, and then select **Custom** in the drop-down box.
5. In the Enter a web address box, type the URL for the U.S. Copyright Office website, http://www.copyright.gov, and then press **Enter**.
6. Dr. Murphy also wanted to visit the website for the Library of Congress. Enter the URL http://www.loc.gov in the Enter a web address box. Press **ENTER**.

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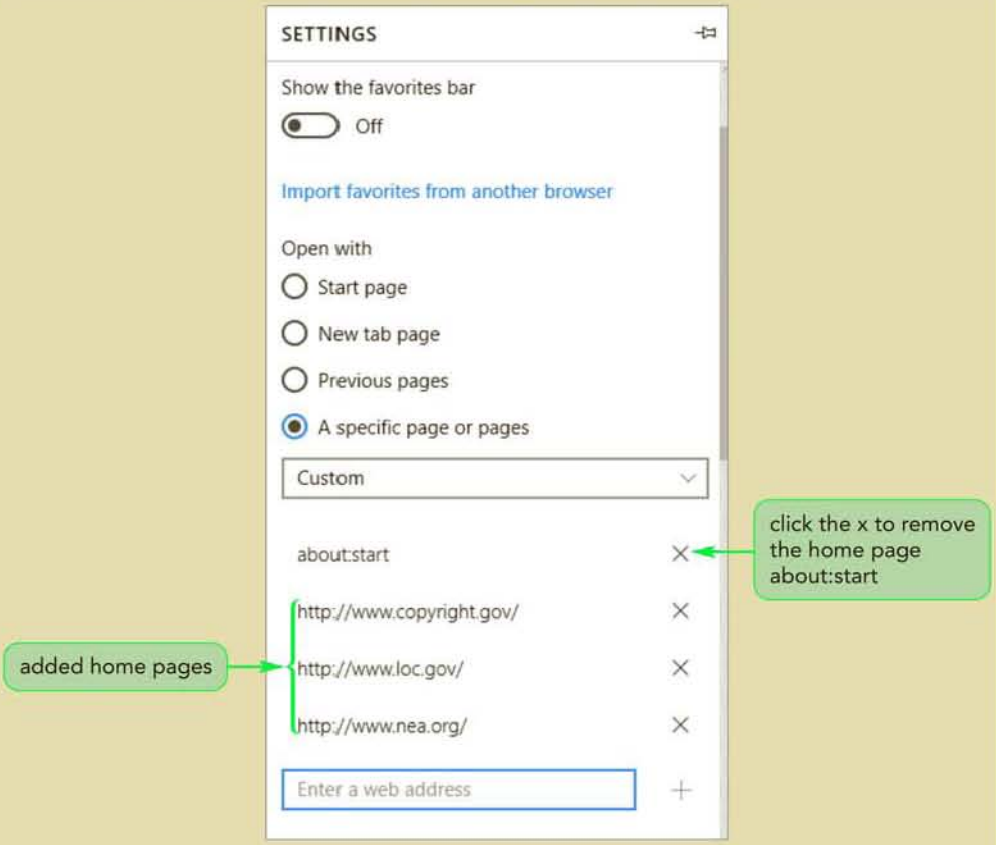
7. Enter the URL for the National Education Association website, http://www.nea.org, in the Enter a web address box. Press **ENTER**. See Figure 1-5.

Figure 1-5 The Settings panel in Edge showing selected home pages



8. Click the **x** beside the about:start page to prevent this page from being included when you open your browser.
9. Click outside of the Settings panel.
10. Exit Edge and then re-launch Edge to make certain that the three desired home pages are displayed when you open your browser.

Using Bookmarks and Favorites

As you use the web to find information, you can create bookmarks (Chrome and Firefox) and favorites (Edge), so you can easily return to your favorite sites. You might very quickly find yourself creating so many bookmarks or favorites that it is difficult to find a specific one. When you start accumulating these saved websites, it is helpful to keep them organized.

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REFERENCE

Creating Bookmarks and Favorites

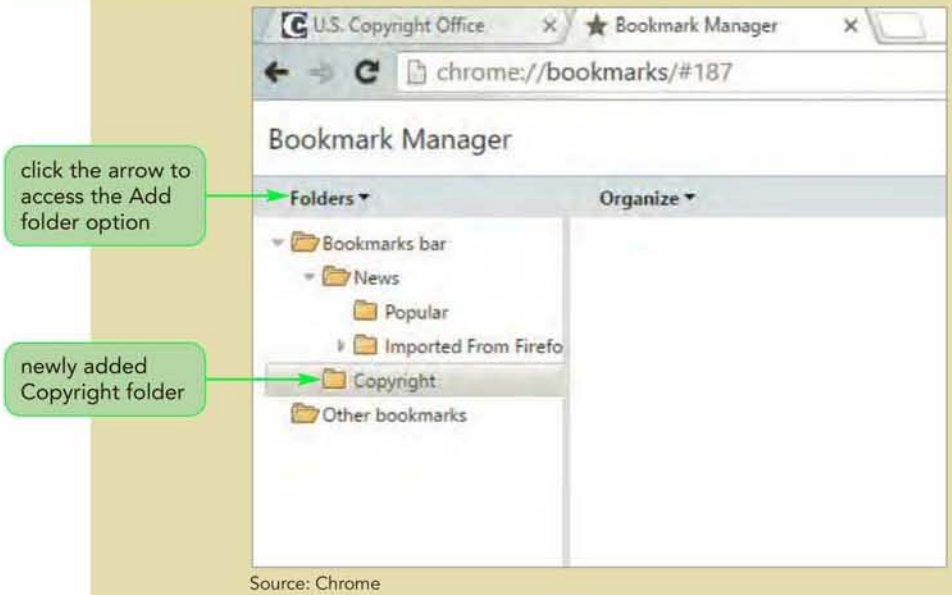
- To create a bookmark in Firefox, click on the star to the right of the Search box. Click on the icon directly to the right of the star to manage your Firefox bookmarks. You will see options such as View Bookmarks Sidebar, Show All Bookmarks, Bookmarks Toolbar, and Recently Bookmarked.
- To create a bookmark in Chrome, click on the star at the right-hand end of the Address bar. To manage Chrome bookmarks, click the Chrome Menu button and then point to Bookmarks. You will see options such as Bookmark this page, Bookmark manager, and Import bookmarks and settings.
- To create a favorite in Edge, click the star at the right-hand end of the Address bar. In the window that opens, make sure that you have selected Favorites (on the left top) instead of Reading list (on the right top). Place the favorite where desired and create a new folder if needed.

You will use Chrome to save the URL for the U.S. Copyright Office webpage as a bookmark and create a Copyright folder in which to store this bookmark.

To create a bookmark and a folder to store a link to the Copyright Office home page using Chrome:

1. With the U.S. Copyright Office home page open, click the Chrome **Menu** button, point to **Bookmarks**, and click on **Bookmark manager** in the pop-out menu. This opens the Bookmark manager in its own tab.
2. In the far top left of the window, click on the **drop-down arrow** beside Folders and then click on **Add folder**. Name the New folder **Copyright** by typing in the box and pressing the **enter** key. See Figure 1-6.

Figure 1-6 Adding a new folder in Chrome Bookmark Manager



Source: Chrome

3. Close the **Bookmark Manager** tab.
4. Click on the **star** in the Address bar to bookmark the site www.copyright.gov.

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5. Adjust the name of the bookmark if desired and select the Copyright folder as the location in which to store the bookmark.
6. Click **Done**.
7. To confirm that your bookmark is in the correct place, return to the Bookmark Manager and select the **Copyright** folder.
8. Double-Click on the **bookmark** to ensure that the U.S. Copyright Office home page opens.

In the previous set of steps, you created a bookmark and a folder in which to store it. You can do a great deal more toward structuring your research findings by using the Bookmark Manager.

You saved the U.S. Copyright Office URL as a bookmark, which you stored in a new folder named Copyright in the Bookmark Manager. Because Dr. Murphy wants you to collect information about more than just copyright issues, you realize that you should also organize the information you collect on intellectual property and fair use. While you are still at the beginning stages of your research, you decide to create a more complete structure in which to save your bookmarks.

To restructure bookmarks in Chrome:

1. Open Chrome, if needed, and click the Chrome **Menu** button, point to **Bookmarks**, and click on **Bookmark manager** in the pop-out menu. This opens the Bookmark Manager in its own tab.
2. Create a folder called **AVISD** to serve as a repository for all of your bookmarks saved during your research for Dr. Murphy on behalf of the Arden Valley Independent School District.
3. Move the Copyright folder into the AVISD folder by right-clicking on the **Copyright** folder and choosing **Cut**. Then right-click on the **AVISD** folder and click **Paste**.
4. Create another folder inside of the AVISD folder to hold information you have found on intellectual property. Right click the **AVISD** folder and select **Add folder**. Name this folder **IP**.
5. Create a third folder inside of the AVISD folder to hold your research findings on Fair Use. Right click the **AVSID** folder and again choose **Add folder**. Name this folder **FairUse**.
6. Close the **Bookmark Manager** and navigate to the webpage http://www.wipo.int. This is the website of the World Intellectual Property Organization, which you encountered while conducting research for Dr. Murphy.
7. Bookmark this page by clicking on the **star**. Then click the **drop-down arrow** for the folder text box, and then click **Choose another folder** to see your complete folder structure as shown in Figure 1-7.

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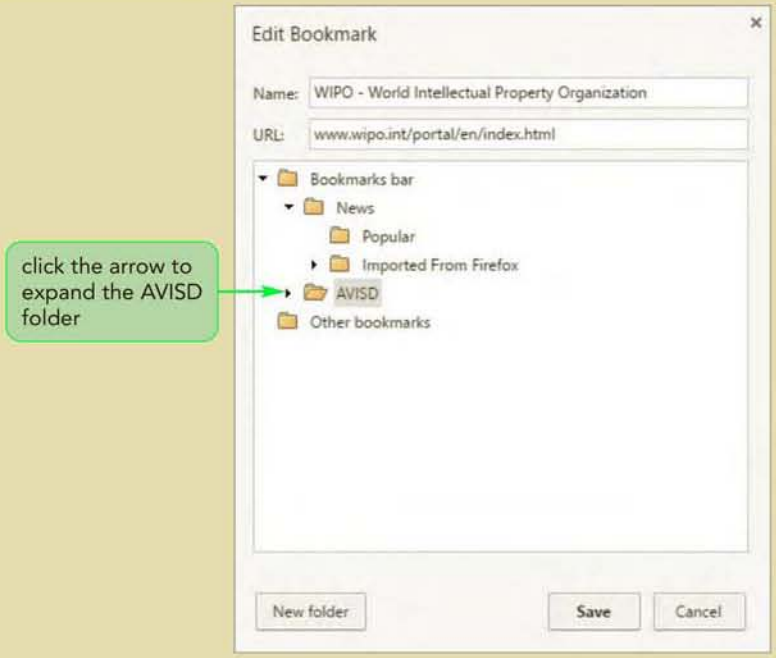
Figure 1-7 **Bookmark folder structure**



8. Click the **arrow** next to the AVISD folder to expand its contents. Select the **IP** folder to place the bookmark. Click the **Save** button.
9. Repeat this procedure with the website http://fairuse.stanford.edu/overview/fair-use, placing a bookmark for this site in the FairUse folder within the AVISD folder.

Deleting Bookmarks, Favorites, and Folders

Creating bookmarks and favorites is a great way to keep track of sites you know you want to visit on a regular basis. However, sometimes you no longer want to visit a site, such as one related to a completed project. Other times, the URL for a site has changed or the site no longer exists. In each of these instances, you will want to delete the bookmarks, favorites, and folders in which they are stored. You can right-click to delete a specific bookmark or favorite, or you can delete an entire folder. When you delete a folder, the folder and all of its contents move to the Recycle Bin.

Navigating Webpages Using Browser History

Another way to return to a site that you have visited recently is by using your browser's history feature. In Firefox, click the Firefox Menu button and then click on the History icon to open the history list. If you select Show All History, the Firefox Library window opens, which is useful when you know you visited a site recently but did not create a favorite and you cannot recall the URL of the site. From the Library, you can view a list of the sites visited on that computer at various times. You can display the history of visited sites organized by date, site, sites most visited, or the order visited on a single day. For all three browsers discussed in this module, Ctrl + H will bring up the history list. Not every site that you visit as you conduct your research will warrant being saved as a bookmark or favorite. The history list will be helpful if you want to show Dr. Murphy the breadth of sites you visited during your research.

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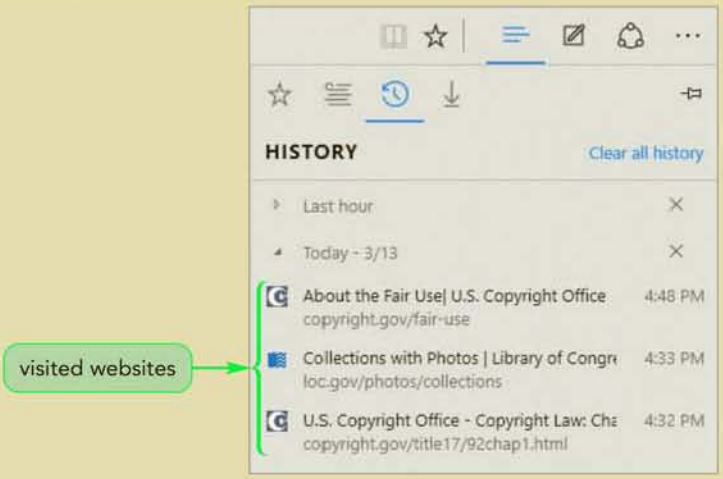
To view the history in Microsoft Edge:

1. Click the **Hub** icon (three unequal horizontal lines).
2. Next, if necessary, click on the **History** icon, the third icon from the left.
3. Click on **Today** to see the history of all of the websites visited today. Note: your link may be slightly different. See Figure 1-8.

Figure 1-8 History tab in Hub



4. Click on **Last hour** to see the most recently visited pages in the order visited. Note: you will only see a Last hour link if you have visited a page within the last hour.
5. Click a **link to a particular page in the history list**. Hub closes, and your browser navigates to the selected page.

TIP

If you are working on a public or shared computer, the history list will include sites visited by the previous users, not just you.

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INSIGHT

Erasing Your Browsing History

In some situations, such as when you are finishing a work session in the school's computer lab or on any public computer, you might want to remove the list of websites that you visited from the browser history on the computer on which you had been working. Erasing your browsing history helps protect your personal information and guard your privacy when working on a shared computer.

Delete your browsing history in Firefox by clicking the Firefox Menu button, clicking the History icon, and then clicking Clear Recent History to open the Clear Recent History dialog box. Then click the Time range to clear arrow and select either a time range of browsing history to clear or Everything to clear the entire History list. If you select Everything, the dialog box will expand to show a list of items that will be deleted. Make sure the Browsing & Download History is the only check box selected in this list. If there are other check boxes selected, click each of them to clear the selections. After ensuring that the Browsing & Download History is the only option checked, click the Clear Now button to erase the entire browsing history stored on the computer.

Delete your browsing history in Chrome by clicking the Chrome Menu button, pointing to History, and then clicking on History in the pop-out menu to open a new History tab (alternately, pressing Ctrl + H from the browser window will accomplish the same thing). From the History tab, click on the Clear browsing data button to open the dialog box. Use the drop-down box to select the time range; make certain to select only the Browsing history check box. Click the Clear browsing data button to erase browsing data.

Delete your browsing history in Edge by clicking on the Hub (three unequal horizontal lines). Next, click on the History icon, the third icon from the left. Select Clear all history and choose the types of data you want to remove from your computer. Click Clear.

Managing Cookies

All web browser users should know what cookies are. A **cookie** is a small text file that a web server saves on the hard drive of the computer running the web browser software. A cookie stores information from your visit to a specific website, such as your login name and password, which pages you viewed, and your shopping cart information. By storing this information on your computer, the web server can retrieve the information when you return to that site, enabling it to perform functions such as automatic login, which makes it easier to sign in to webpages you have visited before. However, oftentimes the cookie files save to the computer's hard drive without the user's knowledge.

When the site you are visiting places a cookie on your computer, it is called a **first-party cookie**. However, companies that sell advertising on webpages write many cookies. These cookies infiltrate your browser via the advertisers' web servers, not the web server of the site you are visiting. They record which ads have appeared on webpages you have viewed. Advertisers use these cookies to determine which ads they will deliver the next time you open a webpage. This can be beneficial because it prevents sites from showing you the same ads repeatedly. On the other hand, many people believe that this sort of user tracking is an invasion of privacy. Cookies that are placed by companies other than the company whose website you are visiting are called **third-party cookies**.

Most web browsers, including Chrome, Edge, and Firefox, allow you to block cookies from your computer or to specify general categories of cookies (such as first-party or third-party) to block. You can specify privacy settings that control the writing of cookie files to your computer's hard drive. You can also specify which types of cookies to block, or you can block particular types of cookies from specific sites.

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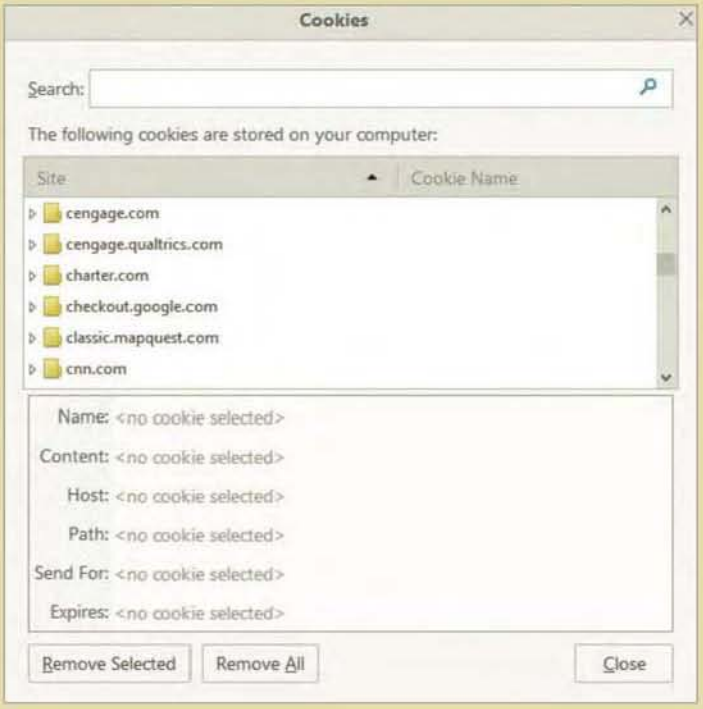
You will learn more about the different types of cookies, how they work, and how best to deal with them in Module 6. Because some cookies benefit users, you might not want to delete all of them from your computer. For example, if you regularly visit a site that requires you to log in, the web server can store your login information in a cookie on your computer so you do not have to type your user name each time you visit the site. You should always consider carefully whether the advantages of cookies outweigh the disadvantages for you before you delete them.

To view cookies in Firefox:

1. Click the Firefox **Menu** button, and then click the **Options** icon to open a new Options tab.
2. Click the **Privacy** icon to display the Privacy panel with the options for privacy settings.
3. Click the **remove individual cookies** link to open the Cookies dialog box. See Figure 1-9.

Figure 1-9 Cookies dialog box



4. Scroll down the list of sites that have stored cookies on your computer. You will examine the cookies for one of the websites that appears in the Cookies dialog box.
5. Click one of the website **folders** listed in the top section of the Cookies dialog box, and then click the **arrow** icon to the left of the folder.
6. Click one of the **cookies** placed on your computer by that website, and then read the cookie information that is displayed in the bottom panel of the dialog box. An example of a Cookies dialog box with several cookies appears in Figure 1-10. Your list of cookies will be different. Information about the selected cookie appears below the list of cookies.

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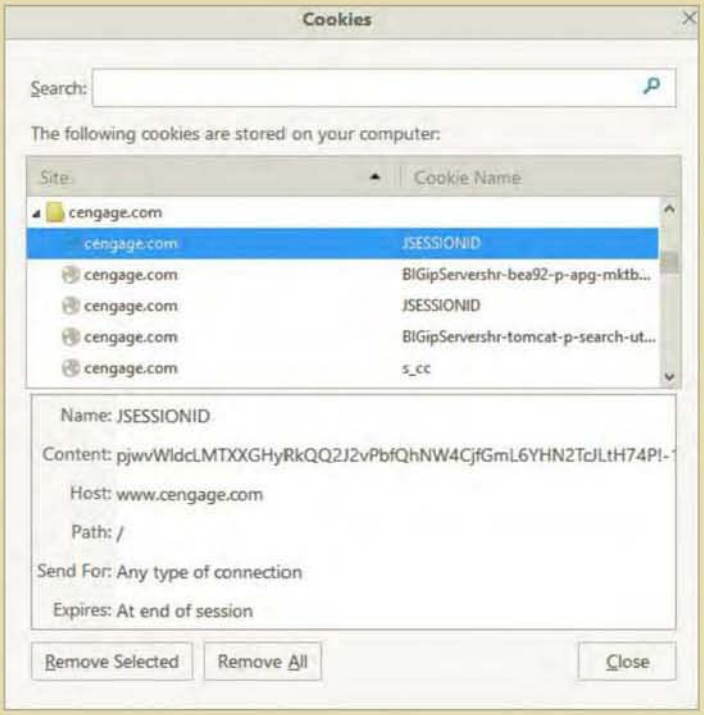
Figure 1-10 Cookies dialog box with a cookie selected



7. Click the **Close** button to close the Cookies dialog box.
8. Click the **Close tab** button (Ctrl + W) on the Options tab to close the Options tab without saving any changes.

REFERENCE

To Manage Cookies with Edge

- Click More; then click Settings.
- Under Advanced settings, select View advanced settings.
- Under Privacy and services, make a choice in the Cookies drop-down box to: Block all cookies, Block only third party cookies, or Don't block cookies.

REFERENCE

To Manage Cookies with Chrome

- Click the Chrome Menu button, and then click Settings to open the Settings tab.
- Scroll down and click Show advanced settings.
- Under Privacy, click the Content settings button. This action opens the Content settings dialog box.
- In the Content settings dialog box you can manage choices concerning cookies and site data.

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