



Internet and Computing Core Certification Guide

Global Standard 4

Using Windows 7 & Microsoft® Office 2013

Computing Fundamentals

Key Applications

Living Online





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Microsoft® Office 2013

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For Evaluation Only



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1. Launch your browser and navigate to the CCI Web site location <http://www.ccilearning.com/data>.
2. Enter: 7318 in the Courseware # box and click .
3. Click **Run** in the File Download – Security Warning window. (Alternatively, you can choose to Save the file to a location on your computer.)
4. In the Internet Explorer – Security Warning window click **Run** again.
5. In the WinZip Self-Extractor dialog box, use the **Browse** button to specify the Windows Desktop as the location to unzip the file and then click **Unzip**.
6. The *7318 Student Files* folder containing the required student work files has now been downloaded to your desktop. It is recommended that you rename the folder using your own name before starting the exercises in this courseware. You can reinstall and use the work files as many times as you like.



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Table of Contents

About This Courseware

Courseware Description	xiii
Course Series	xiii
Course Prerequisites	xiii
System Requirements	xiv
Classroom Setup	xiv
Course Design.....	xv
Course Objectives.....	xvi
Conventions and Graphics	xvii

Computing Fundamentals

Lesson 1: Operating Systems

Lesson Objectives.....	1
What is an Operating System?	1
Modern Operating Systems	3
Common Operating System Features	6
Power On / Power Off.....	6
Looking at the Windows Desktop.....	11
Navigating Around the Desktop.....	12
Using the Start Button.....	12
Working with an Application Program.....	14
Using the Taskbar.....	14
The Software/Hardware Relationship.....	18
Understanding Updates.....	18
Automatic Updating	19
Lesson Summary	21
Review Questions	21

Lesson 2: Files and Folders

Lesson Objectives.....	23
Looking at a Typical Window.....	23
Moving a Window	25
Sizing a Window	25
Using Scroll Bars.....	25
Understanding Files and Folders	27
Creating Folders	29
Renaming a Folder	32
Changing Folder Options	32
Changing the View	33
Understanding File Name Extensions.....	35
Selecting Files or Folders.....	41
Copying and Moving Files or Folders	42
Renaming Files	45
Finding Files.....	46
Looking at the Recycle Bin	47
Points to Keep in Mind when Working with Files	49
Lesson Summary	49
Review Questions	50

Lesson 3: Hardware

Lesson Objectives	51
Identifying Computers	51
Desktop Computers.....	51
Notebooks or Laptop Computers.....	52
Tablet PCs.....	52
Servers.....	52
Hand-held or Mobile Computers.....	53
Music or Media Players	53
Electronic Book Readers	54
Looking Inside a Computer.....	54
The Microprocessor Chip.....	55
Looking at System Memory	56
Understanding Storage Systems	57
Factors that Affect Performance	60
Recognizing Input/Output Devices	61
Using the Keyboard.....	61
Using Pointing Devices	63
Using Microphones	64
Looking at the Monitor	65
Using Printers	65
Using Projectors	65
Using Speakers.....	66
Understanding How It Works Together.....	66
Lesson Summary	68
Review Questions	68

Lesson 4: Control Panel

Lesson Objectives	69
Using the Control Panel.....	69
Customizing the Desktop Display	71
Changing the Date and Time.....	74
Changing the Language	76
Accessibility Settings	79
Understanding Power Options	81
Shutting Down.....	81
Sleep.....	81
Hibernate	81
Working with Power Settings.....	82
Understanding User Accounts and Rights	84
User Account Control (UAC)	85
Creating a New User Account.....	86
Rights and Access	88
Group Policy	89
Lesson Summary	89
Review Questions	90

Lesson 5: Software

Lesson Objectives.....	91
What is a Software Program?	91
Obtaining Software	91
Checking the System Requirements.....	93

Choosing an Application Program.....	95
Hardware Implications	95
Application Types.....	95
Integrated Suites	96
Desktop Publishing.....	96
Spreadsheets.....	97
Database Management	97
Presentations.....	103
Content Creation	104
Multimedia.....	105
Entertainment	109
System Protection Tools	112
Disk Management Programs	114
File Compression Utilities.....	114
Managing Software.....	120
Installing a New Program	120
Uninstalling a Program	130
Reinstalling a Program	133
Updating Software	136
Lesson Summary	139
Review Questions	139

Lesson 6: Troubleshooting

Lesson Objectives.....	141
What is Troubleshooting?.....	141
Managing the Hardware.....	142
Keeping Copies of Your Data	145
Managing the Software	155
Dealing with Viruses or Malware	157
Using the Safe Mode	166
Getting Windows Help and Support.....	167
Using the Table of Contents.....	168
Getting Additional Technical Support.....	169
Using the Windows Knowledge Base.....	171
Using Task Manager	173
Lesson Summary	175
Review Questions	175

Key Applications

Lesson 7: Common Features

Lesson Objectives.....	177
Getting Started.....	177
Starting a Program	177
Exiting a Program.....	178
Looking at the Screen	179
Microsoft Word 2013.....	179
Microsoft Excel 2013	180
Microsoft PowerPoint 2013	180
Microsoft Access 2013	181
Accessing Commands and Features.....	183
Getting Help	187
Getting Additional Help	190

Manipulating Files	191
Changing the Program Options	191
Using Basic Editing Tools.....	192
Collaborating with Others	198
Saving to the Cloud	200
Using a Network	201
Lesson Summary	205
Review Questions	205

Lesson 8: Microsoft Word

Lesson Objectives	207
Entering and Editing Text	207
Displaying Formatting Codes	208
Using the Ruler	208
Moving Around the Document	208
Selecting Text.....	209
Saving Documents	210
Starting a New Document.....	213
Closing a Document	215
Opening a Document	216
Customizing the View	217
Adjusting the Zoom.....	218
Editing Text	220
Using Undo.....	220
Using Repeat	221
Using Cut, Copy, and Paste.....	221
Formatting Text Characters	223
Using the Font Command	224
Aligning Text	224
Understanding Tab Settings	226
Working with Indents	230
Organizing List Information	231
Working with Paragraphs	234
Changing Line Spacing	234
Setting Paragraph Spacing.....	234
Working with Styles	235
Using Quick Styles	237
Proofing the Document.....	241
Finding and Replacing Items.....	243
Using Research Tools.....	246
Changing the Page Setup	248
Changing the Paper Size	248
Changing the Orientation	249
Changing Margins	250
Inserting Page Breaks.....	251
Adding Page Numbering.....	252
Applying Columns	253
Previewing and Printing the Document.....	256
Using Multimedia Files	260
Inserting Images	260
Inserting Multimedia Objects	264
Manipulating Graphics	264
Using Tables	271
Inserting a Table	272
Selecting Items in the Table	273
Formatting the Table	273

Working with Comments	279
Tracking Changes	280
Lesson Summary	282
Review Questions	282

Lesson 9: Microsoft Excel

Lesson Objectives	285
Understanding Basic Terminology	285
Managing Workbooks	286
Creating a New Blank Workbook	286
Creating a New Workbook from a Template	286
Entering Data in the Worksheet	288
Moving Around the Worksheet	289
Saving Workbooks	289
Opening Workbooks	290
Closing Workbooks	291
Manipulating the Contents	293
Selecting Cells	293
Using Undo or Repeat	294
Copying and Moving Data	294
Changing the Column Widths	297
Adjusting the Row Height	298
Manipulating Rows, Columns, or Cells	298
Managing Worksheets	300
Creating Simple Formulas	303
Using Common Built-In Functions	305
Using Absolute and Relative Addresses	306
What Does Formatting Mean?	309
Formatting Numbers and Decimal Digits	309
Changing Cell Alignment	310
Changing Fonts and Sizes	312
Applying Cell Borders	312
Applying Colors and Patterns	314
Using Cell Styles	314
Using the Spell Checker	318
Sorting or Filtering Data	319
Sorting Data	319
Filtering Information	322
Working with Charts	324
Getting Ready to Print	330
Customizing the Printout	331
Printing the Worksheet	336
Lesson Summary	339
Review Questions	339

Lesson 10: Microsoft PowerPoint

Lesson Objectives	341
What is PowerPoint?	341
What Does a Presentation Include?	342
Working with Presentations	343
Creating Presentations	343
Saving a Presentation	345
Closing a Presentation	347
Opening a Presentation	347
Displaying Information in the Presentation	350
Moving Around in the Presentation	351

Managing the Slides	354
Inserting New Slides.....	354
Changing the Slide Layout	354
Deleting Slides.....	355
Rearranging the Slides	355
Changing the Theme.....	355
Modifying Themes.....	355
Managing Slide Objects.....	359
Using Select Versus Edit Mode.....	359
Manipulating Text.....	360
Creating and Using Tables	363
Creating a Chart.....	365
Inserting Pictures or Clip Art Images	372
Inserting Multimedia Objects	377
Creating a Master Slide.....	381
Inserting Headers and Footers	381
Animating Objects	383
Customizing the Animation.....	385
Applying Slide Transitions	387
Running the Slide Show	390
Setting Up the Presentation	390
Viewing the Slide Show	390
Previewing or Printing the Presentation.....	393
Creating Notes.....	393
Creating Handouts.....	395
Printing Items	395
Lesson Summary.....	398
Review Questions	398

Lesson 11: Microsoft Access

Lesson Objectives.....	401
What is Access?	401
Access Database File.....	401
Database Objects.....	401
Tables	402
Forms.....	402
Reports	403
Queries	403
Object Views.....	403
Interface Components	403
The Navigation Pane	404
Backstage View	404
Managing Database Files.....	405
Creating a New Blank Database	405
Creating a Database from a Template.....	406
Saving a Database	407
Closing a Database.....	407
Opening an Existing Database	407
Table Basics	411
Working with Records	412
Adjusting the View.....	414
Switching between Open Objects.....	415
Manipulating a Datasheet.....	415

Finding the Data You Want.....	416
Finding Records.....	417
Sorting Records.....	418
Filtering Records	418
Using Queries to Find Data	422
Working with Data in Form View	424
What is a Report?.....	424
Report Views	425
Designing Reports	428
Report Layouts	428
Creating Reports.....	428
Lesson Summary	432
Review Questions	432

Living Online

Lesson 12: World Wide Web

Lesson Objectives.....	433
The Internet, Browsers and the World Wide Web	433
The Internet	433
The World Wide Web	435
Web Browsers	436
Understanding Web Site Addresses	437
Web Site Protocols.....	437
Resource Names	437
Common Web Site/Page Elements	438
Browser Features and Functions	440
Browser Functions.....	441
Browser Features	445
Lesson Summary	455
Review Questions	456

Lesson 13: Getting Connected

Lesson Objectives.....	457
Defining a Network	457
Advantages of Using a Network.....	457
Network Speeds	458
Networking Models.....	458
Client/Server Model.....	458
Peer-to-Peer Model	459
Web-based Model	459
TCP/IP and Networking.....	459
Local Area Networks (LANs).....	459
Connecting to the LAN	459
Common LAN Devices	460
Addressing on the LAN	461
Reserved Address Ranges	463
Connecting LANs Together.....	464
Wide Area Networks (WANs)	464
Public Switched Networks	465
The Public Switched Telephone Network (PSTN)	465
Circuit Switching	466
Packet Switching	466

Connecting to the Internet	466
Dial-Up Connections.....	466
Direct Connections – Broadband	467
Other Factors Affecting Performance	470
Addressing on the Internet.....	470
Domain Name System (DNS).....	471
The Need for Security.....	471
Private vs. Public	472
Authentication and Access Control.....	472
Firewalls/Gateways.....	472
Virtual Private Networks (VPN).....	474
Wireless Security.....	474
Network Troubleshooting.....	475
Reviewing the Basics.....	476
Troubleshooting Hardware Issues	478
Troubleshooting Addressing Issues	480
Troubleshooting Security Settings	481
Lesson Summary.....	483
Review Questions	483

Lesson 14: Digital Communication

Lesson Objectives.....	485
How Can I Communicate with Others?	485
Electronic Mail (Email).....	485
Instant Messages.....	486
Text Messages.....	488
VoIP	489
Video Conferencing.....	490
Chat Rooms	491
Social Networking Sites	491
Blogs.....	493
Presence	496
Standards for Electronic Communication.....	496
Working with Email.....	498
Usernames, Passwords and Credentials.....	499
Using Microsoft Outlook.....	503
Creating New Messages.....	505
Receiving Messages.....	511
Working with Attachments.....	516
Managing Spam.....	519
Emptying the Junk E-mail Folder	523
Automating Outlook.....	525
Lesson Summary.....	530
Review Questions	530

Lesson 15: Digital Citizenship

Lesson Objectives.....	533
Identifying Ethical Issues	533
Understanding Intellectual Property, Copyrights and Licensing.....	533
Censorship and Filtering	538
Practices to Avoid.....	539
Inappropriate Behavior.....	540
Practicing Good Online Citizenship	541

Protecting Your Data or Computer	542
Identifying Software Threats	544
Understanding Viruses	547
Preventing Personal Injuries	551
Working Safely and Comfortably	552
Protecting Yourself While Online.....	553
Buying Online	554
How Much Information Should I Share?.....	556
Protecting Your Privacy.....	557
Lesson Summary	560
Review Questions	560

Lesson 16: Finding Information

Lesson Objectives	563
Searching for Information.....	563
Using Search Engine Technology	567
Evaluating the Information	574
Lesson Summary	579
Review Questions	579

Appendices

Appendix A: Courseware Mapping	A 2
Appendix B: Glossary of Terms	A 5
Appendix C: Index	A 15

Lesson 12: World Wide Web

Lesson Objectives

In this lesson, you will prepare to browse the Internet by reviewing how web sites are organized, and identifying common web page elements. You will also learn how to perform basic tasks using a web browser. On completion, you will be familiar with:

- ☐ the difference between the Internet, the World Wide Web, and browsers
- ☐ the structure of a URL
- ☐ identifying common web page elements
- ☐ the basic functions of web browsers
- ☐ navigating in a browser
- ☐ using tabbed browsing
- ☐ working with bookmarks
- ☐ viewing the history

The Internet, Browsers and the World Wide Web



Exam 3 - Objective 1.1

Although people often use the terms Internet and World Wide Web (WWW) interchangeably, they are in fact separate but related things.

The Internet

The Internet is a vast global network that functions in much the same way as your school or company network. A network is an arrangement of computers that are connected in such a way that they can communicate and share information with each other. Networked computers use special networking hardware to form the connections that make communication possible.

The Internet is comprised of many smaller networks which are connected together so that they can communicate and share information. The hardware used to connect a computer to the Internet is the same hardware used to connect a computer to a company or school network, and the hardware that forms the core of the Internet is not much different.

In fact, the Internet is a collection of hardware. It consists of wires, routers, switches, microwave links, servers, and communication protocols. Because the Internet is so large, companies, schools and individual users do not connect to it directly; instead, they connect through a middleman called a service provider.

When you purchase (or subscribe to) Internet service, you pay an *Internet Service Provider* (ISP) for a connection to the Internet. (You actually connect to the ISP's network, which in turn is connected to the Internet.) The ISP provides the connection, and the connection provides access to the Internet (and all the smaller networks connected to it).

Clients and Servers

It is important to understand that on the Internet (as on any network), some computers function as clients and others function as servers. A *client* is any computer that requests a service or resource (such as a document or web page) from another computer on the network. A *server* is any computer that provides services or resources to other computers (clients) that request them.

There are many types of servers used on the Internet. Perhaps the most familiar is the web server. A *web server* hosts or stores a company's or an individual's web site. A *web site* is a collection of interconnected pages that contain information about a company, person, product, or service. The web site may be one of many hosted on a particular web server. Many organizations own and maintain their own web servers and host their own web sites. As an alternative, many Internet Service Providers (ISPs) host web sites for their subscribers.

When you connect to the Internet and visit a web page, your computer and your browser software act as clients – the computer requests Internet access from your ISP and the web browser requests web pages from the web server hosting the web site that you are visiting. You will learn about browsers shortly.

A Brief Introduction to Connection Hardware

Note: You will learn more about connections and hardware devices in a later lesson. The concepts introduced here will help you differentiate between hardware (Internet) and software (the World Wide Web).

Once you purchase Internet service through a service provider, you must use networking hardware designed to allow you to connect to the Internet.

Internet connections can be dial-up or direct. Dial-up connections use standard analog telephone lines and a device called a modem, which is installed inside the computer. The modem physically connects to the telephone network using a standard telephone wire. The modem dials the access number required to connect to your ISP. When a modem at the ISP "answers" the call, a connection is established. If you use a dial-up connection, you must establish a connection each time you want to access the Internet. Once your Internet session is complete, you disconnect (hang up).

In contrast, direct connections are always "on." That is, you do not need to establish a connection and then disconnect when you are through. Most users make direct connections to the Internet using a digital subscriber line (DSL) or a cable Internet connection. If you connect to the Internet at your school or company, you most likely make that connection through your organization's local area network (LAN), which in turn connects to an ISP.

Direct connections require that a network interface card (NIC) be installed in your computer. The NIC sends and receives data back and forth between your computer and the network. There are a wide variety of NICs available; some connect to a network using a wire called a network cable, and some connect to a network wirelessly. If the NIC uses a network cable, one end of the cable is inserted into the NIC and the other end is inserted into the network connection port on a networking device, such as a hub, switch or router. In some offices, the cable plugs into a network connection port on a wall plate. If the NIC uses a wireless connection, it sends and receives radio signals to and from a wireless access point somewhere in the vicinity.

EXERCISE

This exercise assumes that your computer is connected to a classroom network, that an Internet connection is available and that the organization's firewall does not block outgoing ping requests. At the time of this writing, the yahoo.com and cclearning.com web servers all respond to ping requests.

In this exercise you will locate the hardware that connects your system to the Internet, and use a simple utility to test whether your Internet connection is functioning.

First, locate your network interface card (NIC) and see what type of connection it uses.

1. If the physical location of your computer permits, try to locate your network interface card (NIC). Ask your instructor for assistance if necessary. Does your NIC connect your computer to the network using a wire, or is the connection wireless?

2. If your NIC uses a wire, where does the wire connect to the network? Is there a box with connection ports near your desk? Do you plug into a wall jack?

If your NIC connects wirelessly, can you see the wireless access point?

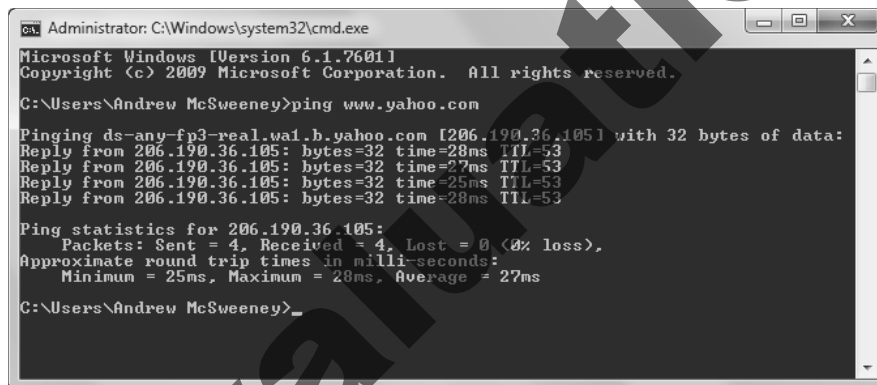
3. Look at your NIC. Does it include a light that flashes on and off periodically? Most NICs include an indicator light to let you know that the device is sending and receiving data.

Next, use a simple network utility called ping that will indicate whether you are connected to the Internet.

4. Click the **Start** button, type: cmd in the Search box and press **Enter** to open a command prompt window.

5. In the command prompt window, type: ping www.yahoo.com then press **Enter**.

If you are connected to the Internet, your screen should resemble the one shown below. Any line that begins with the word "Reply" is a response from the yahoo.com web server. If the server replies to you, then you are connected to the Internet.



```
Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

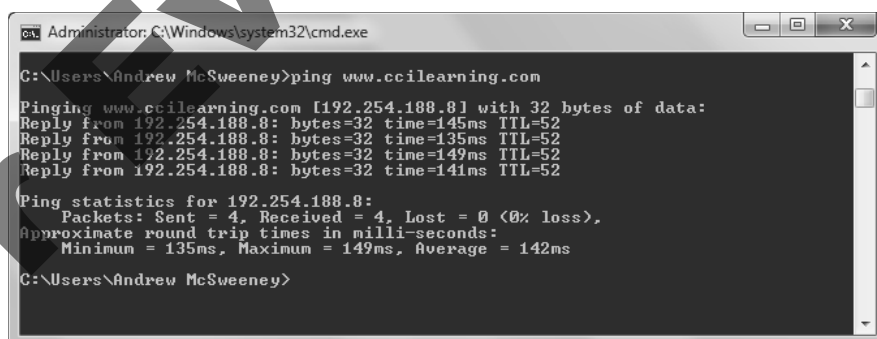
C:\Users\Andrew McSweeney>ping www.yahoo.com

Pinging ds-any-fp3-real.wai.b.yahoo.com [206.190.36.105] with 32 bytes of data:
Reply from 206.190.36.105: bytes=32 time=28ms TTL=53
Reply from 206.190.36.105: bytes=32 time=27ms TTL=53
Reply from 206.190.36.105: bytes=32 time=25ms TTL=53
Reply from 206.190.36.105: bytes=32 time=28ms TTL=53

Ping statistics for 206.190.36.105:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 25ms, Maximum = 28ms, Average = 27ms

C:\Users\Andrew McSweeney>
```

6. In the command prompt window, type: ping www.ccilearning.com, then press **Enter**.



```
Administrator: C:\Windows\system32\cmd.exe

C:\Users\Andrew McSweeney>ping www.ccilearning.com

Pinging www.ccilearning.com [192.254.188.8] with 32 bytes of data:
Reply from 192.254.188.8: bytes=32 time=145ms TTL=52
Reply from 192.254.188.8: bytes=32 time=135ms TTL=52
Reply from 192.254.188.8: bytes=32 time=149ms TTL=52
Reply from 192.254.188.8: bytes=32 time=141ms TTL=52

Ping statistics for 192.254.188.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 135ms, Maximum = 149ms, Average = 142ms

C:\Users\Andrew McSweeney>
```

Again, you should receive four reply messages from the ccilearning web server if you are connected to the Internet.

7. Close the command prompt window.

The World Wide Web

While the Internet is a network comprised of hardware connections, the World Wide Web is a system of interlinked documents that are accessible on that network called the Internet. There are countless millions of documents hosted on web servers – and if you can access a document by typing its address into a web browser, or by clicking a link that takes you to it, that document is part of the World Wide Web.

Documents hosted on web servers are generally referred to as web pages, and web pages usually contain links (called *hyperlinks*) to other pages located on web servers around the Internet. If you have ever visited a web site and clicked a link that took you to another web site (or to another page within the same web site), then you have used a hyperlink. These hyperlinks form the connections that make the World Wide Web possible – web pages around the world are connected to one another by hyperlinks.

The Internet is the network (that is, the hardware) that allows users to access documents on the World Wide Web, and the World Wide Web is the vast collection of "connected" documents available on the network known as the Internet.

Web Browsers

As you saw in the previous exercise, an Internet connection allows you to contact a web server and receive a reply. But in and of itself, this is not terribly interesting. To actually view web pages and navigate web sites, you need more than simply an Internet connection – you need a web browser.

A web browser is a program that enables you to view and navigate web pages on the Internet, and to experience the amazing rich media that is available on the World Wide Web. That is, a web browser is software. Web browsers are highly sophisticated programs. Their most basic function is to display pages created with hypertext markup language (HTML). HTML is a special language that web page designers use to add text, hyperlinks, applications, video clips, sound and animation to web pages. When web pages are designed properly, visitors can "point and click" to launch applications, navigate to specific areas of the web site, or visit related web sites – all within a web browser window.

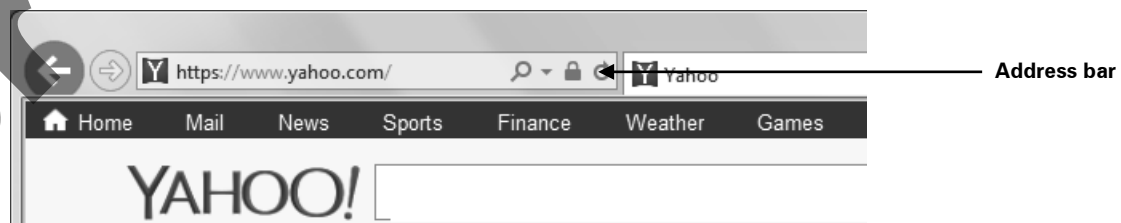
EXERCISE

In this exercise you will visit the Yahoo and CCI Learning web sites using the Internet Explorer web browser. Later in this lesson, you will learn about browser features and functionality in depth.

1. Click the **Internet Explorer** icon in the taskbar to open the browser.
2. Click in the browser's address bar to select the current text, then type: `www.yahoo.com` and press

Enter.

Your browser window should resemble the following figure.



This is the same web site you pinged in the previous exercise. Notice all the pictures and formatted text. Notice the wide selection of articles and stories on the page.

3. Click in the address bar to select the current text, then type: `www.ccilearning.com` and press .
4. Scroll the page to examine its layout.
Notice that it includes a banner, pictures, logos, and various navigation tools (such as tabs) to move around the web site. A web browser provides a mechanism for interacting with an amazing variety of media on the Internet.
5. Close your browser.

Understanding Web Site Addresses



Exam 3 - Objective 1.2

In the previous exercise, you entered a web site address into the browser address bar. Every web page on the Internet has a specific address. This address is called a *Uniform Resource Locator (URL)*. It is the global address of documents and other resources on the World Wide Web. A URL consists of two basic parts: a protocol identifier and a resource name. The protocol identifier and the resource name are separated by a colon (:) and two forward slashes (//).

Protocol identifier

`http://www.ccilearning.com`

Resource name

Web Site Protocols

Web browsers use various networking protocols to communicate with web servers (and other types of servers) around the Internet. A *protocol* is simply a set of rules that enable computing devices to communicate with one another. The protocol used to request web pages from a Web server is *HyperText Transfer Protocol (HTTP)*. Web servers also use HTTP to send web pages to the computers that request them.

Browsers assume that you want to use the http protocol when you enter a web address. This allows you to simply type: "`www.yahoo.com`" instead of "`http://www.yahoo.com.`" Some web browsers display the `http://` protocol identifier in the address bar and others do not.

While http is the protocol used to view web pages, browsers also support protocols for functions such as transferring large files, viewing news group articles, or sending and retrieving email. *File Transfer Protocol (FTP)* is a protocol commonly used to transfer large files between a user's computer and a special type of server called an FTP server. If you want to use your web browser to access an FTP server to transfer a file, you must specify the ftp protocol in the browser address bar; for example: `ftp://aeneas.mit.edu`.

Resource Names

The resource name portion of a URL specifies the location of a particular web page or file. The location is referred to as a *domain name*.

A typical domain name consists of three labels separated by periods or dots as shown below:

`www.ccilearning.com`

↑ ↑ ↑

Server Registered Top-level
Name Domain Domain

Server Name	Identifies the name of the web server
Registered Domain Name	Identifies the organization that owns the domain name. Each domain name is unique and is registered with the Internet Corporation for Assigned Names and Numbers (ICANN).
Top-level Domain	Identifies the category of the registered domain name.

Domain names are arranged into specific categories. These categories are identified by the top-level domain. You can generally determine what type of information a web site contains (or what it is meant to do) simply by reading the top-level domain. The original top-level domains are:

.com	Represents commercial or company sites. Most web sites in this domain sell a service or product, usually through an “online store” or web page from which you can purchase items directly. The .com domain is considered a generic top level domain and can be registered by anyone.
.net	Another type of commercial web site. It is generally hosted on a network managed by an Internet Service Provider (ISP).
.edu	Represents an education site created to share information about an academic institution, its curriculum, and other activities. This category may also be associated with research organizations.
.gov	Refers to a site associated with a local, regional, or national government. (Depending on the country, there may be additional levels included in the URL to identify specific areas such as states, municipalities, townships, etc.)
.int	Refers to international organizations.
.mil	Refers to military organizations.
.org	Identifies a site dedicated to a non-profit organization that may promote a specific cause such as foundations for heart and stroke, cancer, etc.

An advantage of using these top-level domains is the ability to present your organization as global since the domain category does not identify where your web site is hosted. For example, although .com indicates that the site is commercial, the company that owns it could be in any country, or could have its headquarters in one country while its web site is being managed by an ISP somewhere else.

Other top-level domain names use a two-letter abbreviation and are meant to identify the state or country in which the web site is hosted; examples include:

au Australia	fr France	jp Japan
br Brazil	il Israel	mx Mexico
ca Canada	in India	tw Taiwan
cn China	it Italy	uk United Kingdom
dk Denmark		

For example, an academic institution may be based in one country while maintaining schools in other countries, such as the web address of www.phoenix.edu. This address is the University of Phoenix campus located in Phoenix, Arizona, USA whereas the web address of www.university-of-phoenix-adult-education.org/university_of_phoenix_canada.html is for the university’s campus located in Vancouver, BC, Canada. Each school can manage its own web site in its own country and also display information from the web server at the school’s main location. To view general information about the school, you may need to enter www.abc-school.com, and then be re-directed to www.abc-school.cn to see the curriculum offered in China, or www.abc-school.fr for the school in France.

Some URLs include the path and filename of a specific page stored on the web server. For example the URL <http://www.opera.com/browser/tutorials/mail/setup/#account-setup> displays a page called `#account-setup` stored in the `/browser/tutorials/mail/setup` folder on the web server named "www" at `opera.com`.

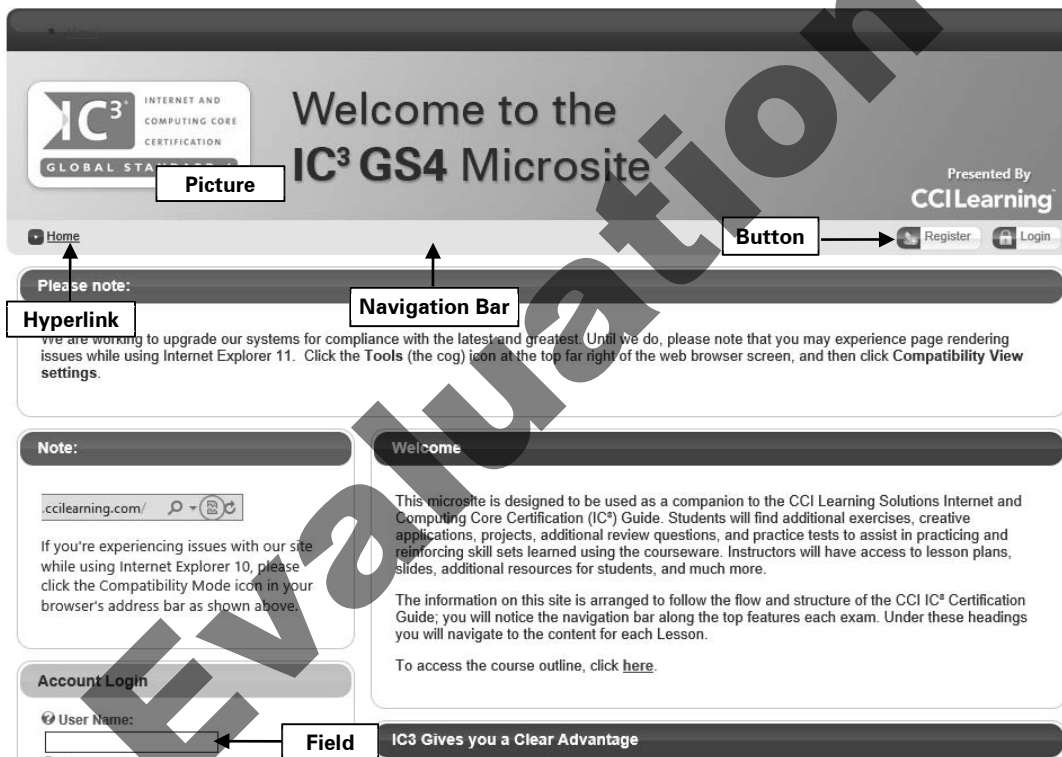
Common Web Site/Page Elements



Exam 3 - Objective 1.2

Typically, the first page you see when you access a web site is the top level page, called the *home page* or index page. The home page serves as the "starting point" for a web site. Usually, a home page contains links to all the other pages on the web site – allowing you to navigate to different areas. In a well-designed web site, each lower-level page includes a "home" link that will return you to the web site's home page with a single click.

Regardless of whether you are viewing the home page of a web site, or a page buried deep within the web site structure, the page likely contains a number of common elements. Some of the most common are pointed out in the following image:



Navigation Bar

Well-designed web pages include a navigation bar (usually down the left side or across the top of the page) that provides links to various areas of the web site. A navigation bar is similar to a table of contents for the site and may be called a *site map*. The web page shown in the preceding image includes a navigation bar across the top.

Picture

Web pages often contain graphics or photographs. Pictures may be static (unchanging) or dynamic (a slide show of several pictures displays in the given location). Some web page designers use pictures to animate pages, or to launch actions, such as running a video. Some designers also use pictures as links to other web pages.

Field	Many web pages contain forms with fields or blank spaces where you can enter information. The information you enter is then sent to the web server for processing. Most web pages contain at least one field, usually to allow you to search for an item on the web site. In the web page shown in the preceding image, you are required to enter your registered user name and password before you can access items on the site.
Button	A button is an interactive graphic that performs an action when you click it. In the web page shown in the figure, clicking the button sends the login information to the server.

Browser Features and Functions



Exam 3 - Objective 1.2

There are a wide variety of browsers freely available for various operating systems. Browsers commonly used on Windows systems include Microsoft Internet Explorer, Mozilla Firefox, Google Chrome, Opera and Safari. The following images show each of these browsers. Note that although the browsers function in much the same way, a web page may appear a little differently in each browser. This is because a browser's coding determines how it interprets the HTML code used to define a web page.

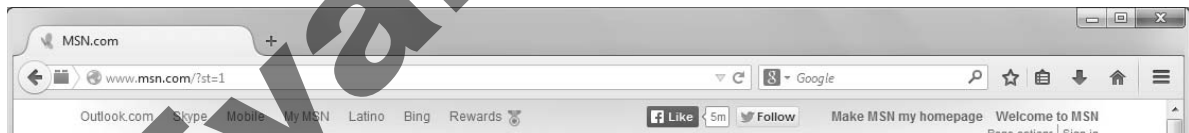
Microsoft Internet Explorer

Developed by Microsoft in 1995 and was one of the first graphical user web browsers, Internet Explorer (IE) continues to be very popular for browsing the Internet as it is included with the Windows operating system.



Mozilla Firefox

Firefox was originally developed by Mozilla Corporation and Mozilla Foundation in 2004. As it is an open source web browser that is free to download, it has gained popularity with each new release.



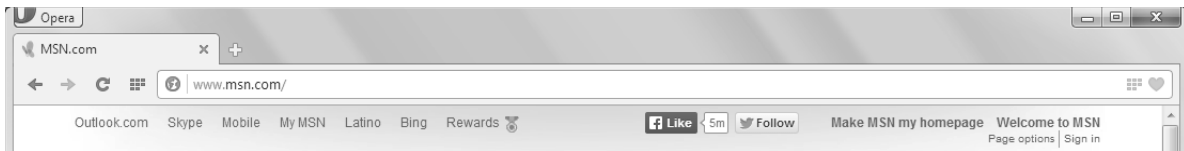
Google Chrome

Chrome was developed and released as a stable product in 2008. It was originally available as freeware although a large portion of its code was released in 2008 as an open source project called Chromium; newer releases of Chrome are based on this version.



Opera

Opera Software releases its web browser as an individual product for download or as part of an Internet suite of products. It is one of the original web browsers introduced in 1994 and now is available for a number of computing devices, including several mobile devices.



Safari

This web browser was originally designed for the Apple computer and is the most commonly used one for any Apple computing device. Safari is also available in a Windows version.



Notice that even though the appearance of each is slightly different from the others, all of them include many of the same basic features, such as an address bar, a Home button, a bookmark button, and Forward, Back and Refresh buttons.

You will examine these features shortly.

Browser Functions

Browsers perform several functions. Among other things, they retrieve and display web pages, allow users to navigate around the World Wide Web, play media files, and support encryption to allow for secure web transactions. In the following section, you will examine a few of the basic functions of a browser.

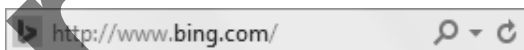
Addressing

As you have already learned, you enter a URL into the address bar in the browser to indicate which web site you want to visit. When you type a web site address into the address bar, the browser sends a request to the appropriate web server. The server receives the request, retrieves the appropriate web pages, and then sends them back to your browser. The browser then formats and displays the web pages for you within the browser window.

The address bar displays the URL of the page currently displayed in the browser window. You can visit any web page by typing its URL into the Address bar and pressing **Enter**.

As you navigate to other pages within a web site (or as you visit pages on other web sites), the URL shown in the Address field updates to show the address of the current page. Most browsers maintain a history of URLs that you can access from the address bar. Clicking a URL displayed in the address bar history list has the same effect as entering the URL directly into the address bar.

In addition to displaying the URL, the address bar often includes several buttons. The Internet Explorer address bar is shown below:



The Internet Explorer address bar includes the following buttons:

Search	You can search directly from the Address bar in Internet Explorer, instead of first accessing a search engine page. Enter your search criteria in the Address Bar and then click the  (Search) button or press Enter to view a list of web sites related to your search criteria.
Show Address	Click the  (Show Address) button to display a history of the URLs of previously visited web sites.

Refresh/Go	Click the  (Refresh) button to re-display or refresh the contents of the current web page. Click  (Go to) after typing in a web site address to go to that site.
Stop	Click the  (Stop) button to halt the downloading of information for a web page. The Stop button appears only while a page is loading.

As you become more familiar with various online communication methods, you may decide to use a service to shorten a URL. Shortened URLs are easier to work with when addressing email messages or posting updates to a blog.

Uploading and Downloading

The terms uploading and downloading refer to the process of sending information from your computer to a server (uploading), and the process of receiving information from a server (downloading).

Downloading is the process of copying a file from a server on the Internet to your computer. Many people think of downloading as the act of copying specific files, such as music files, application files, document files, etc., from a web site to their computers. While this is true, it is also true that every time you visit a web site, one or more pages from the web site are downloaded to your computer.

Most web pages include several pictures, and these pictures are not part of the page itself, but are stored separately on the web server. The web page itself contains "placeholders" where the pictures will be inserted when you download the page from the web server to your browser. If pictures are excessively large in file size, they may take longer to display than the surrounding text. The same is true for multimedia elements such as audio or video files.

These elements are downloaded automatically, but separately, when your browser loads the web page, and these downloaded elements are stored on your hard drive in a special folder designed to hold temporary Internet files. Each browser includes a temporary Internet files folder for this purpose.

In contrast, *uploading* is the process of sending information from your computer to a server on the Internet. The most basic example of uploading is typing a URL into a browser's address bar. When you press , the browser sends (or uploads) a request for the specified web page to the web server that hosts the page.

Other examples of uploading include entering a user name and password for a web site, or submitting information through a web form, or posting to a blog. Sometimes you may upload files or pictures that you want to share with others to a shared folder on the Internet, or to an FTP site.

Most users download much more information than they upload. Accordingly, most ISPs provide service that downloads information much faster than it uploads. Most home and small business owners purchase broadband Internet service – either cable Internet or Digital Subscriber Line (DSL) service. (You will learn more about these services later in this courseware.) The term "broadband" is used loosely, and generally applies to any direct high-speed connection. Broadband Internet service provides two speed measurements:

- **Downstream (download)** — Data moves downstream as it reaches you from a web server. Residential cable Internet service generally provides download speeds between 1 and 6 Mbps. Users can purchase DSL service with downstream speeds of 8, 12, or 24 Mbps.
- **Upstream (upload)** — Data moves upstream when you send or upload information. Residential cable Internet usually provides upstream speeds between 128 Kbps to 728 Kbps. Users can purchase DSL service with upstream speeds of 640 Kbps, 1 Mbps, or 3 Mbps.

Hyperlinks

As you have already learned, you can click a hyperlink in a web page to move to another (connected) web page or to a particular section within the current web page. A hyperlink is a reference to data that is located somewhere other than the present location. A hyperlink can point to a whole document or to a specific element within a document.

Generally, a hyperlink consists of an anchor (which is the location within a document from which the link can be followed), and a target (which is the destination web page or specific area within the current web page).

Hyperlinks often display as underlined or colored text. However, hyperlinks are not limited to text; pictures or icons or even specific areas on a graphic can be hyperlinks as well. When you view a web page in a web browser, hyperlinks behave in a specific manner. When you hover the mouse pointer over a hyperlink, the mouse pointer changes to a pointing hand (☞) icon. When you click a hyperlink, you move to the web page that is designated as the target of that hyperlink. The web page may be part of the same web site, or may be a page on a different web site.

Some web pages contain links that are not readily visible on the screen until you position the mouse pointer over them, but once you see a ☞, you know that you have found a hyperlink.



CCI Learning courseware [please click here.](#)

Sometimes hyperlinks are configured to open the target web page in the current browser window, while others open a new tab and then display the target web page within the new tab. Web developers also create hyperlinks that will download or copy files from a server onto your computer.

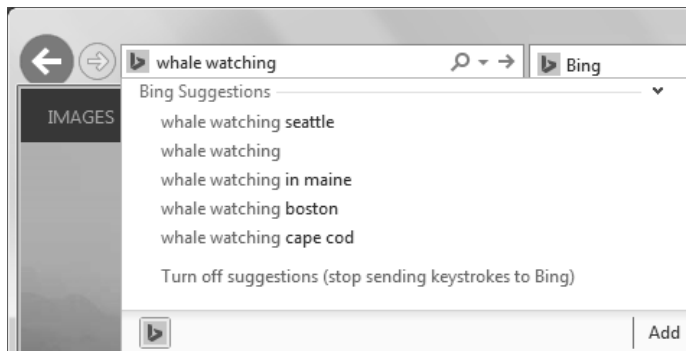
If you return to the anchor page after clicking a hyperlink, the hyperlink often displays in a different color, indicating that it has already been followed.

Other hyperlinks you will see on a web page are sponsored by companies who have paid to advertise on that web page. For instance, once a results list appears for search criteria, there will be links usually at the right side that list different organizations or services that may have information or products you can purchase.

Searching

While there are several well-known search engine sites on the Internet (you will learn how to use a search engine site later in this courseware), many modern browsers include a search box in the address bar, which allows you to search for information without first having to navigate to a search engine site.

In Internet Explorer, you can search directly from the address bar. Simply click in the address bar and start typing. If you enter a complete URL, you will go directly to the web site. If you enter a search term or an incomplete address, click a search provider in the menu to launch a search using the currently selected search engine.



A list appears with suggestions of search criteria for selection; this is the **Turn on suggestions** feature that is on by default. You can change this using the options command for the web browser.

You can also click the **Add** button in the drop-down menu to add search providers (such as Google or Ask.com) from the Internet Explorer Gallery web site.

Typically, a search engine returns tens of thousands of results. You can use the following techniques to narrow the number of results:

- Choose specific key words. For example, typing *lemon sharks* will show fewer results than simply typing *sharks*.
- Put quotation marks around a phrase or a group of keywords to force the search engine to look for occurrences of those words together rather than searching for each of those words individually.
- Use Boolean operators. Popular Boolean operators you can use with searches are the words AND, OR and NOT.
- Even if you do not type Boolean operators, most search engines interpret a space between keywords as an implied Boolean AND. That is, if you type *nuclear radiation* in the address bar, the space between the keywords is interpreted as a Boolean AND, and the results will include both words.

EXERCISE

In this exercise you will use hyperlinks to move around a web site.

1. On the taskbar, click the Internet Explorer icon.
2. Click in the address bar, type: www.tolanoadventures.com and press **Enter**.

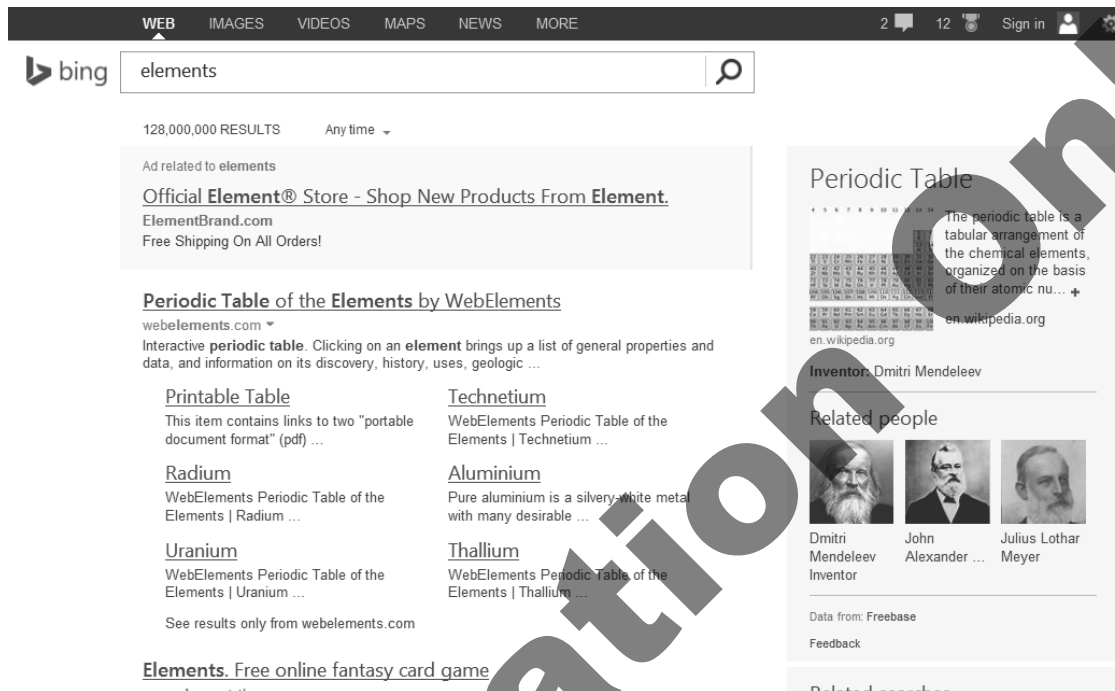
You should be viewing the Tolano Adventures home page.

Take a few moments to move the mouse cursor around the screen to see if you can find links on the page. The only links on the page are in the navigation bar. The four links are: Home, About Us, Services and Contact Us. Notice that these links do not appear with underlines, and the mouse pointer changes when you hover over them. The appearance of links is left to the discretion of the web page developer.

3. Position the mouse pointer on the **Services** link in the navigation bar, and then click the link. You are now viewing a list of services that Tolano Adventures provides.
4. Move your cursor to point at the **Biking/Cycling Tours** link in the list and then click this hyperlink to move to this page to view its contents.
Notice that, as you click each hyperlink, the web browser navigates to the web page specified as the target for that link.
5. Click the **Home** link in the navigation bar to move to the home page for the web site.

Now try searching for information using the address bar in the web browser.

6. Click in the address bar, then type: `elements`. Observe the list box that displays beneath the address bar. If *Turn on suggestions (send keystrokes to Bing)* displays in the list box, click the link to display suggested search terms.
7. Click **elements** in the list box to display the first page.



Notice the number of results that display; this number will change over time as more items are added to the Internet. Also notice the list at the right side that lists different types of results for the search criteria – these items are links that have been sponsored by organizations who hope you will click the link to their site with the intent to view or purchase.

8. Click in the address bar, type: `elements periodic table` and press **Enter**.

Notice that the search returns fewer results. Each of the listed results includes the words `elements`, `periodic` and `table`. A Boolean AND is implied by the spaces between the words.

9. Click in the address bar, type: `"periodic table of elements"` and press **Enter**.

While the results list appears similar to the last search criteria entered, notice that because you included quotation marks, each of the listed results includes the exact phrase `"periodic table of elements"`.

10. Click in the address bar, type: `hydrogen+oxygen`, then press **Enter**.
11. Click in the address bar, type: `hydrogen+oxygen NOT H2O`, then press **Enter**.

Did the number of returned results decrease?

12. Close the browser.

Browser Features

Browsers include several features which make them easy to use and easy to customize. Browser features help make browsing the World Wide Web efficient and fun.

Back, Forward and Refresh Buttons

Although web pages often provide their own navigation tools, every browser includes buttons that allow you to navigate among the sites you visit within any given browser session.

- The Back button moves back one page. The back button becomes active once you click a link or visit a different page by typing a URL in the address bar.
- The Forward button moves ahead one page. The forward button becomes active once you move back one page.
- The Refresh button reloads or re-displays a page. You may want to refresh a page if the content changes continuously, or if part of the page failed to load correctly.

The symbols used for these buttons are fairly universal. The following table illustrates how the buttons appear in various browsers.

Button	Internet Explorer	Firefox	Chrome	Opera
Back				
Forward				
Refresh				

If a menu bar is available in the web browser, it can usually be displayed using the **Alt** key. You can then use the View menu to go to a specific page or to refresh the screen. In general, the menu bar is hidden by default as the buttons enable you to navigate or access options faster.

Home Page

A browser's home page is the page that is displayed by default when you open the browser. Most browsers are configured with a default home page when you install them. For example, the default home page for the Internet Explorer browser is the www.msn.com page.

However, you can set the home page for your browser to any page you want. For example, users set their home page to a search engine or to their favorite web site. If you visit a site frequently, it can be efficient to set that site as your home page. It should be noted, however, that many companies prefer that employees set their home page to the company web site.

You can also set most browsers to display a blank page as the home page.

All web browsers include a button that will quickly return you to your default home page, no matter how many other web sites you have visited. Each browser uses its own version of a House symbol.

Tabs

Modern browsers allow for tabbed browsing. That is, you can view different web sites simultaneously – each in its own tab. Opening a new tab is the same as opening a new browser window. Browser tabs are similar to buttons in the Windows taskbar. You can open a separate web page in each tab, and switch between them by simply clicking on the tab. Only one tab can be the active tab at any given time.

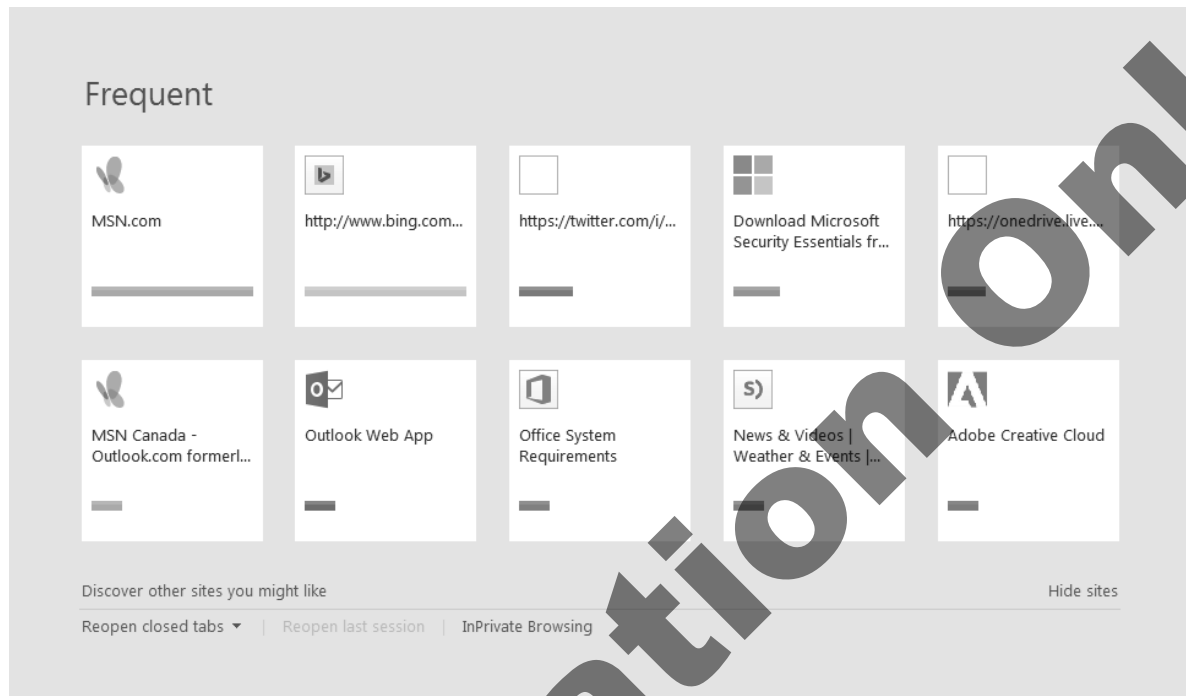
Working with multiple open tabs allows you to compare information from different web sites, or copy and paste information from one web page into another.

To create a new tab, use one of the following methods:

- Click the **New Tab** button, or
- press **Ctrl**+**T**, or

- right-click an active tab and then click **New tab**, or
- if the Menu bar is displayed, click **File** and then click **New tab**.

In Internet Explorer, when you open a new tab, the browser displays thumbnails of the sites you visit most often.



You can click a thumbnail to open that site in the active tab.

You can also right-click a tab and select **Duplicate tab** in the menu to open a new tab that displays the same web site. For example, if you are viewing the MSN web site, you could read one article in one tab, open a duplicate tab, and then click a link to view a different article on the MSN site in the other tab.

To view a link on a web page in another tab without leaving the web page, right-click the link and then click **Open in new tab**. You can then view the contents of two different pages for the same web site.

To close a tab you no longer want to view, click the **X (Close Tab)** button on that tab. If you have multiple tabs open, you can right-click the active tab and specify to close the tab, or close all the other open tabs.

If you have multiple tabs open, and you click the **Close** button for Internet Explorer, you will be prompted to specify whether you want to close the current tab or close all the open tabs.

EXERCISE

In this exercise you will use various features in the Internet Explorer browser.

1. Click the **Internet Explorer** icon in the taskbar.
2. Click in the address bar, type: `www.ccilearning.com`, and then press **Enter**.
3. Click in the address bar, type: `www.google.com`, and then press **Enter**.
4. Click the **← (Back)** button to move back one page (to the CCI Learning page).

5. Click the  (**Forward**) button to move forward one page to the Google page.
6. Click in the address bar, type: wikipedia, and then press .
7. Click the  (**Home**) button to return to the browser home page.
8. Click in the address bar, type: www.disney.com and press .
9. Click the  (**Stop**) button.

Note that the amount of text and graphics on the web page will vary at the time you stopped the download depending on the speed of your Internet connection.

10. Click the  (**Refresh**) button.
11. Click the  (**Home**) button to return to the home page.

Now try viewing two or more web sites and navigating between the web pages.

12. Click the  (**New Tab**) button.
13. In the address bar, type: www.cnn.com and press .
14. Press  +  to open a new tab and type: www.tolanoadventures.com in the address bar. Click  (**Go**).
15. Click the first tab, which should be the home page of your web browser.
The web browser home page is now the active tab.
16. Click the tab for the Tolano Adventures web page to make the home page for this web site the active tab.
17. Click the **CNN** tab and then click  (**Close Tab**).
You should now have only two tabs open: the home page for your web browser and the Tolano Adventures home page.
18. Click the tab for the home page of your web browser and click  (**Close Tab**).
You should now have only one open tab, the Tolano Adventures home page.
19. Minimize the Internet Explorer window.

Favorites/Bookmarks

If you visit a site frequently, you can "bookmark" the site so that you can visit it without having to enter its URL. When you bookmark a site, you save the URL in a folder created specifically for storing bookmarks. Various browsers give different names to their bookmark folders. In Internet Explorer, bookmarks are stored in a folder called Favorites.

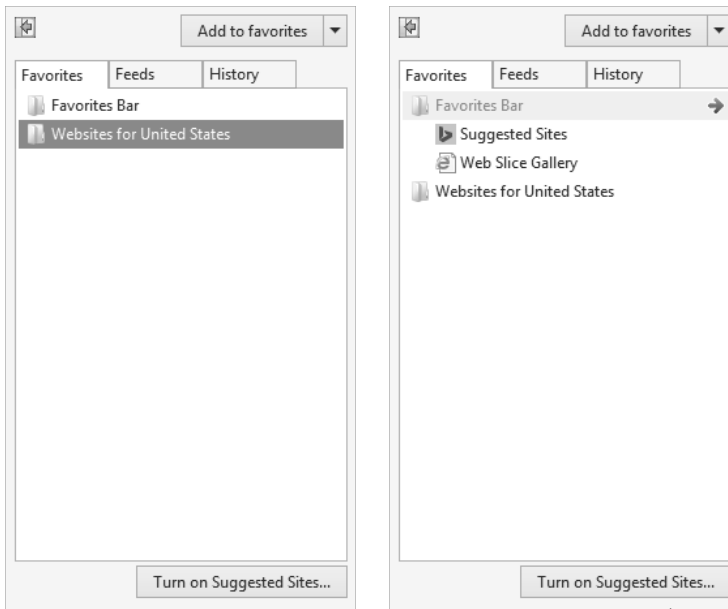
You can work with Favorites in Internet Explorer by opening the Favorites center. The Favorites center includes three tabs – one for bookmarks, one for news feeds and one for the browsing history.

- To display the Favorites Center, click  (**View favorites, feeds, and history**), or
- press  + .

The number of folders or web sites displayed in the Favorites pane will vary, depending on the web browser version and on previously set bookmarks. You can organize bookmarks into folders, move them, or remove them.

You can expand or collapse folders ("open" them to see a list of the contents or "close" them to see only the folder) by clicking the folder.

You can have the web browser place each of the links in a folder as a separate tab by clicking the arrow to the right of the folder name (or pressing **Ctrl**+**Enter**):

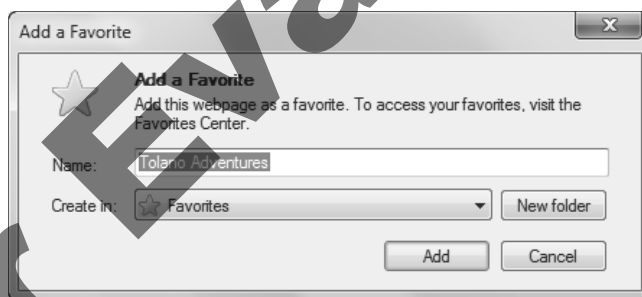


You can share your favorites with others online through web sites, such as social networking sites, where you save the bookmarks and then apply keywords for that bookmark. This is known as *social bookmarking* and works like a resource center where people can find addresses for sites devoted to particular topics using these shared bookmarks or favorites. You must, however, first register with a social networking site.

Adding Favorites

To add a web site to the list of favorites, use one of the following methods:

- Click the (**View favorites, feeds or history**) button and then click **Add to favorites**, or
- on the Menu bar, click **Favorites** and then click **Add to favorites**, or
- press **Alt**+**Z**, and then click **Add to favorites**



You can create a new folder for the link, move it into another folder, or choose to have it appear at the main level on its own.

Once you add a web site to the Favorites list, access it by clicking it in the Favorites list.

You can also use the Favorites bar to add favorites you want to access frequently. Right-click anywhere in the blank area by the tab, click **Favorites bar**, and then click (**Add to Favorites bar**).



Deleting Favorites

To remove a bookmark in the Favorites list, use one of the following methods:

- right-click the bookmark, then click **Delete** from the shortcut menu, or
- select the bookmark, press **Delete** and then click **Yes** to confirm the deletion.

To delete an item from the Favorites bar, right-click the button and then click **Delete**.

Organizing the Favorites List

The web browser gives you the option to choose where the Favorites link will appear. As you begin to add favorites, you may want to organize these links.

To organize the Favorites Center, use one of the following methods:

- Activate the Favorites Center and then drag the link to a new location, or
- activate the Favorites Center, click the arrow for **Add to favorites** and click **Organize favorites**, or
- activate the Menu bar, click **Favorites** and then click **Organize favorites**.

You can then choose any of the options in the dialog box to organize (or reorganize) the list of favorites.

If you choose to use the first method, as you drag the link to a new location, a thick horizontal black line appears to guide you in placing the link.



EXERCISE

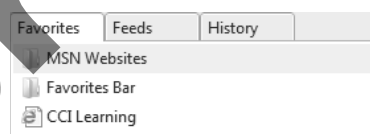
In this exercise you will work with bookmarks.

1. Restore the Internet Explorer window.
2. Click in the address bar, type: www.ccilearning.com and press **Enter**.
3. Click (**View favorites, feeds, and history**) to display the Favorites Center. Click (**Pin the Favorites Center**) to keep the pane open.

The Favorites Center should now appear at the left side of the window, and occupy the full height of the screen.

4. Click **Add to favorites**.
5. Ensure the text shows as: CCI Learning for the **Name** and click **Add**.

The Favorites Center should appear similar to:



Now try adding other sites to your Favorites Center.

6. In the **Address** field, type: www.foodnetwork.com and press **Enter**.
7. Click **Add to favorites**, type: Food Network as the name and then click **Add**.

The web site has been added to your list of favorite sites.

8. In the **Address** field, type: `www.travelchannel.com/tv-shows` and press **Enter**.

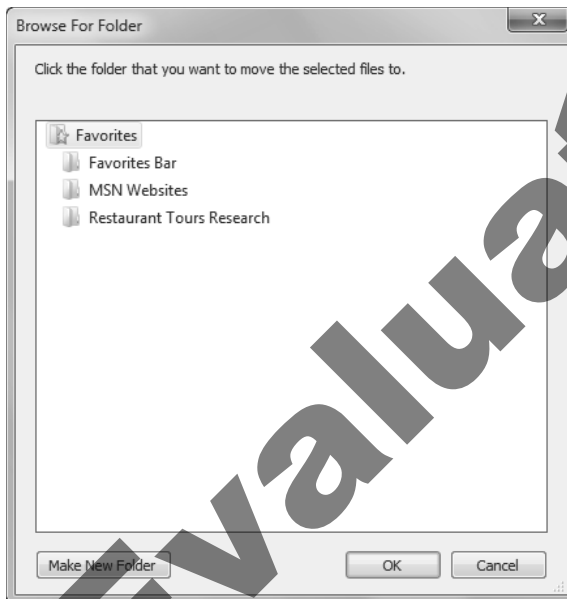
This URL points to a specific page on a web site other than the web site home page. By including the "/tv-shows" in the address, you can go directly to this page on the web site, instead of having to navigate there from the web site home page.

9. In the list of links for More Shows, click the **Bizarre Foods** link.
10. Click **Add to favorites**, and then click **Add**.
11. Click **Back** to return to the previous page.
12. Scroll further down in the More Shows list of links, click **Truck Stop USA** (should be near the end of the list of shows).
13. Click **Add to favorites**, and then click **Add**.

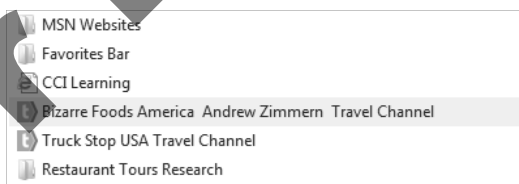
Notice how both pages on the Travel Channel web site are now bookmarked for later use.

Now that you have some favorites, you need to organize the links by topic.

14. Click the arrow for Add to favorites and then **Organize favorites**.
15. Click **New Folder**. Type: `Restaurant Tours Research` and press **Enter**.
16. Click the *Food Network* link in the list and then click **Move**.



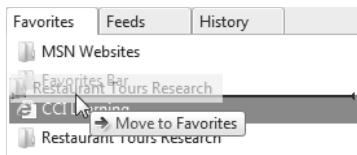
17. Click the *Restaurant Tours Research* folder and then click **OK** to move the Food Network link into the Restaurant Tours Research folder.



18. Repeat steps 16 to 17 for the *Bizarre Foods* link and the *Truck Stop USA* link.
19. Click **Close** to exit the Organize Favorites dialog box.

Now try moving a link by dragging it to a different location.

20. Click the *Restaurant Tours Research* folder and drag it upwards to organize folders in alphabetical order.



The horizontal black bar that appears as you drag the folder indicates where the folder will be placed when you release the mouse button. Folders or web site links can also be reorganized within a folder.

21. Release the mouse button at the appropriate location.

Notice that the folders are listed in alphabetical order.

22. If required, drag the CCI Learning Solutions link into its appropriate alphabetical position in the list of favorites.

23. Minimize the Internet Explorer window.

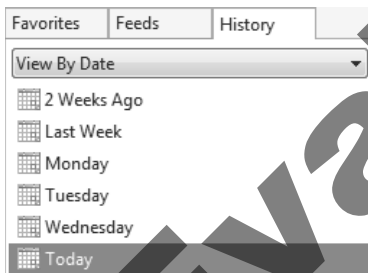
Checking the History

Every browser includes a history function that stores the URLs of web sites you have visited in the browser's History folder.

The History folder stores the URLs of sites you have accessed within a defined period of time, and provides a convenient way to revisit web sites, especially if you cannot remember the exact URL. In Internet Explorer, the default amount of time to keep pages in History is 20 days. If you use the web for a lot of tasks, the History folder can become unmanageably large. A large History folder can be difficult to use, uses considerable disk space, and can slow the browser speed. You can, however, adjust the time period for storing pages, and you can empty the folder manually.

To display the history, activate the Favorites Center and then click the **History** tab.

Within the History tab, you can click the arrow for the **View By Date** drop-down to choose among various view options:



Once the list of sites appears in the preferred view, you can do one of the following:

- To go to a site, click the site link in the list.
- To see other pages you may have visited within a given site, right-click the link and then click **Expand**.
- To collapse the list of web pages for a site, click the site link.
- To delete a site from the list, right-click the link and then click **Delete**.

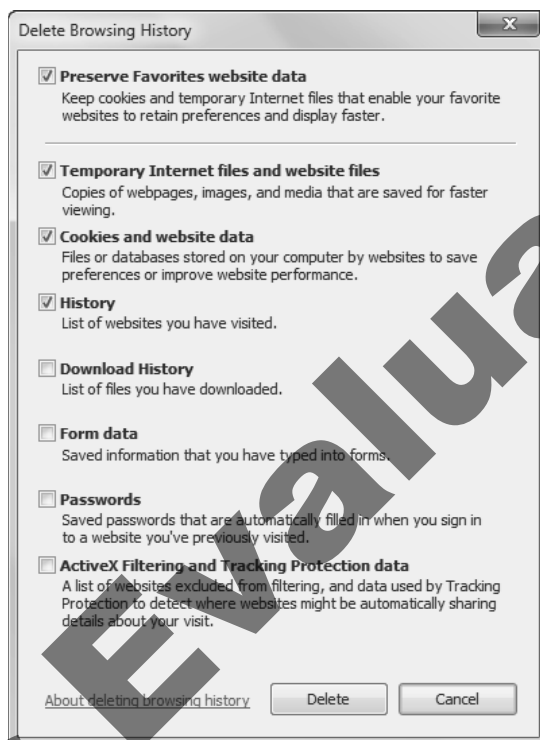
To delete the entire history, use one of the following methods:

- Click , click **Safety** and then click **Delete browsing history**, or
- on the Menu bar, click **Tools** and then click **Delete browsing history**.

EXERCISE

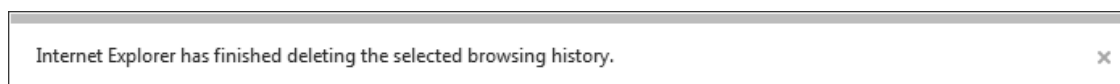
In this exercise, you will work with the History folder.

1. Restore the Internet Explorer window, ensure the Favorites Center is open and then click the **History** tab.
2. Click **Today**.
You should see a list of all the sites you visited today.
3. Click the arrow for the **View By Date** drop-down.
4. Click **View By Site**.
Notice how the history list appears. The number of sites listed here will vary depending on who else may have used the web browser recently.
5. Click **X (Close the Favorites Center)**.
6. At the top right edge of the Internet Explorer window of the screen, click , click **Safety** and then click **Delete browsing history**.



7. Examine the settings listed in the dialog box. Can you predict what will happen when you click the Delete button?
8. Click **Delete**.

When complete, the web browser displays a screen similar to the following:



9. Close the message box, then open the Favorites center and click the History tab if necessary. The history tab should now be empty.
10. Minimize the browser window.

Plug-ins/Add-ons

In order to present the interactive multimedia so abundant on the web today, a browser requires applications called plug-ins or add-ons. *Plug-ins* are programs that extend the capabilities of web browsers. When you visit a web site and your browser encounters a file type that it cannot natively support, you may be prompted to download and install a plug-in so you can view the web page properly.

Plug-ins are associated with a specific operating system (such as Windows or Macintosh) and sometimes with a specific browser (such as Firefox or Internet Explorer). In Firefox, plug-ins are generally referred to as add-ons. Adobe Flash Player, Windows Media Player, and Real Networks RealPlayer are examples of popular plug-ins.

Plug-ins generally have a particular file type associated with them. For example, Windows Media Player can be used to play files that include the .wma (Windows media audio) and .wmv (Windows media video) file name extensions. The player also supports several video and audio file formats (such as .avi, .mpeg, .midi, .wav).

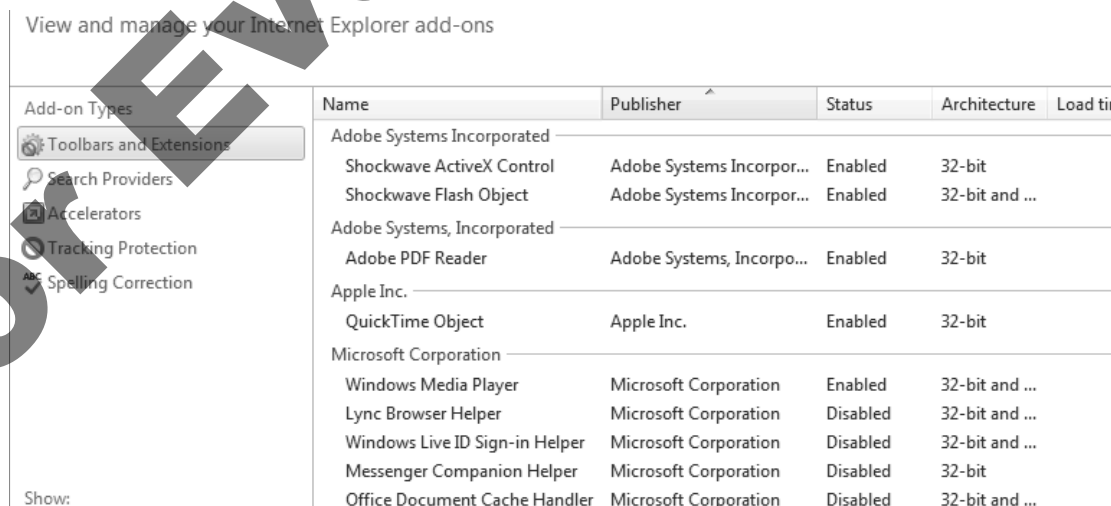
Internet Explorer and Firefox both include several native plug-ins. These are automatically installed with the browser. However, as you browse the Web, you may be prompted to download and install new plug-ins or update the plug-ins that are already installed. It is good practice to occasionally upgrade plug-ins because upgrades frequently include increased functionality and security updates.

To install or upgrade a plug-in, it is often best to go to the vendor's site because that is where you will find the latest version of the plug-in. Vendor sites also usually include information on the minimum system requirements (operating system version, hard disk space, RAM, processor speed, etc.) required for the plug-in as well as installation instructions.

In Internet Explorer, toolbars and ActiveX controls are also considered add-ons. ActiveX controls are small programs that are used on the Internet. They can enhance your browsing experience by allowing animation or they can help with tasks such as installing security updates at Microsoft Update. When you visit a site that uses an ActiveX control, Internet Explorer asks if you want to install the ActiveX control.

Managing plug-ins/add-ons

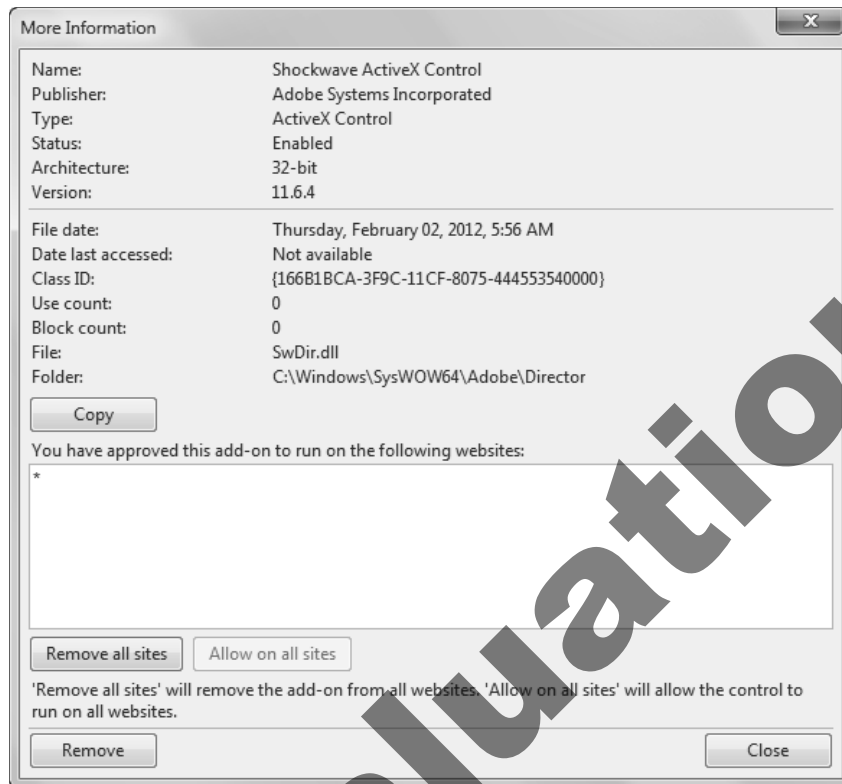
You can manage plug-ins and add-ons by opening the Manage Add-ons dialog box. Click the **Tools** button, and then click **Manage add-ons**. Under Add-on Types, click **Toolbars and Extensions**.



Display the **Show** drop-down list and select to view currently loaded add-ons, all add-ons, add-ons that are pre-approved by Microsoft (select the **Run without permission** option to view these), or ActiveX controls (select **Downloaded controls** to view these).

To turn an add-on on or off, click the add-on in the dialog box, then click either the **Enable** or **Disable** button.

To delete installed ActiveX controls, select the **Downloaded controls** option in the Show drop-down list, click the ActiveX control you want to delete, then click **More information**.



In the More Information dialog box, click the **Remove** button.

Lesson Summary

In this lesson, you reviewed how web sites are organized, and identified common web page elements. You also learned how to perform basic tasks using a web browser. You should now understand or be able to:

- ☒ the difference between the Internet, the World Wide Web, and browsers
- ☒ the structure of a URL
- ☒ identify common web page elements
- ☒ the basic functions of web browsers
- ☒ navigate in a browser
- ☒ use tabbed browsing
- ☒ work with bookmarks
- ☒ view the history

Review Questions

1. Which statement properly defines the concepts of Internet, Browsers and the World Wide Web?
 - a. The Internet and the World Wide Web are two names for the same thing; and all pages of the Internet are viewed through browsers.
 - b. The Internet is a network that hosts the linked pages which form the World Wide Web, and these pages are viewed through browsers.
 - c. The World Wide Web is a network, and browsers are another name for the Internet.
 - d. Any of the previous
 - e. a or b
2. If there are several web pages that you visit regularly, what can you do to make accessing them more efficient?
 - a. Define each page as a browser Home page.
 - b. Bookmark each page.
 - c. Delete each page from the History folder so that it will become active.
 - d. Install an ActiveX control for each page.
 - e. Any of the previous
 - f. a or b
 - g. a or c
3. If you use a phrase as a search term, which of the following is true?
 - a. The search engine will interpret the space between each word in the phrase as a Boolean AND.
 - b. The search engine will interpret the space between each word as a Boolean OR.
 - c. The search engine will interpret the space between each word as a Boolean NOT.
 - d. The search engine will reject the phrase because you cannot use more than one word as a search term.
4. Ann visited a site last Tuesday which contained a meatloaf recipe that she really wants to try, but now she can't remember the URL. What should she do?
 - a. Conduct a new search for meatloaf recipes and hope that she can find this one recipe again.
 - b. Click the browser's Back button until she gets back to the page she wants.
 - c. Click the browser's Refresh button.
 - d. Look for the URL in the History folder.
5. Which is the fastest method to use to view two or more web sites in your web browser?
 - a. Start another session of the web browsers.
 - b. Set up a separate monitor to open a new window for the web browser.
 - c. Open a new tab and enter the web site address.
 - d. Type the new site address into the address bar at the current page.
6. When you post information to a personal Web site to share with others, which action are you performing?
 - a. Uploading
 - b. Downloading



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