

Chapter 1

application software	Program designed to make users more productive and/or assist them with personal tasks.
blog	Informal Web site consisting of time-stamped articles in a diary or journal format, usually listed in reverse chronological order.
CAM	Use of computers to assist with manufacturing processes such as fabrication and assembly.
camera phone	Phone that can send picture messages.
client	Computer on a network that requests resources from the server. Also called a workstation.
communications device	Hardware component that enables a computer to send (transmit) and receive data, instructions, and information to and from one or more computers.
computer	Electronic device, operating under the control of instructions stored in its own memory, that can accept data, process the data according to specified rules, produce results, and store the results for future use.
computer literacy	Having a current knowledge and understanding of computers and their uses. See also digital literacy.
computer-aided manufacturing (CAM)	Use of computers to assist with manufacturing processes such as fabrication and assembly.
convergence	Term used to refer to the trend of manufacturers offering computers and devices with technologies that overlap.
convertible tablet	Tablet PC design that has an attached keyboard.
CPU (central processing unit)	Electronic component on a computer's motherboard that interprets and carries out the basic instructions that operate the computer. See also processor.
data	Collection of unprocessed items, which can include text, numbers, images, audio, and video.
desktop computer	Computer designed so the system unit, input devices, output devices, and any other devices fit entirely on or under a desk or table.
developer	Person who writes and modifies computer programs. See also programmer.
digital camera	Device that allows users to take pictures and store the photographed images digitally, instead of on traditional film
digital literacy	Having a current knowledge and understanding of computers and their uses. See also computer literacy.
digital pen	Input device that allows users to write or draw on the screen by pressing the pen and issue instructions to a Tablet PC by tapping on the screen.
e-book	Electronic version of a printed book, readable on computers and other digital devices. Also called a digital book.
e-book reader	Handheld device that is used primarily for reading e-books. Short for electronic book reader.
e-commerce	Short for electronic commerce, a business transaction conducted over the Web.
e-reader	Handheld device that is used primarily for reading e-books.
embedded computer	Special-purpose computer that functions as a component in a larger product.
enterprise computing	Term large companies use to refer to the use of a huge network of computers that meets their diverse computing needs.
enterprise user	Computer user working for a business that has hundreds or thousands of employees or customers that work in or do business with offices across a region, the country, or the world.
execute	Process of a computer carrying out the instructions in a program.
FAQ	List that helps a user find answers to commonly asked questions.

game console	Mobile computing device designed for singleplayer or multiplayer video games.
gaming desktop computer	Desktop computer that offers high-quality audio, video, and graphics with optimal performance for sophisticated single-user and networked or Internet multiplayer games.
garbage in, garbage out	Computing phrase that points out the accuracy of a computer's output depends on the accuracy of the input.
graphical user interface (GUI)	Type of user interface that allows a user to interact with software using text, graphics, and visual images, such as icons.
green computing	Practices that involve reducing the electricity consumed and environmental waste generated when using a computer.
handheld computer	Computer small enough to fit in one hand. See also handhelds or Ultra-Mobile PC (UMPC).
handhelds	Computers small enough to fit in one hand. See also handheld computer; ultra personal computer (uPC); handtop computer.
hardware	Electric, electronic, and mechanical components contained in a computer.
home theater PC (HTPC)	Desktop computer that combines the features of a high-definition video/audio entertainment system with a desktop computer that is designed to be connected to a television and includes a Blu-ray Disc, digital video recorder, and digital cable television connectivity.
home user	User who spends time on a computer at home.
icon	Miniature image displayed on a computer screen that represents a program, an instruction, or some other object.
information	Processed data that conveys meaning and is useful to people.
information processing cycle	Series of input, process, output, and storage activities performed by a computer.
information system	Hardware, software, data, people, and procedures that a computer requires to generate information.
information technology (IT) department	Group of employees who keeps the computers and networks running and determines when the company requires new hardware or software.
input device	Any hardware component that allows users to enter data and instructions into a computer.
installing	Process of setting up software to work with the computer, printer, and other hardware components.
instant message	Real-time Internet communication where you exchange messages with other connected users.
instructions	Steps that tell the computer how to perform a particular task.
Internet	Worldwide collection of networks that connects millions of businesses, government agencies, educational institutions, and individuals.
Internet-enabled	Technology that allows mobile devices to connect to the Internet wirelessly.
laptop computer	Portable, personal computer often designed to fit on your lap. See also notebook computer.
loads	Process of a computer copying a program from storage to memory.
mainframe	Large, expensive, powerful computer that can handle hundreds or thousands of connected users simultaneously, storing tremendous amounts of data, instructions, and information.
memory	Electronic components in a computer that store instructions waiting to be executed and data needed by those instructions.
microblog	Blog that allows users to publish short messages, usually between 100 and 200 characters, for others to read.
mobile computer	Personal computer that a user can carry from place to place.
mobile device	Computing device small enough for a user to hold in his or her hand.
mobile users	Users who work on a computer while away from a main office, home office, or school.
multimedia	Any application that combines text, graphics, audio, and video.
netbook	Type of notebook computer that is smaller, lighter, and often not as powerful as a

	traditional notebook computer.
network	Collection of computers and devices connected together, often wirelessly, via communications devices and transmission media, allowing computers to share resources.
neural network	System that attempts to imitate the behavior of the human brain.
notebook computer	Portable, personal computer often designed to fit on your lap. See also laptop computer.
online	Describes the state of a computer when it is connected to a network.
online banking	Online connection to a bank's computer to access account balances, pay bills, and copy monthly transactions to a user's computer.
online investing	Use of a computer to buy and sell stocks and bonds online, without using a broker.
online social network	Online community that encourages its members to share their interests, ideas, stories, photos, music, and videos with other registered users. See also social networking Web site.
operating system	Set of programs that coordinates all the activities among computer hardware devices.
output device	Any hardware component that conveys information to one or more people.
PC-compatible	Any personal computer based on the original IBM personal computer design.
PDA	PDA / Lightweight mobile device that provides personal information management functions such as a calendar, appointment book, address book, calculator, and notepad. See also personal digital assistant.
personal computer	Computer that can perform all of its input, processing, output, and storage activities by itself and contains a processor, memory, and one or more input and output devices, and storage devices.
personal digital assistant	Lightweight mobile device that provides personal information management functions such as a calendar, appointment book, address book, calculator, and notepad. See also PDA.
photo sharing community	Specific type of social networking Web site that allows users to create an online photo album and store and share their digital photos.
picture message	Photo or other image, sometimes along with sound and text, sent to or from a smart phone or other mobile device.
podcast	Recorded audio stored on a Web site that can be downloaded to a computer or a portable media player such as an iPod.
portable media player	Mobile device on which you can store, organize, and play digital media.
power user	User who requires the capabilities of a workstation or other powerful computer, typically working with multimedia applications and using industry-specific software.
processor	Electronic component on a computer's motherboard that interprets and carries out the basic instructions that operate the computer. See also CPU (central processing unit).
program	Series of instructions that tells a computer what tasks to perform and how to perform them. See also software.
programmer	Person who writes and modifies computer programs. See also developer.
publish	Process of creating a Web page and making it available on the Internet for others to see.
remote surgery	Surgery in which a surgeon performs an operation on a patient who is not located in the same physical room as the surgeon. See also telesurgery.
resources	Hardware, software, data, and information shared using a network.
run	Process of using software.
server	Computer that controls access to the hardware, software, and other resources on a network and provides a centralized storage area for programs, data, and information.
slate tablet	PC Tablet design that does not include a keyboard, but provides other means for typing.
small office/home office (SOHO:)	Describes any company with fewer than 50 employees, as well as the self-employed who work from home.

smart phone	Internet-enabled telephone that usually also provides personal information management functions.
social networking Web site	Online community that encourages its members to share their interests, ideas, stories, photos, music, and videos with other registered users. See also online social network.
software	Series of instructions that tells a computer what tasks to perform and how to perform them. See also Program.
SOHO	Describes any company with fewer than 50 employees, as well as the self-employed who work from home.
storage device	Hardware used to record (write and/or read) items to and from storage media.
storage media	The physical material on which a computer keeps data, instructions, and information.
supercomputer	Fastest, most powerful, and most expensive computer, capable of processing more than one quadrillion instructions in a single second.
system software	Programs that control or maintain the operations of a computer and its devices.
system unit	Case that contains the electronic components of a computer that are used to process data.
Tablet PC	Special type of notebook computer that resembles a letter-sized slate, which allows a user to write on the screen using a digital pen.
telecommuting	Work arrangement in which employees work away from a company's standard workplace and often communicate with the office through the computer.
telematics	Wireless communications capabilities used in automobiles, including navigation systems, remote diagnosis and alerts, and Internet access.
telemedicine	Form of long-distance health care where health-care professionals in separate locations conduct live conferences on the computer.
telesurgery	Surgery in which a surgeon performs an operation on a patient who is not located in the same physical room as the surgeon. See also remote surgery.
text message	Short note, typically fewer than 300 characters, sent to or from a smart phone or other mobile device.
tower	Tall and narrow system unit that can sit on the floor vertically if desktop space is limited.
Ultra-Mobile PC (UMPC)	Computer small enough to fit in one hand. See also handheld computer or handhelds.
user	Anyone who communicates with a computer or utilizes the information it generates.
utility program	Type of system software that allows a user to perform maintenance-type tasks usually related to managing a computer, its devices, or its programs.
video blog	Blog that contains video clips.
video message	Short video clip, usually about 30 seconds, sent to or from a smart phone or other mobile device.
video phone	Phone that can send video messages.
video sharing community	Type of social networking Web site that allows users to store and share their personal videos.
Web	Worldwide collection of electronic documents called Web pages, the Web is one of the more popular services on the Internet. See also World Wide Web.
Web 2.0	Term used to refer to Web sites that provide a means for users to share personal information, allow users to modify Web site content, and have application software built into the site for visitors to use.
Web Application	Web site that allows users to access and interact with software through a Web browser on any computer or device that is connected to the Internet. See also Web app.
Web cam	Video camera that displays its output on a Web page.
Web page	Electronic document on the Web, which can contain text, graphics, animation, audio, and video and often has built-in connections to other documents, graphics, Web pages, or Web sites.
Web site	Document on the Web that contains text, graphics, animation, audio, and video.

Chapter 2

Chapter 2

access provider	Business that provides individuals and organizations access to the Internet free or for a fee.
add-on	Program that extends the capability of a browser; often used to enhance multimedia. See also plug-in.
address book	List of names and e-mail addresses, created and stored by a user. Also called contacts folder.
animated GIF	Animation technique that combines several GIF images in a single GIF file.
animation	Appearance of motion created by displaying a series of still images in sequence.
anonymous FTP	Feature of many FTP sites whereby anyone can transfer some, if not all, available files.
ARPA	Advanced Research Projects Agency; agency of the U.S. Department of Defense that built an early computer network called ARPANET.
ARPANET	Network developed by the Pentagon's Advanced Research Projects Agency (ARPA) that linked scientific and academic researchers across the United States.
Atom	Specification sometimes used by content aggregators to distribute content.
audio	Music, speech, or any other sound.
blog	Informal Web site consisting of time-stamped articles, or posts, in a diary or journal format, usually listed in reverse chronological order. Short for Web log.
blogger	Author of a Weblog.
blogosphere	Worldwide collection of blogs.
bookmark	Saved Web address that you access by clicking its name in a list. See also favorite.
broadband	High-speed Internet connection provided through cable, DSL, fiber, radio signals, or satellite.
browser	Application software that allows users to access and view Web pages. See also Web browser.
buddies	Established list of friends, family, and coworkers used in instant messaging.
business-to-business (B2B) e-commerce	E-commerce that takes place between businesses.
business-to-consumer (B2C) e-commerce	The sale of goods and services to the general public.
cable Internet service	High-speed Internet access provided through the cable television network via a cable modem.
ccTLD	Country code TLD (top-level domain).
cellular radio network	High-speed Internet connection for devices with built-in compatible technology or computers with wireless modems.
chat	Real-time typed conversation that takes place on a computer.
chat client	Program that allows a user to connect to a chat server to participate in a chat session.
chat room	Location on an Internet server that permits users to chat with each other.
click	To move the mouse pointer to a button or link on the computer screen, and then to press and release the left mouse button.
consumer-to-consumer (C2C) e-commerce	E-commerce that occurs when one consumer sells directly to another, such as in an online auction.
content aggregator	Business that gathers and organizes Web content and then distributes, or feeds, the content to subscribers for free or a fee.
dial-up access	Internet access that takes place when the modem in your computer connects to the Internet via a standard telephone line that transmits data and information using an analog (continuous wave pattern) signal.
DNS server	Internet server that usually is associated with an Internet access provider.
domain name	Text version of an IP address.

domain name system (DNS)	Method that the Internet uses to store domain names and their corresponding IP addresses.
downloading	Process of a computer receiving information, such as a Web page, from a server on the Internet.
DSL	Acronym for digital subscriber line; type of digital technology that provides high-speed Internet connections using regular copper telephone lines.
dynamic Web page	A Web page that allows visitors to customize some or all of the viewed content.
e-commerce	Short for electronic commerce, a business transaction that occurs over an electronic network such as the Internet.
e-mail	Short for electronic mail, the transmission of messages and files via a computer network.
e-mail address	Combination of a user name and a domain name that identifies a user so that he or she can receive Internet e-mail.
e-mail program	Software used to create, send, receive, forward, store, print, and delete e-mail messages.
e-retail	Occurs when businesses use the Web to sell products.
electronic commerce	A business transaction that occurs over an electronic network such as the Internet.
electronic mail	The transmission of messages and files via a computer network. See also e-mail.
electronic storefront	Online business a customer visits that contains product descriptions, graphics, and a shopping cart.
emoticons	Symbols used on the Internet to express emotion.
FAQ	List that helps a user find answers to frequently asked questions.
favorite	Saved Web address that you access by clicking its name in a list. See also bookmark.
Fiber to the Premises (FTTP)	Technology that uses fiber-optic cables to provide high-speed Internet access to home and business users.
file	Named unit of storage.
fixed wireless	High-speed Internet connection that uses an antenna on a house or business to communicate with a tower location via radio signals.
flame wars	Exchanges of flames using the Internet.
flames	Abusive or insulting messages sent using the Internet.
FTP	Short for File Transfer Protocol, an Internet standard that permits file uploading and downloading with other computers on the Internet.
FTP server	Computer that allows users to upload and/or download files using FTP.
GIF	Graphics format that uses compression techniques to reduce file sizes.
graphic	Digital representation of nontext information such as a drawing, chart, or photo. See also graphical image.
graphical image	Digital representation of nontext information such as a drawing, chart, or photo. See also graphic.
gTLD	Generic TLD (top-level domain).
hits	Web page names displayed by a search engine that contain the search text specified by a user.
home page	First page that a Web site displays.
host	Any computer that provides services and connections to other computers on a network.
hot spots	Wireless network that provides Wi-Fi Internet connections to mobile computers and devices.
http	A set of rules that defines how pages transfer on the Internet. See also Hypertext Transfer Protocol.
hyperlink	Built-in connection to another related Web page or part of a Web page. See also link.
hypermedia	Web page content consisting of text-based links combined with graphic, audio, and video links.
hypertext	Term that refers to links in text-based documents.
Hypertext Transfer Protocol	A set of rules that defines how pages transfer on the Internet. See also http.
ICANN	Acronym for Internet Corporation for Assigned Names and Numbers; group that assigns and controls top-level domains.

instant messaging (IM)	Real-time Internet communications service that notifies a user when one or more people are online and then allows the user to exchange messages or files or join a private chat room with those people.
instant messenger	Software used by people to participate in instant messaging.
Internet	Worldwide collection of networks that connects millions of businesses, government agencies, educational institutions, and individuals. See also Net.
Internet backbone	Major carriers of network traffic on the Internet.
Internet telephony	Technology that allows users to speak to other users over the Internet. See also Voice over IP (Internet Protocol) or VoIP.
IP address	A number that uniquely identifies each computer or device connected to the Internet.
IPv6	New IP addressing scheme that may increase the number of available IP addresses.
ISP (Internet service provider)	Regional or national Internet access provider.
JPEG	Joint Photographic Experts Group; format that compresses graphics to reduce their file size.
keyword (searching)	Each word entered as search text when using a search engine.
link	Built-in connection to another related Web page or part of a Web page. Short for hyperlink.
m-commerce	E-commerce that takes place using mobile devices.
mailing list	Group of e-mail names and addresses given a single name. Also called an e-mail list or a distribution list.
media sharing Web site	Specific type of online social network that enables members to share media such as photos, music, and videos.
message board	Popular Web-based type of discussion group that does not require a newsreader.
microblog	Blog that allows users to publish short messages, usually between 100 and 200 characters, for others to read.
microbrowser	Special type of browser designed for the small screens and limited computing power of Internet-enabled mobile devices.
MP3	Format that reduces an audio file to about one-tenth of its original size, while preserving much of the original quality of the sound.
MP4	Popular video compression standard.
MPEG	Moving Pictures Experts Group.
MPEG-4	Current version of a popular video compression standard.
multimedia	Any application that combines text with graphics, animation, audio, video, and/or virtual reality.
national ISP	Internet service provider that provides Internet access in cities and towns nationwide.
Net	Worldwide collection of networks that links millions of businesses, government agencies, educational institutions, and individuals. See also Internet.
netiquette	Short for Internet etiquette, the code of acceptable behaviors users should follow while on the Internet.
newsgroup	Online area in which users have written discussions about a particular subject.
newsreader	Program necessary for participating in a newsgroup.
NSFnet	The National Science Foundation's network of five supercomputers.
online auction	E-commerce method that allows consumers to bid on an item being sold by someone else.
online community	Web site that joins a specific group of people with similar interests or relationships.
online service provider (OSP)	Company that provides Internet access as well as many members-only features.
online social network	Web site that encourages members in its online community to share their interests, ideas, stories, photos, music, and videos with other registered users. See also social networking Web site.
player	Software used by a person to listen to an audio file on a computer.
plug-in	Program that extends the capability of a browser; often used to enhance multimedia. See also add-on.
PNG	Graphics format that improves upon the GIF format.
podcast	Recorded audio, usually an MP3 file, stored on a Web site that can be downloaded to a

	computer or a portable media player such as an iPod.
POP3	Latest version of Post Office Protocol.
portal	Web site that offers a variety of Internet services from a single, convenient location.
Post Office Protocol	Communications protocol used by some incoming mail servers.
pull	Request information from a Web server.
push	Process of a Web server sending content to a computer at regular intervals, such as current sport scores or weather reports.
real time	Describes users and the people with whom they are conversing being online at the same time.
Really Simple Syndication	Specification that content aggregators use to distribute content to subscribers. See also RSS 2.0.
regional ISP	Internet service provider that usually provides Internet access to a specific geographic area.
registrar	Organization that sells and manages domain names.
RSS 2.0	Really Simple Syndication. Specification that content aggregators use to distribute content to subscribers.
satellite Internet service	Provides high-speed Internet connections via satellite to a satellite dish that communicates with a satellite modem.
search engine	Program that finds Web sites, Web pages, images, videos, news, maps, and other information related to a specific topic.
search query	Word or phrase entered in a search engine's text box that describes the item you want to find. See also search text.
search text	Word or phrase entered in a search engine's text box that describes the item you want to find. See also search query.
shopping cart	Element of an electronic storefront that allows a customer to collect purchases.
SMTP	Acronym for simple mail transfer protocol; communications protocol used by some outgoing mail servers.
social networking Web site	Web site that encourages members in its online community to share their interests, ideas, stories, photos, music, and videos with other registered users. See also online social network.
spam	Unsolicited e-mail message or newsgroups posting sent to many recipients or newsgroups at once.
spider	Program used to build and maintain lists of words found on Web sites.
spoiler	Message that reveals a solution to a game or ending to a movie or program.
static Web page	A fixed Web page where visitors all see the same content.
streaming	Process of transferring data in a continuous and even flow.
streaming audio	Transfer of audio data in a continuous and even flow, which allows users to listen to the audio file as it downloads.
streaming video	Transfer of video data in a continuous and even flow, which allows users to view longer or live video images as they are downloaded.
subject directory	Search tool that classifies Web pages in an organized set of categories and subcategories.
subscribe	Process of a user adding his or her e-mail name and address to a mailing list.
surfing the Web	Activity of using links to explore the Web.
tabbed browsing	Option where the top of the browser displays a tab (similar to a file folder tab) for each Web page you open.
thread	Group of newsgroup articles consisting of the original article and all subsequent related replies. See also threaded discussion.
threaded discussion	Group of newsgroup articles consisting of the original article and all subsequent related replies. See also thread.
thumbnail	Small version of a larger graphic.
top-level domain (TLD)	Identifies the type of organization associated with the domain.
traffic	Communications activity on the Internet.
Uniform Resource Locator	Unique address for a Web page. See also URL or Web address.

unsubscribe	Process of a user removing his or her e-mail name and address from a mailing list.
uploading	Process of transferring documents, graphics, and other objects from a computer to a server on the Internet.
URL	Unique address for a Web page. See also Uniform Resource Locator or Web address.
user name	Unique combination of characters, such as letters of the alphabet and/or numbers, that identifies a specific user.
video	Images displayed in motion.
video blog	Blog that contains video clips.
virtual reality (VR)	Computers used to simulate a real or imagined environment that appears as a three-dimensional (3-D) space.
vlog	Video blog.
vlogger	Short for vlog author.
vlogosphere	Term used to refer to all vlogs worldwide.
Voice over IP	Technology that allows users to speak to other users over the Internet using their desktop computer, mobile computer, or mobile device. See also Internet telephony or VoIP.
VoIP	Technology that allows users to speak to other users over the Internet using their desktop computer, mobile computer, or mobile device. See also Internet telephony or Voice over IP.
VR world	3-D environment that contains infinite space and depth created with special VR software.
Web	Worldwide collection of electronic documents called Web pages, the Web is one of the more popular services on the Internet. See also World Wide Web or WWW.
Web 2.0	Term used to refer to Web sites that provide a means for users to share personal information, allow users to modify Web site content, and have application software built into the site for visitors to use.
Web address	Unique address for a Web page. See also URL and Uniform Resource Locator.
Web app	Web site that allows users to access and interact with software through a Web browser on any computer or device that is connected to the Internet. See also Web application.
Web application	Web site that allows users to access and interact with software through a Web browser on any computer or device that is connected to the Internet. See also Web app.
Web browser	Application software that allows users to access and view Web pages. See also browser.
Web page	Electronic document on the Web, which can contain text, graphics, animation, audio, and video and often has built-in connections to other documents.
Web publishing	Development and maintenance of Web pages.
Web server	Computer that delivers requested Web pages to a computer.
Web site	Collection of related Web pages and associated items stored on a Web server.
Weblog	Informal Web site consisting of time-stamped articles, or posts, in a diary or journal format, usually listed in reverse chronological order. See also blog.
WebSlices	Internet Explorer feature that enables content aggregators to mark sections of their Web page as feeds to which user can subscribe.
Wi-Fi	Short for wireless fidelity. Type of broadband Internet connection that uses radio signals to provide high-speed Internet connections to compatible or properly equipped wireless computers and devices.
wiki	Collaborative Web site that allows users to create, add to, modify, or delete the Web site content via their Web browser.
wireless Internet service provider	Company that provides wireless Internet access to desktop and notebook computers and mobile devices, such as smart phones and portable media players, with built-in wireless capability (such as Wi-Fi) or to computers using wireless modems or wireless access devices.
wireless portal	Portal designed for Internet-enabled mobile devices.
WISP	See wireless Internet service provider.
World Wide Web	Worldwide collection of electronic documents. See also Web or WWW.
World Wide Web Consortium (W3C)	Consortium of nearly 400 organizations from around the world that oversees research and sets standards and guidelines for many areas of the Internet.
WWW	Worldwide collection of electronic documents. See also Web or World Wide Web.

Chapter 3

accounting software	Software that helps companies record and report their financial transactions.
application software	Program designed to make users more productive and/or assist them with personal tasks.
audio editing software	Application software that allows a user to modify audio clips, produce studio-quality soundtracks, and add audio to video clips.
bar chart	Chart that displays bars of various lengths to show the relationship of data. See also column chart.
blog software	Software needed by blogger to create/maintain a blog.
blogware	Short for blog software. Software needed by blogger to create/maintain a blog.
business software	Application software that assists people in becoming more effective and efficient while performing their daily business activities.
button	Graphical element that is activated to cause a specific action to occur.
cell	Intersection of a column and a row in a worksheet.
charting	Spreadsheet software feature that depicts data in a graphical form.
click	The act of moving the mouse pointer to a button and then pressing and releasing a button on the mouse (usually the left mouse button).
clip art	Collection of electronic drawings, photos, and other images.
clip art/image gallery	A collection of clip art and photos included with application software.
clipboard	Temporary storage location for document content that is used in cutting and pasting or copying and pasting operations.
color library	Standard set of colors used by designers and printers to ensure that colors will print exactly as specified.
column chart	Chart that displays bars of various lengths to show the relationship of data. See also bar chart.
command	Instruction on a menu that causes a program to perform a specific action.
computer-aided design (CAD) software	Sophisticated type of application software that assists a professional user in creating engineering, architectural, and scientific designs.
computer-based training (CBT)	Type of education in which students learn by using and completing exercises with instructional software. Also called computer-aided instruction (CAI).
create	To enter text or numbers, insert images, and perform other tasks with a document using an input device such as a keyboard, mouse, or digital pen.
custom software	Software that performs functions specific to a business or industry, developed by a user or at a user's request.
database	Collection of data organized in a manner that allows access, retrieval, and use of that data.
database software	Application software used to create, access, and manage a database; add, change, and delete data in the database; sort and retrieve data from the database; and create forms and reports using the data in the database.
desktop	On-screen work area that has a graphical user interface.
desktop publishing (DTP) software	Application software used by professional designers to create sophisticated documents that can contain text, graphics, and many colors.
dialog box	Special window that provides information, presents available options, or requests a response.
distance learning (DL)	Delivery of education at one location while the learning takes place at other locations.
document management software	Application software that provides a means for sharing, distributing, and searching through documents by converting them into a format that can be viewed by any user.
e-filing	Filing state and federal tax returns online.
e-learning	Short for electronic learning; delivery of education via some electronic method such as the Internet, networks, or optical discs.
edit	To make changes to the existing content of a document.
educational software	Application software that teaches a particular skill.

entertainment software	Application software, such as interactive games, videos, and other programs designed to support a hobby or provide amusement and enjoyment.
field	Each column in a database that contains a specific category of data within a record.
file	Named collection of stored data, instructions, or information.
file name	Unique combination of letters of the alphabet, numbers, or other characters that identifies a file.
filters	Audio editing software feature designed to enhance audio quality.
font	Name assigned to a specific design of characters.
font size	Size of the characters in a particular font.
font style	Font design, such as bold, italic, and underline, that can add emphasis to a font.
footer	Text that appears at the bottom of each page of a document.
format	To change a document's appearance.
formula	Expression used to perform calculations on the data in a worksheet and display the resulting value in a cell.
freeware	Copyrighted software provided at no cost to a user by an individual or a company that retains all rights to the software.
function	Predefined worksheet formula that performs common calculations.
header	Text that appears at the top of each page of a document.
home design/landscaping software	Application software that assists users with the design, remodeling, or improvement of a home, deck, or landscape.
icon	Small image displayed on a computer screen that represents a program, a document, or some other object.
illustration software	Application software that allows users to draw pictures, shapes, and other graphical images with various on-screen tools. See also paint software.
image editing software	Application software that provides the capabilities of paint software and also includes the capability to enhance and modify existing images and pictures.
image stitching	Process of combining multiple images into a larger image.
import	To bring graphics into a document.
label	Text entered in a worksheet cell that identifies the worksheet data and helps organize the worksheet.
legal software	Application software that assists in the preparation of legal documents and provides legal information to individuals, families, and small businesses.
line chart	Chart that shows a trend during a period of time, as indicated by a rising or falling line.
loaded	Copied from a computer's hard disk into memory.
macro	Sequence of keystrokes and instructions that a user records and saves.
malware	Short for malicious software; programs that act without a user's knowledge and deliberately alter a computer's operations.
margins	The portion of a page outside the main body of text, including the top, the bottom, and both sides of the paper.
menu	Item on the computer screen that contains a list of commands from which a user can make selections.
multimedia authoring software	Software that allows users to combine text, graphics, audio, video, and animation in an interactive application and that often is used for computer-based training and Web-based presentations.
note taking software	Application software that enables users to enter typed text, handwritten comments, drawings, or sketches anywhere on a page.
online banking	Online connection to a bank's computer to access account balances, pay bills, and copy monthly transactions to a user's computer.
online Help	Electronic equivalent of a user manual that usually is integrated in a program.
open source software	Software provided for use, modification, and redistribution.
packaged software	Mass-produced, copyrighted retail software that meets the needs of a wide variety of users, not just a single user or company.
page layout	Process of arranging text and graphics in a document on a page-by-page basis.

paint software	Application software that allows users to draw pictures, shapes, and other graphical images with various on-screen tools. See also illustration software.
pasting	Process of transferring an item from a clipboard to a specific location in a document.
PDF	Portable Document Format. A popular file format used by document management software to save converted documents.
personal DTP (desktop publishing) software	Application software that helps home and small office/ home office users create newsletters, brochures, advertisements, postcards, greeting cards, letterhead, business cards, banners, calendars, logos, and Web pages
personal finance software	Simplified accounting program that helps home users or small office/home office users manage finances.
personal information manager (PIM)	Application software that includes features to help users organize personal information.
personal paint/image editing software	Application software that provides an easy-to-use interface, usually with more simplified capabilities that allows users to draw pictures, shapes, and other images.
personal photo editing software	Application software that allows users to edit digital photos by removing red-eye, erasing blemishes, restoring aged photos, adding special effects, enhancing image quality, or creating electronic photo albums.
photo management software	Application software that allows users to view, organize, sort, catalog, print, and share digital photos.
pie chart	Chart that is displayed in the shape of a round pie cut into slices to show the relationship of parts to a whole.
point	Measure of font size, equal to about 1/72 of an inch in height.
pointer	Small symbol displayed on a computer screen whose location and shape changes as a user interacts with a mouse or other pointing device.
presentation software	Application software that allows a user to create visual aids for presentations to communicate ideas, messages, and other information to a group.
print	Placing the copy of a document on paper or some other medium.
product activation	Technique that some software manufacturers use to ensure that software is not installed on more computers than legally licensed.
professional photo editing software	Type of image editing software that allows photographers, videographers, engineers, scientists, and other high-volume digital photo users to edit and customize digital photos.
project management software	Application software that allows a user to plan, schedule, track, and analyze the events, resources, and costs of a project.
public-domain software	Free software that has been donated for public use and has no copyright restrictions.
query	Request for specific data from a database.
record	Each row in a database that contains data about a given person, product, object, or event.
reference software	Application software that provides valuable and thorough information for all individuals.
sans serif font	Font that does not have the short decorative lines at the upper and lower ends of the characters.
save	To transfer a document from a computer's memory to a storage medium.
scrolling	Process of moving different portions of a document on the computer's screen into view.
serif font	Font that has short decorative lines at the upper and lower edges of the characters.
shareware	Copyrighted software that is distributed at no cost for a trial period.
slide show	Display of a presentation on a large monitor or a projection screen.
smart tags	Word processing screen element that appears when you perform a certain action.
software suite	Collection of individual programs available together as a unit.
spelling checker	Feature in some application software that reviews the spelling of individual words, sections of a document, or the entire document.
spreadsheet software	Application software that allows a user to organize data in rows and columns and to perform calculations on the data.
system software	Software that serves as the interface between the user, the application software, and the computer's hardware.
tax preparation software	Application software that is used to guide individuals, families, or small businesses through the process of filing federal taxes.

template	Document that contains the formatting necessary for a specific document type.
title bar	Horizontal space, located at the top of a window, that contains the window's name.
travel and mapping software	Application software that enables users to view maps, determine route directions, and locate points of interest.
value	Number contained in a worksheet cell that can be used in a calculation.
video editing software	Application software that allows a user to modify a segment of video, called a clip.
WBT	Web-based training; computer-based training that uses Internet technology and consists of application software on the Web.
Web app	Web site that allows users to access and interact with software from any computer or device that is connected to the Internet.
Web application	Web site that allows users to access and interact with software through a Web browser on any computer or device that is connected to the Internet. See also Web app.
Web page authoring software	Software used to create Web pages that include graphical images, video, audio, animation, and other special effects with interactive content.
Web-based Help	Help located on Web sites that provides updates and comprehensive resources to respond to technical issues about software.
Web-based training	Computer-based training that uses Internet technology and consists of application software on the Web.
what-if analysis	Spreadsheet software feature that allows a user to change certain values in a spreadsheet to reveal the effects of those changes.
window	Rectangular area of a computer screen that displays data or information.
word processing software	One of the more widely used types of application software; allows a user to create and manipulate documents containing mostly text and sometimes graphics. See also word processor.
word processor	One of the more widely used types of application software; allows a user to create and manipulate documents containing mostly text and sometimes graphics. See also word processing software.
wordwrap	Feature of word processing software that allows users to type words in a paragraph continually without pressing the ENTER key at the end of each line.
worksheet	Rows and columns used to organize data in a spreadsheet.

Chapter 4

AC adapter	External power supply, used by some external peripherals, that converts AC power into DC power that the peripheral requires.
Accelerated Graphics Port (AGP)	Expansion bus designed by Intel to improve the speed with which 3-D graphics and video transmit.
access time	Measures the amount of time it takes a processor or storage device to read or locate an item in memory or storage.
adapter card	Circuit board that enhances functions of a component of a system unit and/or provides connections to peripherals.
address	Unique number that identifies the location of a byte in memory.
address bus	The part of a bus that transfers information about where data should reside in memory.
advanced transfer cache (ATC)	L2 cache built directly on the processor chip.
ALU	Acronym for arithmetic logic unit; component of a processor that performs arithmetic, comparison, and other operations.
analog	Continuous (wave form) signals.
arithmetic logic unit	Component of a processor that performs arithmetic, comparison, and other operations.
arithmetic operations	Basic calculations such as addition, subtraction, multiplication, and division.
ASCII	American Standard Code for Information Interchange; the most widely used coding system to represent data.
backside bus (BSB)	Bus that connects the processor to cache.
backward compatible	Term used to refer to a device's capability of supporting older devices, as well as newer devices.
bay	Opening inside the system unit in which additional equipment can be installed.
binary digit	The smallest unit of data a computer can process. See also bit.
binary system	Number system used by computers that has just two unique digits, 0 and 1, called bits.
bit	The smallest unit of data a computer can process. Bit is short for binary digit.
Bluetooth	Network standard, specifically a protocol, that defines how two Bluetooth devices use short-range radio waves to transmit data.
Bluetooth wireless port adapter	Adapter that will convert an existing USB port into a Bluetooth port.
bus	Electrical channel that transfers electronic bits internally within the circuitry of a computer, allowing the devices both inside and attached to the system unit to communicate with each other.
bus width	The size of a bus, which determines the number of bits that a computer can transmit at one time.
byte	Eight bits that are grouped together as a unit. A byte provides enough different combinations of 0s and 1s to represent 256 individual characters.
cache	Area of memory that stores the contents of frequently used data or instructions.
Celeron	Intel processor used by less-expensive basic PCs.
central processing unit (CPU)	Electronic component on a computer's motherboard that interprets and carries out the basic instructions that operate the computer. See also processor.
Centrino 2	Mobile technology that integrates wireless capabilities in notebook computers and Tablet PCs.
chassis	Case of the system unit made of metal or plastic that protects the internal electronic components from damage.
chip	Small piece of semiconducting material, usually silicon, on which integrated circuits are etched.
clock cycle	One tick of the system clock.
clock speed	Pace of the system clock, measured by the number of ticks per second.

comparison operations	Operations that involve comparing one data item with another to determine whether the first item is greater than, equal to, or less than the other item.
complementary metal-oxide semiconductor (CMOS)	Technology used by some RAM chips, flash memory chips, and other types of memory chips that provides high speeds and consumes little power by using battery power to retain information even when the power to a computer is off.
connector	Device that joins a cable to a port.
control unit	Component of a processor that directs and coordinates most of the operations in the computer.
Core	Family of Intel processors used in most high-performance PCs.
data bus	Part of a bus that transfers actual data.
DDR SDRAM	Double Data Rate SDRAM; type of RAM that is even faster than SDRAM because it transfers data twice for each clock cycle, instead of just once.
DDR2	Second generation of DDR; type of RAM that is faster than DDR.
DDR3	Third generation of DDR; type of RAM, faster than DDR2, designed for computers with multi-core processors.
decoding	Processor operation that translates a program instruction into signals the computer can execute.
digital	Representation of data using only two discrete states: on (1) and off (0).
DIMM (dual inline memory module)	Type of memory module that has pins on opposite sides of the circuit board that do not connect, thereby forming two sets of contacts. DIMMS typically hold SDRAM chips.
docking station	External device that attaches to a mobile computer or device and provides power connections to peripherals, along with memory cards, optical disc drives, and other devices.
drive bay	Rectangular opening in the system unit that typically holds disk drives.
dual-core processor	Processor chip that contains two separate processor cores.
dynamic RAM (DRAM)	Type of RAM chip that must be re-energized constantly or lose its contents.
EEPROM (electrically erasable programmable read-only memory) chip	Variation of a PROM chip that allows a programmer to erase microcode with an electric signal.
eSATA port	Short for external SATA; special-purpose port that allows you to connect an external SATA (Serial Advanced Technology Attachment) hard disk to a computer.
executing	Processor operation that carries out commands; part of the machine cycle.
expansion bus	Bus that allows the processor to communicate with peripherals.
expansion card	Circuit board that enhances functions of a component of a system unit and/or provides connections to peripherals. See also adapter card.
expansion slot	Socket on a motherboard that can hold an adapter card.
ExpressCard module	Removable flash memory device that adds memory, communications, multimedia, and security capabilities to mobile computers.
ExpressCard slot	Special type of expansion slot in desktop, notebook, and mobile computers that holds an ExpressCard.
external bay	Drive bay that allows users to access openings in the bay from outside the system unit.
external SATA port	Special-purpose port that allows you to connect an external SATA (Serial Advanced Technology Attachment) hard disk to a computer.
fast infrared port	A high-speed IrDA port.
fetching	Processor operation that obtains a program instruction or data item from memory.
FireWire bus	Expansion bus that eliminates the need to install cards in expansion slots.
FireWire hub	Device that plugs in a FireWire port on the system unit and contains multiple FireWire ports in which you plug cables from FireWire devices.
FireWire port	Port that can connect multiple types of devices that require faster data transmission speeds. See also IEEE 1394 port
firmware	ROM chips that contain permanently written data, instructions, or information, recorded on the chips when they were manufactured.
flash memory	Type of nonvolatile memory that can be erased electronically and rewritten.
form factor	Term used to refer to size and shape of a desktop personal computer system unit.

front side bus (FSB)	Bus that is part of the motherboard and connects the processor to main memory. See also system bus.
gender changer	Device that joins a port and a connector that are both female or both male.
gigabyte (GB)	Approximately 1 billion bytes.
gigahertz (GHz)	One billion ticks of the system clock per second.
graphics card	Adapter card that converts computer output into a video signal that travels through a cable to the monitor, which displays an image on the screen. See also video card.
heat pipe	Small cooling device used to cool processors in notebook computers
heat sink	Small ceramic or metal component with fins on its surface that absorbs and ventilates heat produced by electrical components.
hertz	One clock cycle per second.
Hi-Speed USB	More advanced and faster type of USB. See also USB 2.0.
hot plugging	Feature that allows you to insert or remove a removable flash memory device and other devices while the computer is running.
IEEE 1394 port	Port that can connect multiple types of devices that require faster data transmission speeds. See also FireWire port.
integrated circuit	Electronic component that contains many microscopic pathways capable of carrying electrical current.
Intel-compatible processors	Processors that have an internal design similar to that of Intel processors, perform the same functions as Intel processors, and can be as powerful, but often are less expensive.
internal bay	Drive bay that is concealed entirely within the system unit.
IrDA	Infrared Data Association; network standard used to transmit data wirelessly via infrared (IR) light waves.
IrDA port	Port that uses infrared light waves to transmit signals between a wireless device and a computer.
Itanium	Intel processor used by workstations and low-end servers.
jack	Term sometimes used to identify an audio or video port.
kilobyte (KB or K)	Exactly 1,024 bytes.
L1 cache	A type of memory cache that is built directly into the processor chip, with a capacity of 8 KB to 128 KB.
L2 cache	A type of memory cache that is slightly slower than L1 cache, but has a much larger capacity, ranging from 64 KB to 16 MB.
L3 cache	Cache on the motherboard that is separate from the processor.
liquid cooling technology	A continuous flow of fluid(s), such as water and glycol, that transfers the heated fluid away from the processor, cools the liquid, then returns the cooled fluid to the processor.
machine cycle	The four basic operations (fetching, decoding, executing, and storing) performed by a processor.
magnetoresistive RAM (MRAM)	Newer type of RAM that stores data using magnetic charges instead of electrical charges.
main memory	Type of memory that can be read from and written to by the processor and other devices. Programs and data are loaded into RAM from storage devices such as a hard disk and remain in RAM as long as the computer has continuous power. See also RAM or random access memory.
massively parallel processing	Large scale parallel processing that involves hundreds or thousands of processors.
megabyte (MB)	Approximately 1 million bytes.
memory	Electronic components in a computer that store instructions waiting to be executed by the processor, the data needed by those instructions, and the results of processing the data.
memory cache	Cache that helps speed the processes of a computer by storing frequently used instructions and data.
memory card	Removable flash memory device, usually no bigger than 1.5" in height or width, that you insert and remove from a slot in a personal computer, game console, mobile device, or card reader/writer.

memory module	Small circuit board that houses RAM chips and is held in a memory slot on the motherboard.
memory slots	Slots on the motherboard that hold memory modules.
microcode	Instructions programmers use to program a PROM chip.
microprocessor	Term used by some computer and chip manufacturers to refer to a processor chip for a personal computer. See also processor.
MIDI port	Special type of serial port that connects the system unit to a musical instrument, such as an electronic keyboard.
motherboard	Main circuit board of the system unit, which has some electronic components attached to it and others built into it. See also system board.
multi-core processor	Single chip with two or more separate processor cores.
multi-threaded program	Software written to support multiple threads.
Musical Instrument Digital Interface	Electronic music industry's standard that defines how devices represent sounds electronically.
nanosecond	One billionth of a second.
nonvolatile memory	Type of memory that does not lose its contents when a computer's power is turned off.
ns	One billionth of a second. See also nanosecond.
parallel processing	Processing method that uses multiple processors simultaneously to execute a single program or task in order to speed processing times.
PC Card	Thin, credit-card-sized removable flash memory device that primarily is used today to enable traditional notebook computers and Tablet PCs to access the Internet wirelessly.
PC Card bus	Expansion bus for a PC Card.
PC Card slot	Special type of expansion slot in desktop, notebook, and mobile computers that holds a PC Card.
PCI bus (Peripheral Component Interconnect bus)	High-speed expansion bus that connects higher speed devices.
PCI Express (PCIe) bus	Expansion bus that expands on and doubles the speed of the original PCI bus.
Pentium	Family of Intel processors used by less expensive, basic PCs.
peripheral	Device that connects to a system unit and is controlled by the processor in the computer.
pipelining	Concept in which the processor begins fetching a second instruction before it completes the machine cycle for the first instruction
Plug and Play	Technology that gives a computer the capability to configure adapter cards and other peripherals automatically as a user installs them.
port	Point at which a peripheral attaches to or communicates with a system unit so it can send data to or receive information from the computer.
port replicator	External device that attaches to a mobile computer to provide connections to peripherals through ports built into the replicator.
power supply	Component of the system unit that converts wall outlet AC power to the DC power that is used by a computer.
processor	Electronic component on a computer's motherboard that interprets and carries out the basic instructions that operate the computer. See also central processing unit (CPU).
PROM (programmable read-only memory) chip	Blank ROM chip on which a programmer can write permanently.
quad-core processor	Chip with four separate processor cores.
RAM	Type of memory that can be read from and written to by the processor and other devices. Programs and data are loaded into RAM from storage devices such as a hard disk and remain in RAM as long as the computer has continuous power. See also main memory or random access memory.
random access memory	Type of memory that can be read from and written to by the processor and other devices. Programs and data are loaded into RAM from storage devices such as a hard disk and remain in RAM as long as the computer has continuous power. See also main memory or RAM.
RDRAM	Rambus DRAM; type of RAM that is much faster than SDRAM because it uses

	pipelining techniques.
read-only memory (ROM)	Type of nonvolatile memory that is used to store permanent data and instructions.
registers	Small, high-speed storage locations in a process that temporarily hold data and instructions
RIMM (Rambus inline memory module)	Type of memory module that houses RDRAM chips.
SAS (serial attached SCSI)	Newer type of SCSI that transmits at much faster speeds than parallel SCSI.
SCSI (small computer system interface)	Type of high-speed parallel interface used to attach peripheral devices to a computer. See also SCSI.
SCSI port	Special high-speed parallel port to which peripherals, such as disk drives and printers, can be attached.
SDRAM	Synchronous DRAM; type of RAM, much faster than DRAM, that is synchronized to the system clock.
serial port	Type of interface that connects a device to the system unit by transmitting data one bit at a time.
SIMM (single inline memory module)	Type of memory module that has pins on opposite sides of the circuit board that connect together to form a single set of contacts. SIMMs typically hold SDRAM chips.
sound card	Adapter card that enhances the sound generating capabilities of a personal computer by allowing sound to be input through a microphone and output through external speakers or headset.
static RAM (SRAM)	Type of RAM that is faster and more reliable than any variation of DRAM.
stored program concept	Concept of using memory to store both data and programs.
storing	Processor operation that writes a result to memory.
superscalar	Term describing processors that can execute more than one instruction per clock cycle
synthesizer	Peripheral or chip that creates sound from digital instructions.
system board	Name sometimes used for the motherboard. See also motherboard.
system bus	Bus that is part of the motherboard and connects the processor to main memory. See also front side bus (FSB).
system clock	Small quartz crystal circuit that is used by the processor to control the timing of all computer operations.
system unit	Case that contains the electronic components of a computer that are used to process data.
system-on-a-chip	New type of processor that integrates the functions of a processor, memory, and a video card on a single chip.
terabyte (TB)	Approximately one trillion bytes.
transistor	Element of an integrated circuit that can act as an electronic switch that opens or closes the circuit for electrical charges.
Unicode	16-bit coding scheme that has the capability of representing more than 65,000 characters and symbols.
universal serial bus port	Port that can connect up to 127 different peripherals with a single connector type. See also USB port.
USB 2.0	More advanced and faster type of USB. See also Hi-Speed USB.
USB 3.0	USB that is more than 10 times faster than USB 2.0.
USB flash drive	Flash memory storage device that plugs in a USB port on a computer or portable device.
USB hub	Device that plugs in a USB port on the system unit and contains multiple USB ports in which cables from USB devices can be plugged.
USB port	Port that can connect up to 127 different peripherals with a single connector type. See also universal serial bus port.
video card	Adapter card that converts computer output to a video signal that travels through a cable to a monitor, which displays an image on the screen. See also graphics card.
volatile memory	Type of memory that loses its contents when a computer's power is turned off.
vPro technology	Technology used by Intel's dual-core and multi-core processors that provides the capability to track computer hardware and software, diagnose and resolve computer

problems, and secure computers from outside threats.

Windows ReadyBoost

Windows feature that can allocate available storage space on removable flash memory devices as additional cache.

word size

Number of bits a computer can interpret and execute at a given time.

Xeon

Intel processor used by workstations and low-end servers.

Chapter 5

air mouse	Motion-sensing mouse that, in addition to the typical buttons, allows you to control objects, media players, and slide shows by moving the mouse in predetermined directions through the air.
Americans with Disabilities Act (ADA)	Federal law that requires any company with 15 or more employees to make reasonable attempts to accommodate the needs of physically challenged workers.
audio input	Process of entering any sound, such as speech, music, and sound effects, into the computer.
automated teller machine (ATM)	Special-purpose terminal, connected to a host computer through a network that functions as a self-service banking machine.
bar code	Identification code consisting of either vertical lines and spaces of different widths or a two-dimensional pattern of dots, squares, and other images that represent a manufacturer and an item.
bar code reader	Optical reader that uses laser beams to read bar codes by using light patterns that pass through the bar code lines. See also barcode scanner.
bar code scanner	Optical reader that uses laser beams to read bar codes by using light patterns that pass through the bar code lines. See also barcode reader.
biometric device	Device that translates a personal characteristic into a digital code that is compared with a digital code stored in a computer.
biometric identifier	Physiological or behavioral characteristic, such as fingerprints, hand geometry, facial features, voice, signatures, and eye patterns.
biometrics	Technology of authenticating a person's identity by verifying a personal characteristic.
charge-coupled device	Digital camera chip that generates an analog symbol that represents an image.
Click Wheel	Touch-sensitive scroll pad on a portable media player that users rotate to browse through song, picture, or movie lists and press to play or pause media, display a menu, and other actions.
cordless keyboard	Battery-powered keyboard that transmits data using wireless technology, such as radio waves or infrared light waves. See also wireless keyboard.
cordless mouse	Battery-powered device that transmits data using wireless technology, such as radio waves or infrared light waves. See also wireless mouse.
cursor	Symbol on a computer screen, usually a blinking vertical bar, that indicates where the next character a user types will appear. See also insertion point.
dance pad	Flat electronic device divided into panels that users press with their feet in response to instructions from a music video game.
data collection device	Device that obtains data directly at the location where the transaction or event takes place.
digital camera	Mobile device that allows users to take pictures and stores the photographed images digitally, instead of on traditional film.
digital pen	Input device that allows users to write or draw on the screen by pressing the pen and issue instructions to a Tablet PC by tapping on the screen.
digital video (DV) camera	Video camera that records video as digital signals instead of as analog signals.
digitizer	Large-scale application term for a graphics tablet. See also graphics tablet.
download	With digital cameras, refers to transferring a copy of images from the digital camera to the computer's hard disk.
DVD kiosk	Self-service DVD rental machine that connects to a host computer through a network.
enhanced keyboard	Keyboard that has twelve function keys along the top; two Control (CTRL) keys and two Alternate (ALT) keys along the bottom; and a set of keys and additional keys between the typing area and the numeric keypad.
enhanced resolution	Digital camera resolution calculated by a special formula that adds pixels between those generated by optical resolution.
ergonomic keyboard	Keyboard whose design reduces the chance of wrist or hand injuries.

ergonomics	The science of incorporating comfort, efficiency, and safety into the design of the workplace.
face recognition system	Biometric device that captures a live face image and compares it with a stored image to determine if the person is a legitimate user.
field camera	Portable digital camera with many lenses and other attachments.
fingerprint reader	Biometric device that captures curves and indentations of a fingerprint and compares them with those of a stored image.
flatbed scanner	Type of light-sensing input device that scans a document and creates a file of the document in memory instead of a paper copy.
function keys	Special keys programmed to issue commands to a computer.
game controller	Input device that directs movements and actions of on-screen objects in video and computer games.
gamepad	Input device that controls the movement and actions of players or objects in video games or computer games.
gaming keyboard	Keyboard designed specifically for users who enjoy playing games on the computer.
gesture recognition	Computer's capability of detecting human motion.
graphics tablet	Flat, rectangular, electronic, plastic board that is used to create drawings and sketches.
hand geometry system	Biometric device that measures the shape and size of a person's hand and compares these measurements to stored measurements.
handwriting recognition software	Software that translates handwritten letters and symbols into characters that a computer or device can process.
head-mounted pointer	Pointer that is placed on a user's head and can be used by a physically challenged person.
image processing	Business practice that consists of capturing, storing, analyzing, displaying, printing, and manipulating images with scanners.
image processing system	Storing and indexing electronic documents to provide access to exact reproductions of the original documents.
input	Any data and instructions entered into the memory of a computer.
input device	Any hardware component that allows users to enter data and instructions into a computer.
insertion point	Symbol on a computer screen, usually a blinking vertical bar, that indicates where the next character a user types will appear. See also cursor.
iris recognition system	Biometric device that uses iris recognition technology to read patterns in the iris of the eye.
joystick	Handheld vertical lever mounted on a base used to control actions of a simulated vehicle or player.
keyboard	Input device that contains keys users press to enter data and instructions into a computer.
keyguard	Metal or plastic plate placed over the keyboard that allows users to rest their hands on the keyboard without accidentally pressing any keys.
kiosk	Free-standing computer that usually includes a touch screen.
laser mouse	Mouse type that uses a laser sensor.
light gun	Input device used in video and computer games to shoot targets and moving objects after you pull the trigger on the weapon.
magnetic stripe card reader	Reading device that reads the magnetic stripe on the back of credit, entertainment, bank, and other similar cards. See also magstripe reader.
magnetic-ink character recognition	Technology that reads text printed with magnetized ink.
magstripe reader	Reading device that reads the magnetic stripe on the back of credit, entertainment, bank, and other similar cards. See also magnetic stripe card reader.
MICR	Technology that reads text printed with magnetized ink.
MICR reader	Reading device that converts MICR characters into a form that a computer can process.
Microsoft Surface	Touch screen with a 30-inch tabletop display that allows one or more people to interact with the screen using their fingers or hands.
motion-sensing game controllers	Input devices used with computer and video games that allow the user to guide on-screen elements by moving a handheld input device in predetermined directions through the air.

mouse	Pointing device that fits comfortably under the palm of a user's hand.
mouse gestures	Capability that allows users to perform certain operations by holding a mouse button while moving the mouse in a particular pattern.
mouse pointer	Small symbol displayed on a computer screen whose location and shape changes as a user moves a mouse.
MP	One million pixels.
multi-touch	Term used to describe touch screens that recognize multiple points of contact at the same time.
music production software	Software that allows users to record, compose, mix, and edit music and sounds.
OCR (optical character recognition) software	Software that enables scanners to read and convert text documents into electronic files.
OCR devices	Optical character recognition devices that include small optical scanners for reading characters and sophisticated software to analyze what is read.
on-screen keyboard	Type of keyboard, sometimes used by physically challenged users, in which a graphic of a standard keyboard is displayed on the user's screen.
optical character recognition (OCR)	Optical reader technology that involves reading typewritten, computer-printed, or hand-printed characters from ordinary documents and translating the images to a form that a computer can process.
optical mark recognition (OMR)	Optical reader technology that reads hand-drawn marks such as small circles or rectangles.
optical mouse	Mouse that uses devices, such as optical sensors or lasers, that emit and sense light to detect the mouse's movement.
optical reader	Device that uses a light source to read characters, marks, and codes and then converts them into digital data that a computer can process.
optical resolution	The actual photographed resolution at which a digital camera can capture a digital image.
optical scanner	Light-sensing input device that reads printed text and graphics and then translates the results into a form the computer can process.
PC video camera	Type of digital video camera that enables a home or small business user to capture video and still images, send e-mail messages with video attachments, add live images to instant messages, broadcast live images over the Internet, and make video telephone calls. See also Web cam.
pen input	Input method in which you touch a stylus or digital pen on a flat surface to write, draw, and make selections.
personal identification number (PIN)	Numeric password, either assigned by a company or selected by a user.
photo scanner	Sheet-fed scanner model designed specifically for photos.
pixel	The smallest element in an electronic image. Short for picture element.
pixels per inch (ppi)	Number of pixels in one inch of screen display.
point-and-shoot camera	Affordable and lightweight camera that provides acceptable quality photographic images for home or small office users.
pointer	Small symbol displayed on a computer screen whose location and shape changes as a user moves a pointing device.
pointing device	Input device that allows a user to control a pointer on the screen.
pointing stick	Pressure-sensitive pointing device shaped like a pencil eraser that is positioned between keys on a keyboard and moved by pushing the pointing stick with a finger.
portable keyboard	Full-size keyboard that communicates with a smart phone or PDA.
POS terminal	Terminal used by retail stores to record purchases, process credit or debit cards, and update inventory.
predictive text input	Smart phone technology where you press one key on the keypad for each letter in a word and software on the phone predicts the word you want.
program	Series of related instructions that tells a computer what tasks to perform and how to perform them. See also software.

radio frequency identification	Standard, specifically a protocol, that defines how a network uses radio signals to communicate with a tag placed in or attached to an object, an animal, or a person.
resolution	The number of horizontal and vertical pixels in a display device.
retinal scanners	Biometric devices that scan patterns of blood vessels in the back of the retina.
RFID	Short for radio frequency identification; standard, specifically a protocol, that defines how a network uses radio signals to communicate with a tag placed in or attached to an object, an animal, or a person.
RFID reader	Reading device that reads information on an RFID tag via radio waves.
scanner	Light-sending input device that reads printed text and graphics and then translates the results into a form the computer can process. See also optical scanner.
signature capture pad	Pen input device that captures handwritten signatures with a stylus or pen that is attached to the device.
signature verification system	Biometric device that recognizes the shape of a person's handwritten signature and measures the pressure exerted and the motion used to write the signature.
source document	Document that contains the original form of data to be processed.
speech recognition	Computer's capability of distinguishing spoken words. See also voice recognition.
streaming cam	Type of Web cam that has the illusion of moving images because it sends a continual stream of still images.
studio camera	Stationary camera used for professional studio work.
stylus	Small metal or plastic device that looks like a ballpoint pen, but uses pressure instead of ink to write, draw, or make selections.
terminal	Device that consists of a keyboard, a monitor, a video card, and memory, which often all are housed in a single unit.
toggle key	Key that switches between two states each time a user presses the key.
touch screen	Touch-sensitive display device with which users interact by touching areas of the screen.
touch-sensitive pad	Input device that enables users to scroll through and play music, view pictures, watch videos or movies, adjust volume, and/or customize settings.
touchpad	Small, flat, rectangular pointing device that is sensitive to pressure and motion.
trackball	Stationary pointing device with a ball on its top or side.
turnaround document	Document that a user returns to the company that has created and sent it.
UPC (universal product code)	Bar code used by retail and grocery stores.
user response	An instruction a user issues by replying to a question displayed by a program.
video capture card	Adapter card that converts an analog video signal to a digital signal that a computer can process.
video conference	Meeting between two or more geographically separated people who use a network or the Internet to transmit audio and video data.
video input	Process of capturing full-motion images and storing them on a computer's storage medium.
video telephone call	Telephone call made using a PC video camera that allows both parties to see each other as they communicate over the Internet.
voice input	Process of entering data by speaking into a microphone.
voice recognition	Computer's capability of distinguishing spoken words. See also speech recognition.
voice verification system	Biometric device that compares a person's live speech with his or her stored voice pattern to determine if the person is a legitimate user.
Web cam	Digital video camera that enables a home or small business user to capture video and still images, send e-mail messages with video attachments, add live images to instant messages, broadcast live images over the Internet, and make live video telephone calls.
wheel	Steering-wheel-type input device that is used to simulate driving a vehicle.
whiteboard	Video conference feature in which another window on the screen displays notes and drawings simultaneously on all participants' screens.
Wii Remote	Nintendo's motion-sensing input device that uses Bluetooth wireless technology to communicate with the Wii game console.
wireless keyboard	Battery-powered keyboard that transmits data using wireless technology, such as radio waves or infrared light waves. See also cordless keyboard.

wireless mouse

Battery-powered device that transmits data using wireless technology, such as radio waves or infrared light waves. See also cordless mouse.

Chapter 6

active-matrix display	LCD monitor or screen technology that uses a separate transistor to apply charges to each liquid crystal cell and thus displays high-quality color that is viewable from all angles. See also TFT (thin-film transistor) display.
all-in-one device	Output device that looks like a printer or copy machine but provides the functionality of a printer, scanner, copy machine, and perhaps a fax machine. See also multifunction peripheral.
aspect ratio	Defines a display's width relative to its height.
audio output device	Component of a computer that produces music, speech, or other sounds, such as beeps.
bit depth	The number of bits a video card uses to store information about each pixel. See also color depth.
Bluetooth printing	Type of printing process that uses radio waves to transmit output to a printer.
Braille printer	Type of printer that prints information on paper in Braille for use by visually impaired users.
candela	Standard unit of luminous intensity.
cathode-ray tube (CRT)	Large, sealed glass tube whose front, the screen, is coated with dots of red, green, and blue phosphor material.
color depth	The number of bits a video card uses to store information about each pixel. See also bit depth.
continuous-form paper	Type of paper, used by most dot-matrix printers, which consists of thousands of pages connected together end to end.
contrast ratio	Difference in light intensity between the brightest white and darkest black that can be displayed on an LCD monitor.
CRT monitor	Type of desktop monitor that contains a cathode-ray tube.
data projector	Output device that takes the text and images displaying on a computer screen and projects them on a larger screen so that an audience can see the image clearly.
digital light processing (DLP) projector	Projector that uses tiny mirrors to reflect light, which produces crisp, bright, colorful images that remain in focus and can be seen clearly, even in a well-lit room.
digital photo printer	Thermal printer that uses heat to transfer colored dye to specially coated paper. See also dye-sublimation printer
digital television (DTV)	Television that receives digital television signals and produces a higher-quality picture.
display	Output device that visually conveys text, graphics, and video information. See also display device.
display device	Output device that visually conveys text, graphics, and video information. See also display.
DisplayPort	Port that is an alternative to DVI that also supports HDMI.
dot pitch	The distance in millimeters between pixels on a display device. See also pixel pitch.
dot-matrix printer	Type of impact printer that produces printed images when tiny wire pins on a print head mechanism strike an inked ribbon.
dots per inch (dpi)	Printer resolution measurement of the number of dots a printer can print.
DVI (Digital Video Interface) port	Video card port that enables digital signals to transmit directly to an LCD monitor.
dye-sublimation printer	Thermal printer that uses heat to transfer color dye to specially coated paper, creating images of photographic quality. See also digital photo printer.
earbuds	Audio output device that rests inside the ear canal. See also earphones.
earphones	Audio output device that rests inside the ear canal. See also earbuds.
flat-panel display	Display device with a shallow depth and flat screen that typically uses LCD or gas plasma technology.
force feedback	Technology that sends resistance to a joystick or wheel in response to actions of the user.
graphics processing unit (GPU)	Chip that controls the manipulation and display of graphics on a display device.

hard copy	Printed information that exists physically and is a more permanent form of output than that presented on a display device (soft copy). See also printout.
HDMI (High-Definition Media Interface) port	Port that combines DVI with high-definition (HD) television and video.
HDTV	High-definition television; the most advanced form of digital television, working with digital broadcast signals, transmitting digital sound, supporting wide screens, and providing resolutions up to 1920 x 1080 pixels.
head-mounted display	Display that uses OLED technology in a helmet, goggles, or glasses.
headphones	Audio output device that covers or is placed outside the ear.
headset	Device that functions as both headphones and a microphone.
high-definition television	The most advanced form of digital television, working with digital broadcast signals, transmitting digital sound, supporting wide screens, and providing resolutions up to 1920 x 1080 pixels. See also HDTV.
impact printer	Type of printer that forms characters and graphics on a piece of paper by striking a mechanism against an inked ribbon that physically contacts the paper.
infrared printing	Printing that uses infrared light waves to transmit output to a printer.
ink-jet printer	Type of nonimpact printer that forms characters and graphics by spraying tiny drops of liquid ink on a piece of paper.
interactive whiteboard	Touch-sensitive device, resembling a dry-erase board, that displays the image on a connected computer screen.
Internet postage	Digital postage technology that allows users with an authorized postage account to buy and print digital postage.
label printer	Small printer that prints on adhesive-type material that can be placed on items such as envelopes, packages, optical discs, photos, file folders, and toys.
landscape orientation	A printout that is wider than it is tall with information printed across the widest part of the paper.
large-format printer	Printer that creates photo-realistic quality color prints, used mainly by graphic artists.
laser printer	Type of high-speed, high-quality nonimpact printer that creates images using a laser beam and powdered ink called toner.
LCD monitor	Desktop monitor that uses a liquid crystal display instead of a cathode-ray tube to produce images on a screen, resulting in a sharp, flicker-free display.
LCD projector	Projector that uses liquid crystal display technology that attaches directly to a computer and uses its own light source to display the information shown on the computer screen.
line printer	Type of high-speed impact printer that prints an entire line at a time.
liquid crystal display (LCD)	Type of display that uses a liquid compound to present information on a display device.
mobile printer	Small, lightweight, battery-powered printer used by a mobile user to print from a notebook computer, smart phone, or other mobile device while traveling.
monitor	Display device that is packaged as a separate peripheral.
monochrome	Display device capability in which information appears in one color on a different color background.
multifunction peripheral	Output device that looks like a printer or copy machine but provides the functionality of a printer, scanner, copy machine, and perhaps a fax machine. See also all-in-one device.
native resolution	The specific resolution for which an LCD is geared.
near letter quality (NLQ)	Printer output that is slightly less clear than what is acceptable for business letters.
nit	Unit of visible light intensity that is equal to one candela per square meter.
nonimpact printer	Type of printer that forms characters and graphics on a piece of paper without actually striking the paper.
organic LED (OLED)	TFT technology that uses organic molecules that produce an even brighter, easier-to-read display than standard TFT displays.
output	Data that has been processed into a useful form.
output device	Any hardware component that conveys information to one or more people.
page description	Software that tells a printer how to lay out the contents of a printed page.

language (PDL)	
passive-matrix display	LCD monitor or screen technology that uses fewer transistors, requires less power, and is less expensive than an active-matrix display.
PCL (Printer Control Language)	Standard printer language that supports the fonts and layout used in standard office documents.
photo printer	Type of nonimpact color printer that produces photo-lab-quality pictures.
PictBridge	Standard technology used with photo printers that allows you to print photos directly from a digital camera by connecting a cable from the digital camera to a USB port on the printer.
pixel	The smallest element in an electronic image. Short for picture element.
pixel pitch	The distance in millimeters between pixels on a display device. See also dot pitch.
plasma monitor	Display device that uses gas plasma technology, which sandwiches a layer of gas between two glass plates.
plotters	Sophisticated printers that produce high-quality drawings such as blueprints, maps, and circuit diagrams using a row of charged wires (called styli) to draw an electrostatic pattern on specially coated paper and then fuse toner to the pattern.
portrait orientation	A printout that is taller than it is wide, with information printed across the shorter width of the paper.
postage printer	Special type of label printer that prints postage stamps.
PostScript	Standard printer language used by professionals in the desktop publishing and graphics arts fields, designed for complex documents with intense graphics and colors.
printer	Output device that produces text and graphics on a physical medium such as paper.
printout	Printed information that exists physically and is a more permanent form of output than that presented on a display device (soft copy). See also hard copy.
resolution	The number of horizontal and vertical pixels in a display device.
response time	The time in milliseconds (ms) that it takes to turn a pixel on or off.
S-video port	Video card port that allows users to connect external analog devices such as a television, DVD player, or video recorder to the computer.
satellite speakers	Speakers positioned around one or two center speakers and positioned so that sound emits from all directions.
soft copy	Temporary output presented on a display device.
speakers	Audio output devices that generate sound.
subwoofer	Speaker component that boosts low bass sounds.
SVGA	Super Video Graphics Array; video standard with a resolution of 800 x 600.
SXGA	Super XGA; video standard with a resolution of 1280 x 1024.
tactile output	Feature included with some input devices that provides the user with a physical response from the device.
TFT (thin-film transistor) display	Thin-film transistor; LCD monitor or screen technology that uses a separate transistor to apply charges to each liquid crystal cell and thus displays high-quality color that is viewable from all angles. See also active-matrix display.
thermal printer	Type of nonimpact printer that generates images by pushing electrically heated pins against heat-sensitive paper.
thermal wax-transfer printer	Thermal printer that generates images by using heat to melt colored wax onto heat-sensitive paper.
toner	Type of powdered ink that is used by some laser printers and copy machines to produce output.
UXGA	Ultra XGA; video standard with a resolution of 1600 x 1200.
viewable size	Diagonal measurement of the actual viewing area provided by the screen in a CRT monitor.
voice output	Audio output that occurs when a user hears a person's voice or when a computer talks to the user through the speakers on the computer.
widescreen	Term used to refer to LCD monitors that are wider than they are tall.
WQXGA	Wide Quad XGA; video standard with a resolution of 2560 x 1600.
WSXGA	Wide Super XGA; video standard with a resolution of 1680 x 1050.
WUXGA	Wide Ultra XGA; video standard with a resolution of 1920 x 1200.
WXGA	Wide XGA; video standard with a resolution of 1280 x 1024 or 1366 x 768.

XGA

Extended Graphics Array; video standard with a resolution of 1024 x 768.

Chapter 7

access time	Measures the amount of time it takes a processor or storage device to read or locate an item in memory or storage.
allocation unit	Smallest unit of disk space that stores data and information. See also cluster.
archive disc	CD that stores photos from an online photo center in jpg file format, usually at a maximum resolution of 7200 pixels per photo.
backup	Duplicate of a file, program, or disk placed on a separate storage medium that can be used if the original is lost, damaged, or destroyed.
BD-R	High-capacity DVD-recordable format.
BD-RE	High-capacity rewritable DVD format.
Blu-Ray Disc-ROM (BD-ROM)	Newer, expensive type of DVD with storage capacities of 100 GB, with expectations of exceeding 200 GB in the future.
burning	Process of writing on an optical disc.
capacity	Number of bytes a storage medium can hold.
card reader/writer	Device that reads and writes data, instructions, and information stored on flash memory cards.
CD-R	Multisession optical disc on which users can write, but not erase, their own items such as text, graphics, and audio. See also compact disc-recordable.
CD-ROM	Type of optical disc that uses laser technology to store data, instructions, and information that users can read but not write on or erase. See also compact disc read-only memory.
CD-ROM drive	Drive that can read CD-ROM discs and sometimes audio CDs.
CD-RW	Erasable multisession optical disc on which users can write data, instructions, and information multiple times. See also compact disc-rewritable.
CD-RW drive	Drive that can read audio CDs, standard CD-ROMs, CD-Rs, CD-RWs, and can write on, or record, CD-RWs.
cloud storage	Internet service that provides storage to computer users.
cluster	Smallest unit of disk space that stores data and information. See also allocation unit.
compact disc read-only memory	Type of optical disc that uses laser technology to store data, instructions, and information that users can read but not write on or erase. See also CD-ROM.
compact disc-recordable	Multisession optical disc on which users can write, but not erase, their own items such as text, graphics, and audio. See also CD-R.
compact disc-rewritable	Erasable multisession optical disc on which users can write data, instructions, and information multiple times. See also CD-RW.
CompactFlash (CF)	Memory card capable of storing between 512 MB and 100 GB of data.
computer output microfilm recorder	Device that records images on microfilm and microfiche.
cylinder	The vertical section of a hard disk track that passes through all platters.
density	Number of bits in an area on a storage medium.
digital versatile disc-read-only memory	Extremely high capacity optical disc on which users can read, but not write or erase, that is capable of storing 4.7 GB to 17 GB of data. See also DVD-ROM; digital versatile disc-ROM; digital video disc-ROM; digital video disc read-only memory.
digital video disc-read-only memory	Extremely high capacity optical disc on which users can read, but not write or erase, that is capable of storing 4.7 GB to 17 GB of data. See also DVD-ROM; digital versatile disc-ROM; digital video disc-ROM.
direct access	Type of data access in which the storage device can locate a particular data item or file immediately, without having to move consecutively through items stored in front of the desired data item or file. See also random access.
disk cache	Memory chips on a hard disk that store frequently accessed items such as data, instructions, and information. Sometimes called a buffer.
disk controller	Special-purpose chip and electronic circuits that control the transfer of data, instructions, and information between a disk and the system bus and other components in a computer.
DVD+R	DVD-recordable format with up to 4.7 GB capacity that allows users to write on the disc

	once and read it many times.
DVD+RAM (DVD+random access memory)	Rewritable DVD format with capacities up to 4.7 GB per side.
DVD+RW	Rewritable DVD format with capacities up to 4.7 GB per side.
DVD-R	DVD-recordable format with up to 4.7 GB capacity that allows users to write on the disc once and read it many times.
DVD-ROM	High-capacity optical disc on which users can read, but not write or erase. See also digital versatile disc-read-only memory and digital video disc-read-only memory.
DVD-ROM drive	Device that can read a DVD-ROM. Most DVD-ROM drives also can read audio CDs, CD-ROMs, CD-Rs, and CD-RWs.
DVD-RW	Rewritable DVD format with capacities up to 4.7 GB per side.
EIDE (Enhanced Integrated Drive Electronics)	Interface that uses parallel signals to transfer data, instructions, and information and can support up to four hard disks at 137 GB per disk.
eSATA	Acronym for external SATA; hard disk interface that is much faster than USB and FireWire.
ExpressCard module	Removable flash memory device that can be used to add memory, storage, communications, multimedia, and security capabilities to a computer.
external hard disk	Separate freestanding hard disk that connects with a cable to a USB port or FireWire port on the system unit.
fixed disk	Name sometimes given to the hard disk mounted inside a system unit.
form factor	Term that refers to the size of platters in a hard disk.
formatting	Process of dividing a disk into tracks and sectors so that the operating system can store and locate data and information on the disk.
GBps	Gigabytes per second.
hard disk	Type of storage device that contains one or more inflexible, circular platters that use magnetic particles to store data, instructions, and information. See also hard disk drive.
hard disk drive	Type of storage device that contains one or more inflexible, circular platters that use magnetic particles to store data, instructions, and information. See also hard disk.
HD VMD (Versatile Multilayer Disc)	High-density format that potentially will contain up to 20 layers, each with a capacity of 5 GB.
head crash	Type of hard disk failure that occurs when a read/write head touches the surface of a platter.
jewel box	Protective case that is used to store optical discs when not in use.
KBps	Kilobytes per second.
LightScribe technology	Technology used by some optical drives that can etch labels directly on a specially coated optical disc, as opposed to placing an adhesive label on the disc.
longitudinal recording	Storage technique in which magnetic particles are aligned horizontally around the surface of the disk.
magnetic stripe card	Credit card, entertainment card, bank card, or other similar card, with a stripe that contains information identifying you and the card.
MBps	Megabytes per second.
memory card	Removable flash memory device, usually no bigger than 1.5" in height or width, that you insert and remove from a slot in a computer, mobile device, or card reader/writer.
Memory Stick	Type of miniature mobile storage medium that is a memory card capable of storing between 1 and 16 GB of data.
Memory Stick Micro (M2)	Memory card capable of storing between 1 and 16 GB of data.
microfiche	A small sheet of film, usually about 4 inches by 6 inches in size, on which microscopic images of documents are stored.
microfilm	A roll of film, usually 100 to 215 feet long, on which microscopic images of documents are stored.
microSD	Memory card capable of storing between 1 and 2 GB of data.
microSDHC	Memory card capable of storing between 4 and 16 GB of data.

mini discs	Optical disc with a size of three inches or less used by smaller computers and devices.
multisession	Optical disc that can be written on more than once, allowing users to save additional data on the disc at a later time.
NAS	See network attached storage.
network attached storage	Server connected to a network with the sole purpose of providing storage. See also NAS.
optical disc	Type of storage medium that consists of a flat, round, portable disc made of metal, plastic, and lacquer that is written on and read by a laser.
perpendicular recording	Storage technique in which magnetic particles are aligned vertically, or perpendicular to the disk's surface, making much greater storage capacities possible.
Picture CD	Single-session CD-ROM that stores digital versions of film using a jpg file format at a lower resolution, typically 1024 x 1536 pixels.
platter	Component of a hard disk that is made of aluminum, glass, or ceramic and is coated with an alloy material that allows items to be recorded magnetically on its surface.
pocket hard drive	Term that refers to smaller external hard disks because they enable users easily to transport photos and other files from one computer to another.
portable	The capability of a storage medium to be removed from one computer and carried to another computer.
RAID	Redundant array of independent disks; group of two or more integrated hard disks.
random access	Type of data access in which the storage device can locate a particular data item or file immediately, without having to move consecutively through items stored in front of the desired data item or file. See also direct access.
read/write head	Mechanism in a disk drive that reads items or writes items as it barely touches the disk's recording surface.
reading	Process of transferring data, instructions, and information from a storage medium into memory.
removable hard disk	Hard disk that can be inserted and removed from a drive.
revolutions per minute (rpm)	The number of times per minute that a hard disk platter rotates.
ripping	Process of copying audio and/or video data from a purchased disc and saving it on digital media.
SAS (serial-attached SCSI)	Newer type of SCSI that uses serial signals to transfer data, instructions, and information.
SATA (Serial Advanced Technology Attachment)	Hard disk interface that uses serial signals to transfer data, instructions, and information and has transfer rates of up to 300 MBps and higher.
SCSI	Small computer system interface.
secondary storage	The physical material on which a computer keeps data, instructions, and information.
sectors	The small arcs into which tracks on a disk are divided.
Secure Digital (SD)	Memory card capable of storing between 512 MB and 8 GB of data.
Secure Digital High Capacity (SDHC)	Memory card capable of storing between 4 and 32 GB of data.
sequential access	Type of data access in which the storage device reads or writes data consecutively.
single-session disc	Disc on which manufacturers write all items at one time.
smart card	Card, similar in size to a credit card or ATM card, that stores data on a thin microprocessor embedded in the card.
solid state drive (SSD)	Storage device that typically uses flash memory to store data, instructions, and information.
solid-state media	Term used to refer to components that consist entirely of electronic components, such as integrated circuits, and contain no moving parts.
storage	Location in which data, instructions, and information are held for future use.
storage device	Hardware used to record (write and/or read) items to and from storage media.
storage medium	The physical material on which a computer keeps data, instructions, and information.
tape	Magnetically coated ribbon of plastic capable of storing large amounts of data and information at a low cost.

tape cartridge	Small, rectangular, plastic housing for tape.
tape drive	Device used to read and write data and information on tape.
tape library	Separate cabinet for larger computers in which tape cartridges are mounted.
thumb drive	Flash memory device that plugs in a USB port on a computer or portable device. See also USB flash drive.
track	Narrow recording band that forms a full circle on the surface of a disk.
transfer rate	The speed at which data, instructions, and information transfer to and from a device.
U3 smart drive	Special type of USB flash drive that includes preinstalled software accessed through a Windows-type interface.
UMD	Universal Media Disc. Mini-DVD used specifically with the PlayStation Portable handheld game console.
USB flash drive	Flash memory storage device that plugs in a USB port on a computer or portable device. See also thumb drive.
writing	Process of transferring data, instructions, and information from memory to a storage medium.
xD Picture Card	Memory card capable of storing between 256 MB and 2 GB of data.

Chapter 8

administrator account	Computer account held by computer and network administrators that enables them to access all files and programs on the computer or network, install programs, and specify settings that affect all users on a computer or network.
adware	Program that displays an online advertisement in a banner or pop-up window on Web pages, e-mail, or other Internet services.
adware remover	Program that detects and deletes adware from a user's computer.
Aero Flip 3-D	Windows 7 feature that works with the mouse to flip through open windows arranged in a stack.
anti-spam program	Program that attempts to remove spam before it reaches a user's inbox.
antivirus program	Program that protects a computer against viruses by identifying and removing any computer viruses found in memory, on storage media, or on incoming files.
automatic update	Operating system feature that automatically provides updates to a program.
back up	To make a copy of selected files or an entire hard disk to another storage medium.
background	Programs that are running, but not in use.
backup utility	Utility program that allows users to copy, or back up, selected files or an entire hard disk to another storage medium, such as another hard disk, optical disc, USB flash drive, or tape.
basic input/output system	Firmware that contains the computer's startup instructions.
BIOS	Basic input/output system; firmware that contains the computer's startup instructions.
BlackBerry	Operating system that runs on handheld devices supplied by RIM (Research In Motion).
boot disk	Special disk that contains a few system files capable of starting a computer, which is used when the computer cannot boot from its hard disk. See also recovery disk.
boot drive	Drive from which a personal computer boots (starts).
booting	Process of starting or restarting a computer.
buffer	Segment of memory or storage in which items are placed while waiting to be transferred from an input device or to an output device.
bugs	Program errors.
client operating systems	Term used to refer to some stand-alone operating systems that also work in conjunction with a server operating system.
cold boot	Process of turning on a computer that has been powered off completely.
command language	The set of commands entered into a computer with a command-line interface.
command-line interface	Type of user interface in which a user types commands or presses special keys on the keyboard (such as function keys or key combinations) to enter data and instructions.
compress	To shrink the size of a file.
cross-platform	Program that runs the same on multiple operating systems.
defragmenting	Reorganizing a disk so that the files are stored in contiguous sectors, thus speeding up disk access and the performance of the entire computer.
Desktop Gadget Gallery	Windows 7 feature that allows users to display a variety of gadgets on the Windows desktop.
device driver	Small program that tells an operating system how to communicate with a specific device. See also driver.
device-dependent	Program that runs only on a specific type or make of computer.
device-independent	Operating systems that run on computers provided by a variety of manufacturers.
disc burning	Utility program that writes text, graphics, audio, and video files to a recordable or rewritable

software	CD, DVD, or Blu-ray Disc.
disk cleanup	Utility that searches for and removes unnecessary files.
disk defragmenter	Utility that reorganizes the files and unused space on a computer's hard disk so that the operating system accesses data more quickly and programs run faster.
Documents Explorer	Windows Vista feature that helps users locate documents by showing thumbnails that preview documents' content and allowing users to adjust thumbnail size to view document without opening it.
driver	Small program that tells an operating system how to communicate with a specific device. See also device driver.
embedded Linux	Scaled-down Linux operating system designed for smart phones, PDAs, portable media players, Internet telephones, and many other types of devices and computers requiring an embedded operating system.
embedded operating system	The operating system that resides on a ROM chip inside most PDAs and small devices.
encryption	The process of encoding data and information to an unreadable form.
Explorers	Windows file manager that includes the Documents Explorer, Pictures Explorer, and Music Explorer.
fault-tolerant computer	Computer that has duplicate components so that it can continue to operate when one of its main components fail.
file compression utility	Utility program that shrinks the size of a file(s), so that the file takes up less storage space than the original file.
file manager	Utility that performs functions related to file management.
Flip 3D	Windows Vista feature that works with the mouse to flip through open windows arranged in a stack.
folder	Specific named location on a storage medium that contains related documents.
foreground	Program with which the user currently is interacting.
fragmented	State of a file whose contents are scattered across two or more noncontiguous sectors of a disk.
gadget	Mini-program with limited functionality that connects to another program or provides information. See also widget.
ghosting	The permanent etching of images on a monitor's screen.
Google Android	Operating system designed by Google for mobile devices.
graphical user interface (GUI)	Type of user interface that allows a user to interact with software using text, graphics, and visual images, such as icons.
hacker	Someone who accesses a computer or network illegally.
hibernate	Operating system function that saves any open documents and programs to a hard disk before removing power from the computer.
image viewer	Utility that allows users to display, copy, and print the contents of a graphics file, such as a photo.
index	Search utility feature that stores a variety of information about a file, including its name, date created, date modified, author name, and so on.
Internet Explorer	Web browser included with Windows operating system.
iPhone OS	Operating system developed by Apple for the iPhone and iPod touch.
kernel	The core of an operating system that manages memory and devices, maintains the computer's clock, starts programs, and assigns the computer's resources.
Linux	Popular, multitasking UNIX-type operating system.
log on	To access a computer or network as a user.
lossless	Compression method in which a compressed file can be returned to its exact original state.
lossy	File compression method in which a file cannot be returned to its exact original state after compression, because the quality of a file decreases each time it is compressed,
Mac OS X	Multitasking operating system that is the latest version of the Macintosh operating system.

Macintosh operating system	Operating system for Apple's Macintosh computer.
malware	Short for malicious software; programs that act without a user's knowledge and deliberately alter a computer's operations.
media player	Utility program that allows you to view images and animation, listen to audio, and watch video files.
memory management	Operating system activity that optimizes the use of random access memory (RAM).
memory resident	Remaining in memory while a computer is running.
multiprocessing	In reference to operating systems, supports two or more processors running programs at the same time.
multipurpose operating system	Operating system that is both a stand-alone operating system and a server operating system.
multiuser	In reference to operating systems, enables two or more users to run programs simultaneously.
Music Explorer	Windows Vista feature that helps users locate files by allowing users to adjust thumbnail size to view document without opening it.
NetWare	Server operating system designed by Novell for client/server networks.
network administrator	Employee who configures, installs, and maintains LANs, WANs, intranets, and Internet systems; identifies and resolves connectivity issues.
nonresident	Instructions that remain on a storage medium until they are needed.
open source software	Software provided for use, modification, and redistribution.
operating system (OS)	Set of programs containing instructions that work together to coordinate all the activities among computer hardware devices.
page	Amount of data and program instructions that can swap at a given time.
paging	Technique of swapping items between memory and storage.
Palm OS	Scaled-down operating system that runs on smart phones and PDAs.
password	Private combination of characters associated with a user name that allows access to certain computer resources.
performance monitor	Operating system program that assesses and reports information about various computer resources and devices.
permissions	Define who can access certain resources and when they can access those resources.
personal computer maintenance utility	Utility program that identifies and fixes operating system problems, detects and repairs disk problems, and includes the capability of improving a computer's performance.
personal firewall	Utility program that detects and protects a personal computer from unauthorized intrusions.
phishing	Scam in which a perpetrator attempts to obtain your personal and/or financial information.
phishing filter	Program that warns or blocks you from potentially fraudulent or suspicious Web sites.
Pictures Explorer	Windows Vista feature that helps users locate files by showing thumbnails that preview documents' content and allowing users to adjust thumbnail size to view document without opening it.
platform	Set of programs containing instructions that coordinate all the activities among computer hardware resources.
Plug and Play	Technology that gives a computer the capability to configure adapter cards and other peripherals automatically as a user installs them.
pop-up ad	Internet advertisement that suddenly appears in a new window in the foreground of a Web page displayed in the user's browser.
pop-up blocker	Filtering program that stops pop-up ads from displaying on Web pages.
power-on self test (POST)	Series of tests that is executed by the BIOS to make sure the computer hardware is connected properly and operating correctly.

preemptive multitasking	Process in which the operating system interrupts a program that is executing and passes control to another program waiting to be executed.
print spooler	Program that intercepts documents to be printed from the operating system and places them in a queue.
proprietary software	Software that is privately owned and limited to a specific vendor or computer model.
queue	Lineup of multiple print jobs within a buffer.
recovery disk	Special disk that contains a few system files capable of restarting a computer, which is used when the computer cannot boot from its hard disk. See also boot disk.
registry	Several files that contain the system configuration information.
restore utility	Program that reverses the backup process and returns backed up files to their original form.
screen saver	Utility program that causes a display device's screen to show a moving image or blank screen if no mouse activity occurs for a specified time.
search utility	Program that attempts to locate a file on your computer based on criteria you specify.
server operating system	Operating system that organizes and coordinates how multiple users access and share resources on a network.
service pack	Free downloadable software updates provided by the software manufacturer to users who have registered and/or activated their software.
shortcut	Icon on the desktop that provides a user with immediate access to a program or file.
single user/multitasking	In reference to an operating system, allowing a single user to work on two or more programs that reside in memory at the same time.
single user/single tasking	In reference to an operating system allowing only one user to run one program at a time.
sleep mode	Operating system function that saves any open documents and programs to RAM, turns off all unneeded functions, and then places the computer in a low-power state.
Snipping Tool	Windows 7 feature that allows you to copy screen elements to a file on your computer.
Solaris	A version of UNIX developed by Sun Microsystems that is a server operating system designed specifically for e-commerce applications.
spam	Unsolicited e-mail message or newsgroups posting sent to many recipients or newsgroups at once.
spooling	Operating system process that sends documents to be printed to a buffer instead of sending them immediately to the printer.
spyware	Program placed on a computer without the user's knowledge that secretly collects information about the user.
spyware remover	Program that detects and deletes spyware and other similar programs on a user's computer.
stand-alone operating system	Complete operating system that works on a desktop computer, notebook computer, or mobile computing device.
Startup folder	Contains a list of programs that open automatically when you boot a computer.
swap file	Area of the hard disk used for virtual memory.
Symbian OS	An open source multitasking operating system designed for smart phones and allows users to perform a variety of functions in addition to making telephone calls.
system files	Specific operating system files.
system software	Programs that control or maintain the operations of a computer and its devices.
thrashing	The state of an operating system that spends much of its time paging, instead of executing application software.
Trojan horse	Malicious-logic program named after the Greek myth that hides within or looks like a legitimate program.
uncompress	To restore a compressed, or zipped, file to its original form. See also unzip.
uninstaller	Utility program that removes a program, as well as any associated entries in the system files.
UNIX	Multitasking operating system that now is available for most computers of all sizes.

unzip	To restore a compressed, or zipped, file to its original form. See also uncompress.
user ID	Unique combination of characters, such as letters of the alphabet and/or numbers, that identifies a specific user. See also user name.
user interface	The portion of software that defines how a user interacts with a computer, including how the user enters data and instructions and how information is displayed on the screen.
user name	Unique combination of characters, such as letters of the alphabet and/or numbers, that identifies a specific user.
utility	Type of system software that allows a user to perform maintenance-type tasks, usually related to managing a computer, its devices, or its programs.
utility program	Type of system software that allows a user to perform maintenance-type tasks usually related to managing a computer, its devices, or its programs.
virtual memory	A portion of a storage medium, usually the hard disk, that the operating system allocates to function as additional RAM.
virtualization	Practice of sharing or pooling computing resources, such as servers.
virus	Potentially damaging computer program that affects, or infects, a computer negatively by altering the way the computer works without a user's knowledge or permission.
virus author	Programmer who intentionally writes a virus program.
warm boot	Process of using the operating system to restart a computer.
Web filtering software	Program that restricts access to certain material on the Web.
widget	Mini-program with limited functionality that connects to another program or provides information. See also gadget.
Windows 7	Microsoft's fastest, most efficient operating system to date, offering quicker program start up, built-in diagnostics, automatic recovery, improved security, enhanced searching and organizing capabilities, and an easy-to-use interface.
Windows 7 Home Premium	Windows 7 edition that includes all the capabilities of Windows 7 Starter and also includes Windows Aero with its Aero Flip 3D feature.
Windows 7 Professional	Windows 7 edition that provides users in all sizes of businesses with a secure operating environment that uses Windows Aero where they easily can search for files, protect their computers from unauthorized intruders and unwanted programs, use improved backup technologies, securely connect to Wi-Fi networks, quickly view messages on a powered-off, specially equipped notebook computer, easily share documents and collaborate with other users, and watch and record live television.
Windows 7 Starter	Windows 7 edition designed for netbooks and other small notebook computers that allows users to search for files, connect to printers and devices, browse the Internet, join home networks, and connect to wireless networks.
Windows 7 Ultimate	Windows 7 edition that includes all features of Windows 7 Home Premium and provides additional features designed to keep files secure and support for 35 languages.
Windows Aero	Interface for computers with more than 1 GB of RAM that provides an enhanced visual look, additional navigation options, and animation.
Windows Calendar	Windows 7 feature that allows you to coordinate your schedule with others' schedules.
Windows Contacts	Windows Vista feature that allows you to organize name and address information.
Windows Defender	Windows 7 security feature that protects your computer from spyware.
Windows DVD Maker	Windows 7 feature that allows users to create DVDs from digital videos.
Windows Embedded CE	Scaled-down Windows operating system designed for use on communications, entertainment, and computing devices with limited functionality.
Windows Firewall	Windows 7's built-in personal firewall that protects computers or a network from hackers.
Windows Live Essentials	Windows 7 feature that includes programs for instant messaging, photo editing and sharing, e-mail, blogging, and video editing and sharing.
Windows Live Mail	Windows 7 e-mail feature.
Windows Live Messenger	Windows 7 instant messaging feature.

Windows Live Movie Maker	Windows 7 video editing and sharing feature.
Windows Live Photo Gallery	Windows 7 photo editing and sharing feature.
Windows Live Writer	Windows 7 blogging feature.
Windows Media Player	Windows 7 program that allows users to listen to Internet radio stations, play MP3 and other music formats, copy music and data to CDs, and watch movies.
Windows Messenger	Windows Vista program that allows users to send and receive instant messages.
Windows Phone 7	Embedded operating system that includes functionality, programs, and a user interface designed for specific types of smart phones.
Windows Photo Gallery	An image viewer that is included with Windows Vista, which also allows you to manage and edit photos.
Windows Photo Viewer	Windows image viewer that allows you to print and e-mail photos.
Windows ReadyBoost	Windows feature that can increase the size of memory by allocating available storage space on removable flash memory devices as additional memory cache.
Windows Server 2008	Server operating system designed by Microsoft that is an upgrade to Windows Server 2003, including Web server management, enhanced server security, network access protection, and protection against malware features.
Windows Server 2008 family	Collection of network operating system products, including Windows Server 2008 for Itanium-Based Systems; Windows Server 2008, Standard Edition; Windows Server 2008, Enterprise Edition; Windows Server 2008, Datacenter; and Windows Web Server 2008.
Windows Server 2008 for Itanium-Based Systems	Server operating system designed for use by computers with 64-bit processors that function as a Web server.
Windows Server 2008, Datacenter	Server operating system designed for use by businesses with huge volumes of transactions and large-scale databases.
Windows Server 2008, Enterprise Edition	Server operating system designed for use by medium- to large-sized businesses, including those with e-commerce operations.
Windows Server 2008, Standard Edition	Server operating system designed for use by typical small- to medium-sized business networks.
Windows Sidebar	Vertical bar along the edge of the Windows Vista desktop that allows users to control and customize a variety of gadgets or widgets.
Windows SideShow	Windows Vista feature that allows viewing of messages on a powered-off notebook computer equipped with a secondary display.
Windows Touch	Windows 7 support for computers with multi-touch technology.
Windows Vista	Successor to Windows XP, Microsoft's fastest, most efficient operating system to date, offering quicker program start up, built-in diagnostics, automatic recovery, improved security, and enhanced searching and organizing capabilities.
Windows Vista Business	Vista edition designed for businesses of all sizes that uses Windows Aero.
Windows Vista Home Basic	Vista edition designed for the basic home user.
Windows Vista Home Premium	Vista edition that includes all capabilities of Windows Vista Home Basic and also includes Windows Aero.
Windows Vista Ultimate	Vista edition that includes all features of Windows Vista Home Premium and provides additional features designed to make mobile users' computers more secure and easier to network.
Windows Web Server	Network operating system designed for Web server and Web hosting businesses.

- worm** Malicious-logic program that copies itself repeatedly, using up system resources and possibly shutting down the system.
- zipped files** Type of compressed files that usually have a .zip extension.

Chapter 9

10-Gigabit Ethernet	Ethernet standard that supports transfer rates up to 10 Gbps.
100-Gigabit Ethernet	Ethernet standard that supports transfer rates up to 100 Gbps.
1G	Abbreviation for first generation, used in reference to cellular transmission standards, used to transmit analog data.
2G	Abbreviation for second generation, used in reference to cellular transmission standards, that transmits digital data at speeds from 9.6 Kbps to 19.2 Kbps.
3G	Abbreviation for third generation, used in reference to cellular transmission standards, that transmits digital data at speeds from 144 Kbps to 2.4 Mbps.
40-Gigabit Ethernet	Ethernet standard that supports transfer rates up to 40 Gbps.
4G	Abbreviation for fourth generation, used in reference to cellular transmission standards, that transmits digital data at speeds up to 15 Mbps.
802.11	Series of network standards developed by IEEE that specifies how two wireless devices communicate over the air with each other. See also wireless Ethernet standard.
802.16	Worldwide Interoperability for Microwave Access. Newer network standard developed by IEEE that specifies how wireless devices communicate over the air in a wide area. See also WiMAX.
ADSL (asymmetric digital subscriber line)	Short for asymmetric digital subscriber line; type of DSL that supports faster transfer rates when receiving data than when sending data.
ATM	Short for Asynchronous Transfer Mode; service that carries voice, data, video, and multimedia at very high speeds.
bandwidth	The amount of data, instructions, and information that can travel over a communications channel.
Bluetooth	Network standard, specifically a protocol, that defines how two Bluetooth devices use short-range radio waves to transmit data.
broadband	Type of media that transmits multiple signals simultaneously.
broadband modem	Digital modem that sends and receives digital data over the cable television (CATV) network. See also cable modem.
broadcast radio	Wireless transmission medium that distributes radio signals through the air over long distances such as between cities, regions, and countries and short distances such as within an office or home.
bus	Electrical channel that transfers electronic bits internally within the circuitry of a computer, allowing the devices both inside and attached to the system unit to communicate with each other.
bus network	Type of network topology in which a single central cable connects all computers and other devices.
cable modem	Digital modem that sends and receives digital data over the cable television (CATV) network. See also broadband modem.
CDMA	Code Division Multiple Access. 3G standard for mobile communications.
cellular radio	Form of broadcast radio that is used widely for mobile communications, specifically wireless modems and cell phones.
client/server network	Network in which one or more computers act as a server, and the other computers on the network request services from the server.
clients	Other computers and mobile devices on a network that rely on a server for its resources.
coax	Short for coaxial; a single copper wire surrounded by at least three layers: (1) an insulating material, (2) a woven or braided metal, and (3) a plastic outer coating. See also coaxial cable.
coaxial cable	A single copper wire surrounded by at least three layers: (1) an insulating material, (2) a woven or braided metal, and (3) a plastic outer coating. See also coax.
collaborate	Work online with other users connected to a server.
collaborative software	Software that includes tools that enable users to share documents via online meetings and communicate with other connected users.

common short code (CSC)	Four- or five-digit number assigned to a specific content or wireless service provider.
communications	Process in which two or more computers or devices transfer data, instructions, and information.
communications channel	Transmission media on which data, instructions, or information travel.
communications device	Any type of hardware capable of transmitting data, instructions, and information between a sending device and a receiving device.
communications satellite	Space station that receives microwave signals from an earth-based station, amplifies (strengthens) the signals, and broadcasts the signals back over a wide area to any number of earth-based stations.
communications software	Programs that (1) help users establish a connection to another computer or network; (2) manage the transmission of data, instructions, and information; and (3) provide an interface for users to communicate with one another.
cybercafé	Coffeehouse, restaurant, or other location that provides personal computers with Internet access to its customers.
database server	Server that stores and provides access to a database.
dedicated line	Type of always-on connection that is established between two communications devices (unlike a dial-up line where the connection is reestablished each time it is used).
dedicated servers	Servers that perform specific tasks and can be placed with other dedicated servers to perform multiple tasks.
dial-up line	Temporary connection that uses one or more analog telephone lines for communications.
dial-up modem	Communications device that can convert digital signals to analog signals and analog signals to digital signals, so that data can travel along an analog telephone line.
digital modem	Communications device that sends and receives data and information to and from a digital line.
Digital Subscriber Line	Type of digital technology that provides high-speed Internet connections using regular copper telephone lines. Commonly called DSL.
document management system	System for storage and management of a company's documents, such as word processing documents, presentations, and spreadsheets.
downlink	Transmission from a satellite to an earth-based station.
downstream rate	The transfer rate that is achieved when data is being received on a communications channel.
DSL	Type of digital technology that provides high-speed Internet connections using regular copper telephone lines.
DSL modem	Modem that sends digital data and information from a computer to a DSL line and receives digital data and information from a DSL line.
EDGE	Enhanced Data GSM Environment; 3G standard for mobile communications.
EDI (electronic data interchange)	Standard that defines how data transmits across telephone lines or other means.
electronic funds transfer (EFT)	Service in which users connected to a network can transfer money from one bank account to another via transmission media.
Ethernet	Network standard that specifies no central computer or device on the network should control when data can be transmitted.
EVDO	Evolution Data Optimized. 3G standard.
extranet	Portion of a company's network that allows customers or suppliers of a company to access parts of an enterprise's intranet.
Fast Ethernet	Recent Ethernet standard with a data transfer rate of 100 Mbps, which is ten times faster than the original standard.
fiber-optic cable	Dozens or hundreds of thin strands of glass or plastic that use light to transmit signals.
file server	Server that stores and manages files.
file sharing network	Type of peer-to-peer network on which users access each other's hard disks and exchange files directly over the Internet. See also P2P.
fixed wireless	High-speed Internet connection that uses an antenna on a house or business to communicate with a tower location via radio signals.
fractional T1	T-carrier line in which users share a connection to the T1 line with other users.

FTTB (Fiber to the Building)	Type of FTTP that provides extremely high-speed Internet access to small businesses that use fiber-optic cables to access the Internet.
FTTH (Fiber to the Home)	Type of FTTP that provides extremely high-speed Internet access for home users via fiber-optic cable.
FTTP (Fiber to the Premises)	Dedicated line that uses fiber-optic cable to provide extremely high-speed Internet access to a user's physical permanent location.
Gigabit Ethernet	Ethernet standard with transfer rates of 1Gbps (1 billion bits per second).
global positioning system (GPS)	Navigation system that consists of one or more earth-based receivers that accept and analyze signals sent by satellites in order to determine the receiver's geographic location.
GPRS	General Packet Radio Service; 3G standard for mobile communications.
GPS receiver	Handheld, mountable, or embedded device that contains an antenna, or radio receiver, and a processor.
groupware	Software that helps groups of people work together on projects and share information over a network.
GSM	Global System for Mobile Communications; 3G standard for mobile communications.
hardware firewall	Built-in feature in routers that prevents unauthorized users from accessing files and computers in a network.
home network	Network consisting of multiple devices and computers connected together in a home.
host computer	Computer that controls access to the hardware, software, and other resources on a network and provides a centralized storage area for programs, data, and information. See also server.
hot spot	Wireless network that provides Internet connections to mobile computers and other devices.
hub (star network)	The device that provides a common central connection point for nodes on a network.
intelligent home network	Home network that extends basic network capabilities to include features such as lighting control, thermostat adjustment, and a security system.
intranet	An internal network that uses Internet technologies.
IrDA	Network standard used to transmit data wirelessly via infrared (IR) light waves.
ISDN	Integrated Services Digital Network; set of standards for digital transmission of data over standard copper telephone lines.
ISDN modem	Modem that sends digital data and information from a computer to an ISDN line and receives digital data and information from an ISDN line.
latency	The time it takes a signal to travel from one location to another on a network.
line-of-sight transmission	Requirement for infrared that the sending device and the receiving device be in line with each other so that nothing obstructs the path of the infrared light wave.
local area network (LAN)	Network that connects computers and devices in a limited geographical area such as a home, school computer laboratory, office building, or closely positioned group of buildings.
mashup	Web application that combines services from two or more sources, creating a new application.
metropolitan area network (MAN)	High-speed network that connects local area networks in a metropolitan area such as a city or town and handles the bulk of communications activity across that region.
microwave station	Earth-based reflective dish that contains the antenna, transceivers, and other equipment necessary for microwave communications.
microwaves	Radio waves that provide a high-speed signal transmission.
MIMO	Multiple-input multiple-output.
MMS (multimedia message service)	Multimedia message service; service that allows users to send graphics, pictures, video clips, and sound files, as well as short text messages to another smart phone or other personal mobile device.
mobile TV	Service that provides television programs over the cellular network.
multiplexing	ISDN line technique of carrying three or more signals at once through the same line.
network	Collection of computers and devices connected together via communications devices and transmission media, allowing computers to share resources.
network architecture	The design of computers, devices, and media in a network.
network card	Communications device that enables a computer or device that does not have built-in networking capability to access a network. See also network interface card (NIC).
network interface	Communications device that enables a computer or device that does not have built-in

card (NIC)	networking capability to access a network. See also network card.
network license	Legal agreement that allows multiple users to access the software on a server simultaneously.
network server	Server that manages network traffic.
network standard	Guidelines that specify the way computers access the medium to which they are attached, the type(s) of medium used, the speeds used on different types of networks, and the type(s) of physical cable and/or the wireless technology used.
network topology	Layout of computers and devices in a communications network.
node	Term used to refer to each computer or device on a network.
noise	Electrical disturbance that can degrade communications.
online meeting	Meeting conducted online that allows users to share documents with others in real time.
optical fiber	Single strand of a fiber optic cable.
P2P	Type of peer-to-peer network on which users access each other's hard disks and exchange files directly over the Internet. See also file sharing network.
packet switching	Network technique of breaking a message into individual packets, sending the packets along the best route available, and then reassembling the data.
packets	Small pieces into which messages are divided by TCP/IP.
PCS	Personal Communications Services; term used by the U.S. Federal Communications Commission (FCC) to identify all wireless digital communications.
peer	Any of the computers on a peer-to-peer network.
peer-to-peer network	Simple, inexpensive network that typically connects fewer than 10 computers.
phonenumber network	Easy-to-install and inexpensive home network that uses existing telephone lines in the home.
physical transmission media	Type of media that use wire, cable, and other tangible materials to send communications signals.
picture messaging	Wireless messaging service that allows users to send pictures and sound files, as well as short text messages, to a phone, PDA, or computer. See also MMS (multimedia message service).
powerline cable network	Type of home network that uses the same lines that bring electricity into the house and requires no additional wiring.
print server	Server that manages printers and print jobs.
protocol	Standard that outlines characteristics of how two network devices communicate.
public switched telephone network (PSTN)	Worldwide telephone system that handles voice-oriented telephone calls.
radio frequency identification	Standard, specifically a protocol, that defines how a network uses radio signals to communicate with a tag placed in or attached to an object, an animal, or a person.
receiving device	Device that accepts the transmission of data, instructions, or information.
RFID	Short for radio frequency identification; standard, specifically a protocol, that defines how a network uses radio signals to communicate with a tag placed in or attached to an object, an animal, or a person.
ring network	Type of network topology in which a cable forms a closed loop (ring) with all computers and devices arranged along the ring.
router	Communications device that connects multiple computers or other routers together and transmits data to its correct destination on a network.
sending device	Device that initiates instructions to transmit data, instructions, or information.
server	Computer that controls access to the hardware, software, and other resources on a network and provides a centralized storage area for programs, data, and information. See also host computer.
short message service	Service that allows users to send and receive short text messages on a phone or other mobile device or computer. See also text messaging.
site license	Legal agreement that permits users to install software on multiple computers – usually at a volume discount.
SMS	Short message service; service that allows users to send and receive short text messages on a phone or other mobile device or computer. See also text messaging.

star network	Type of network topology in which all computers and devices on the network connect to a central device, thus forming a star.
switch	The device that provides a common central connection point for nodes on a network.
T-carrier line	Any of several types of long-distance digital telephone lines that carry multiple signals over a single communications line.
T1 line	The most popular T-carrier line.
T3 line	The fastest T-carrier line, equal in speed to 28 T1 lines.
TCP/IP	Short for Transmission Control Protocol/Internet Protocol; network standard, specifically a protocol, that defines how messages (data) are routed from one end of a network to the other, ensuring the data arrives correctly.
text messaging	Service that allows users to send and receive short text messages on a smart phone or other mobile device or computer. See also SMS (short message service).
token	Special series of bits that functions like a ticket.
token ring	Network standard in which computers and devices on the network share or pass a special signal, called a token, in a unidirectional manner and in a preset order.
transmission media	Materials or substances capable of carrying one or more signals in a communications channel.
twisted-pair cable	Transmission media that consists of one or more twisted-pair wires bundled together.
twisted-pair wire	Two separate insulated copper wires that are twisted together.
UMTS	Universal Mobile Telecommunications System. 3G standard for mobile communications.
uplink	Transmission from an earth-based station to a satellite.
upstream rate	The transfer rate that is achieved when data is being sent over a communications channel.
UWB (ultra-wideband)	Network standard that specifies how two UWB devices use short-range radio waves to communicate at high speeds with each other.
value-added network (VAN)	Third-party business that provides networking services such as secure data and information transfer, storage, e-mail, and management reports.
video messaging	Wireless messaging service that allows users to send short video clips, usually about 30 seconds in length, in addition to all picture messaging services.
visual voice mail	Voice mail feature that allows users to view message details such as the length of calls and, in some cases, read message contents instead of listening to them.
voice mail	Service that functions much like an answering machine, allowing a user to leave a voice message for one or more people.
voice mailbox	Storage location on a hard disk in a voice mail system.
Web conference	Online meeting that takes place on the Web.
Web server	Computer that delivers requested Web pages to your computer.
Web services	Set of software technologies that allows businesses to create products and B2B (business-to-business) interactions over the Internet.
Wi-Fi	Short for wireless fidelity; term for any network based on the 802.11 series of standards.
Wi-Fi mesh network	Network in which each mesh node routes its data to the next available node until the data reaches its destination – usually an Internet connection.
wide area network (WAN)	Network that covers a large geographic area (such as a city, country, or the world) using a communications channel that combines many types of media such as telephone lines, cables, and radio waves.
WiMAX	Worldwide Interoperability for Microwave Access. Newer network standard developed by IEEE that specifies how wireless devices communicate over the air in a wide area. See also 802.16.
wireless access point	Central communications device that allows computers and devices to transfer data wirelessly among themselves or to transfer data wirelessly to a wired network.
Wireless Application Protocol (WAP)	Network standard, specifically a protocol, that specifies how some wireless mobile devices such as smart phones can display the content of Internet services such as the Web, e-mail, and chat rooms.
wireless Internet access point	Location where people can connect wirelessly to the Internet using notebook computers, smart phones, handheld game consoles, or other devices.
wireless LAN (WLAN)	Local area network that uses no physical wires.

wireless modem	Modem that uses the cell phone network to connect to the Internet wirelessly from a notebook computer, a smart phone, or other mobile device.
wireless network card	Network card, often with an antenna, that provides wireless data transmission.
wireless transmission media	Type of media that send communications signals through the air or space using radio, microwave, and infrared signals.
workgroup computing	Concept in which network hardware and software enable group members to communicate, manage projects, schedule meetings, and make group decisions.
XML	eXtensible Markup Language.

Chapter 10

access privileges	Restrictions that establish who can enter new data, change existing data, delete unwanted data, and view data in a database.
accessible information	Information that is available when the decision maker needs it.
accurate information	Information that is error free.
after image	Copy of a database file after changes were made.
alphabetic check	Validity check that ensures users enter only alphabetic data in a field.
alphanumeric	Text that can include letters, numbers, or special characters.
attribute	Each data element in an object. Also called a property.
back end	Application that supports a front-end program.
backup	Duplicate or copy of a file, program, or disk that can be used if the original is lost, damaged, or destroyed.
backward recovery	Technique for recovering data in a database where the DBMS uses the log to undo any changes made to a database during a certain period, such as an hour. See also rollback.
before image	Copy of a database file before changes were made.
BLOB	Binary large object.
Boolean	Consisting of Yes or No, or True or False, values.
CGI (Common Gateway Interface) script	Program that manages the sending and receiving of data between the front end and the database server.
character	A number, letter, punctuation mark, or other symbol that is represented by a single byte in the ASCII and EBCDIC coding schemes.
check digit	Validity check consisting of a number(s) or character(s) that is appended to or inserted in a primary key value.
collaborative databases	Web databases where users store and share photos, videos, recordings, and other personal media with other registered users.
column	Term used by users of relational databases for field.
completeness check	Validity check that verifies that a required field contains data.
composite key	Primary key that consists of multiple fields.
computer-aided design (CAD) database	Database that stores data about engineering, architectural, and scientific designs.
consistency check	Validity check that tests the data in two or more associated field to ensure that the relationship is logical and their data is in the correct format.
continuous backup	Backup plan in which all data is backed up whenever a change is made.
cost-effective information	Information that gives more value than it costs to produce.
data	Collection of unprocessed items, which can include text, numbers, images, audio, and video.
data dictionary	A DBMS element that contains data about each file in a database and each field in those files. See also repository.
data entry form	Window on the screen that provides areas for entering or changing data in a database. See also form.
data file	Collection of related records stored on a storage medium such as a hard disk, CD, or DVD.
data integrity	The quality of data that is entered in a database.
data mart	Smaller version of a data warehouse that contains a database that helps a specific group or department make decisions.
data mining	Process used with data warehouses to find patterns and relationships among data.
data model	Rules and standards that define how a database organizes data.

data modeler	Person who focuses on the meaning and usage of data, including proper placement of fields, defining the relationships among data, and identifying users' access privileges. See also database analyst (DA).
data type	Specifies the kind of data a field in a database can contain and how the field can be used.
data warehouse	Huge database that stores and manages the data required to analyze historical and current transactions.
database	Collection of data organized in a manner that allows access retrieval, and use of that data.
database administrator (DBA)	Person who creates and maintains the data dictionary, manages security of a database, monitors the performance of a database, and checks backup and recovery procedures.
database analyst (DA)	Person who focuses on the meaning and usage of data, including proper placement of fields, defining the relationships among data, and identifying users' access privileges. See also data modeler.
database approach	System used to store and manage data in which many programs and users share the data in a database.
database management system (DBMS)	Program that allows user to create a computerized database; add, change, and delete data in the database, sort and retrieve data from the database; and create forms and reports from the data in the database. See also database software.
database server	Computer that stores and provides access to a database.
database software	Program that allows user to create a computerized database; add, change, and delete data in the database, sort and retrieve data from the database; and create forms and reports from the data in the database. See also database management system (DBMS).
default value	Value that a DBMS initially displays in a field.
distributed database	Database in which the data exists in many separate locations throughout a network or the Internet.
e-form	Electronic form used as a means to secure data while it is transported across a network.
electronic form	A form that sends entered data across a network or the Internet.
field	A combination of one or more related characters or bytes, a field is the smallest unit of data a user accesses.
field name	Name that uniquely identifies each field in a database.
field size	Defines the maximum number of characters a field can contain.
file maintenance	Procedures that keep data current.
file processing system	System used to store and manage data in which each department or area within an organization has its own set of files.
form	Window on the screen that provides areas for entering or changing data in a database. See also data entry form.
forward recovery	Technique for recovering data in a database where the DBMS uses the log to reenter changes made to a database since the last save or backup. See also rollforward.
front end	Program that generally has a more user-friendly interface than a DBMS.
garbage in, garbage out (GIGO)	Computing phrase that points out the accuracy of a computer's output depends on the accuracy of the input.
GIS	Geographic information system. Type of database that stores maps and other geographic data.
groupware database	Database that stores documents such as schedules, calendars, manuals, memos, and reports.
hypercube	The multiple dimensions in which data is stored in a multidimensional database.
hypermedia database	Database that contains text, graphics, video, and sound.
hypertext database	Database that contains text links to other types of documents.
information	Processed data that conveys meaning and is useful to people.
log	Listing of activities that change the contents of a database.
metadata	Detailed data in a data dictionary about the data in a database.
multidimensional database	Database that stores data in dimensions.

multimedia database	Database that stores images, audio clips, and/or video clips.
normalization	Process designed to ensure the data within the relations (tables) in a database contains the least amount of duplication.
numeric check	Validity check that ensures users enter only numeric data in a field
object	Database item that contains data, as well as the actions that read or process the data.
object query language (OQL)	Query language used with object-oriented and object-relational databases to manipulate and retrieve data. See also OQL.
object-oriented database (OODB)	Database that stores data in objects.
object-relational databases	Databases that combine features of the relational and object-oriented data models.
organized information	Information that is arranged to suit the needs and requirements of the decision maker.
primary key	Field in a database that uniquely identifies each record in a file.
principle of least privilege	Policy adopted by some organizations, where users' access privileges are limited to the lowest level necessary to perform required tasks.
query	Request for specific data from a database.
query by example (QBE)	DBMS feature that has a graphical user interface to assist users with retrieving data.
query language	Language used with databases that consists of simple, English-like statements that allows users to specify the data to display, print, or store.
range check	Validity check that determines whether a number is within a specified range.
record	Group of related fields in a database.
recovery utility	DBMS feature that uses logs and/or backups to restore a database when it becomes damaged or destroyed.
relation	Term used by developers of relational databases for file.
relational database	Database that stores data in tables that consist of rows and columns, with each row having a primary key and each column having a unique name.
relationship	Link within the data in a database.
report generator	DBMS feature that allows users to design a report on the screen, retrieve data into the report design, and then display or print the report. See also report writer.
report writer	DBMS feature that allows users to design a report on the screen, retrieve data into the report design, and then display or print the report. See also report generator.
repository	A DBMS element that contains data about each file in a database and each field in those files. See also data dictionary.
rollback	Technique for recovering data in a database where the DBMS uses the log to undo any changes made to a database during a certain period, such as an hour. See also backward recovery.
rollforward	Technique for recovering data in a database where the DBMS uses the log to reenter changes made to the database since the last save or backup. See also forward recovery.
row	Term used by users of relational databases for record.
Structured Query Language (SQL)	Query language used with databases that allows users to manage, update, and retrieve data.
table	Term used by users of relational databases for file.
timely information	Information that has an age suited to its use.
tuple	Term used by developers of relational databases for record.
useful information	Information that has meaning to the person who receives it.
validation	Process of comparing data with a set of rules or values to find out if the data is correct.
validation rules	Check that analyzes entered data to help ensure that it is correct. See also validity check.
validity check	Check that analyzes entered data to help ensure that it is correct. See also validation rules.
verifiable information	Information that can be proven as correct or incorrect.

Chapter 11

1024-bit encryption	Higher-level Web browser encryption protection level.
128-bit encryption	Higher-level Web browser encryption protection level.
40-bit encryption	Web browser encryption protection level.
802.11i	Sometimes called WPA2, a network standard developed by IEEE with enhanced security for wireless communications.
access control	Security measure that defines who can access a computer, when they can access it, and what actions they can take while accessing the computer.
access point mapping	Intrusion technique in which an individual attempts to detect wireless networks via their notebook computer while driving a vehicle through areas they suspect have a wireless network. See also war driving.
adware	Program that displays an online advertisement in a banner or pop-up window on Web pages, e-mail, or other Internet services.
anti-spam program	Program that attempts to remove spam before it reaches a user's inbox.
antivirus program	Program that protects a computer against viruses by identifying and removing any computer viruses found in memory, on storage media, or on incoming files.
asymmetric key encryption	Type of encryption that uses two encryption keys: a public key and a private key. See also public key encryption.
audit trail	Computer file that records both successful and unsuccessful access attempts.
authentication	Access control that verifies an individual is the person he or she claims to be.
back door	Program or set of instructions in a program that allow users to bypass security controls when accessing a program, computer, or network.
back up	To make a copy of a file.
backup	Duplicate or copy of a file, program, or disk that can be used if the original is lost, damaged, or destroyed.
biometric device	Device that authenticates a person's identity by translating a personal characteristic, such as a fingerprint, into a digital code that then is compared with a digital code stored in a computer verifying a physical or behavioral characteristic.
biometric payment	Payment method where the customer's fingerprint is read by a fingerprint scanner that is linked to a payment method such as a checking account or credit card.
blackout	A complete power failure.
bot	Program that performs a repetitive task on a network.
botnet	Group of compromised computers connected to a network such as the Internet that are used as part of a network that attacks other networks, usually for nefarious purposes. See also zombie army.
brownout	A prolonged undervoltage.
Business Software Alliance (BSA)	Organization formed by a number of major software companies to promote a better understanding of software piracy problems and, if necessary, to take legal action.
CAPTCHA	Completely Automated Public Turing test to tell Computers and Humans Apart; program used by some Web sites to provide further protection for a user's password by verifying that user input is not computer generated.
carpal tunnel syndrome (CTS)	Inflammation of the nerve that connects the forearm to the palm of the wrist.
CERT/CC	Federally funded Internet security research and development center.
certificate authority (CA)	Authorized person or company that issues and verifies digital certificates.
child	Term used in three-generation backups to refer to the most recent copy of the file.
ciphertext	Encrypted (scrambled) data.
clickjacking	Scam in which an object that can be clicked on a Web site, such as a button, image, or link, contains a malicious program.
code of conduct	Written guidelines that help determine whether a specific computer action is ethical or unethical.

computer addiction	Growing health problem that occurs when the computer consumes someone's entire social life.
computer crime	Any illegal act involving a computer.
Computer Emergency Response Team Coordination Center	Federally funded Internet security research and development center. See also CERT/CC.
computer ethics	Moral guidelines that govern the use of computers and information systems.
computer forensics	The discovery, collection, and analysis of evidence found on computers and networks. See also cyberforensics, digital forensics, or network forensics.
computer security risk	Any event or action that could cause a loss of or damage to computer hardware, software, data, information, or processing capability.
computer vision syndrome	Eyestrain due to prolonged computer usage.
content filtering	Process of restricting access to certain material on the Web.
cookie	Small text file that a Web server stores on a computer.
copyright	Exclusive rights given to authors and artists to duplicate, publish, and sell their materials.
cracker	Someone who accesses a computer or network illegally with the intent of destroying data, stealing information, or other malicious action.
crimeware	Software used by cybercriminals.
CVS	Eyestrain due to prolonged computer usage.
cybercrime	Online or Internet-based illegal acts.
cyberextortionist	Someone who uses e-mail as a vehicle for extortion.
cyberforensics	The discovery, collection, and analysis of evidence found on computers and networks. See also computer forensics, digital forensics, or network forensics.
cyberterrorist	Someone who uses the Internet or network to destroy or damage computers for political reasons.
cyberwarfare	Computer or network attack whose goal ranges from disabling a government's computer network to crippling a country.
cypher	Set of steps that can convert readable plaintext into unreadable ciphertext. See also encryption algorithm.
DDoS (distributed DoS) attack	More devastating type of denial of service attack in which a zombie army is used to attack multiple computer networks.
decrypt	Process of deciphering encrypted data into a readable form.
denial of service attack	Assault on a computer or network whose purpose is to disrupt computer access to an Internet service such as the Web or e-mail. See also DoS attack.
digital certificate	A notice that guarantees a user or a Web site is legitimate.
digital forensics	The discovery, collection, and analysis of evidence found on computers and networks. See also computer forensics, cyberforensics, or network forensics.
digital rights management (DRM)	Strategy designed to prevent illegal distribution of movies, music, and other digital content.
digital signature	Encrypted code that a person, Web site, or organization attaches to an electronic message to verify the identity of the message sender.
DoS attack	Assault on a computer or network whose purpose is to disrupt computer access to an Internet service such as the Web or e-mail. See also denial of service attack.
DRM	Strategy designed to prevent illegal distribution of movies, music, and other digital content. See also digital rights management.
e-mail filtering	Service that blocks e-mail messages from designated sources.
e-mail spoofing	Spoofing that occurs when the sender's address or other components of the e-mail header are altered so that it appears the e-mail originated from a different sender.
employee monitoring	The use of computers to observe, record, and review an employee's use of a computer, including communications such as e-mail messages, keyboard activity (used to measure productivity), and Web sites visited.
encryption	Process of converting readable data into unreadable characters to prevent unauthorized access.

encryption algorithm	Set of steps that can convert readable plaintext into unreadable ciphertext. See also cypher.
encryption key	Set of characters that the originator of the encrypted data uses to encrypt the plaintext and the recipient of the data uses to decrypt the ciphertext.
end-user license agreement (EULA)	License agreement included with software purchased by individual users. See also single-user license agreement.
ENERGY STAR program	Program developed by the United States Department of Energy (DOE) and the United States Environmental Protection Agency (EPA) to help reduce the amount of electricity used by computers and related devices.
ergonomics	The science of incorporating comfort, efficiency, and safety into the design of the workplace.
Fair Credit Reporting Act	1970 law that limits the rights of others viewing a credit report to only those with a legitimate business need.
fault-tolerant computer	Computer that has duplicate components so that it can continue to operate when one of its main components fail.
firewall	Hardware and/or software that protects a network's resources from intrusion by users on another network such as the Internet.
full backup	Backup procedure that copies all program and data files in the computer. Also called archival backup.
grandparent	Term used in three-generation backups to refer to the oldest copy of a file.
green computing	Computer usage that reduces the electricity and environmental waste involved in using a computer.
hacker	Someone who accesses a computer or network illegally.
hardware theft	The act of stealing computer equipment.
hardware vandalism	The act of defacing or destroying computer equipment.
hash	Mathematical formula that generates a code from the contents of an electronic message.
honeypot	Vulnerable computer that is set up to entice an intruder to break into it in order to allow a company to learn how intruders are exploiting its network.
identification	Access control that verifies an individual is a valid user.
information privacy	Right of individuals and companies to deny or restrict the collection and use of information about them.
information theft	Computer security risk that occurs when someone steals personal or confidential information.
inoculate	Capability of an antivirus program to record information such as file size and file creation date in a separate file in order to detect viruses.
intellectual property (IP)	Unique and original works such as ideas, inventions, art, writings, processes, company and product names, and logos.
intellectual property rights	Rights to which creators are entitled for their work.
Internet Content Rating Association (ICRA)	Organization that developed a rating system in order to filter content on the Web.
intrusion detection software	Program that automatically analyzes all network traffic, assesses system vulnerabilities, identifies any unauthorized intrusions, and notifies network administrators of suspicious behavior patterns or system breaches.
IP spoofing	Spoofing technique where an intruder computer fools a network into believing its IP address is associated with a trusted source.
Joule	Unit of energy a surge protection device can absorb before it can be damaged.
keygen	Short for key generator; program that creates software registration numbers and sometimes activation codes used for software theft.
license agreement	An agreement issued by a software manufacturer that gives the user the right to use the software.
macros	Instructions saved in software such as a word processor or spreadsheet program.
malicious software	Programs that act without a user's knowledge and deliberately alter a computer's operations.
malware	Short for malicious software; programs that act without a user's knowledge and

	deliberately alter a computer's operations.
network forensics	The discovery, collection, and analysis of evidence found on computers and networks. See also computer forensics, cyberforensics, or digital forensics.
noise	Electrical disturbance that can degrade communications.
offline UPS	Type of UPS device that switches to battery power when a problem occurs in the power line. See also standby UPS.
offsite	Location separate from a computer site.
online security service	Web site that evaluates a computer to check for Internet and e-mail vulnerabilities.
online UPS	Type of UPS device that always runs off a battery, which provides continuous protection.
overvoltage	Electrical disturbance that occurs when the incoming electrical power increases significantly above the normal 120 volts. See also power surge.
parent	Term used in three-generation backups to refer to the second oldest copy of the file.
passphrase	Private combination of words, often containing mixed capitalization and punctuation, associated with a user name that allows access to certain computer resources.
password	Private combination of characters associated with a user name that allows access to certain computer resources.
payload	Destructive event or prank a malicious-logic program is intended to deliver.
personal firewall	Utility program that detects and protects a personal computer and its data from unauthorized intrusions.
personal identification number (PIN)	Numeric password, either assigned by a company or selected by a user.
pharming	Scam, similar to phishing, where a perpetrator attempts to obtain your personal and financial information, except they do so via spoofing.
phishing	Scam in which a perpetrator sends an official looking e-mail that attempts to obtain your personal and financial information.
phishing filter	Program that warns or blocks you from potentially fraudulent or suspicious Web sites.
piracy	Unauthorized and illegal duplication of copyrighted material.
plaintext	Unencrypted, readable data.
possessed object	Any item that a user must carry to gain access to a computer or computer facility.
power surge	Electrical disturbance that occurs when the incoming electrical power increases significantly above the normal 120 volts. See also overvoltage.
power usage effectiveness (PUE)	Ratio that measures how much power enters a computer facility, or data center, against the amount of power required to run the computers.
Pretty Good Privacy (PGP)	Popular e-mail encryption program that is free for personal, noncommercial use.
private key encryption	Type of encryption where both the originator and the recipient use the same secret key to encrypt and decrypt the data. See also symmetric key encryption.
product activation	Process that attempts to prevent software piracy by requiring users to provide a software product's 25-character identification number in order to receive an installation identification number.
proxy server	Server outside a company's network that controls which communications pass into the company's network.
public key encryption	Type of encryption that uses two encryption keys: a public key and a private key. See also asymmetric key encryption.
quarantine	Separate area of a hard disk that holds the infected file until a virus can be removed.
real time location system (RTLS)	Safeguard used by some businesses to track and identify the location of high-risk or high-value items.
repetitive strain injury (RSI)	Injury or disorder of the muscles, nerves, tendons, ligaments, and joints.
restore	To copy backed up files by copying them to their original location on the computer.
rootkit	Program that hides in a computer and allows someone from a remote location to take full control of the computer.
script kiddie	Someone who accesses a computer or network illegally with the intent of destroying data, stealing information, or other malicious action but does not have the technical

	skills and knowledge.
secure HTTP (S-HTTP)	Security technique that allows users to choose an encryption scheme for data that passes between a client and a server.
secure site	Web site that uses encryption techniques to secure its data.
Secure Sockets Layer (SSL)	Security technique that provides encryption of all data that passes between a client and an Internet server.
selective backup	Type of backup in which users choose which folders and files to include in the backup. Also called partial backup.
session cookie	Type of cookie that is used by online shopping sites to keep track of items in a user's shopping cart.
single-user license agreement	License agreement included with software purchased by individual users. See also end-user license agreement (EULA).
social engineering	Gaining unauthorized access or obtaining confidential information by taking advantage of the trusting human nature of some victims and the naivety of others.
software theft	Computer security risk that occurs when someone (1) steals software media, (2) intentionally erases programs, (3) illegally copies a program, or (4) illegally registers and/or activates a program.
spam	Unsolicited e-mail message or newsgroups posting sent to many recipients or newsgroups at once.
spike	Electrical disturbance that occurs when an overvoltage lasts for less than one millisecond (one thousandth of a second).
spim	Spam sent through an instant messaging service.
spit	Spam sent via VoIP.
spoofing	Technique intruders use to make their network or Internet transmission appear legitimate to a victim computer or network.
spyware	Program placed on a computer without the user's knowledge that secretly collects information about the user.
SSID	Service set identifier.
standby UPS	Type of UPS device that switches to battery power when a problem occurs in the power line. See also offline UPS.
surge protector	Device that uses special electrical components to smooth out minor noise, provide a stable current flow, and keep an overvoltage from reaching the computer and other electronic equipment. See also surge suppressor.
surge suppressor	Device that uses special electrical components to smooth out minor noise, provide a stable current flow, and keep an overvoltage from reaching the computer and other electronic equipment. See also surge protector.
symmetric key encryption	Type of encryption where both the originator and the recipient use the same secret key to encrypt and decrypt the data. See also private key encryption.
system failure	Prolonged malfunction of a computer.
tendonitis	Inflammation of a tendon due to repeated motion or stress on that tendon.
three-generation backup	Backup policy that preserves three copies of important files: the grandparent, the parent, and the child.
Transport Layer Security (TLS)	Successor to Secure Sockets Layer (SSL), a security technique that provides encryption of all data that passes between a client and an Internet server.
Trojan horse	Program named after the Greek myth that hides within or looks like a legitimate program.
trusted source	Company or person a user believes will not send a virus-infected file knowingly.
unauthorized access	Use of a computer or network without permission.
unauthorized use	Use of a computer or its data for unapproved or possibly illegal activities.
undervoltage	Electrical disturbance that occurs when the electrical supply drops.
Underwriters Laboratories (UL) 1449 Standard	Safety specification that allows no more than 500 maximum volts to pass through an electrical line.
uninterruptible power supply (UPS)	Device that contains surge protection circuits and one or more batteries that can provide power during a temporary or permanent loss of power.
user ID	Unique combination of characters, such as letters of the alphabet or numbers, that

	identifies one specific user. See also user name.
user name	Unique combination of characters, such as letters of the alphabet and/or numbers, that identifies a specific user.
virtual private network (VPN)	Network that provides a mobile user with a secure connection to a company network server, as if the user has a private line.
virus	Potentially damaging computer program that affects, or infects, a computer negatively by altering the way the computer works without the user's knowledge or permission.
virus definition	Known specific pattern of virus code. See also virus signature.
virus hoax	E-mail message that warns users of a nonexistent virus or other malware.
virus signature	Known specific pattern of virus code. See also virus definition.
war driving	Intrusion technique in which an individual attempts to detect wireless networks via their notebook computer while driving a vehicle through areas they suspect have a wireless network. See also access point mapping.
war flying	Intrusion technique in which individuals use an airplane to detect unsecured wireless networks.
Web bug	Type of spyware that is hidden on Web pages or in e-mail messages in the form of graphical images.
Web filtering software	Program that restricts access to certain material on the Web.
Wi-Fi Protected Access (WPA)	Security standard that improves on older security standards by authenticating network users and providing more advanced encryption techniques.
worm	Program that copies itself repeatedly, using up system resources and possibly shutting down the system.
zombie	A compromised computer whose owner is unaware the computer is being controlled remotely by an outsider.
zombie army	Group of compromised computers connected to a network such as the Internet that are used as part of a network that attacks other networks, usually for nefarious purposes. See also botnet.

Chapter 12

abrupt cutover	Conversion strategy where the user stops using an old system and begins using a new system on a certain date. See also direct conversion.
acceptance test	Test performed by end-users during the program development cycle that checks the new system to ensure that it works with actual data.
actor	User or other entity such as a program represented in a use case diagram.
adaptive maintenance	Operation, support, and security phase process of including new features or capabilities in an information system.
analysis phase	Step in the system development cycle that consists of two major activities: (1) conduct a preliminary investigation, and (2) perform detailed analysis.
attribute	Each data element in an object. See also property.
benchmark test	Test that measures the performance of hardware or software.
change management	Skill required for project leaders so they can recognize when a change in a project has occurred, take actions to react to the change, and plan for opportunities because of the change.
chief security officer (CSO)	Employee responsible for physical security of an organization's property and people; in charge of security computing resources.
class diagram	Analysis and design tool in the UML that graphically shows classes and subclasses in a system.
computer security plan	Written summary of all the safeguards that are in place to protect an organization's information assets.
computer-aided software engineering (CASE)	Software tools designed to support one or more activities of the system development cycle, typically including diagrams to support both process and object modeling.
context diagram	Top level DFD that identifies only major processes.
corrective maintenance	Operation, support, and security phase process of diagnosing and correcting errors in an information system.
cost/benefit feasibility	Measure of whether lifetime benefits of a proposed information system will be greater than its lifetime costs. See also economic feasibility.
custom software	Software that performs functions specific to a business or industry, developed by a user or at a user's request.
data conversion	Converting existing manual and computer files so that a new computer system can use them.
data dictionary	A DBMS element that contains data about each file in a database and each field in those files. See also repository.
data flow	Element in a DFD, indicated by a line with an arrow, that shows the input or output of data or information into or out from a process.
data flow diagram	Systems analysis and design tool that graphically shows the flow of data in a system.
data model	Rules and standards that define how a database organizes data.
data store	Element in a DFD, indicated by a rectangle with no sides, that is a holding place for data and information.
decision table	Table that lists a variety of conditions and the actions that correspond to each condition.
decision tree	Graphic representation showing a variety of conditions and the actions that correspond to each condition.
deliverable	Any tangible item such as a chart, diagram, report, or program file.
design phase	Phase of the system development cycle that consists of two major activities: (1) if necessary, acquire hardware and software and (2) develop all of the details of the new or modified information system.
detailed analysis	Activity in the system development cycle that involves three major activities: (1) study how the current system works; (2) determine the users' wants, needs, and requirements; and (3) recommend a solution. See also logical design.
DFD	Systems analysis and design tool that graphically shows the flow of data in a system.

direct conversion	Conversion strategy where the user stops using an old system and begins using a new system on a certain date. See also abrupt cutover.
documentation	Collection and summarization of data and information.
e-zine	Publication available on the Web. See also electronic magazine.
economic feasibility	Measure of whether lifetime benefits of a proposed information system will be greater than its lifetime costs. See also cost/benefit feasibility.
electronic magazine	Publication available on the Web. See also e-zine.
entity	Object in a system that has data.
entity-relationship diagram	Systems analysis and design tool that graphically shows the connections among entities in a system.
ERD	Systems analysis and design tool that graphically shows the connections among entities in a system.
extreme project management	Team-driven project management approach in which a project leader is more of a participant and facilitator than a manager during the project.
feasibility	Measure of how suitable the development of a system will be to the company.
feasibility study	Investigation that determines the exact nature of a problem or improvement and decides whether it is worth pursuing. See also preliminary investigation.
focus groups	Lengthy, structured, group meetings in which users and IT professionals work together to design or develop an application. See also joint application design (JAD).
Gantt chart	Bar chart developed by Henry L. Gantt that uses horizontal bars to show project phases or activities.
horizontal market software	Packaged software that meets the needs of many different types of organizations.
I-CASE	Integrated case products. Also called a CASE workbench.
implementation phase	Phase of the system development cycle during which the new or modified system is constructed, or built, and then delivered to the users. Four major activities performed include: (1) develop programs, (2) install and test the new system, (3) train users, and (4) convert to the new system.
information system (IS)	Collection of hardware, software, data, people, and procedures that work together to produce quality information.
inheritance	Concept of lower levels inheriting methods and attributes of higher levels in a class diagram.
inspection	Formal review of any system development deliverable.
integration test	Test performed during the program development cycle that verifies an application works with other applications.
International Computer Security Association (ICSA) Labs	Organization that provides assistance via the telephone or the Web to organizations and individuals that need help with computer security plans.
Internet solutions provider	Company that provides Web hosting services that include managing shopping carts, inventory, and credit card processing.
IT consultant	Employee, typically hired based on computer expertise, who provides computer services to his or her clients.
joint-application design (JAD)	Lengthy, structured, group meetings in which users and IT professionals work together to design or develop an application. See also focus groups.
layout chart	Technical chart that contains programming-like notations for data items.
logical design	Activity in the system development cycle that involves three major activities: (1) study how the current system works; (2) determine the users' wants, needs, and requirements; and (3) recommend a solution. See also detailed analysis.
method	Procedure in an object that contains the activities that read or manipulate the data. See also operation.
mockup	Sample of the input or output that contains actual data.
moderator	Systems analyst who acts as leader during a JAD session.
object	Database item that contains data, as well as the actions that read or process the data.
object modeling	Analysis and design technique that combines data with the processes that act on that data into a single unit, called an object. See also object-oriented (OO) analysis and design.

object-oriented (OO) analysis and design	Analysis and design technique that combines data with the processes that act on that data into a single unit, called an object. See also object modeling.
operation	Procedure in an object that contains the activities that read or manipulate the data. See also method.
operation, support, and security phase	Phase of the system development cycle that consists of three major activities: (1) perform maintenance activities, (2) monitor system performance, and (3) assess system security.
operational feasibility	Measure of how well a proposed information system will work.
outsource	Having a source outside a company develop software for the company. Some companies outsource just the software development aspect of their IT operation, while others outsource more or all of their IT operation.
packaged software	Mass-produced, copyrighted, prewritten software available for purchase.
parallel conversion	Conversion strategy where the old system runs alongside the new system for a specified time.
perfective maintenance	Operation, support, and security phase process of making an information system more efficient and reliable.
performance monitoring	Operation, support, and security phase activity that determines whether a system is inefficient or unstable at any point.
PERT chart	Program Evaluation and Review Technique chart; systems analysis and design tool developed by the U.S. Department of Defense to analyze the time required to complete a task and identify the minimum time required for an entire project.
phased conversion	Conversion strategy used by larger systems with multiple sites where each location converts at a separate time.
phases	Categories into which system development activities are grouped: (1) planning phase, (2) analysis phase, (3) design phase, (4) implementation phase, and (5) support phase.
physical design	Detailed design that specifies hardware and software – the physical components required – for automated procedures. See also detailed design.
pilot conversion	Conversion strategy where only one location in an organization uses a new system – so that it can be tested.
planning phase	Step in the system development cycle that begins when a steering committee receives a project request.
post-implementation system review	Operation, support, and security phase activity that involves holding a meeting to discover whether an information system is performing according to users' expectations.
preliminary investigation	Investigation that determines the exact nature of a problem or improvement and decides whether it is worth pursuing. See also feasibility study.
process	Element in a DFD, indicated by a circle, that transforms an input data flow into an output data flow.
process modeling	Analysis and design technique that describes processes that transform inputs into outputs. See also structured analysis and design.
program development life cycle	Part of the implementation phase of the system development cycle that follows six steps: (1) analyze the requirements, (2) design the solution, (3) validate the design, (4) implement the design, (5) test the solution, and (6) document the solution.
program specification package	Item prepared during program design that identifies the required programs and the relationship among each program, as well as the input, output, and database specifications.
project dictionary	Record that contains all the documentation and deliverables of a project. See also repository.
project leader	Member of a project team who manages and controls the budget and schedule of the project.
project management	Process of planning, scheduling, and then controlling the activities during the system development cycle.
project management software	Software that assists in the planning, scheduling, and controlling of development projects.
project manager	Member of a project team who controls the activities during system development.
project notebook	Record that contains all documentation for a single project.
project plan	Record of project elements, including goal, objectives, and expectations of the project; required activities; time estimates for each activity; cost estimates for each activity; order of activities; and activities that can take place at the same time.

project request	Written, formal request for a new or modified system. See also request for system services.
project team	Group of people that consists of users, the systems analyst, and other IT professionals.
proof of concept	Working model of a proposed system. See also prototype.
property	Each data element in an object. See also attribute.
prototype	Working model of a proposed system. See also proof of concept.
Rational Unified Process (RUP)	Popular methodology that uses the UML.
repository	A DBMS element that contains data about each file in a database and each field in those files. See also data dictionary.
request for information (RFI)	Less formal document sent to a vendor during the system development cycle that uses a standard form to request information about a product or service.
request for proposal (RFP)	Document sent to a vendor during the system development cycle where the vendor selects the product(s) that meets specified requirements and then quotes the price(s).
request for quotation (RFQ)	Document sent to a vendor during the system development cycle that identifies required products.
request for system services	Written, formal request for a new or modified system. See also project request.
schedule feasibility	Measure of whether established deadlines for a project are reasonable.
scope	The goal, required activities, time estimates for each activity, cost estimates for each activity, order of activities, and activities that can take place at the same time during system development.
scope creep	Problem that occurs when one activity has led to another that was not originally planned, thereby causing the project to grow.
scribe	System development team member who records facts and action items assigned during a JAD session.
source	Element in a DFD, indicated by a square, that identifies an entity outside the scope of a system.
standards	Sets of rules and procedures a company expects employees to accept and follow.
steering committee	Decision-making body in a company.
structured analysis and design	Analysis and design technique that describes processes that transform inputs into outputs. See also process modeling
structured English	Style of writing that describes the steps in a process; used to enter items in a project dictionary.
subclasses	Lower levels in a class diagram that inherit the methods and attributes of the objects in its higher-level class.
system	Set of components that interact to achieve a common goal.
system developer	Person responsible for designing and developing an information system. See also Systems analyst.
system development	Set of activities used to build an information system, including planning, analysis, design, implementation, and support.
system development life cycle (SDLC)	Collection of phases in system development.
system proposal	Document that assesses the feasibility of each alternative solution and then recommends the most feasible solution for a project.
systems analyst	Person responsible for designing and developing an information system. See also system developer.
systems developer	Person responsible for designing and developing an information system. See also systems analyst.
systems test	Test performed during the program development cycle that verifies all programs in an application work together properly.
technical feasibility	Measure of whether an organization has or can obtain the hardware, software, and people needed to deliver and then support a proposed information system.
trade publication	Magazine written for a specific business or industry.
training	Showing users exactly how they will use new hardware and software in a system.

turnkey solution	Complete systems offered by value-added resellers.
UML	Unified Modeling Language; graphical tool that enables systems analysts to document a system, which has been adopted as a standard notation for object modeling and development.
Unified Modeling Language	Graphical tool that enables systems analysts to document a system, which has been adopted as a standard notation for object modeling and development.
unit test	Test performed during the program development cycle that verifies each individual program or object works by itself.
use case	UML tool that graphically shows how actors interact with the information system.
use case diagram	Analysis and design tool in the UML that graphically shows how actors interact with the information system.
users	Anyone for whom the system is being built.
value-added reseller (VAR)	Company that purchases products from manufacturers and then resells these products to the public – offering additional services with the product.
vertical market software	Packaged software specifically designed for a particular business or industry.

Chapter 13

.NET	Microsoft's set of technologies that allows almost any type of program to run on the Internet or an internal business network, as well as stand-alone computers and mobile devices.
4GL	Fourth-generation language; nonprocedural language that enables users and programmers to access data in a database.
Active X	Set of object-oriented technologies by Microsoft that allows components on a network to communicate with one another.
ActiveX control	Small program that runs on a client computer, instead of the server.
Ada	Programming language derived from Pascal, developed by the U.S. Department of Defense, named after Augusta Ada Lovelace Byron, thought to be the first female computer programmer.
Ajax	Asynchronous JavaScript and XML. Method of creating interactive Web applications designed to provide immediate response to user requests.
ALGOL	ALGOrithmic Language. The first structured procedural programming language.
algorithm	Set of steps.
annotation symbol	Flowchart symbol that explains or clarifies logic in a solution algorithm. See also comment symbol.
API	Application programming interface; collection of tools that programmers use to interact with an environment such as a Web site or operating system.
APL	A Programming Language. Scientific language designed to manipulate tables of numbers.
applet	Interpreted program that runs on a client, but is compiled.
application generator	Program that creates source code or machine code from a specification of the required functionality.
ASCII file	File that does not contain any formatting, that is, no graphics, italics, bold, underlining, styles, bullets, shading, color, or any other type of graphical format.
ASP.NET	Web application framework that provides the tools necessary for the creation of dynamic Web sites.
assembler	Program used by programmers to convert assembly language source program into machine language.
assembly language	Programming language in which a programmer writes instructions using symbolic instruction codes.
ATOM	XML application that content aggregators use to distribute content to subscribers.
BASIC	Beginners All-purpose Symbolic Instruction Code. Programming language developed by John Kemeny and Thomas Kurtz as a simple, interactive problem-solving language.
beta	Program that has most or all of its features and functionality implemented.
bugs	Program errors.
bytecode	Resulting object code in a Java program.
C	Programming language developed in the early 1970s at Bell Laboratories used for business and scientific applications.
C#	Object-oriented programming language based on C++ developed primarily by Anders Hejlsberg at Microsoft.
C++	Object-oriented programming language developed at Bell Laboratories that is an extension of the C programming language.
cascading style sheet (CSS)	Contains formats for how a particular object should be displayed in a Web browser.
case control structure	Type of selection control structure that can yield one of three or more possibilities.
CGI (common gateway interface)	Communications standard that defines how a Web server communicates with outside sources.
CGI script	Program that manages sending and receiving across a CGI.
CLR	Common Language Runtime; environment that enables programmers to develop .NET programs using a variety of languages.

COBOL	COmmon Business-Oriented Language. Programming language designed for business applications, which evolved out of a joint effort between the United States government, businesses, and major universities in the early 1960s.
code	Programming term meaning to write.
code review	Process of programmers, quality control testers, and/or peers reviewing code in order to locate and fix errors so that the final programs work correctly.
code snippets	Prewritten code and templates associated with common programming tasks.
coding	Translating a solution algorithm into a programming language and then typing the programming language code into the computer.
comment symbol	Flowchart symbol that explains or clarifies logic in a solution algorithm. See also annotation symbol.
comments	Internal documentation contained in a program.
COmmon Business-Oriented Language	Programming language designed for business applications, which evolved out of a joint effort between the United States government, businesses, and major universities in the early 1960s. See also COBOL.
compiler	Separate program that converts an entire source program into machine language before executing it.
computer program	Series of instructions that directs a computer to perform tasks
construct	Used during program design, a depiction of the logical order of program instructions. See also control structure.
control structure	Used during program design, a depiction of the logical order of program instructions. See also construct.
counter	Web site element that tracks the number of visitors to a Web site.
dead code	Any program instructions that a program never executes.
debug utility	Utility that assists programmers with identifying syntax errors and finding logic errors. See also debugger.
debugger	Utility that assists programmers with identifying syntax errors and finding logic errors. See also debug utility.
debugging	Process of locating and correcting syntax and logic errors in a program.
Delphi	Powerful visual programming tool that is ideal for large-scale enterprise and Web application development.
design tools	Tools such as pseudocode and program flowcharts that help programmers document a solution algorithm.
desk check	Validation technique in which programmers use test data to step through a program's logic.
developer	Person who creates and modifies computer programs. See also programmer.
Director	Multimedia authoring program with powerful features that allow programmers to create highly interactive multimedia applications.
do-until control structure	Type of repetition control structure similar to a do-while control structure, except it tests the condition at the end of the loop and continues looping until the condition is true.
do-while control structure	Type of repetition control structure that repeats one or more times as long as a condition is true.
document object model (DOM)	Format that defines every item on a Web page as an object, allowing developers to change properties, such as color or size, of any or all of the objects on the Web page
Dreamweaver	Web page authoring program by Adobe Systems that allows Web developers to create, maintain, and manage professional Web sites.
dynamic HTML (DHTML)	Type of HTML that allows Web developers to include more graphical interest and interactivity in a Web page.
Eclipse	Open source, advanced development environment that works with a variety of programs including Java and C++.
elements	HTML words, abbreviations, and symbols that specify links to other documents and indicate how a Web page is displayed when viewed on the Web. See also tags.
encapsulation	Concept of packaging data and procedures into a single object.
event	An action to which a program responds.
event-driven program	Program that checks for and responds to events.

execute	Process of a computer carrying out the instructions in a program.
Expression Web	Microsoft's Web page authoring program that enables Web developers to create professional, dynamic, interactive Web sites.
extreme programming (XP)	Strategy that proposed that programmers should immediately begin coding and testing solutions as soon as requirements are defined.
F#	Programming language included with Visual Studio 2010 that combines the benefits of an object-oriented language with the benefits of a functional language.
Flash	Web page authoring program by Adobe Systems that enables Web developers to combine interactive content with text, graphics, audio, and video.
flowchart	Graphically shows the logic in a solution algorithm. See also program flowchart.
flowcharting software	Software used by programmers to help develop flowcharts.
form	Window on the screen that provides areas for entering or changing data in a database. See also data entry form.
Forth	Programming language similar to C, used for small computerized devices.
FORTRAN	FORmula TRANslator. One of the first high-level programming languages used for scientific applications.
fourth-generation language	Nonprocedural language that enables users and programmers to access data in a database.
functional language	Programming language whose natural programming structure is useful in mathematical programs.
global comments	Internal documentation, usually at the top of a program, that explains the program's purpose and identifies the program name, its author, and date written.
hierarchy chart	Structured design tool that shows program modules graphically. See also structure chart.
high-level language	Programming language in which each language instruction typically equates to multiple machine instructions.
HTML	Hypertext Markup Language; special formatting language that programmers use to format documents for display on the Web.
HyperTalk	Object-oriented programming language developed by Apple to manipulate cards that can contain text, graphics, and sound.
Hypertext Markup Language	Special formatting language that programmers use to format documents for display on the Web.
IDE (integrated development environment)	Includes program development tools for building graphical user interfaces, an editor for entering program code, a compiler and/or interpreter, and a debugger.
if-then-else control structure	Type of selection control structure that yields only one of two possibilities: true or false.
image map	Graphical image that points to one or more Web addresses.
implementation	Process of generating or writing code that translates a program design into a program and, if necessary, creating the user interface.
internal comments	Documentation that appears throughout the body of the program that explains the purpose of the code statements within the program.
interpreter	Program used to convert a source program into machine language and then executes the machine language instructions.
IPO chart	Chart that identifies a program's inputs, its outputs, and the processing steps required to transform the inputs into the outputs.
Java	Object-oriented programming language developed by Sun Microsystems.
Java EE (Java Platform, Enterprise Edition)	Set of technologies built on Sun's Java EE that allows programmers to develop and deploy Web services for a company, often used in Web 2.0 environments.
Java Platform, Micro Edition (Java ME)	Java platform used to create programs for smart phones and other mobile devices.
Java Platform, Standard Edition (Java SE)	Java platform developed by Sun Microsystems to create stand-alone programs for desktop computers and servers.
JavaScript	Interpreted language that allows a programmer to add dynamic content and interactive elements to a Web page.

just-in-time (JIT) compiler	Program that converts bytecode into machine-dependent code that is executed immediately.
keywords (programming language)	Command words used in programming.
LISP	LISt Processing. Programming language used for artificial intelligence applications.
logic error	Flaw in program design that causes inaccurate results.
LOGO	An educational tool used to teach programming and problem-solving to children.
loop	Type of control structure that enables a program to perform one or more actions repeatedly as long as a certain condition is met. See also repetition control structure.
low-level language	Programming language that is machine dependent.
machine language	The only language a computer directly recognizes, using a series of binary digits or a combination of numbers and letters that represent binary digits.
machine-dependent language	Programming language that runs on only one particular type of computer.
machine-independent language	Programming language that can run on many different types of computers and operating systems.
macro (application program)	Series of statements that instructs an application how to complete a task.
macro (assembly language)	Capability of assembly language that generates many machine language instructions for a single assembly language instruction.
macro recorder	Program development tool that records all actions until it is turned off.
main module	Main function of a program. See also main routine.
main routine	Main function of a program. See also main module.
maintaining	Act of correcting errors or adding enhancements to an existing program.
menu generator	Application generator feature that enables users to create a menu for the application options.
Microsoft Intermediate Language (MSIL)	Resulting object code compiled by a .NET-compatible language.
Modula-2	Successor to Pascal programming language used for developing systems software.
modules	Smaller sections into which a main routine is broken down by a programmer during structured design. See also subroutines.
mouse rollover	Event that occurs when text, a graphic, or other object changes as the user moves the mouse pointer over an object on the screen. See also mouseover.
mouseover	Event that occurs when text, a graphic, or other object changes as the user moves the mouse pointer over an object on the screen. See also mouse rollover.
multimedia authoring software	Software that allows users to combine text, graphics, audio, video, and animation in an interactive application and that often is used for computer-based training and Web-based presentations.
nonprocedural language	Type of programming language in which a programmer writes English-like instructions or interacts with a graphical environment to retrieve data from files or a database.
object	Database item that contains data, as well as the actions that read or process the data.
object code	Machine language version of a program that results from compiling a 3GL source program. See also object program.
object program	Machine language version of a program that results from compiling a 3GL source program. See also object code.
object-oriented (OO) design	Design approach in which a programmer packages the data and program (or procedure) into a single unit, an object.
object-oriented programming (OOP) language	Programming language used to implement an object-oriented design.
open language	Term that refers to a language anyone can use without purchasing a license.
Pascal	Programming language developed to teach students structured programming concepts, named in honor of Blaise Pascal, a French mathematician who developed one of the

	earliest calculating machines.
Perl	Practical Extraction and Report Language; scripting language developed at NASA's Jet Propulsion Laboratory as a procedural language similar to C and C++.
PHP	PHP: Hypertext Preprocessor; free, open source scripting language.
PILOT	Programmed Inquiry Learning Or Teaching; programming language used to write computer-aided instruction programs.
PL/I	Programming Language One; business and scientific programming language that combines many features of FORTRAN and COBOL.
posttest	Process used in a do-until control structure that tests a condition at the end of the loop.
PowerBuilder	Powerful program development RAD tool developed by Sybase that is best suited for Web-based, .NET, and large-scale enterprise object-oriented applications.
Practical Extraction and Report Language	Scripting language developed at NASA's Jet Propulsion Laboratory as a procedural language similar to C and C++.
pretest	Process used in a do-while control structure that tests a condition at the beginning of the loop.
procedural language	Type of programming language in which a programmer writes instructions that tell the computer what to accomplish and how to do it using a series of English-like words to write instructions. See also third-generation language (3GL).
processing form	Web site element that collects data from site visitors, who fill in blank fields and then click a button that sends the information. Often simply called a form.
program development	Series of steps programmers use to build computer programs.
program development life cycle (PDLC)	Series of steps programmers use to build computer programs, consisting of six steps: (1) analyze requirements, (2) design solution, (3) validate design, (4) implement design, (5) test solution, and (6) document solution.
program development tool	Program that provides a user-friendly environment for building programs.
program flowchart	Graphically shows the logic in a solution algorithm. See also flowchart.
program logic	Graphical or written description of the step-by-step procedures to solve a problem. See also solution algorithm.
programmer	Person who creates and modifies computer programs. See also developer.
programming language	Set of words, abbreviations, and symbols that enables a programmer to communicate instructions to a computer.
programming team	A group of programmers that may develop programs during the program development cycle.
Prolog	PROgramming LOGic. Programming language used for development of artificial intelligence applications.
pseudocode	Design tool that uses a condensed form of English to convey program logic.
RAD	Rapid application development; method of developing software in which a programmer writes and implements a program in segments instead of waiting until an entire program is completed.
Rails	Ruby on Rails; open source framework that provides technologies for developing object-oriented, database-driven Web sites. See also Ruby; RoR; Ruby on Rails.
rapid application development	Method of developing software in which a programmer writes and implements a program in segments instead of waiting until an entire program is completed.
repetition control structure	Type of control structure that enables a program to perform one or more actions repeatedly as long as a certain condition is met. See also loop.
report writer	DBMS feature that allows users to design a report on the screen, retrieve data into the report design, and then display or print the report. See also report generator.
Restructured Extended Executor	Restructured Extended Executor. Procedural interpreted scripting language for both professional programmers and nontechnical users.
Rexx	Restructured Extended Executor. Procedural interpreted scripting language for both professional programmers and nontechnical users.
RoR	Ruby on Rails; open source framework that provides technologies for developing object-oriented, database-driven Web sites. See also Ruby; Rails; Ruby on Rails.
RPG	Report Program Generator; programming language used to assist businesses in generating

	reports and to access/update data in databases.
RSS 2.0	Really Simple Syndication; specification that content aggregators use to distribute content to subscribers.
Ruby	Ruby on Rails. Open source framework that provides technologies for developing object-oriented, database-driven Web sites. See also RoR; Rails; Ruby on Rails.
Ruby on Rails	Open source framework that provides technologies for developing object-oriented, database-driven Web sites. See also Ruby; Rails; RoR.
run-time error	Program error or event that causes the program to stop running.
script	Interpreted program that runs on a client.
scripting language	Interpreted language that typically is easy to learn and use.
selection control structure	Type of control structure that tells the program which action to take, based on a certain condition.
sequence control structure	Type of control structure that shows one or more actions following each other in order.
servlet	Applet that runs on a server.
SharePoint Designer	Web page authoring program that is part of the Microsoft Office and SharePoint families of products.
Smalltalk	Object-oriented programming language.
solution algorithm	Graphical or written description of the step-by-step procedures to solve a problem. See also program logic.
source program	Program that contains the language instructions, or code, to be converted to machine language.
SQL	Query language that allows users to manage, update, and retrieve data in a relational DBMS.
structure chart	Structured design tool that shows program modules graphically. See also hierarchy chart.
structured design	Program design approach in which a programmer typically begins with a general design and moves toward a more detailed design. See also top-down design.
style sheet	Contains descriptions of a document's characteristics.
subroutines	Smaller sections into which a main routine is broken down by a programmer during structured design. See also modules.
symbolic address	Meaningful name used with assembly languages that identifies a storage location.
symbolic instruction codes	Meaningful abbreviations used with an assembly language.
syntax	Set of grammar and rules that specifies how to write instructions for a solution algorithm.
syntax error	Program error that occurs when the code violates the syntax, or grammar, of the programming language.
tags	HTML words, abbreviations, and symbols that specify links to other documents and indicate how a Web page is displayed when viewed on the Web. See also elements.
Tcl	Tool Command Language; interpreted scripting language maintained by Sun Microsystems Laboratories.
test data	Sample data that mimics real data a program will process once it is in production.
third-generation language (3GL)	Type of programming language in which a programmer writes instructions that tell the computer what to accomplish and how to do it using a series of English-like words to write instructions. See also procedural language.
Tool Command Language	See Tcl.
ToolBook	Multimedia authoring program with a graphical user interface that uses an object-oriented approach, so that programmers can design multimedia applications using basic objects.
top-down design	Program design approach in which a programmer typically begins with a general design and moves toward a more detailed design. See also structured design.
validate	Check for accuracy.
VBScript	Visual Basic, Scripting Edition; subset of the Visual Basic language that allows programmers to add intelligence and interactivity to Web pages.
Visual Basic	Programming language that allows programmers easily to build complex task-oriented object-based programs.

Visual Basic for Applications (VBA)	Programming language that can work with Visual Studio Tools for Office or a similar language as their macro programming language.
Visual Basic, Scripting Edition	Subset of the Visual Basic language that allows programmers to add intelligence and interactivity to Web pages.
Visual C#	Programming language that combines programming elements of C++ with an easier, rapid development environment.
Visual C++	Programming language based on C++.
visual programming environment (VPE)	Graphical interface in a visual programming language that allows programmers to drag and drop objects to develop programs.
visual programming language	Programming language that uses a visual or graphical interface for creating all source code.
Visual Studio	Suite of program development tools from Microsoft that assists programmers in building programs for Windows, Windows Mobile, or operating systems that support Microsoft's .NET framework.
Visual Studio Tools for Office (VSTO)	A set of tools integrated in Visual Studio that enables developers to create programs that work with Microsoft's Office suite, including Word, Excel, PowerPoint, Outlook, and Project.
Web developers	Designers of Web pages.
Web page authoring software	Software used to create Web pages that include graphical images, video, audio, animation, and other special effects with interactive content.
WML	Wireless markup language; subset of XML that allows Web developers to design pages specifically for microbrowsers.
XHTML	Extensible HTML; markup language that enables Web sites to be displayed more easily on microbrowsers in smart phones and other mobile devices, as well as on desktop and notebook computers.
XML	Extensible Markup Language; format for sharing data that allows Web developers to create customized tags, as well as use predefined tags, used for developing a single Web site whose content can be formatted to display appropriately on various devices.
XSL	Extensible Stylesheet Language; language for creating a style sheet that describes how to present the data described in an XML document on a Web page.
XSLT	Extensible Stylesheet Language Transformation; extension of XSL that creates styles sheets that describe how to transform XML documents into other types of documents.

Chapter 14

3-D visualization	Technique used by engineers that allows them to interact with a product without the need to build a prototype.
artificial intelligence (AI)	The application of human intelligence to computers.
availability	Measure of how often hardware is online.
backup plan	Component of a disaster recovery plan that specifies how a company uses backup files and equipment to resume information processing.
batch processing	Processing technique in which the computer collects data over time and processes all transactions later, as a group.
blade	Single card in a blade server.
blade server	Complete computer server, such as a Web server or network server, packed on a single card. See also ultradense servers.
blade server chassis	Component in which blades in a blade server are held.
business intelligence (BI)	Several types of applications and technologies for acquiring, storing, analyzing, and providing access to information to help users make more sound business decisions.
business process automation (BPA)	Automation that provides easy exchange of information among business applications, reduces the need for human intervention in processes, and utilizes software to automate processes wherever possible.
business process management (BPM)	Set of activities that enterprises perform to optimize their business processes, such as accounting and finance, hiring employees, and purchasing goods and services.
centralized	Approach to information technology in which a company maintains central computers supported by a central information technology department.
chief information officer (CIO)	IT executive position that reports to the CEO.
click stream	Collection of every action that users make as they move through a Web site.
closed	Term used to describe information systems that are more difficult to interoperate with other information systems. See also proprietary.
cloud computing	Internet service that provides computing needs to computer users.
cold site	Separate facility that mirrors a critical site, but does not become operational until the critical site becomes unavailable.
computer-aided design (CAD)	Software that aids in engineering, drafting, and design.
computer-aided engineering (CAE)	Use of computers to test product designs.
computer-aided manufacturing (CAM)	Use of computers to assist with manufacturing processes such as fabrication and assembly.
computer-integrated manufacturing (CIM)	Use of computers to integrate the many different operations of the manufacturing process.
content management system (CMS)	An information system that is a combination of databases, software, and procedures that organizes and allows access to various forms of documents and other files, including images and multimedia content.
controlling	Management activity that involves measuring performance and, if necessary, taking corrective action.
core activities	Activities that relate to the main mission of a company.
customer interaction management (CIM)	Software that manages the day-to-day interactions with customers, such as telephone calls, e-mail interactions, Web interactions, and instant messaging sessions.
customer relationship management (CRM)	System that manages information about customers, interactions with customers, past purchases, and interest.
data center	Centralized location for managing and housing hardware and software.
data processing	Term used to refer to the function of computerized transaction processing systems.
data warehouse	Huge database that stores and manages the data required to analyze historical and current transactions.

decentralized	Approach to information technology in which departments and divisions maintain their own information systems.
decision support system (DSS)	Information system that helps users analyze data and make decisions.
detailed report	Report generated by a management information system that lists just transactions.
disaster recovery plan	Written plan describing the steps a company would take to restore computer operations in the event of a disaster. Contains four major components: emergency plan, backup plan, recovery plan, and test plan.
distribution systems	Provides forecasting for inventory control, manages and tracks shipping of products, and provides information and analysis on inventory in warehouses.
document management system (DMS)	System that allows for storage and management of a company's documents, such as word processing documents, presentations, and spreadsheets.
downtime	Any time a computer crashes, needs repairs, or requires installation of replacement or upgrade parts.
e-retail	Business transaction that occurs when retailers use the Web to sell their products and services. See also e-tail.
e-tail	Business transaction that occurs when retailers use the Web to sell their products and services. See also e-retail.
EDI (electronic data interchange)	Set of standards that controls the transfer of business data and information among computers both within and among enterprises.
emergency plan	Component of a disaster recovery plan that specifies the steps to be taken immediately after a disaster strikes.
employee relationship management (ERM) system	Information system that automates and manages much of the communications between the employees and the business.
empowering	Business trend of providing nonmanagement users with access to information necessary to make decisions that previously were made by managers.
enterprise	Term that commonly describes a business or venture of any size.
enterprise computing	The use of computers in networks, such as LANs and WANs, or a series of interconnected networks that encompass a variety of different operating systems, protocols, and network architectures.
enterprise hardware	Devices geared for heavy use, maximum availability, and maximum efficiency that large organizations use to manage and store information and data.
enterprise information	Information gathered in the ongoing operations of an enterprise-sized organization.
enterprise resource planning (ERP)	Provides centralized, integrated software to help manage and coordinate the ongoing activities of the enterprise.
enterprise search	Technology that allows users to perform searches across many enterprise-wide information systems and databases.
enterprise storage system	Strategy that focuses on the availability, protection, organization, and backup of storage in a company.
enterprise-wide system	General purpose information systems in an enterprise that crosses the boundaries of functional units and is used by one or more functional units in an enterprise.
exception criteria	Out-of-the-ordinary conditions that define the normal activity or status range in an exception report.
exception report	Report generated by a management information system that identifies data outside of a normal condition.
executive information system (EIS)	A special type of decision support system that supports the strategic information needs of executive management.
executive management	The highest management positions in a company, which focuses on the long-range direction of the company.
expert system	Information system that captures and stores the knowledge of human experts and then imitates human reasoning and decision making.
external sources	Source of data obtained from outside an enterprise, which might include interest rates, trends, or raw material pricing.
extranet	Portion of a company's network that allows customers or suppliers of a company to access parts of an enterprise's intranet.
failover	Process of one system automatically taking the place of a failed system.

Fibre Channel	Technology used to connect to storage systems at data rates up to 4 Gbps.
functional units	Individual operating entities in an enterprise.
grid computing	Technology that combines many servers and/or personal computers on a network to act as one large computer.
high-availability system	System that continues running and performing tasks for at least 99 percent of the time.
hot site	Separate facility that mirrors the systems and operations of a critical site.
hot-swapping	Feature that allows components to be replaced while the rest of the system continues to perform its tasks.
human resources information system (HRIS)	Information system that manages one or more human resources function(s).
indexes	Arranging content so that it later can be searched.
inference rules	Component of an expert system that contains a set of logical judgments that are applied to the knowledge base each time a user describes a situation to the expert system.
information architecture	Overall technology strategy of a company.
information system	Hardware, software, data, people, and procedures that a computer requires to generate information.
internal sources	Source of data obtained from inside an enterprise, which might include sales order, inventory records, or financial data from accounting and financial analyses.
Internet backup	Storage of data, information, and instructions on the Web.
interoperability	Sharing information with other information systems within an enterprise.
knowledge base	Component of an expert system that contains the combined subject knowledge and experiences of human experts.
knowledge management (KM)	The process by which an enterprise collects, archives, indexes, and retrieves its knowledge, or resources.
knowledge management software (KMS)	Software that assists in the task of knowledge management and captures the expertise of knowledge workers, so that their knowledge is not lost when they leave the company.
knowledge workers	Individuals whose jobs center on the collection, processing, and application of information.
leading	Management activity, sometimes referred to as directing, that involves communicating instructions and authorizing others to perform the necessary work.
legacy system	Information system that has existed within an organization for an extended length of time and is relied upon heavily.
level 1	RAID storage design that writes data on two disks at the same time to duplicate the data. See also mirroring.
management information system (MIS)	Information system that generates accurate, timely, and organized information, so that managers and other users can make decisions, solve problems, supervise activities, and track progress.
managers	Employees responsible for coordinating and controlling an organization's resources.
Manufacturing Resource Planning II (MRP II)	Extension of MRP that includes software that helps in scheduling, tracking production in real time, and monitoring product quality.
market research system	Type of marketing information system that stores and analyzes data gathered from demographics and surveys.
marketing information system	Information system that serves as a central repository for the tasks of the marketing functional unit.
Material Requirements Planning (MRP)	Approach to information management in a manufacturing environment that uses software to help monitor and control processes related to production.
metadata	Detailed data in a data dictionary about the data in a database.
middle management	Level of management responsible for implementing the strategic decision of executive management.
mirroring	RAID storage design that writes data on two disks at the same time to duplicate the data. See also level 1.
network attached storage (NAS)	Server that is placed on a network with the sole purpose of providing storage to users and information systems attached to the network.

nonmanagement employees	Production, clerical, and other personnel.
office automation	Information system that enables employees to perform tasks using computers and other electronic devices, instead of manually. See also office information system (OIS).
office information system (OIS)	Information system that enables employees to perform tasks using computers and other electronic devices, instead of manually. See also office automation.
online analytical processing (OLAP)	Term used to refer to programs, such as those in a decision support system, that analyze data.
online banking	E-commerce activity that allows users to pay bills from their computer or mobile device, that is, transfer money electronically from their account to a payee's account.
online trading	E-commerce activity that allows users to invest in stocks, options, bonds, treasuries, certificates of deposit, money markets, annuities, and mutual funds -- without using a broker.
online transaction processing (OLTP)	Processing technique in which the computer processes each transaction as it is entered.
open	Term used to describe information systems that more easily share information with other information systems.
operational decision	Decision that involves day-to-day activities within a company.
operational management	Level of management that supervises the production, clerical, and other nonmanagement employees of a company.
operations	Core activities of a business involving the creation, selling, and support of the products and services that the company produces.
optical disc jukebox	Server that holds hundreds of optical discs that can contain programs and data. See also optical disc server.
optical disc server	Server that holds hundreds of optical discs that can contain programs and data. See also optical disc jukebox.
organizing	Management activity that includes identifying and combining resources, such as money and people, so that the company can reach its goals and objectives.
outsourcing	Practice of offloading storage management to an outside organization or online Web service.
personal computer blade	Server configuration that works much like a blade server.
personalization	Customization of portal pages to meet users' needs.
planning	Management activity that involves establishing goals and objectives.
portal	Web site that offers a variety of Internet services from a single, convenient location.
procedure	Instruction or set of instructions a user follows to accomplish an activity.
proprietary	Term used to describe information systems that are more difficult to interoperate with other information systems. See also closed.
quality control software	Software that uses statistical analysis to identify and predict product defects and problems with the company's processes.
quality control system	System used by an organization to maintain or improve the quality of its products or services.
RAID (redundant array of independent disks)	Redundant array of independent disks; group of two or more integrated hard disks that acts like a single large hard disk.
reciprocal backup relationship	Agreement with another firm, where one firm provides space and sometimes equipment to the other in case of a disaster.
recovery plan	Component of a disaster recovery plan that specifies the actions to be taken to restore full information processing operations.
redundant components	Components used so that a functioning computer can take over automatically the tasks of a similar component that fails.
repository	A DBMS element that contains data about each file in a database and each field in those files. See also data dictionary.
sales force automation (SFA)	Software that equips traveling salespeople with the electronic tools they need to be more productive.
scalability	Measure of how well computer hardware, software, or an information system can grow to meeting increasing performance demands.
security software	Software that enables an IT department to limit access to sensitive information.

server virtualization	Capability to logically divide a physical server into many virtual servers.
service-oriented architecture (SOA)	Architecture that enterprises use so that information systems provide services to other information systems in a well-defined manner over a network.
small- and medium-sized business (SMB)	Business that is smaller in size than an enterprise and typically does not have an international presence.
storage appliance	Network attached storage server.
storage area network (SAN)	High-speed network with the sole purpose of providing storage to other servers to which it is attached.
storage virtualization	Capability to create a single logical storage device from many physical storage devices.
strategic decisions	Decisions that center on a company's overall goals and objectives.
striping	RAID storage technique that splits data, instructions, and information across multiple disks in the array.
summary report	Report generated by a management information system that consolidates data usually with totals, tables, or graphs, so that managers can review it quickly and easily.
supporting activities	Activities relating to running a business.
tactical decisions	Short-range decisions that apply specific programs and plans necessary to meet stated objectives.
tape library	Separate cabinet for larger computers in which tape cartridges are mounted.
technical lead	Employee who guides design, development, and maintenance tasks; serves as interface between programmer/developer and management.
test plan	Component of a disaster recovery plan that contains information for simulating various levels of disasters and recording an organization's ability to recover.
thin client	Small terminal-like computer that mostly relies on a server for data storage and processing.
transaction	Individual business activity.
transaction processing system (TPS)	Information system that captures and processes data from day-to-day business activities.
ultradense server	Complete computer server, such as a Web server or network server, packed on a single card. See also blade servers.
uptime	Measurement of availability.
virtual private network (VPN)	Network that provides a mobile user with a secure connection to a company network server, as if the user has a private line.
virtualization	Practice of sharing or pooling computing resources, such as servers and storage devices.
VPN tunnel	Secure connection created over the Internet between the user's computer and the company's network.
Web farming	Process of collecting data from the Internet as a source for a data warehouse.
Web services	Set of software technologies that allows businesses to create products and B2B (business-to-business) interactions over the Internet.
Web site management programs	Software that collects data designed to help organizations make informed decisions regarding their Web presence.
workflow	Defined process that identifies the specific set of steps involved in completing a particular project or business process.
workflow application	Program that assists in the management and tracking of all the activities in a business process from start to finish.

Chapter 15

Friday, August 31, 2012
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A+	Hardware certification that tests entry-level knowledge of personal computer setup, configuration, maintenance, troubleshooting; basic networking skills; and system software.
Adobe Certified Associate	Application software certification that tests user's expertise in a variety of Adobe software including Flash and Dreamweaver.
Adobe Certified Expert (ACE)	Application software certification that tests a user's expertise on Adobe software.
Adobe Certified Instructor (ACI)	Application software certification that demonstrates a user's ability to provide instruction on Adobe software.
articulation agreement	Agreement between educational institutions that ensures credits will be received for courses taken at another school.
Association for Computing Machinery (ACM)	Scientific and educational organization dedicated to advancing knowledge and proficiency of information technology.
Association of Information Technology Professionals (AITP)	Professional organization with more than 9,000 members consisting of programmers, systems analysts, and information processing managers.
certification	Process of verifying the technical knowledge of an individual who has demonstrated competence in a particular area.
Certified Computer Examiner (CCE)	Digital forensics certification that tests core knowledge of acquisition, marking, handling, and storage of computer evidence using a particular operating system.
Certified Computer Forensics Examiner (CCFE)	Digital forensics certification that tests in-depth knowledge of forensic imaging, examination, collection, and reporting.
Certified Electronic Evidence Collection Specialist (CEECS)	Digital forensics certification that tests basic knowledge of forensic ethics, imaging, examination, collection, and reporting.
Certified Forensic Computer Examiner (CFCE)	Digital forensics certification that tests in-depth knowledge of forensic imaging, examination, collection, and reporting.
Certified Information Forensics Investigator (CIFI)	Digital forensics certification that tests knowledge of information forensics in areas related to auditing, incident response, law and investigation, tools and techniques, traceback, and countermeasures.
Certified Information Systems Security Professional (CISSP)	Security certification that tests in-depth knowledge of access control methods, information systems development, cryptography, operations security, physical security, and network and Internet security.
Certified Internet Webmaster (CIW)	Internet certification that tests knowledge of Web development, security, and administration.
Certified Software Development Associate (CSDA)	Programmer/developer certification that tests basic knowledge of software development processes and tools.
Certified Software Development Professional (CSDP)	Programmer/developer certification that tests advanced knowledge of software development process and tools.
Certified Web Professional (CWP)	Internet certification that tests advanced knowledge in areas of Web site design and development, and server administration and security.
chief information officer (CIO)	Employee who directs the company's information service and communications functions. See also chief technology officer (CTO).
chief security officer (CSO)	Employee responsible for physical security of a company's property and people; in charge of security computing resources.
chief technology officer (CTO)	Employee who directs the company's information service and communications functions. See also chief information officer (CIO).
Cisco Certified	Internet certification that tests expert level knowledge in areas of internetwork

Internetwork Expert (CCIE)	communications, security, routing, and switching.
Cisco Certified Network Associate (CCNA)	Networking certification that tests basic knowledge of installing, configuring, and operating LAN, WAN, and dial-up access services for small networks.
Cisco Certified Network Professional (CCNP)	Networking certification that tests advanced knowledge of installing, configuring, and operating LANs and WANs.
compositor	Employee who formats and combines text and graphics to produce publication-ready materials. See also desktop publisher.
computer engineering (CE)	Curriculum that teaches students how to design and develop the electronic components found in computers and peripheral devices.
computer equipment field	Consists of manufacturers and distributors of computers and computer-related hardware such as magnetic and optical drives, monitors, printers, and communications and networking devices.
computer games designer/programmer	Employee who designs computer games and translates the design into a computer program using an appropriate computer language.
computer information systems (CIS)	Curriculum that teaches students technical knowledge and skills and focuses on how to apply these skills. Also called management information systems (MIS) or management information technology. See also information technology (IT).
computer operator	Employee who performs equipment-related activities such as monitoring performance, running jobs, backup, and restore.
computer salespeople	Job that requires a general understanding of computers and a specific knowledge of the product being sold.
computer science (CS)	Curriculum that focuses on the theory of programming and operating systems.
computer science/IT instructor	Professional who teaches basic computer courses in addition to specialized classes such as computer engineering, Internet development, networking, programming, or systems analysis and design.
computer scientist	Employee who researches, invents, and develops innovative solutions to complex software requirements or problems.
computer security specialist	Employee responsible for the security and data and information stored on computers and mobile devices within an organization. See also mobile security specialist.
computer service and repair field	Provides preventive maintenance, component installation, and repair services to customers.
computer software field	Consists of companies that develop, manufacture, and support a wide range of software.
computer technician	Employee who installs, maintains, and repairs hardware; installs, upgrades, and configures software; and troubleshoots hardware problems.
computerized adaptive testing (CAT)	Testing technique where the tests analyze a person's responses while taking the test.
corporate trainer	Employee who teaches employees who to use software, design and develop systems, program, and perform other computer-related activities.
data communications analyst	Employee who evaluates, installs, and monitors data and/or voice communications equipment and software; maintains connections to the Internet and other WANs. See also VoIP specialist.
database administrator	Employee who creates and maintains the data dictionary; manages security and monitors performance of the database.
database analyst	Employee who uses modeling techniques and tools to analyze, tune, and specify data usage within an application area.
Dell Certified Systems Expert	Hardware certification that tests knowledge of computer configuration and installation, troubleshooting, operating system fundamentals, and hardware replacement.
desktop or mobile application programmer/developer	Employee who converts the system design into the appropriate computer language, such as Visual Basic 2005, Java, C#, and C+.
desktop publisher	Employee who formats and combines text and graphics to produce publication-ready materials. See also compositor.
digital forensics examiner	Employee who collects and analyzes evidence found on computers and networks.
e-commerce director	Employee who supervised the development and execution of Internet or e-commerce systems; works with the company's marketing and customer service divisions.

end-user certifications	Software certifications.
graphic designer	Employee who develops visual impressions of products for advertisements and marketing materials.
Help desk specialist	Employee who answers hardware, software, or networking questions in person, over the telephone, and/or in a chat room.
IBM Certified Professional for Lotus Software	Application software certification that tests a user's knowledge of Lotus programs.
IBM Certified Solution Developer	Programmer/developer certification that tests knowledge of developing XML applications with Web services.
IBM Certified Solutions Expert - DB2	Database certification that tests skills of administration of the DB2 database management system.
IBM Certified Solutions Expert - Informix	Database certification that tests advanced skills of administration of the Informix database management system.
IBM Certified Specialist	Operating system certification that tests knowledge of AIX operating system and network security.
IBM eServer Certified Specialist	Hardware certification that tests knowledge of IBM eServer line.
illustrator	Employee who develops visual impressions of products for advertisements and marketing materials.
Institute for the Certification of Computing Professionals (ICCP)	Professional organization that offers certifications and defines standards designed to raise the competence level for the computer industry.
International Consumer Electronics Show (CES)	Large technology trade show, which brings together more than 130,000 attendees.
IT consultant	Employee, typically hired based on computer expertise, who provides computer services to his or her clients.
IT department	Group of employees who work together as a team to meet the information requirements of their organization and are responsible for keeping all the computer operations and networks running smoothly.
management information systems (MIS)	Curriculum that teaches students technical knowledge and skills and focuses on how to apply these skills. See also management information technology or computer information systems (CIS).
management information technology	Curriculum that teaches students technical knowledge and skills and focuses on how to apply these skills. See also management information systems (MIS) or computer information systems (CIS).
Microsoft Certified Desktop Support Technician (MCDST)	Application software certification that tests a user's skills solving problems associated with applications that run on Windows Vista and the operating system itself.
Microsoft Certified IT Professional (MCITP)	Database certification that tests skills required to use SQL Server 2005 to design or install, manage, and maintain a database system.
Microsoft Certified Professional Developer (MCPD)	Programmer/developer certification that tests knowledge of developing Web and Windows-based applications using programs in the Visual Studio 2005 suite and the .NET framework.
Microsoft Certified Systems Administrator (MCSA)	Operating systems certification that tests technical expertise in one of several areas including managing and troubleshooting networks using Windows operating systems.
Microsoft Certified Technology Specialist (MCTS)	Operating systems certification that tests technical expertise in a specialized area including Windows and .NET environments.
Microsoft Office Specialist (MOS) - Core	Application software certification that tests a user's basic skills of Microsoft Office and other related programs.
Microsoft Office Specialist (MOS) - Expert	Application software certification that tests a user's advanced skills of Microsoft Office Word and Excel in industry applications such as budgets, publications, and collaboration.
mobile security specialist	Employee responsible for the security and data and information stored on computers and mobile devices within an organization. See also computer security specialist.
NACSE Hardware	Hardware certification that tests basic knowledge of personal computers, operating

Technician	systems, and cabling.
network administrator	Employee who installs, configures, and maintains LANs, WANs, wireless networks, intranets, and Internet systems; identifies and resolves connectivity issues. See also wireless network administrator.
network security administrator	Employee who configures routers and firewalls; specifies Web protocols and enterprise technologies.
Network+	Networking certification that tests competency in several network areas including transmission media and topologies, protocols, and standards.
Novell Certified Administrator (NCA)	Networking certification that tests knowledge of Novell's networking products including NetWare, IntraNetWare, and GroupWise.
Novell Certified Engineer (NCE)	Networking certification that tests knowledge of designing, configuring, implementing, administering, and troubleshooting the Novell network system.
Novell Certified Linux Professional (CLP)	Operating systems certification that tests technical expertise in installing, managing, and troubleshooting the Linux operating system.
Oracle Certified Professional (OCP)	Database certification that tests knowledge of developing and deploying large-scale Oracle database management systems.
project leader/manager	Employee who oversees all assigned projects, allocates resources, selects teams, performs systems analysis and programming tasks, and conducts performance appraisals.
quality assurance specialist	Employee who reviews programs and documentation to ensure they meet the organization's standards.
Red Hat Certified Engineer (RHCE)	Operating system certification that tests technical expertise of setting up and administering network services and the Linux operating system.
Red Hat Certified Technician (RHCT)	Operating system certification that tests basic knowledge of setting up and managing a Linux operating system.
security administrator	Employee who administers network security access; monitors and protects against unauthorized access.
Security Certified Network Architect (SCNA)	Security certification that tests network security skills related to wireless security, e-mail security, digital certificates, digital signatures, and biometrics.
Security Certified Network Professional (SCNP)	Security certification that tests skills with firewalls and defending against network intrusions.
Security Certified Network Specialist (SCNS)	Security certification that tests basic network security skills.
software engineering	Curriculum that focuses on the theory of programming and operating systems. See also computer science (CS).
special interest groups (SIGs)	Organization that brings together members with shared interests, needs, knowledge, and experience.
sponsoring organizations	Vendors that develop and administer examinations to determine whether a person is qualified for certification.
storage administrator/analyst	Employee who installs, maintains, and upgrades storage systems and analyzes an organization's storage needs.
Sun Certified Enterprise Architect (SCEA)	Programmer/developer certification that tests knowledge of creating and maintaining J2EE applications.
Sun Certified Java Developer (SCJD)	Programmer/developer certification that tests advanced knowledge of Java programming language.
Sun Certified Java Programmer (SCJP)	Programmer/developer certification that tests basic knowledge of Java programming language.
Sun Certified Mobile Application Developer (SCMAD)	Programmer/developer certification that tests knowledge of using Java to create applications for mobile devices such as smart phones.
Sun Certified Network Administrator (SCNA)	Networking certification that tests knowledge of administering Sun networks.
Sun Certified System Administrator (SCSA)	Operating system certification that tests knowledge of administering the Solaris operating system.
Sybase Certified	Database certification that tests skills in developing and administering Sybase database

Professional systems analyst	management systems. Person responsible for designing and developing an information system. See also system developer.
systems programmer	Employee who installs and maintains operating system software and provides technical support to the programming staff.
Systems Security Certified Practitioner (SSCP)	Security certification that tests basic knowledge of access controls, cryptography, data communications, and malicious code.
technical writer	Employee who works with the analyst, programmer, and user to create system documentation and user materials.
trade school	Educational institution that offers programs primarily in areas of programming, Web design and development, graphics design, hardware maintenance, networking, personal computer support, and security. Also called a technical school, vocational school, or career college.
user group	Collection of people with common computer equipment or software interests that meets regularly to share information.
video resume	Resume in video form posted to Web sites.
VoIP specialist	Employee who installs and monitors communications equipment and software; maintains Internet/WAN connections. See also data communications analyst.
Web administrator	Employee who maintains an organization's Web site; creates or helps users create Web pages; oversees Web site performance. See also Webmaster.
Web designer	Employee who develops graphical content using Photoshop, Flash, and other multimedia tools.
Web software developer	Employee who analyzes, designs, implements, and supports Web applications; works with HTML, Ajax, JavaScript, and multimedia.
Webmaster	Employee who maintains an organization's Web site; creates or helps users create Web pages; oversees Web site performance. See also Web administrator.
wireless network administrator	Employee who installs, configures, and maintains LANs, WANs, wireless networks, intranets, and Internet systems; identifies and resolves connectivity issues. See also network administrator.