

Discovering Computers

**Technology in a World of Computers,
Mobile Devices, and the Internet**

Chapter 4

Programs and Apps



Objectives Overview

Identify the general categories of programs and apps

Describe how an operating system interacts with applications and hardware

Differentiate among the ways you can acquire programs and apps

Identify key features of productivity applications

Identify the key features of graphics and multimedia applications

Objectives Overview

Identify the uses of personal interest applications

Identify the purpose of software used in communications

Identify the key features of security tools

Identify the key features of file and disk management tools

Programs and Apps

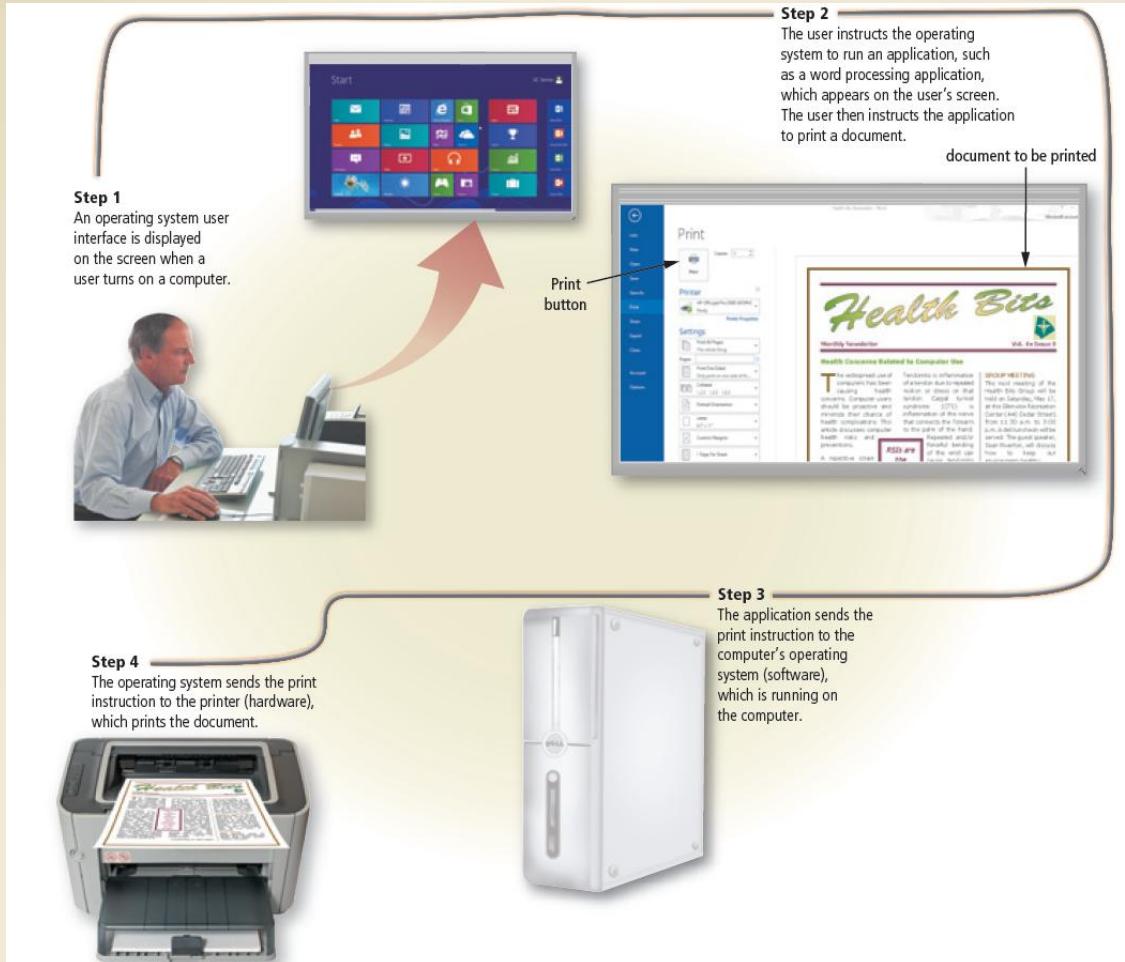
- A **program**, or **software**, consists of a series of related instructions, organized for a common purpose, that tells the computer what tasks to perform and how to perform them
- An **application**, or **app**, sometimes called application software, consists of programs designed to make users more productive and/or assist them with personal tasks
- An operating system is a set of programs that coordinates all the activities among computer or mobile device hardware
 - System software

Table 4-1 Programs and Apps by Category

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Category	Types of Programs and Apps
Productivity (Business and Personal)	<ul style="list-style-type: none">• Word Processing• Presentation• Spreadsheet• Database• Note Taking• Calendar and Contact Management• Project Management• Accounting• Personal Finance• Legal• Tax Preparation• Document Management• Support Services• Enterprise Computing
Graphics and Media	<ul style="list-style-type: none">• Computer-Aided Design (CAD)• Desktop Publishing• Paint/Image Editing• Photo Editing and Photo Management• Clip Art/Image Gallery• Video and Audio Editing• Multimedia and Website Authoring• Media Player• Disc Burning
Personal Interest	<ul style="list-style-type: none">• Lifestyle• Medical• Entertainment• Convenience• Education
Communications	<ul style="list-style-type: none">• Blogging• Browser• Chat Room• Discussion Forum• Email• FTP• Instant Messaging• VoIP• Videoconference• Web Feeds• Wireless Messaging
Security	<ul style="list-style-type: none">• Personal Firewall• Antivirus• Malware Removers• Internet Filters
File and Disk Management	<ul style="list-style-type: none">• File Manager• Search• Image Viewer• Uninstaller• Disk Cleanup• Disk Defragmenter• Screen Saver• File Compression• PC Maintenance• Backup and Restore

Programs and Apps



Programs and Apps

- Software is available in a variety of forms:

Retail

Custom

Web app

Mobile
app

Mobile
web app

Open
source

Shareware

Freeware

Public
domain

Programs and Apps

- Productivity applications can assist you in becoming more effective and efficient while performing daily activities at work, school, and home



Productivity Applications

- With productivity applications, users often:

Create a project

Edit a project

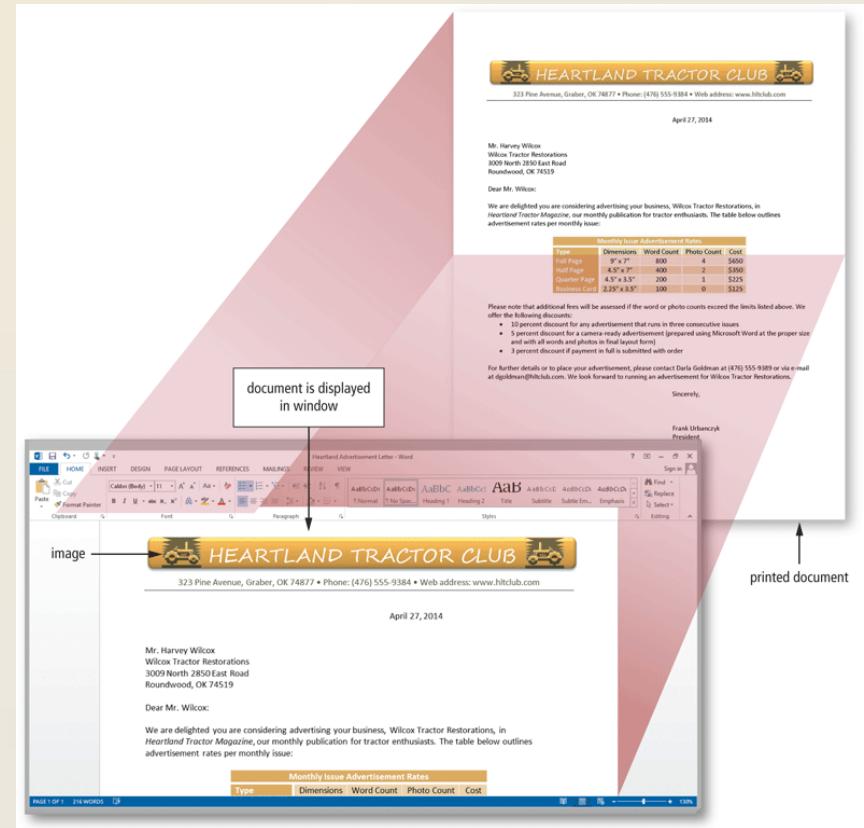
Format a project

Save a project

Distribute a project

Productivity Applications

- **Word processing software** allows users to create and manipulate documents
- **Clip art** is a collection of drawings, photos, and other images



Productivity Applications

- **Presentation software** allows users to create visual aids for presentations to communicate ideas, messages, and other information to a group



Productivity Applications

- **Spreadsheet software** allows users to organize data in rows and columns and perform calculations

The screenshot shows a Google Sheets spreadsheet titled "Personal Budget Worksheet". The spreadsheet contains two main sections: "Monthly Estimates" and "Monthly Expenses".

Annotations:

- A callout box points to the formula bar with the text "function assigned to active cell".
- A callout box points to the range B9:B16 with the text "rows 3, 4, 5, and 6".
- A callout box points to the columns J, K, L with the text "columns J, K, L".
- A callout box points to the right edge of the sheet with the text "worksheet".
- An arrow points from the text "cell B4" to cell B4, which contains the value \$1,000.29.
- An arrow points from the text "cell B17 is active" to cell B17, which contains the value \$1,845.36.

Personal Budget Worksheet

Monthly Estimates

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Income	\$1,000.29	\$1,000.29	\$1,000.29	\$1,000.29	\$1,000.29	\$1,000.29	\$1,000.29	\$1,000.29	\$1,000.29	\$1,000.29	\$1,000.29	\$1,000.29	\$12,003.48
Wages	\$1,000.29	\$1,000.29	\$1,000.29	\$1,000.29	\$1,000.29	\$1,000.29	\$1,000.29	\$1,000.29	\$1,000.29	\$1,000.29	\$1,000.29	\$1,000.29	\$12,003.48
Dividends	4,000.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,000.75	0.00	0.00	0.00	8,001.50
Total	\$5,001.04	\$1,000.29	\$1,000.29	\$1,000.29	\$1,000.29	\$1,000.29	\$1,000.29	\$1,000.29	\$5,001.04	\$1,000.29	\$1,000.29	\$1,000.29	\$20,004.98

Monthly Expenses

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Rent	\$400.89	\$400.89	\$400.89	\$400.89	\$400.89	\$400.89	\$400.89	\$400.89	\$400.89	\$400.89	\$400.89	\$400.89	\$4,810.68
Food	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	3,600.00
Tuition	1,500.00	0.00	0.00	0.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	3,000.00
Books	500.00	0.00	0.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	1,000.00
Entertainment	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	1,200.00
Car Payment	154.79	154.79	154.79	154.79	154.79	154.79	154.79	154.79	154.79	154.79	154.79	154.79	1,857.48
Gas	100.00	100.00	100.00	100.00	150.00	150.00	100.00	100.00	100.00	100.00	100.00	100.00	1,350.00
Miscellaneous	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	1,200.00
Total	\$3,155.68	\$1,155.68	\$1,155.68	\$1,155.68	\$1,205.68	\$1,205.68	\$1,205.68	\$1,205.68	\$3,155.68	\$1,155.68	\$1,155.68	\$1,155.68	\$18,018.16
Net	\$1,845.36	(\$155.39)	(\$155.39)	(\$155.39)	(\$205.39)	(\$205.39)	(\$205.39)	(\$2,155.39)	\$3,845.36	(\$155.39)	(\$155.39)	(\$155.39)	\$1,986.82

Productivity Applications

- A **database** is a collection of data organized in a manner that allows access, retrieval, and use of that data
 - **Database software** allows users to create, access, and manage a database

The screenshot shows the Microsoft Access application interface. The ribbon at the top has 'FILE', 'HOME', 'CREATE', 'EXTERNAL DATA', and 'DATABASE TOOLS' tabs. The 'HOME' tab is selected. In the center, there's a list of objects: 'Tables', 'Queries', 'Forms', and 'Reports'. Below this is a table named 'Customer table' with columns: CU #, Customer Name, Street, City, State, Postal Code, Amount Paid, Current Due, Returns, BR #, and Click to Add. The 'Customer table' is highlighted with a red box. To the right of the table is a 'fields' button with a dropdown menu. At the bottom of the table is a 'Customer Number (three uppercase letters followed by 2-digit number)' input field. The status bar at the bottom says 'Record: H 16 of 16'.

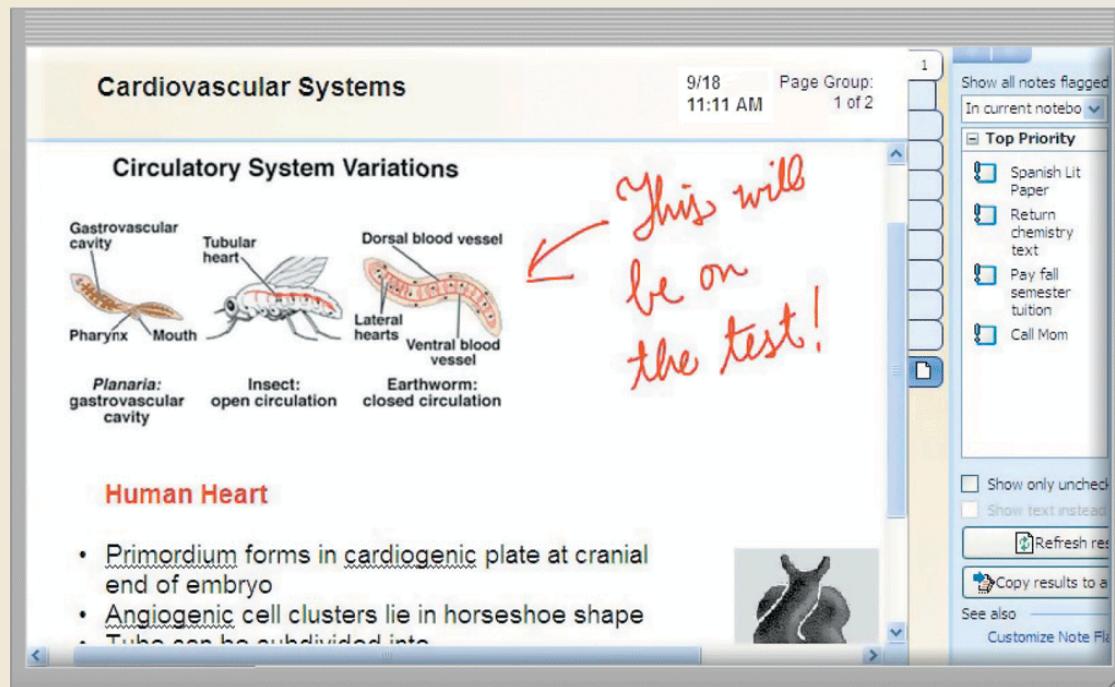
The bottom part of the screenshot shows another table named 'Book Rep' with columns: BR #, Last Name, First Name, Street, City, State, Postal Code, Start Date, Salary, Bonus Rate, and Click to Add. The 'Book Rep' table is highlighted with a red box. The status bar at the bottom says 'Record: H 16 of 16'.

Annotations in the image:

- A red box highlights the 'Customer table' in the main area.
- A red box highlights the 'Book Rep' table in the bottom area.
- An arrow points from the 'Customer table' label to the table itself.
- An arrow points from the 'Book Rep' table label to the table itself.
- An arrow points from the 'fields' button in the ribbon to the 'Customer table'.
- An arrow points from the 'records' button in the ribbon to the 'Customer table'.
- A callout box points to the 'BR #' column in the 'Customer table' and the 'BR #' column in the 'Book Rep' table with the text: "common BR # field relates the Customer table to the Book Rep table".

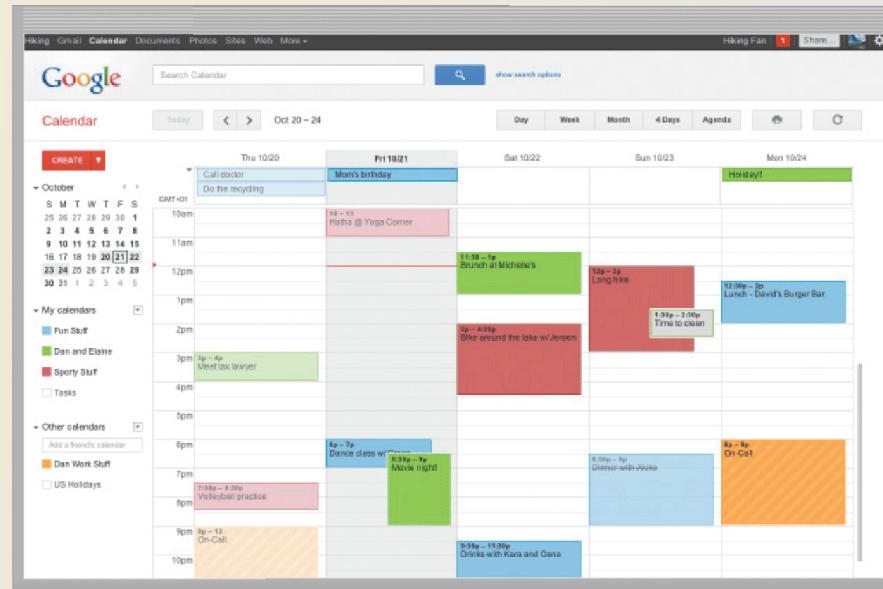
Productivity Applications

- **Note taking software** is an application that enables users to enter typed text, handwritten comments, drawings, or sketches anywhere on a page



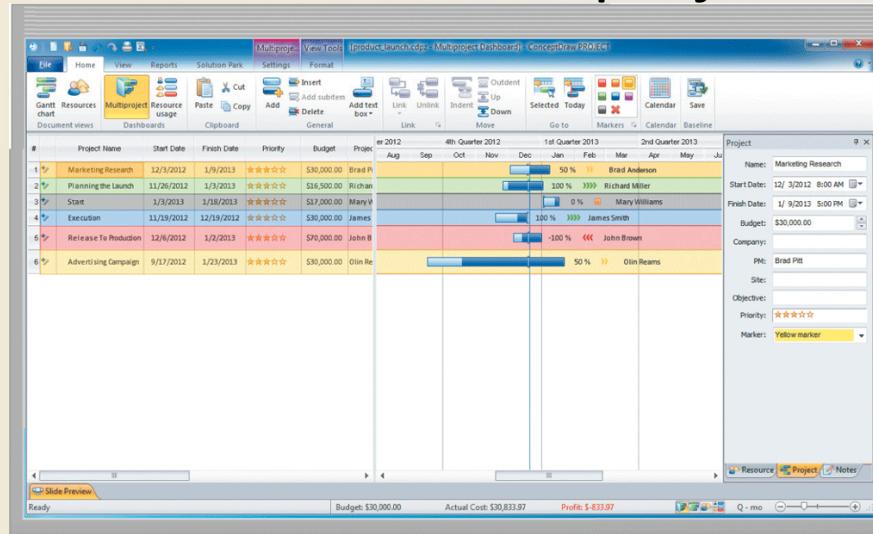
Productivity Applications

- **Calendar and contact management software** is an application that helps you organize your calendar, keep track of contacts, and share this information with other devices or users



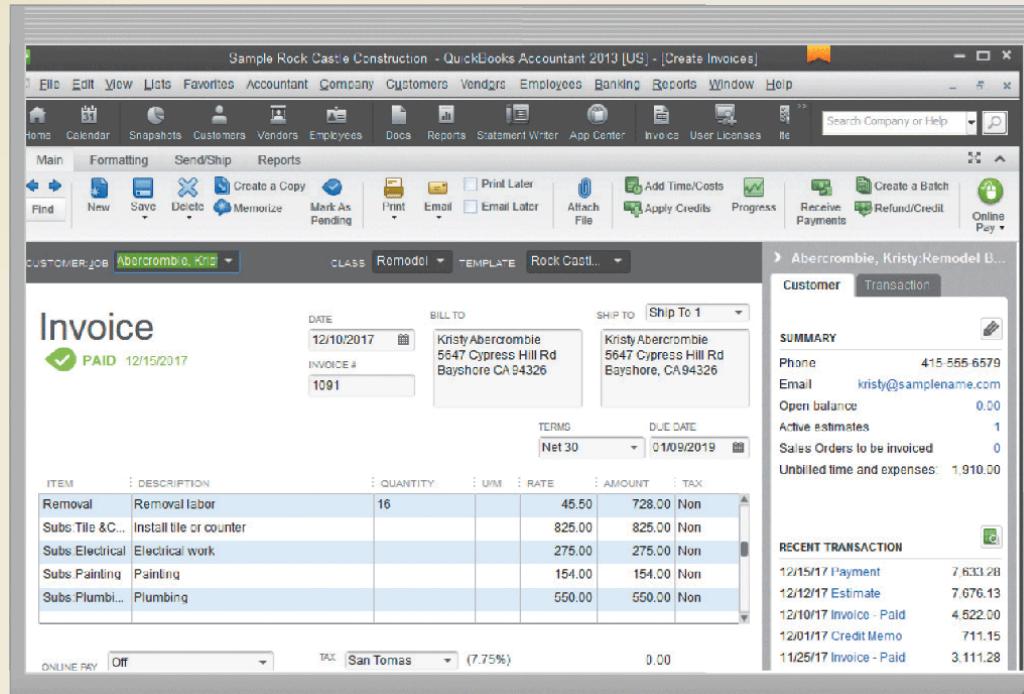
Productivity Applications

- A **software suite** is a collection of individual programs available together as a unit
- **Project management software** is an application that allows a user to plan, schedule, track, and analyze the events, resources, and costs of a project



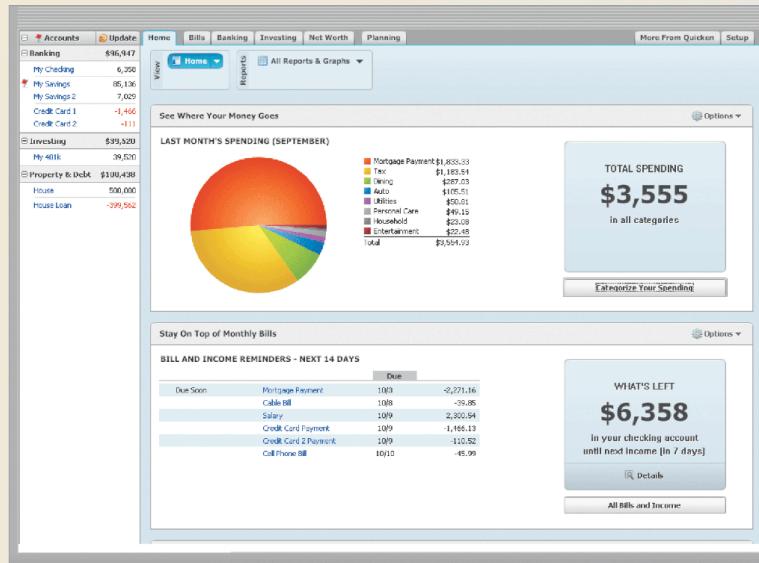
Productivity Applications

- **Accounting software** is an application that helps businesses of all sizes record and report their financial transactions



Productivity Applications

- **Personal finance software** is a simplified accounting application that helps home users and small/home office users balance their checkbooks, pay bills, track personal income and expenses, verify account balances, transfer funds, track investments, and evaluate financial plans



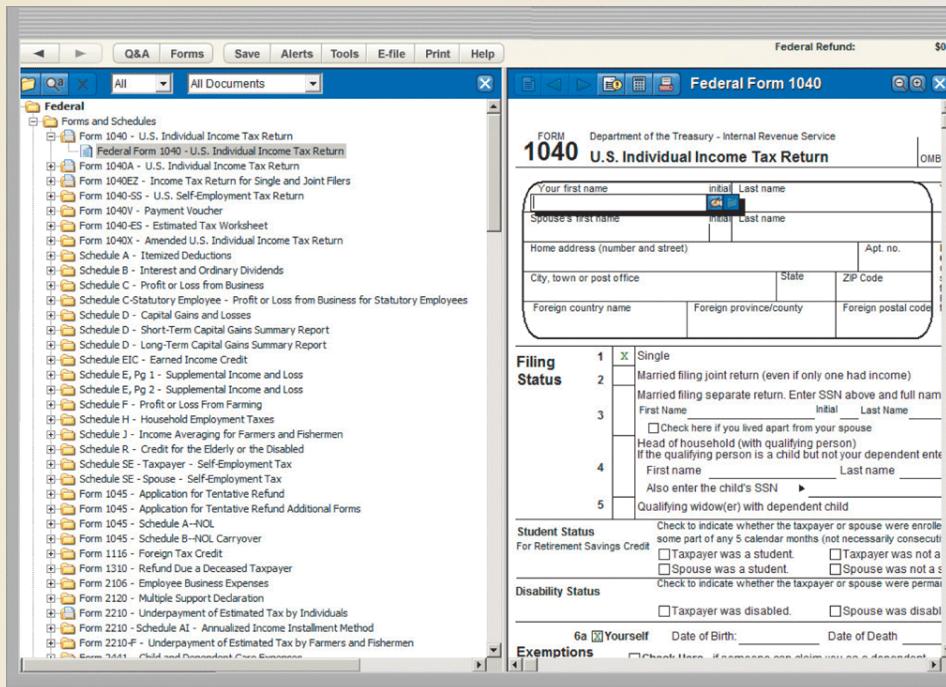
Productivity Applications

- **Legal software** is an application that assists in the preparation of legal documents and provides legal information to individuals, families, and small businesses



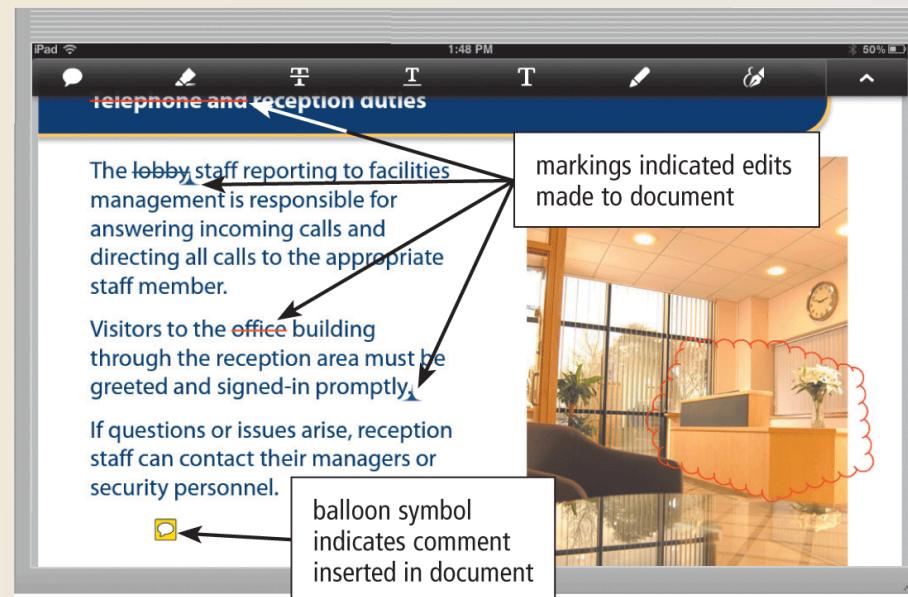
Productivity Applications

- **Tax preparation software** is an application that can guide individuals, families, or small businesses through the process of filing federal taxes



Productivity Applications

- **Document management software** is an application that provides a means for sharing, distributing, and searching through documents by converting them into a format that can be viewed by any user



Productivity Applications

- A variety of desktop, mobile, and web apps provide a service intended to make business or personal tasks easier to accomplish

Reference
applications

Travel
applications

Retail
applications

Productivity Applications

- A large organization, commonly referred to as an enterprise, requires special computing solutions because of its size and geographic distribution

Human resources software

Accounting software

Engineering or product development software

Manufacturing software

Marketing software

Sales software

Distribution software

Customer service software

Software for information technology staff

Graphics and Media Software



Computer-aided design
(CAD) software



Desktop publishing
software

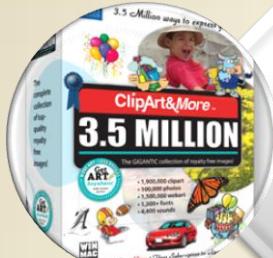


Paint/Image editing
software

Graphics and Media Software



Photo editing software



Clip Art / Image Gallery



Video and audio editing software

Graphics and Media Software

- **Multimedia authoring software** allows users to combine text, graphics, audio, video, and animation in an interactive application
- **Website authoring software** helps users of all skill levels create webpages that include graphics, video, audio, animation, and special effects with interactive content



Graphics and Media Software

- A **media player** is a program that allows you to view images and animations, listen to audio, and watch video files on your computer or mobile device
- **Disc burning software** writes text, graphics, audio, and video files on a recordable or rewritable disc



Personal Interest Applications

Lifestyle
applications

Medical
applications

Entertainment
applications

Convenience
applications

Education
applications

Communications Applications

Blogging

Browsing

Chat Room

Discussion Forum

Email

FTP

Instant
Messaging

Videoconference

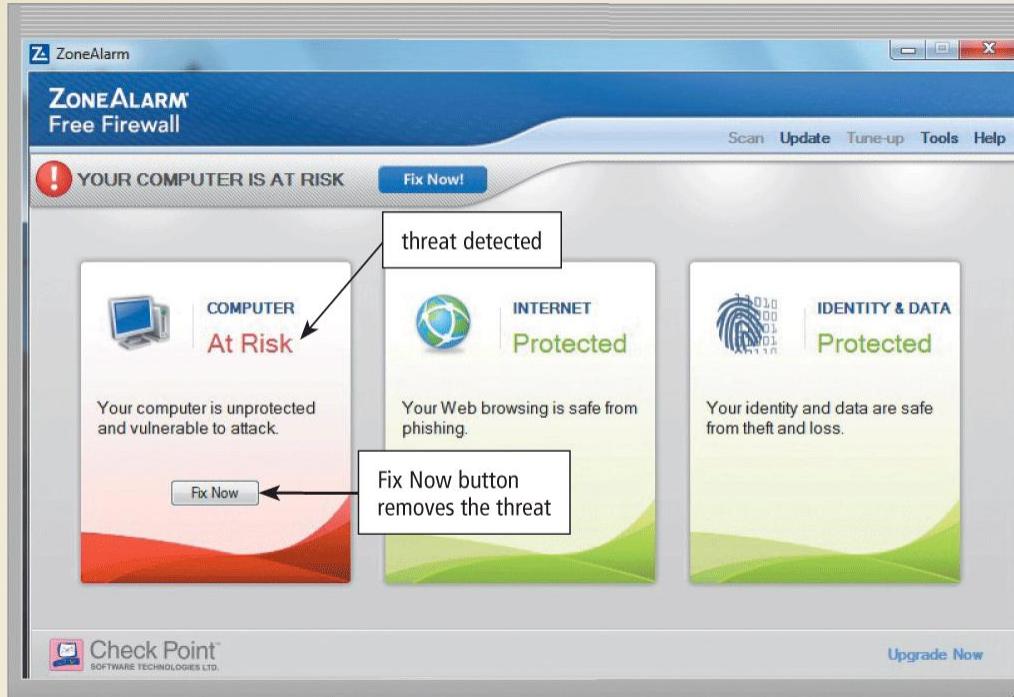
VoIP

Web Feeds

Wireless
Messaging

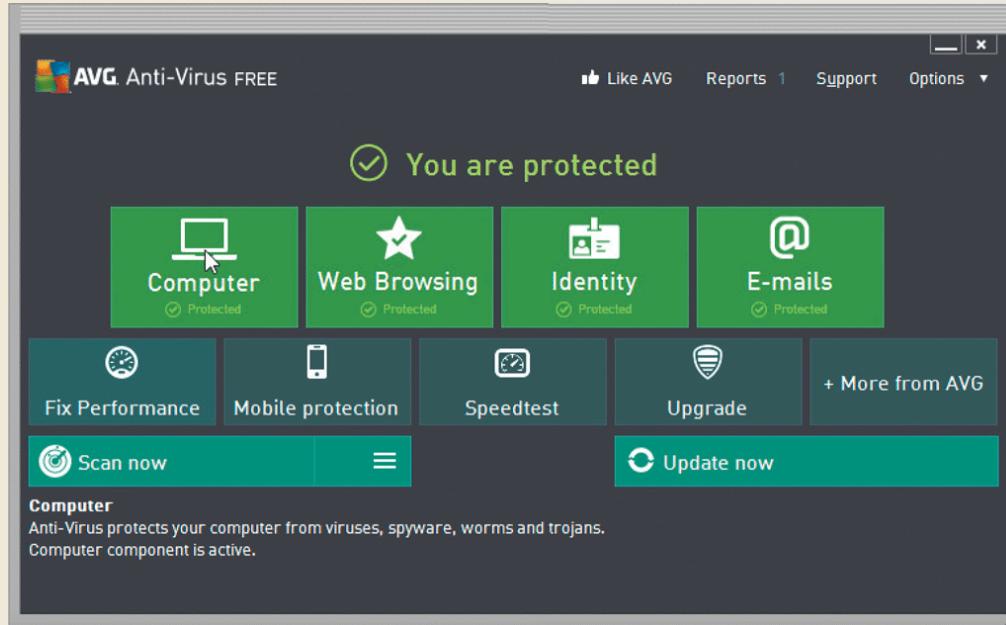
Security Tools

- A **personal firewall** is a security tool that detects and protects a personal computer and its data from unauthorized intrusions



Security Tools

- An **antivirus program** protects a computer against viruses by identifying and removing any computer viruses found in memory, on storage media, or on incoming files



Security Tools

- Spyware is a program placed on a computer or mobile device without the user's knowledge that secretly collects information about the user and then communicates the information it collects to some outside source while the user is online
- Adware is a program that displays an online advertisement in a banner or pop-up window on webpages, email messages, or other Internet services

Security Tools

A **spyware remover** is a program that detects and deletes spyware and similar programs

An **adware remover** is a program that detects and deletes adware

Security Tools

Internet
filters

Anti-spam
programs

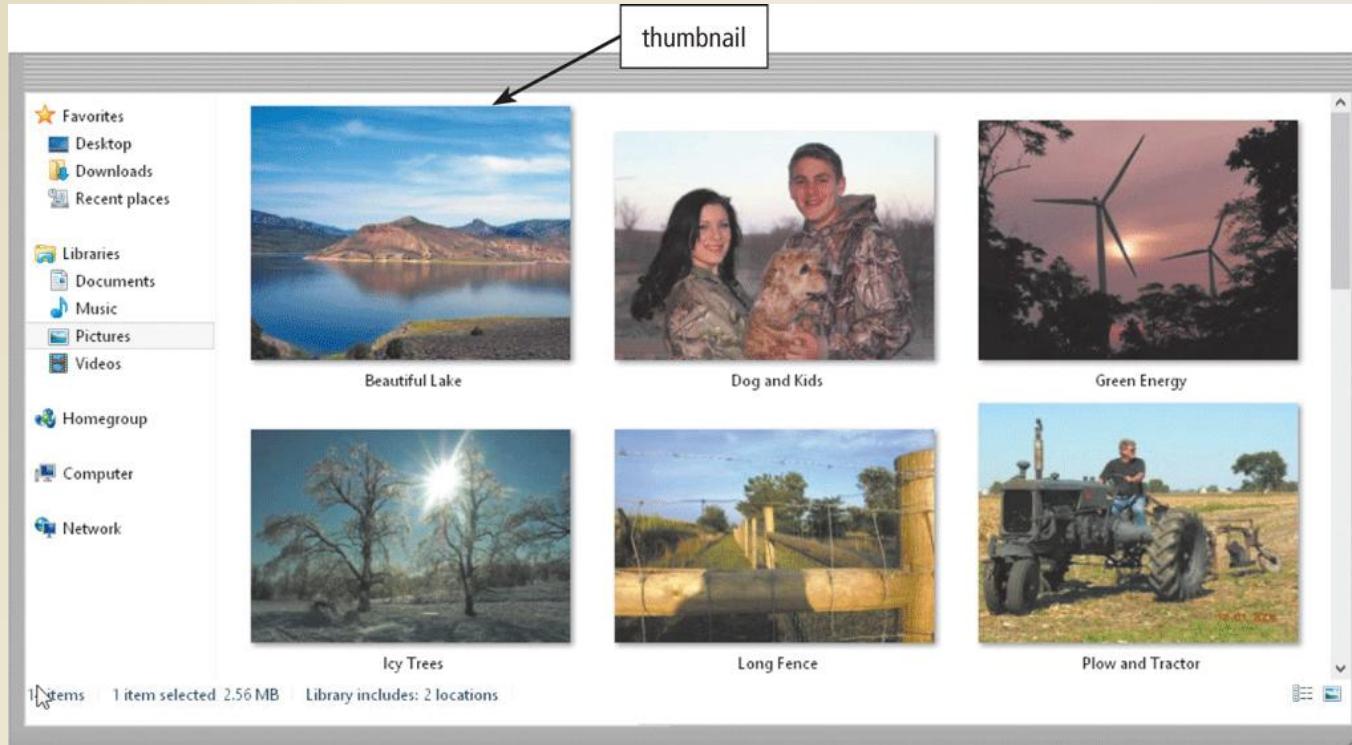
Web
filters

Phishing
filters

Pop-up
blockers

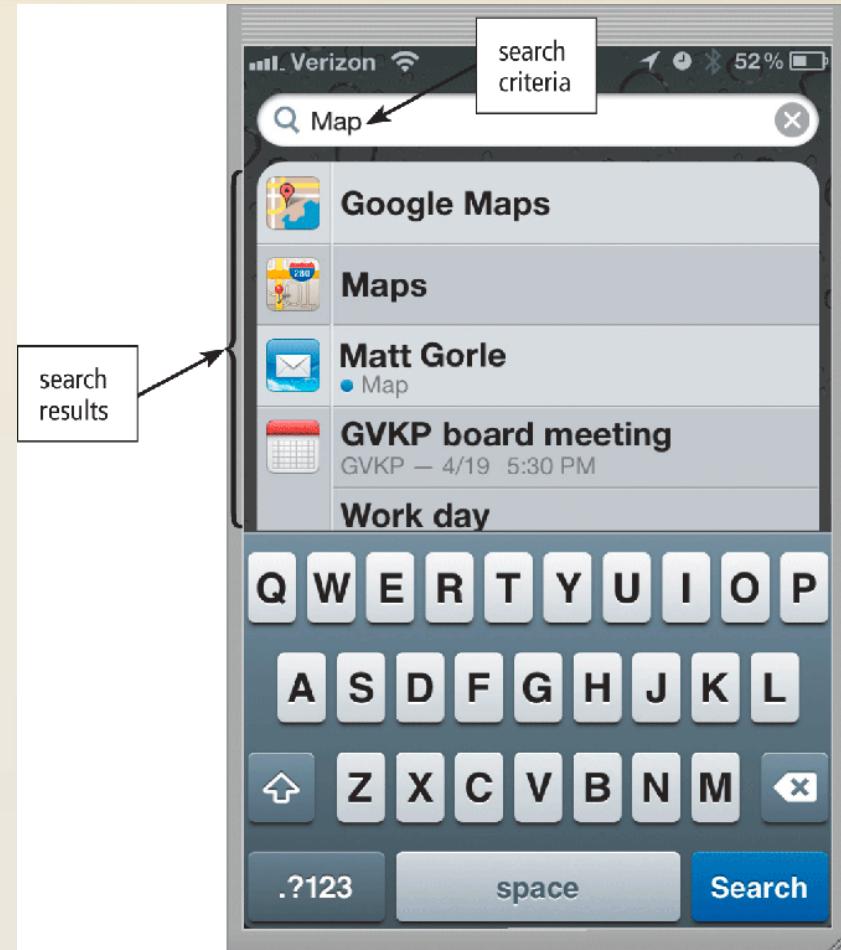
File and Disk Management Tools

- A **file manager** is a tool that performs functions related to file management



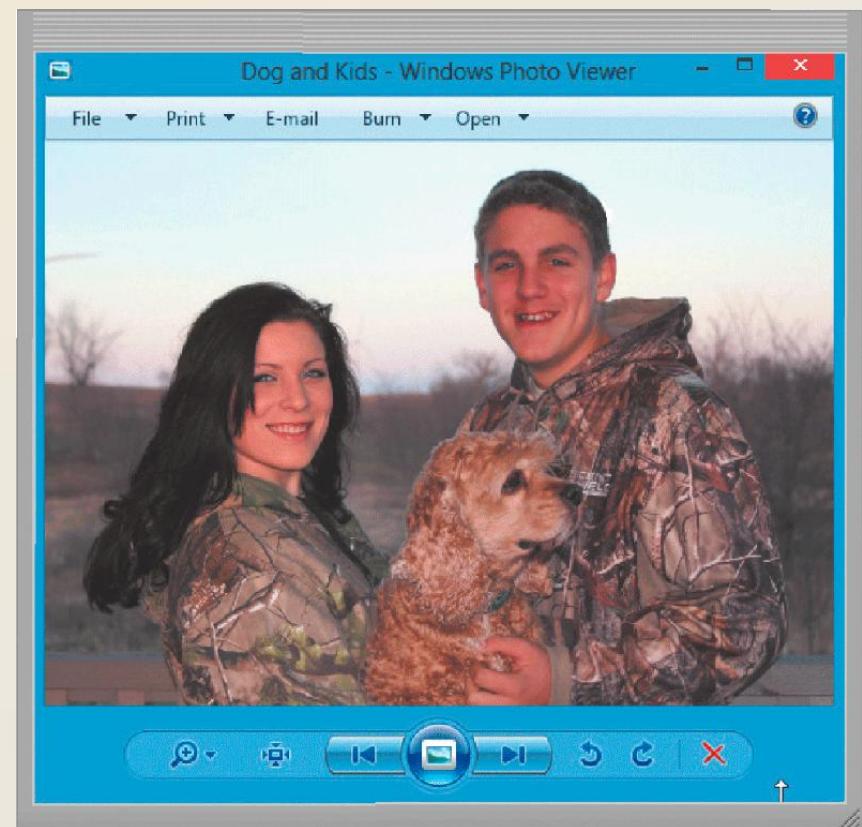
File and Disk Management Tools

- A **search tool** is a program, usually included with an operating system, that attempts to locate a file on your computer or mobile device based on criteria you specify



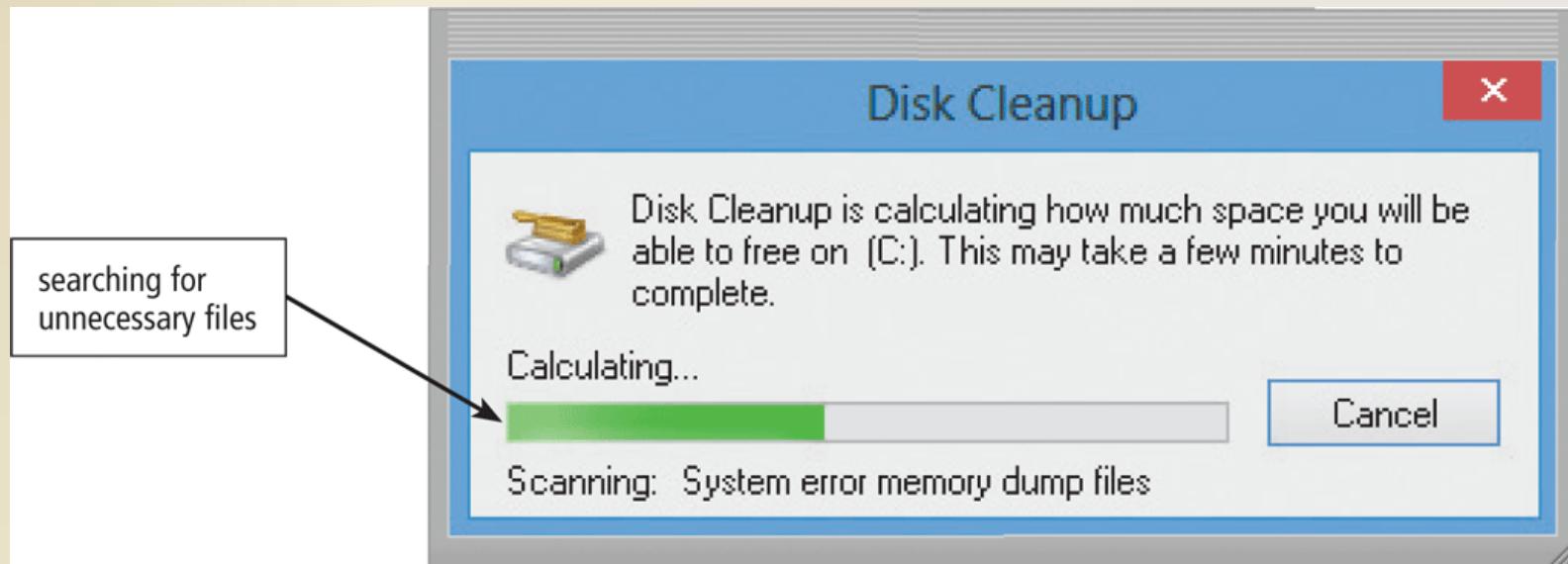
File and Disk Management Tools

- An **image viewer** is a tool that allows users to display, copy, and print the contents of a graphics file, such as a photo
- An **uninstaller** is a tool that removes a program, as well as any associated entries in the system files



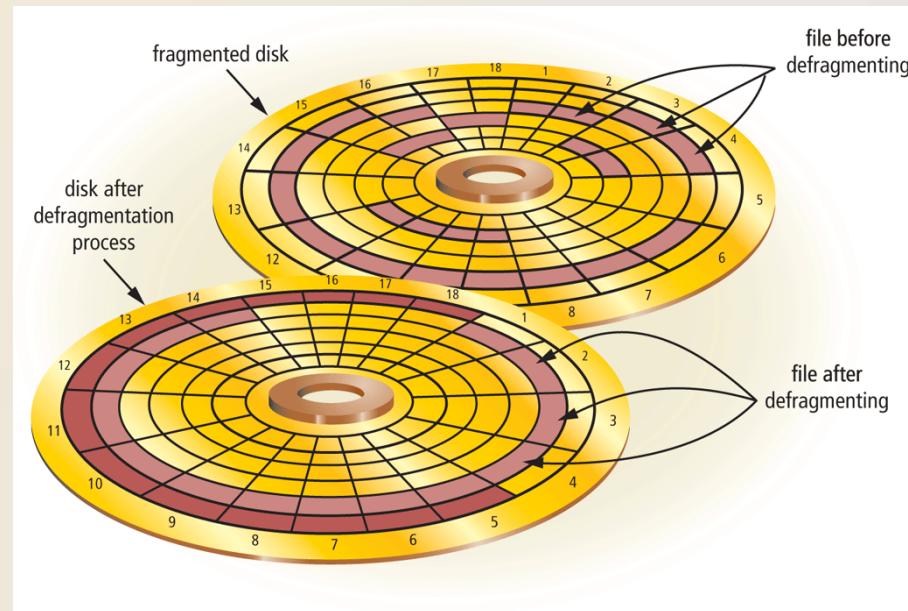
File and Disk Management Tools

- A **disk cleanup** tool searches for and removes unnecessary files



File and Disk Management Tools

- A **disk defragmenter** is a tool 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
 - **Defragmenting**



File and Disk Management Tools

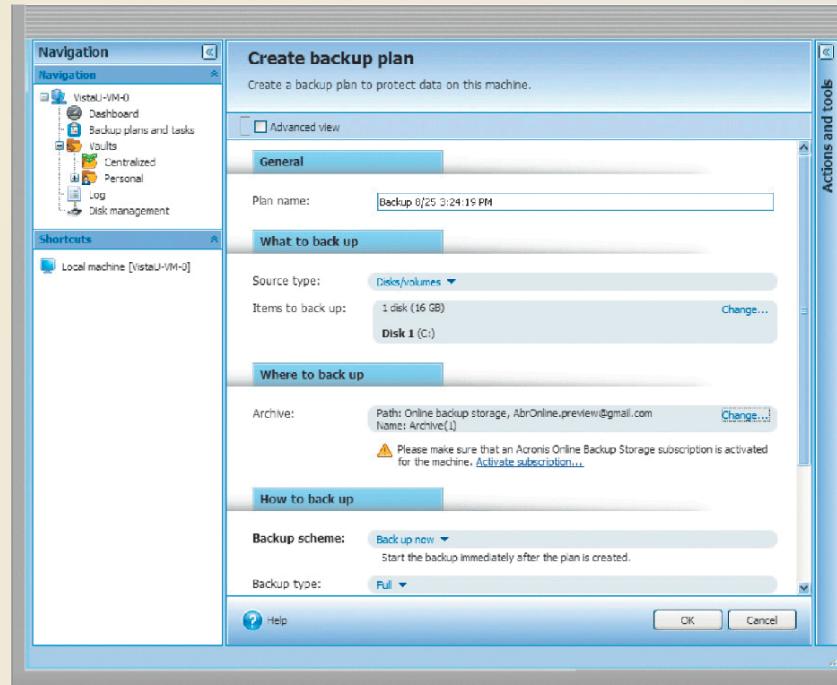
A **screen saver** is a tool that causes a display device's screen to show a moving image or blank screen if no keyboard or mouse activity occurs for a specified time

A **file compression tool** shrinks the size of a file(s)

A **PC maintenance tool** is a program that identifies and fixes operating system problems, detects and repairs disk problems, and includes the capability of improving a computer's performance

File and Disk Management Tools

- A **backup tool** allows users to copy, or back up, selected files or the contents of an entire storage medium to another storage location



Summary

Programs and apps available for computers and mobile devices

Role of the operating system and the various ways software is distributed

Features of a variety of applications

Communications applications

Security tools and file and disk management tools

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Chapter 4

Programs and Apps

Chapter 4 Complete

