

Discovering Computers Enhanced Edition ©2017

Tools, Apps, Devices, and the Impact of Technology

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, disk, and system management tools

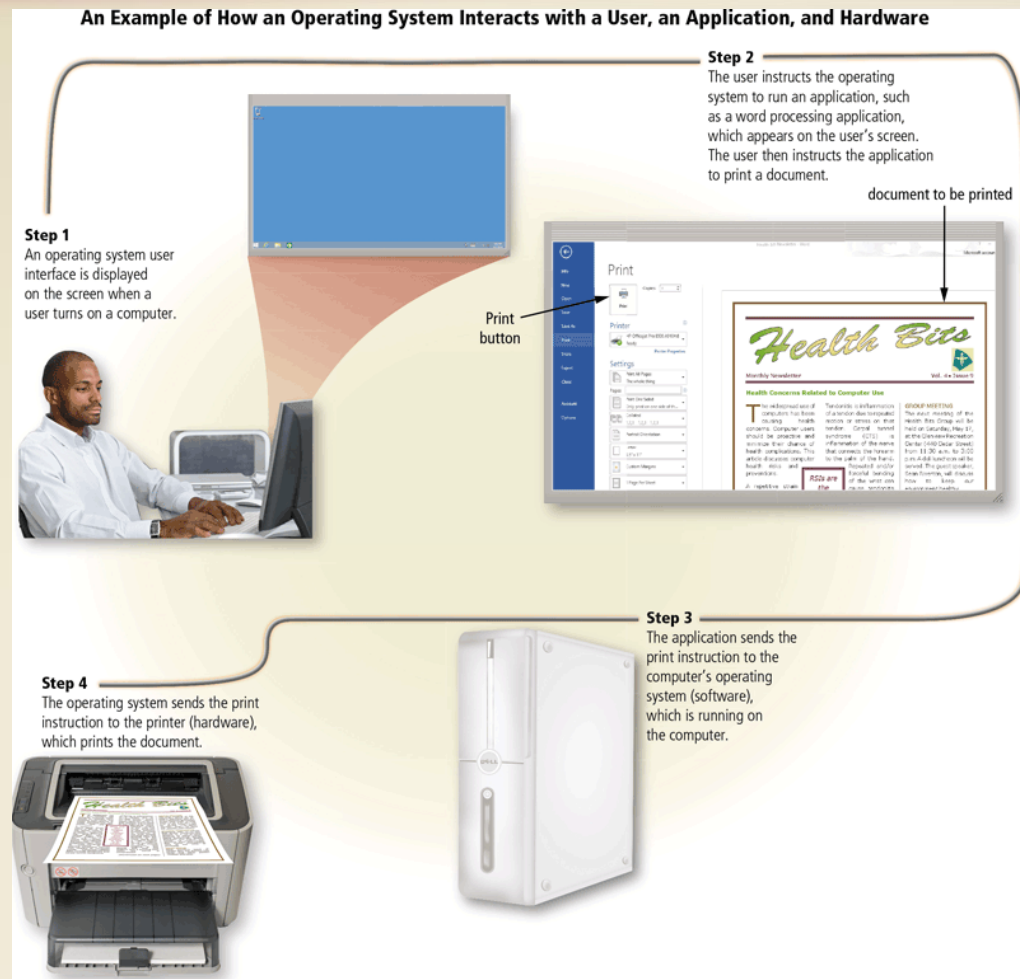
Programs and Apps

- 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
 - Tools and activities
 - System software

Programs and Apps

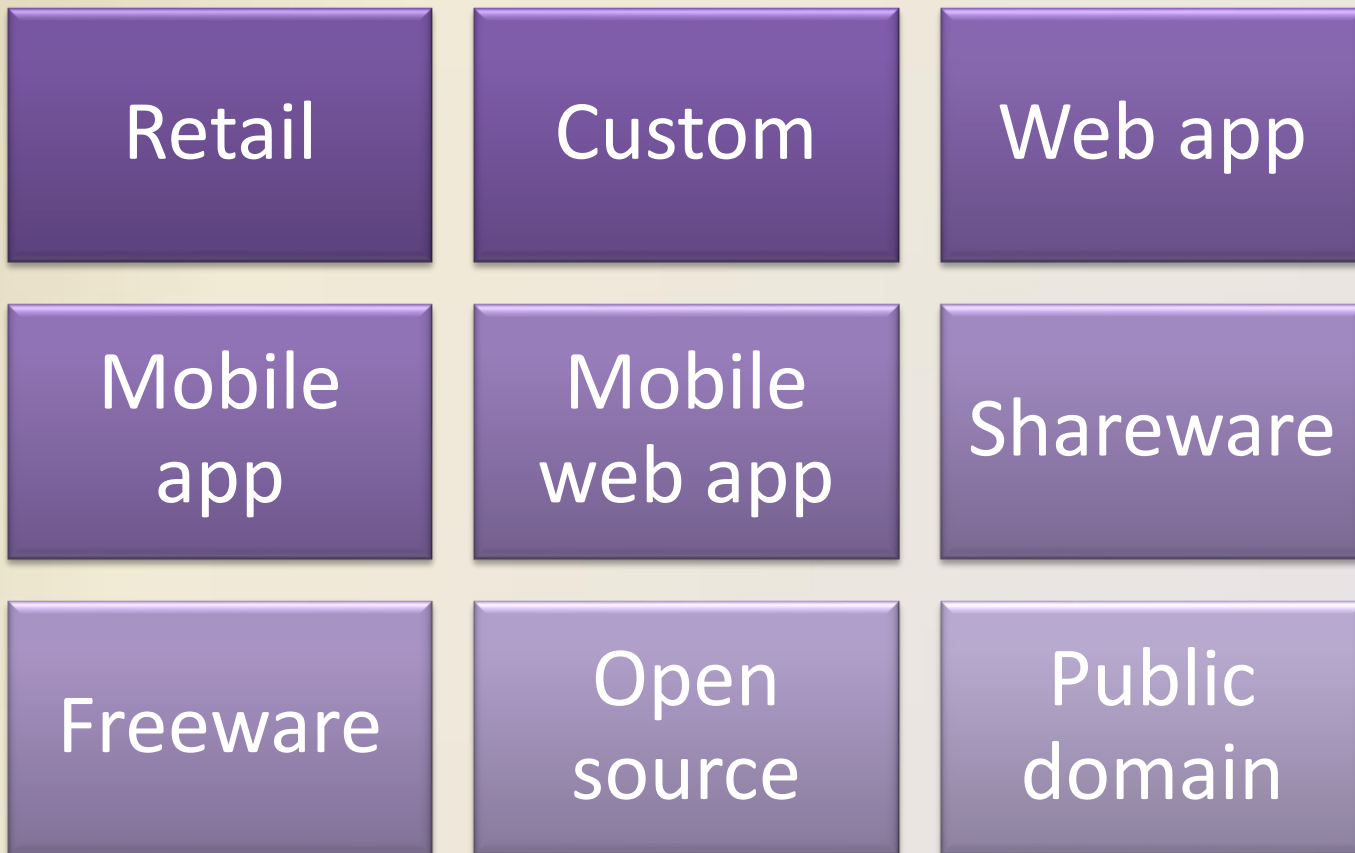


Programs and Apps



Programs and Apps

- Software is available in a variety of forms:



Productivity Applications

- 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

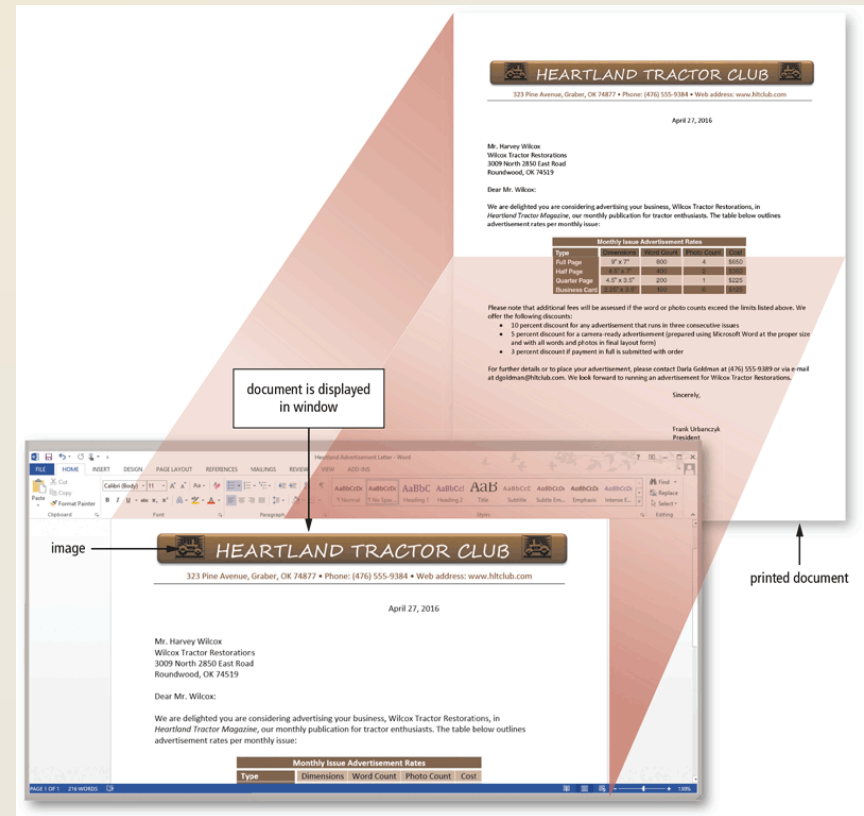
Format a project

Save a project

Distribute a project

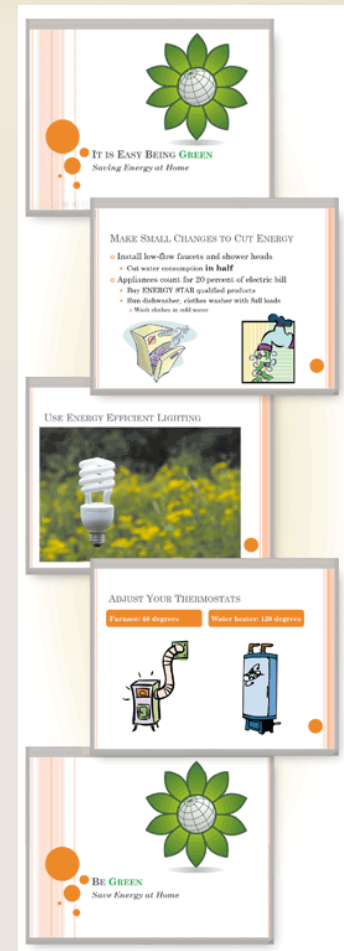
Productivity Applications

- **Word processing software** allows users to create and manipulate documents
- A major advantage of using word processing software is that it enables users to change their written words easily



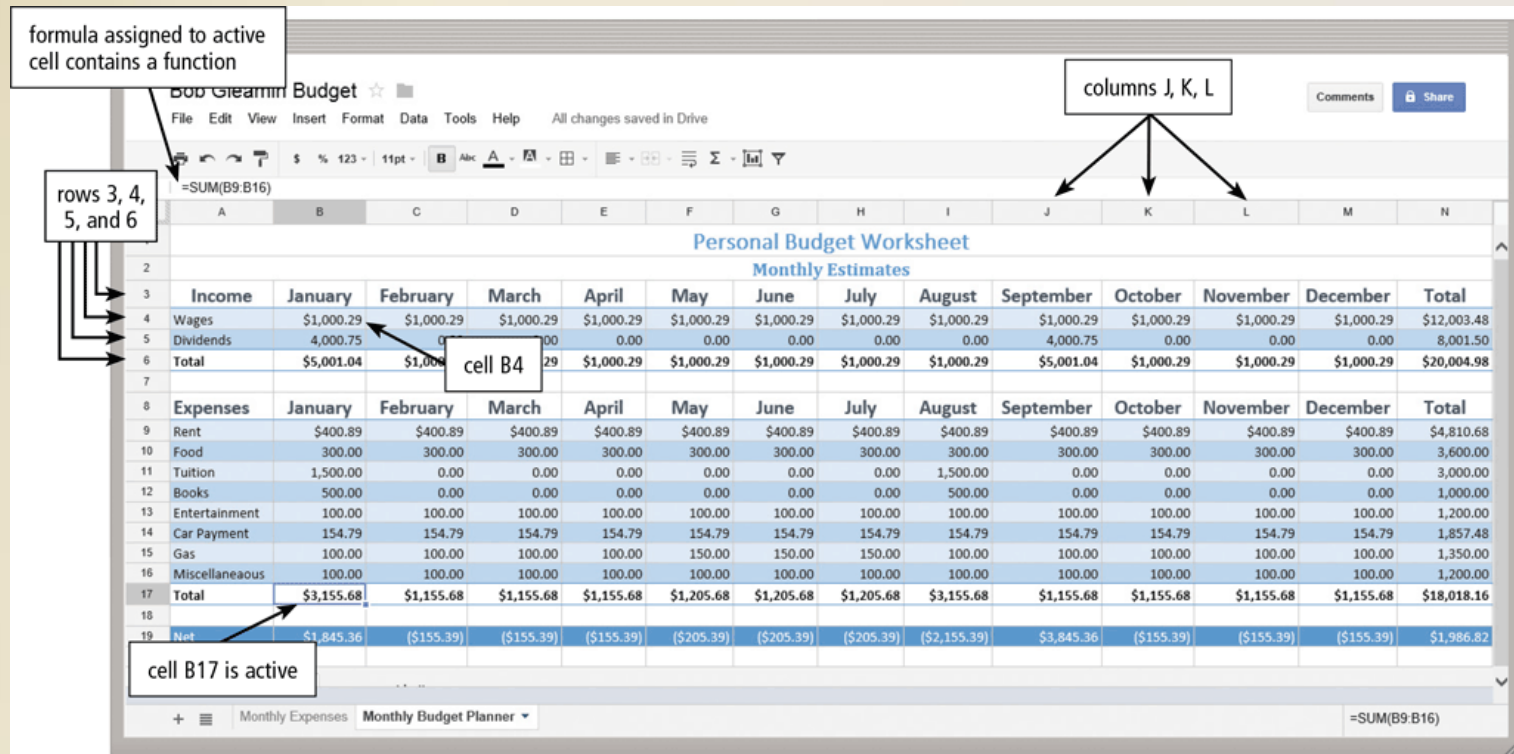
Productivity Applications

- **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 columns and rows and perform calculations on the data



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

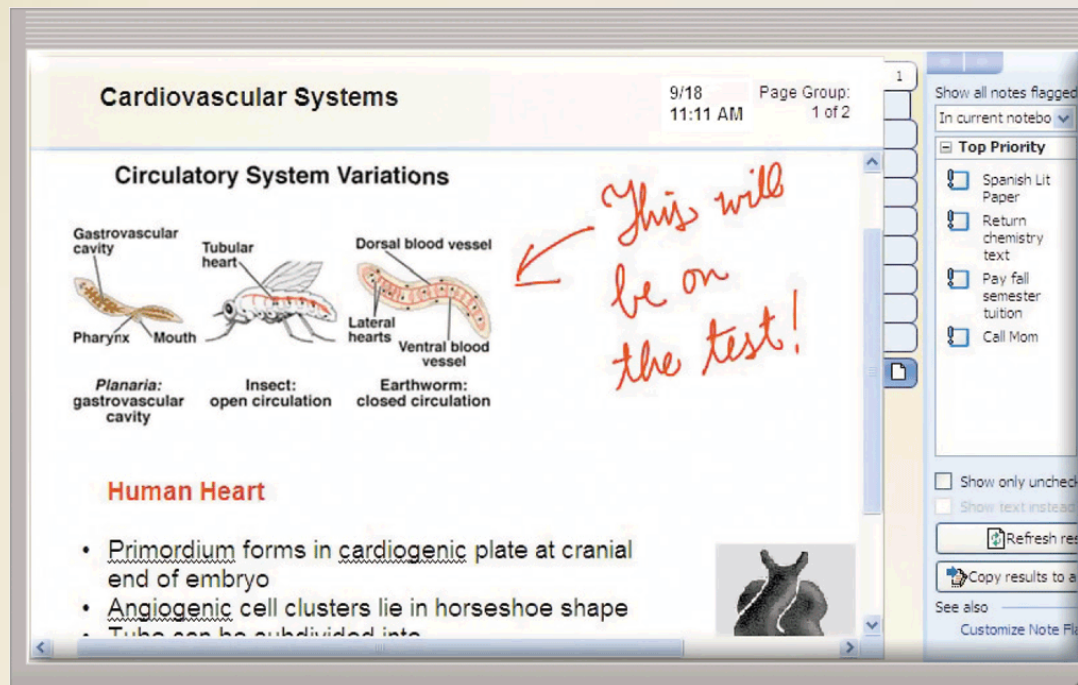
The screenshot shows the Microsoft Access interface with two tables displayed in a grid view. The 'Customer table' is the top table, and the 'Book Rep table' is the bottom table. Both tables share a common field named 'BR #'. A callout box with an arrow points to the 'BR #' column in the 'Book Rep table' and the 'BR #' column in the 'Customer table', with the text: 'common BR # field relates the Customer table to the Book Rep table'. Other callouts identify the 'Customer table' and 'Book Rep table' themselves. The 'Customer table' data includes columns for Customer ID, Customer Name, Street, City, State, Postal Code, Amount Paid, Current Due, Returns, and BR #. The 'Book Rep table' data includes columns for BR #, Last Name, First Name, Street, City, State, Postal Code, Start Date, Salary, Bonus Rate, and Click to Add.

Customer #	Customer Name	Street	City	State	Postal Code	Amount Paid	Current Due	Returns	BR #
ASU37	Applewood State University	300 University Ave.	Greer	PA	19158	\$41,530.98	\$38,812.66	\$12,008.02	42
BCI21	Brodin Junior College	4806 Park Dr.	Greer	PA	19158	\$0.00	\$6,081.98	\$0.00	42
CSD25	Cowpens ISD	829 Wooster Ave.	Gossett	PA	19157	\$12,750.00	\$13,275.00	\$2,000.00	53
CSU10	Camellia State University	725 Camellia St.	Pleasantburg NJ	07025		\$63,246.88	\$69,847.76	\$14,967.98	53
DCC34	Dartt Community College	3827 Burgess Dr.	Chambers NJ	07037		\$21,345.50	\$23,467.75	\$4,496.80	65
FSC12	First State College	7300 Cedar Rd.	Quaker DE	19719		\$34,557.25	\$23,875.98	\$7,234.99	65
FSU23	Farnham State University	1445 Hubert St.	Gaston DE	19723		\$18,268.00	\$22,024.50	\$3,496.23	42
HSD05	Hammonds County ISD	446 Lincoln Blvd.	Chesnee NJ	07053		\$18,434.75	\$0.00	\$0.00	53
KCC78	Key Community College System	7523 Penn Ave.	Adelphia PA	19159		\$21,288.65	\$11,367.49	\$2,256.98	65
MCC45	Mauldin Community College	72 Montrose St.	Chesnee NJ	07053		\$9,500.00	\$5,000.00	\$0.00	53
MECS6	Mehitab College	202 College St.	Gaston DE	19723		\$9,111.19	\$7,310.76	\$574.25	42
PLI22	PrattLast institute	236 Ashton Ave.	Pleasantburg NJ	07025		\$17,229.45	\$11,769.75	\$3,450.50	53
CC77	Stallone Community College	1200 Franklin Blvd.	Adelphia PA	19156		\$7,525.98	\$2,515.78	\$0.00	42
EC19	Seaborn College	345 Mather Rd.	Quaker DE	19719		\$9,225.34	\$10,496.89	\$2,017.67	65
SC02	Tri-State Consortium	3400 Metro Pkwy.	Adelphia PA	19156		\$34,578.90	\$9,432.56	\$943.34	65

BR #	Last Name	First Name	Street	City	State	Postal Code	Start Date	Salary	Bonus Rate	Click to Add
42	Perez	Melina	261 Porter Dr.	Adelphia PA	19156		5/14/2012	\$31,500.00	0.20	
48	Statnik	Michael	3135 Simpson Dr	Pleasantburg NJ	07025		1/15/2013	\$29,000.00	0.20	
53	Chin	Robert	265 Maxwell St.	Gossett PA	19157		6/1/2013	\$26,250.00	0.19	
65	Rogers	Tracy	1827 Maple Ave.	Adelphia PA	19159		7/1/2014	\$7,750.00	0.18	

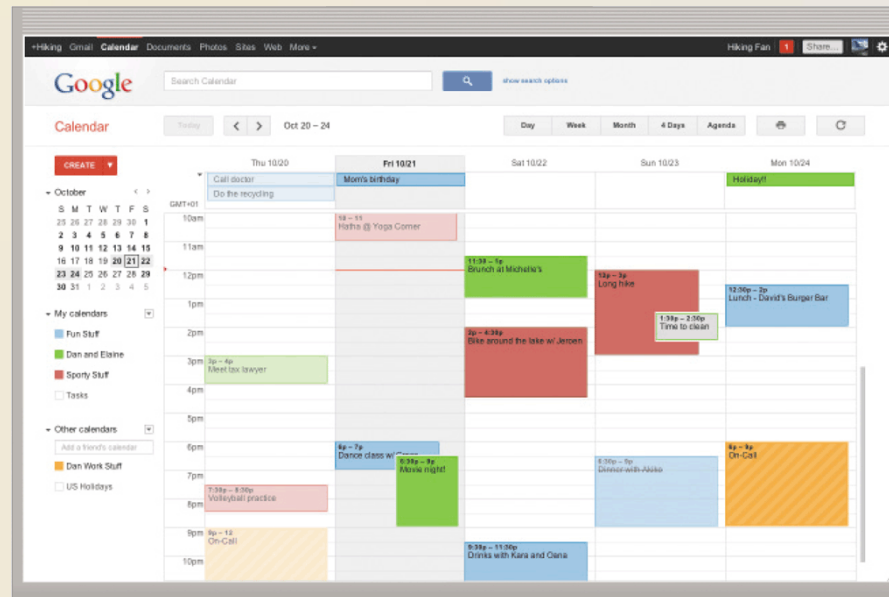
Productivity Applications

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



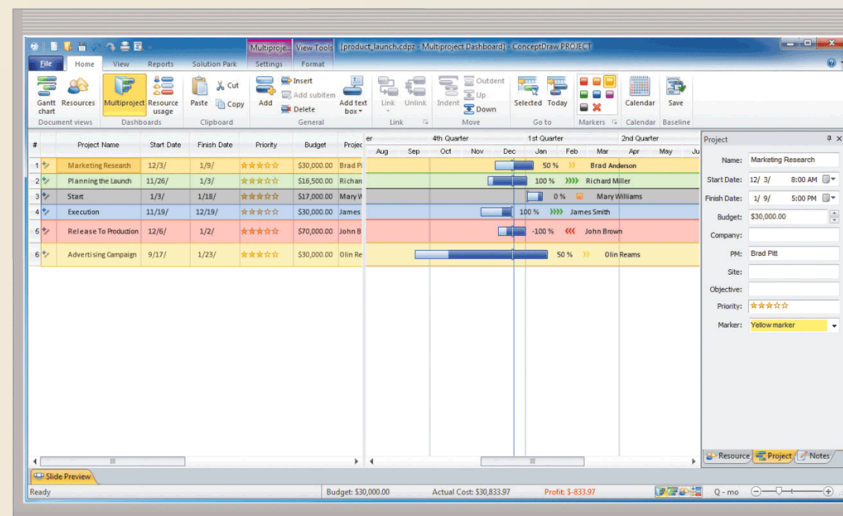
Productivity Applications

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



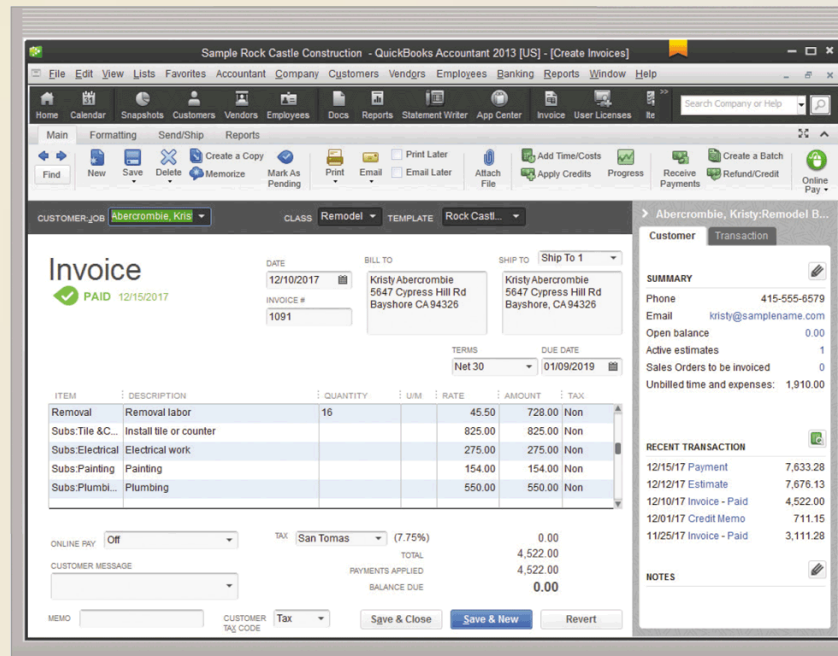
Productivity Applications

- A **software suite** is a collection of individual related applications 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



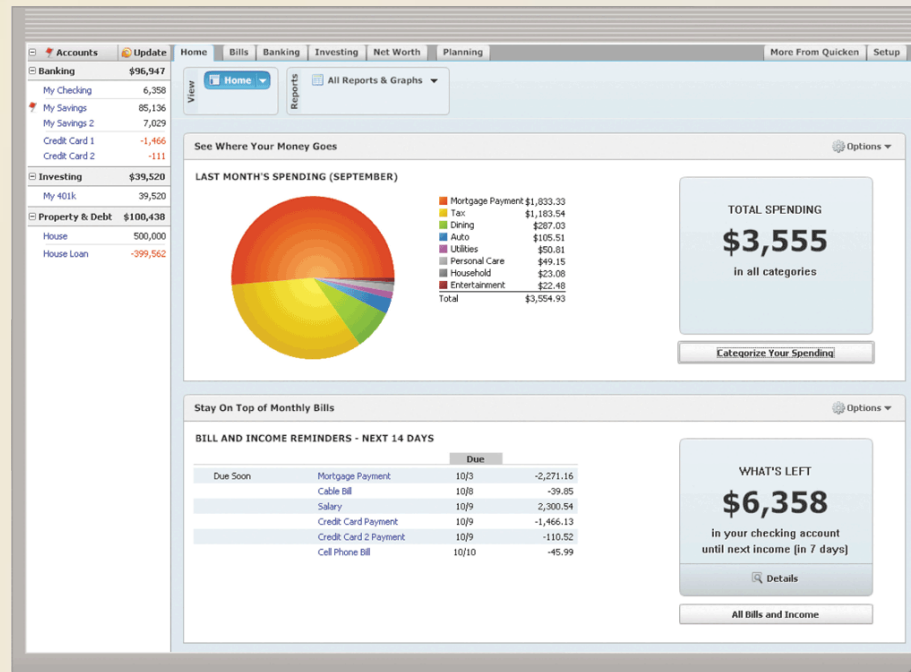
Productivity Applications

- **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

The screenshot displays the MyAttorney HOME & BUSINESS software interface. At the top, there is a navigation bar with icons for 'Get Started', 'Choose Docs', 'Create Docs', 'Manage Docs', 'Advice', 'Library', and 'Finances'. Below this, the main heading reads 'Interview: Bill of Sale - Motor Vehicle'. To the right of the heading are buttons for 'Show Preview', 'Show Help', and 'Close Interview'. The main content area is divided into two sections. The left section, titled 'What motor vehicle is being sold?', contains input fields for 'Year', 'Make', 'Model', and 'VIN'. Below these fields is an example: 'For example, 1990, Toyota, Camry, 289A5436BH5868.' At the bottom of this section are buttons for 'First', 'Back', 'Next', and 'Bookmark'. The right section, titled 'Bill of Sale - Motor Vehicle', contains a preview of the document text. The text explains that the Bill of Sale is a document for transferring title rights and that it must be signed by the seller and the buyer. Below the preview, the title 'BILL OF SALE - MOTOR VEHICLE' is centered. The main body of the document text reads: 'For the consideration of \$5,250.00, Sara Albertson (the "Seller"), of 2887 Fourth Place, Harrington, Indiana 46322, does hereby sell, assign and transfer to Jesse Martinez (the "Buyer"), of 7761 Cedar Road, Riverton, Indiana 46323, the following described motor vehicle (the

Productivity Applications

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

The screenshot displays the TaxACT Deluxe Edition software interface. The main window shows the 'Federal Form 1040 U.S. Individual Income Tax Return' form. The form is titled 'FORM 1040 U.S. Individual Income Tax Return' and is issued by the Department of the Treasury - Internal Revenue Service. The form includes fields for 'Your first name', 'Your last name', 'Spouse's first name', and 'Spouse's last name'. It also includes fields for 'Home address (number and street)', 'Apt. no.', 'City, town or post office', 'State', 'ZIP Code', 'Foreign country name', 'Foreign province/county', and 'Foreign postal code'. The 'Filing Status' section includes options for 'Single', 'Married filing joint return (even if only one had income)', 'Married filing separate return. Enter SSN above and full name', and 'Qualifying widow(er) with dependent child'. The 'Student Status' section includes options for 'Taxpayer was a student' and 'Taxpayer was not a student'. The 'Disability Status' section includes options for 'Taxpayer was disabled' and 'Spouse was disabled'. The form also includes a section for '6a Yourself' with fields for 'Date of Birth' and 'Date of Death'. The software interface includes a menu bar with 'File', 'Edit', 'Return', 'Reports', 'Tools', 'Online', and 'Help'. The toolbar includes 'Q&A', 'Forms', 'Save', 'Alerts', 'Tools', 'E-file', 'Print', and 'Help'. The left pane shows a tree view of 'Federal' forms and schedules, including 'Form 1040 - U.S. Individual Income Tax Return', 'Form 1040A - U.S. Individual Income Tax Return', 'Form 1040EZ - Income Tax Return for Single and Joint Filers', 'Form 1040-SS - U.S. Self-Employment Tax Return', 'Form 1040V - Payment Voucher', 'Form 1040-ES - Estimated Tax Worksheet', 'Form 1040X - Amended U.S. Individual Income Tax Return', 'Schedule A - Itemized Deductions', 'Schedule B - Interest and Ordinary Dividends', 'Schedule C - Profit or Loss from Business', 'Schedule C-E - Profit or Loss from Business for Statutory Employees', 'Schedule D - Capital Gains and Losses', 'Schedule D - Short-Term Capital Gains Summary Report', 'Schedule D - Long-Term Capital Gains Summary Report', 'Schedule EIC - Earned Income Credit', 'Schedule E, Pg 1 - Supplemental Income and Loss', 'Schedule E, Pg 2 - Supplemental Income and Loss', 'Schedule F - Profit or Loss From Farming', 'Schedule H - Household Employment Taxes', 'Schedule J - Income Averaging for Farmers and Fishermen', 'Schedule R - Credit for the Elderly or the Disabled', 'Schedule SE - Taxpayer - Self-Employment Tax', 'Schedule SE - Spouse - Self-Employment Tax', 'Form 1045 - Application for Tentative Refund', 'Form 1045 - Schedule A-NOL', 'Form 1045 - Schedule B-NOL Carryover', 'Form 1116 - Foreign Tax Credit', 'Form 1310 - Refund Due a Deceased Taxpayer', 'Form 2106 - Employee Business Expenses', 'Form 2120 - Multiple Support Declaration', 'Form 2210 - Underpayment of Estimated Tax by Individuals', 'Form 2210 - Schedule AI - Annualized Income Installment Method', and 'Form 2210-F - Underpayment of Estimated Tax by Farmers and Fishermen'. The top right corner shows 'Federal Refund: \$0'.

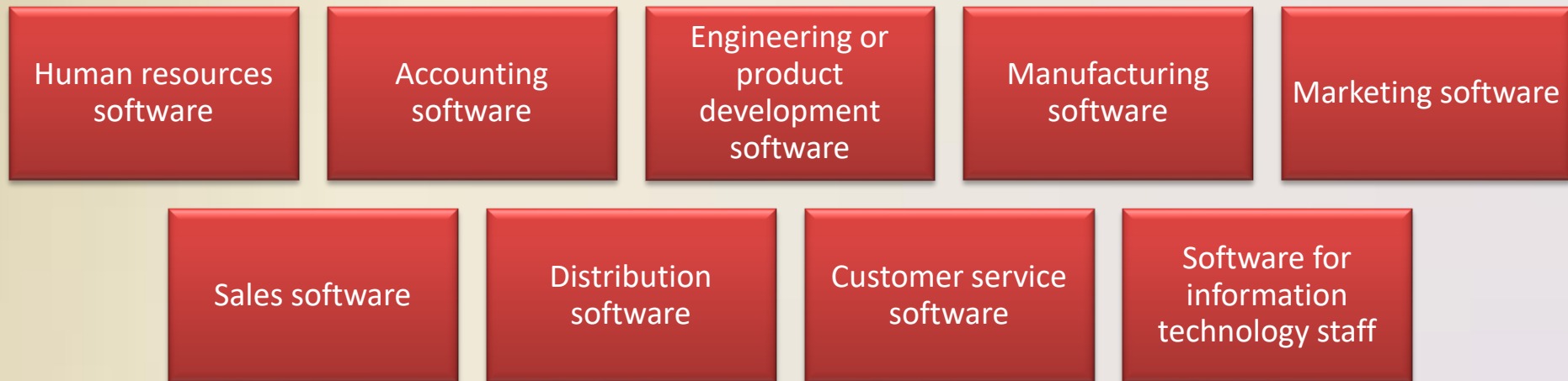
Productivity Applications

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



Graphics and Media Software



**Computer-aided design
(CAD) software**



**Desktop publishing
software**

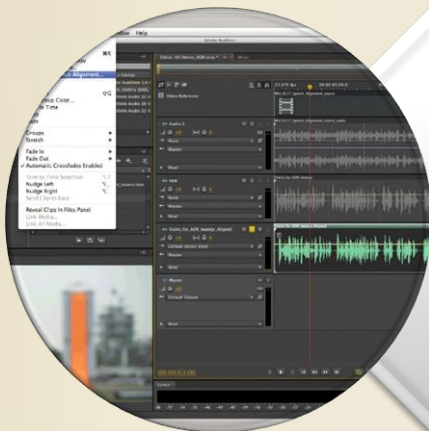


**Paint/Image editing
software**

Graphics and Media Software



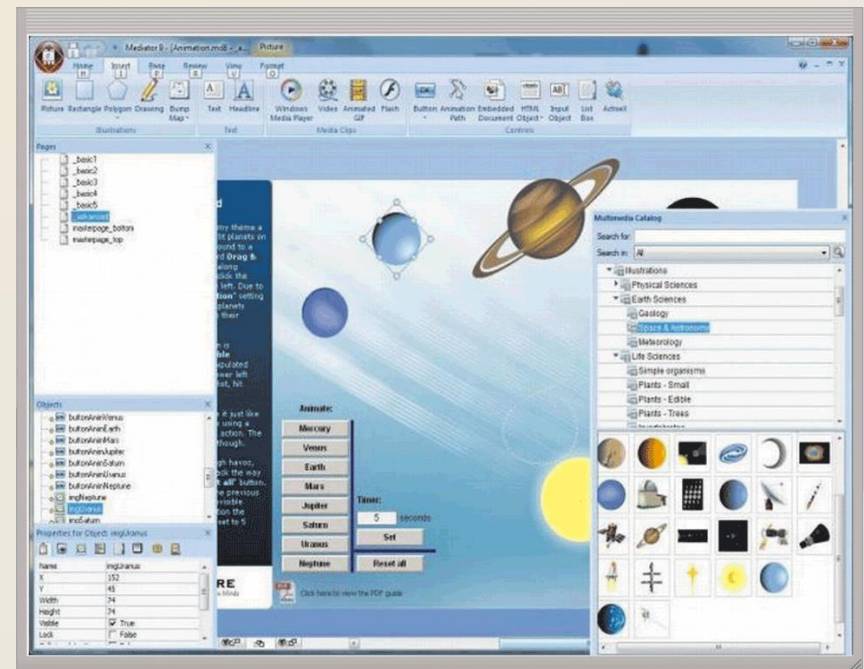
**Photo editing and
photo management
software**



**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

Blog

Browsing

Chat

Online
Discussion

Email

File Transfer

Internet Phone

Instant
Messaging

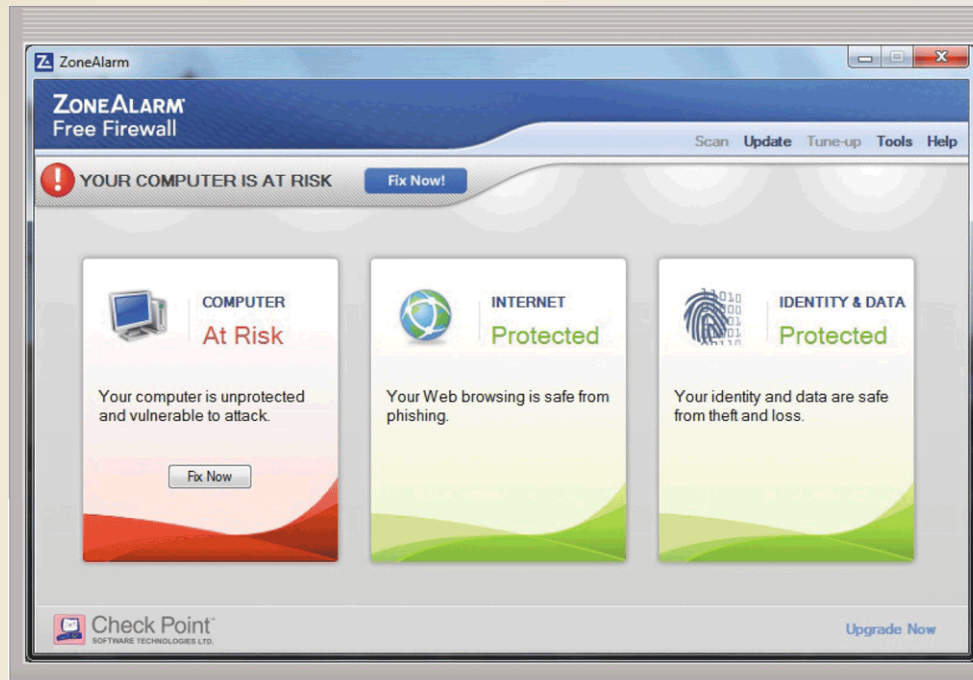
Mobile
Messaging

Videoconference

Web Feeds

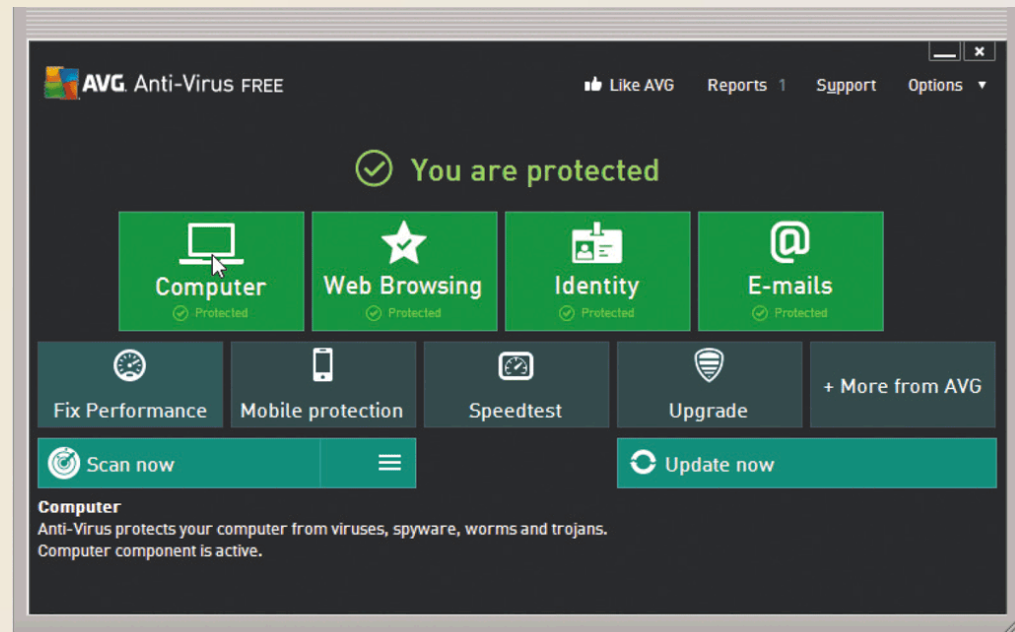
Security Tools

- 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 type of 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 type of program that displays an online advertisement in a banner or pop-up or pop-under window on webpages, email messages, or other Internet services

Security Tools

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

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

Security Tools

**Anti-spam
programs**

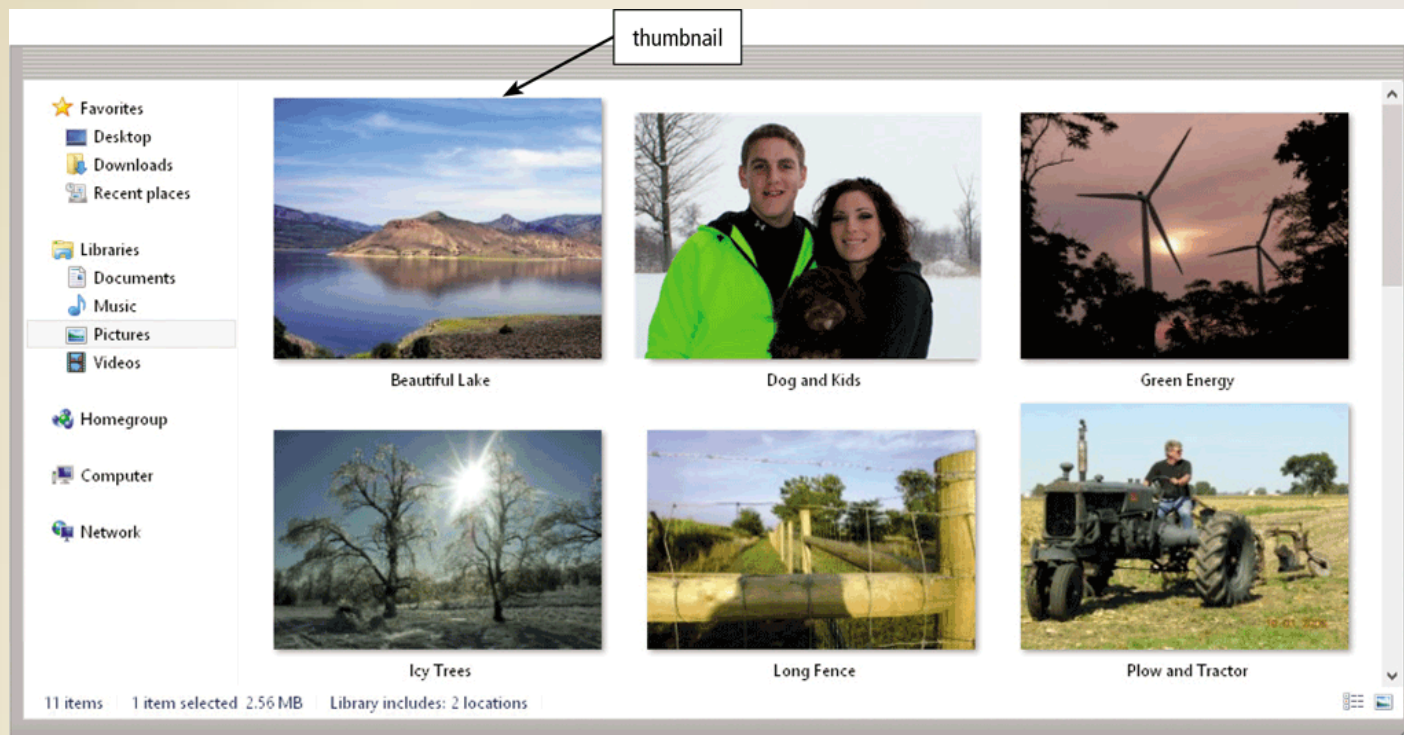
**Web filtering
software**

**Phishing
filters**

**Pop-up and
pop-under
blockers**

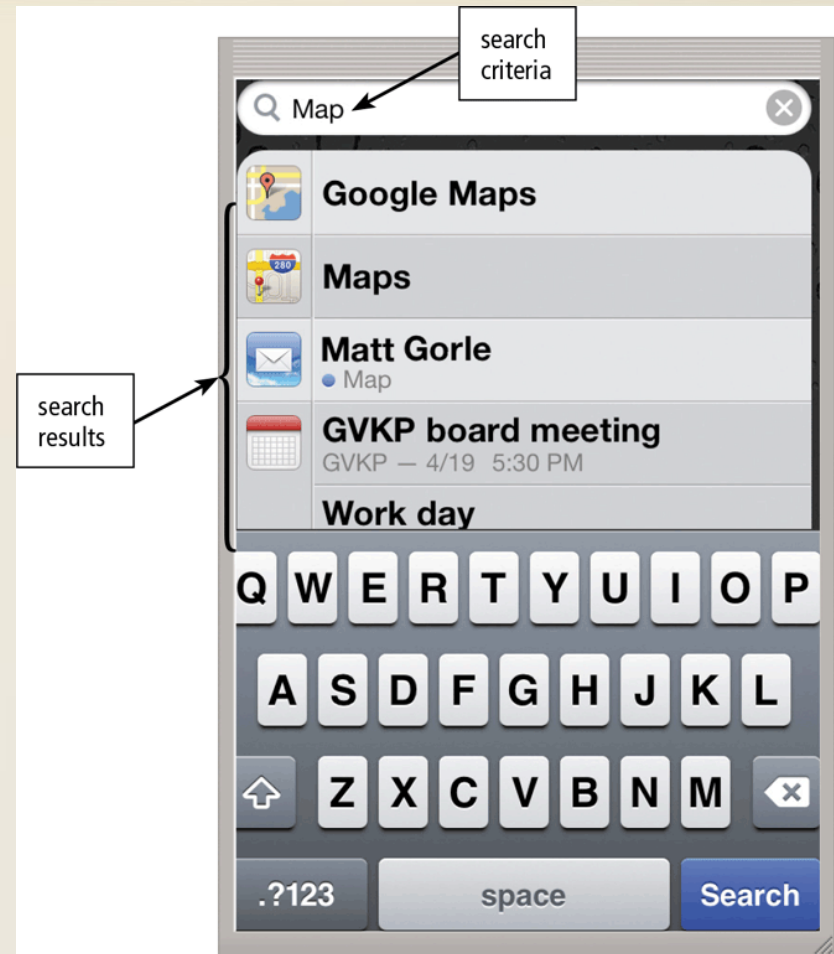
File, Disk, and System Management Tools

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



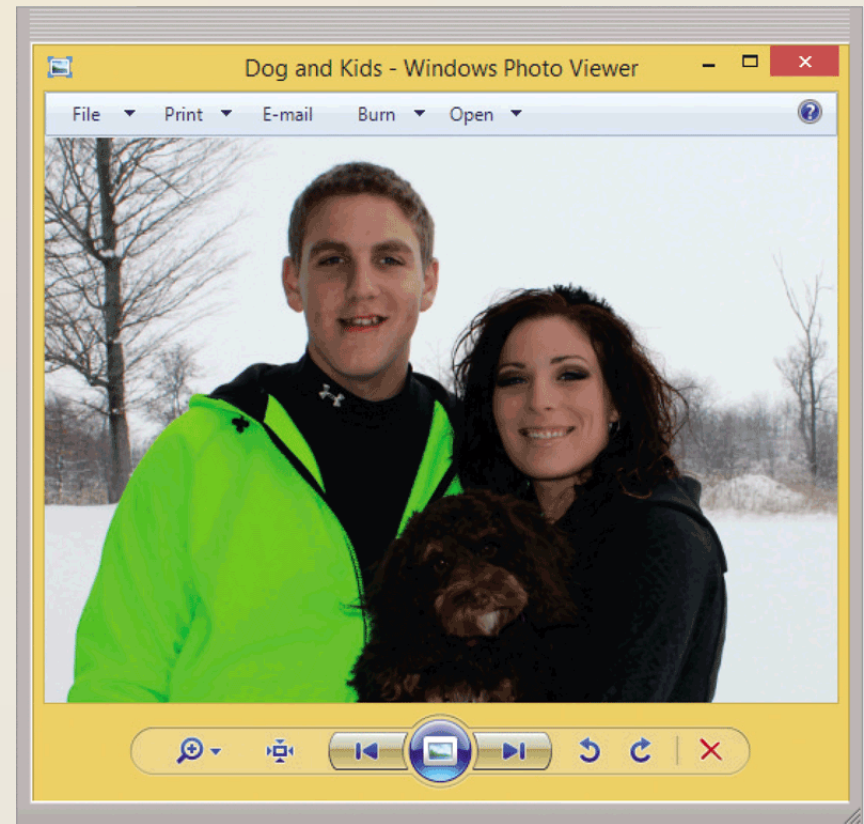
File, Disk, and System Management Tools

- A **search tool** is a program, usually included with an operating system, that attempts to locate a file, contact, calendar event, app, or any other item stored on your computer or mobile device based on criteria you specify



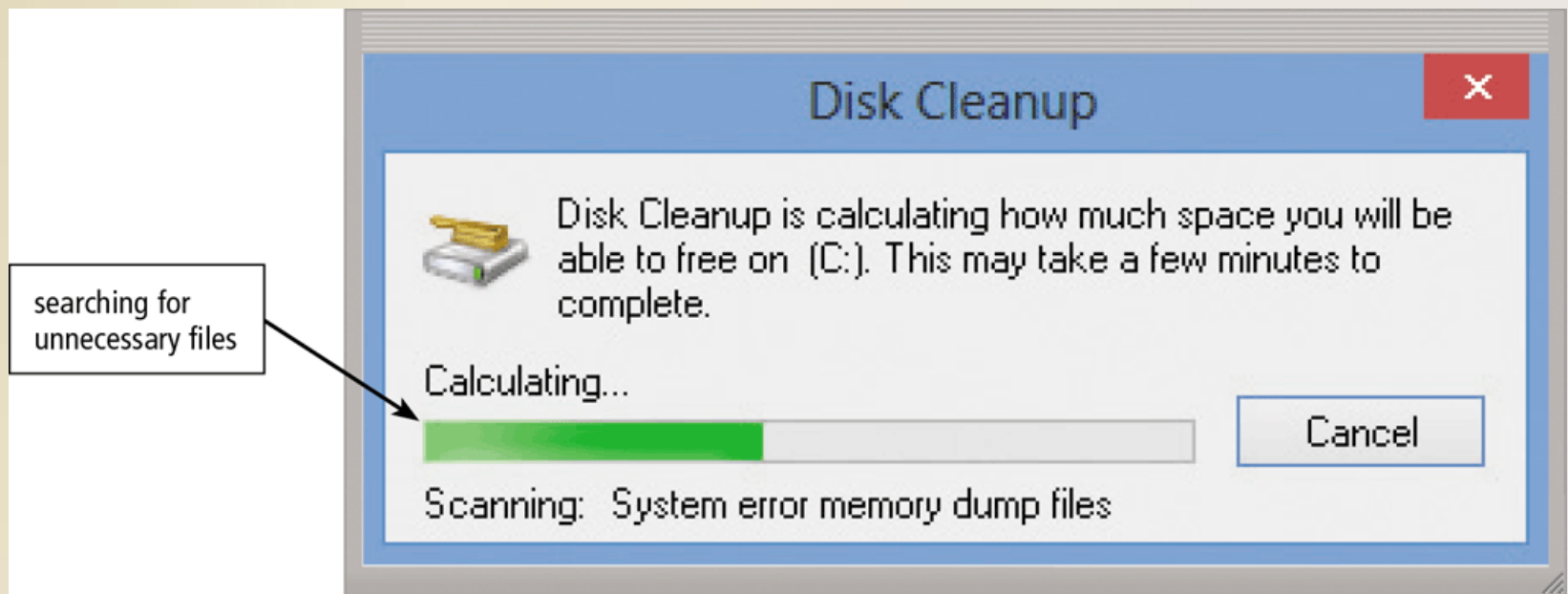
File, Disk, and System Management Tools

- 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



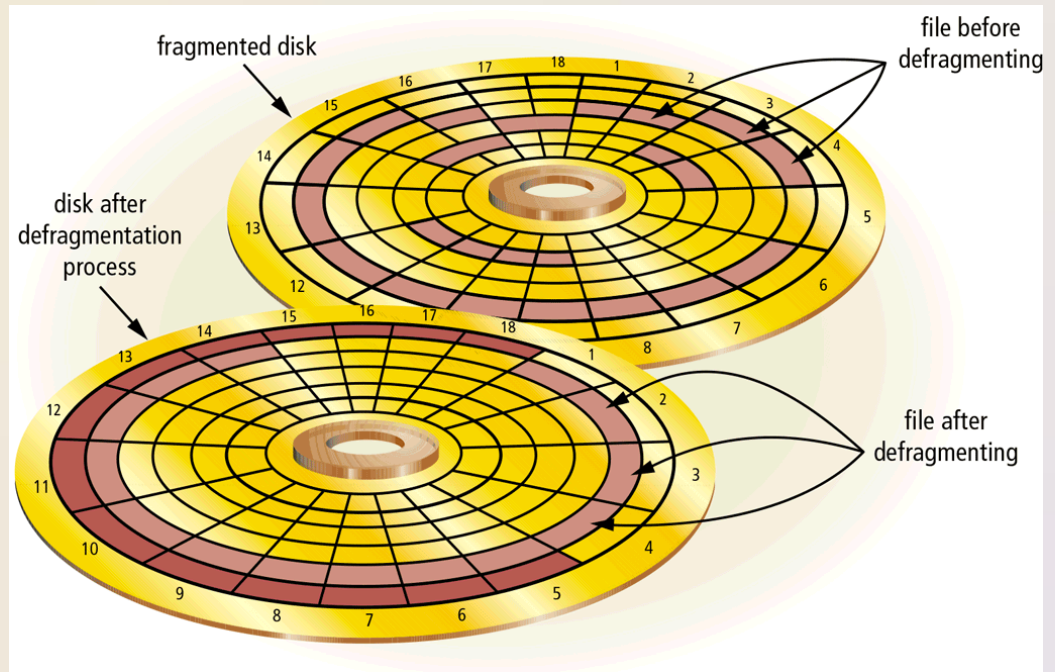
File, Disk, and System Management Tools

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



File, Disk, and System 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, Disk, and System Management Tools

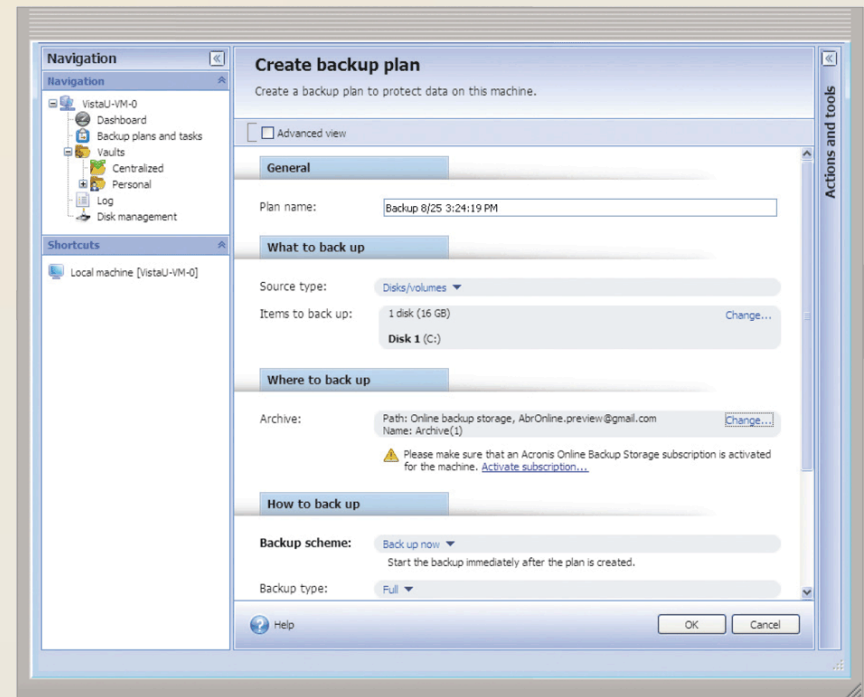
A **screen saver** is a tool that causes a display device's screen to show a moving image or blank screen if no keyboard or mouse activity occurs for a specified time

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 drive problems, and includes the capability of improving a computer's performance

File, Disk, and System 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
- A **restore tool** reverses the process and returns backed up files to their original form



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, disk, and system management tools

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Tools, Apps, Devices, and the Impact of Technology

Chapter 4

Programs and Apps

Chapter 4 Complete

