Technology in Action

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Technology in Action

Chapter 4

Application Software:
Programs That Let You Work and Play

Chapter Topics

- The Nuts and Bolts of Software

- Productivity and Business Software

- Multimedia and Entertainment Software

- Managing Your Software

Programs That Let You Work

- The Nuts and Bolts of Software
- Productivity and Business Software

The Nuts and Bolts of Software

- Software: Instructions that tell the computer what to do

- Two basic types of software

  - Application Software

  - System Software

The Nuts and Bolts of Software

- Preinstalled software

- Installed software
  - Proprietary (or commercial) software
  - Open source software

The Nuts and Bolts of Software

- Software as a Service (SaaS)
  - Web-based applications
  - Collaborate online

Productivity and Business Software

- Productivity software
  - Word processing
  - Spreadsheet
  - Presentation
  - Database
  - Personal information manager

Productivity and Business Software:
Buying Productivity Software

- Software suite
  - Microsoft Office
  - Apple iWork
  - Apache OpenOffice

Productivity Software Suites

PRODUCTIVITY SUITE	WORD PROCESSING	SPREADSHEET	PRESENTATION	DATABASE	NOTE-TAKING	PIM/E-MAIL
Installed: Proprietary						
Microsoft Office	Word	Excel	PowerPoint	Access	OneNote	Outlook
Apple iWork	Pages	Numbers	Keynote			
Installed: Open Source						
Apache OpenOffice	Writer	Calc	Impress	Base		

Productivity and Business Software:
Buying Productivity Software

- Web-based productivity suites
  - Microsoft Office Online
  - Google Docs
  - Share common features, toolbars, and menus

Productivity Software Suites

PRODUCTIVITY SUITE	WORD PROCESSING	SPREADSHEET	PRESENTATION	DATABASE	NOTE-TAKING	PIM/E-MAIL
Web-Based						
Microsoft Office 365	Word	Excel	PowerPoint		OneNote	Outlook
Google Docs	Documents	Spreadsheets	Presentation			Gmail
Zoho	Writer	Sheet, Books	Show	Creator	Notebook	
ThinkFree	Document	Spreadsheet	Presentation		Note	

Productivity and Business Software:
Word Processing Software

- Create and edit documents
  - Research papers
  - Class notes
  - Résumés
- Examples
  - Microsoft Word
  - Writer

Productivity and Business Software:
Word Processing

Formatted header

Privacy and Security of Social Networks

Drop cap

The Internet was created to establish a secure form of communications and create a means by which all computers could communicate. The World Wide Web is the means by which we access information over the Internet. Over time, our use of the web has evolved from passively browsing web pages that were created for us, to actively creating our own web content and sharing and collaborating on it with others. This new collaborative, user-created web content has been dubbed Web 2.0.

Image with text wrapping options

Web 2.0 technologies enable us to collaborate with others, to rate and recommend products or services, to tag a friend on social networks, or to share a video or a favorite image.

Headings

Privacy/Security Importance

When social networking sites first became popular, there was concern over privacy issues, especially for school-aged children who put personal information on their pages without considering the possibility of that information being misused by a stalker or identity thief. Although those concerns still exist, many of the most popular social networking sites have improved their privacy policies, thereby reducing, but not eliminating, such concerns. Still, users must be cautious about the type of content they post on these sites.

Precautions

Consider these precautions as you use social networking sites:
- Keep your personal information personal.
- Know who your friends are, and know who can see the information you post.
- Do not post information that is often used as security questions to verify your identity.
- Use caution when posting images, and know what images others are posting of you.

Bullet points

For further information, review Facebook's privacy guide.

Hyperlink

Many employers and colleges use social networks as a means of gaining information about potential applicants before granting an interview or extending admission or a job offer. In fact, there have been instances of people being fired from their jobs and being expelled from school for using social media, such as Facebook, Twitter, and blogs, in a questionable way. Generally, questionable content on social media includes negative discussion about the poster's job, employer, or colleagues, or inappropriate content about the poster. The responsibility for your content rests with you. Even though you may have strong privacy settings, you can't control what those who you allow to see your content do with it. Therefore, treat all information posted on the web as public, and avoid posting damaging words and pictures. Bottom line: Make sure your profile, images, and site content project an image that accurately represents you.

Two-column layout

Page numbers and formatted footer

1 | Page

PAGE 1 OF 1   412 WORDS   80%

Productivity and Business Software: Spreadsheet Software

- Performs calculations and numerical analyses

- Examples
  - Microsoft Excel
  - OpenOffice Calc

Productivity and Business Software:
Spreadsheet Software

- Create charts
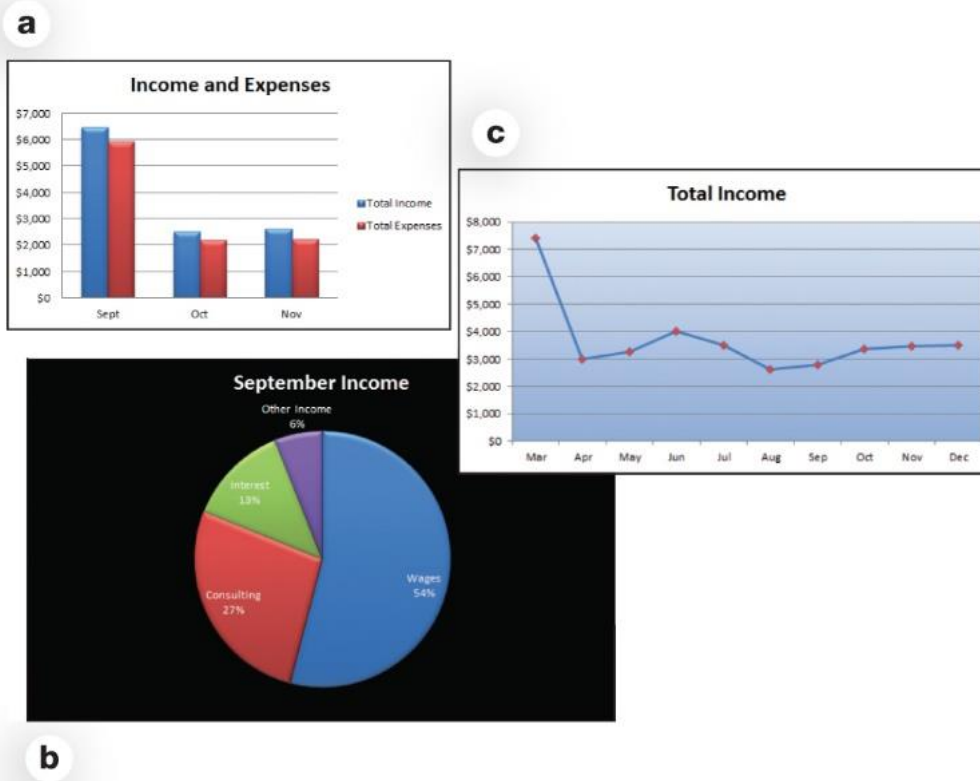
- Sparklines

	Current	1 Year History		
		Trend	High	Low
Microsoft	$ 25.79		30.54	20.26
Apple	$ 255.96		261.09	125.83
Intel	$ 20.95		22.84	15.72
Hewlett Packard	$ 46.05		53.15	34.35
Dell	$ 13.24		16.2	11.57

Sparklines

Productivity and Business Software
Presentation Software

Productivity and Business Software:
Presentation Software

- Tips for designing good presentations
  - Be careful with color
  - Use bullets for key points
  - Use images
  - Consider font size and style
  - Keep animation and background audio to a minimum

Productivity and Business Software:
Database Software

- Store and organize data

- Fields > Records>Tables

ID	FirstName	LastName	Company	Street	City	State	ZipCode
1	Susan	Scantosi	eWidget Plus	363 Rogue Street	St. Louis	MO	63136
2	Thomas	Mazeman	BooksRUs	2165 Piscotti Avenue	Springfield	IL	62702
3	Douglas	Seaver	Printing Solutions	7700 First Avenue	Topeka	KS	66603
4	Amir	Raviv	TechStands	1436 Riverfront Road	St. Louis	MO	63136
5	Franklin	Scott	WorksSuite	8789 Ploughman Ave	Tulsa	OK	74101
6	Ronald	Komeika	Creekside Financial	1264 Pond Hill Road	Toledo	OH	43601
7	Barbara	Mitchell	Market Tenders	9823 Bridge Street	La Porte	IN	46350

Field: A data category

Record: A group of related fields

Table: A group of related records

Productivity and Business Software:
Note-taking Software

Personal Information Manager Software

- Manage e-mail, contacts, calendars, and tasks
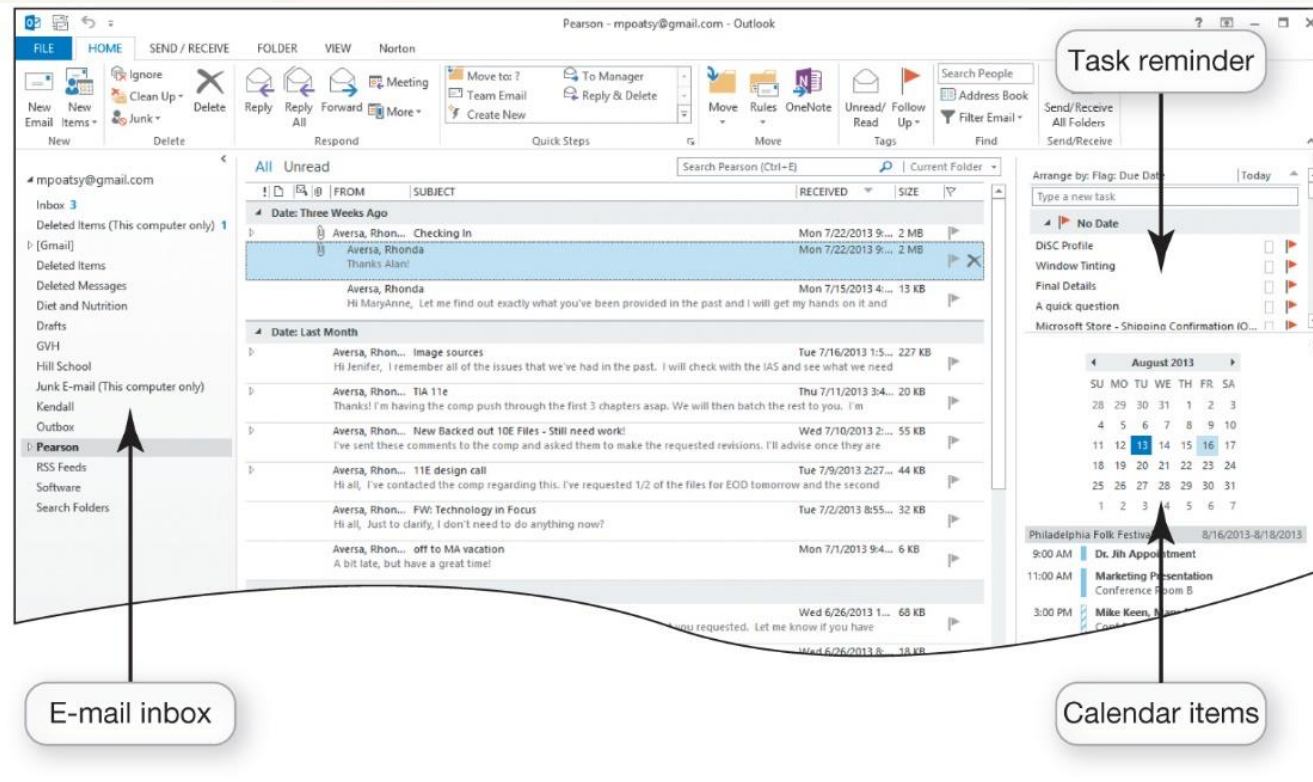
Productivity and Business Software: Personal Information Manager Software

- **Web-based PIMs**
  - Yahoo!
  - Google
- **Other options**
  - Toodledo
  - OmniFocus

Productivity and Business Software: Microsoft Office Productivity Software Features

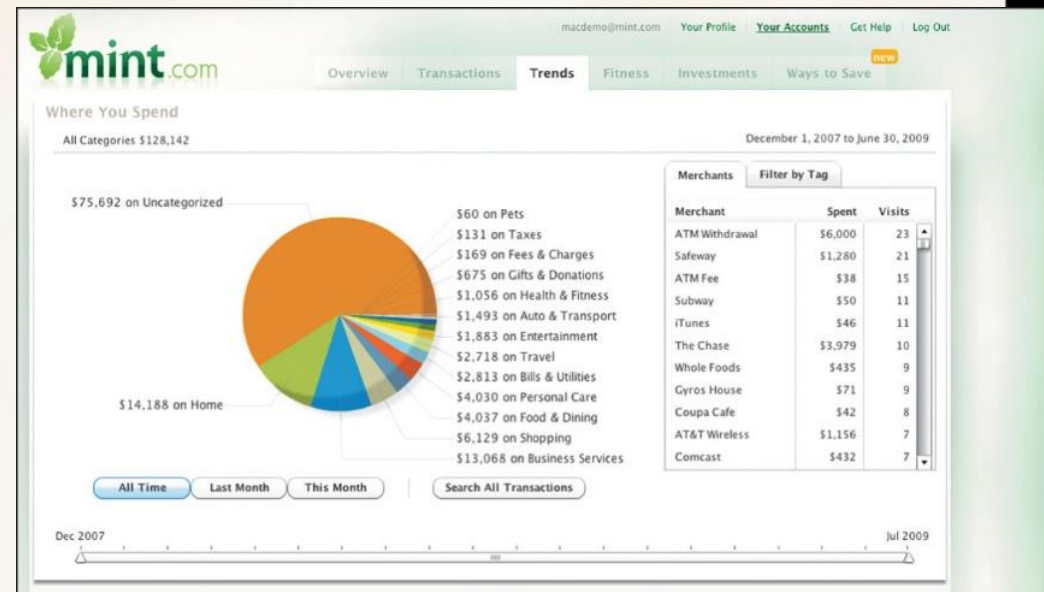- Tools to increase efficiency
  - Wizards
  - Templates
  - Macros

Productivity and Business Software:
Personal Financial Software

- Financial planning software

  - Manage daily finances

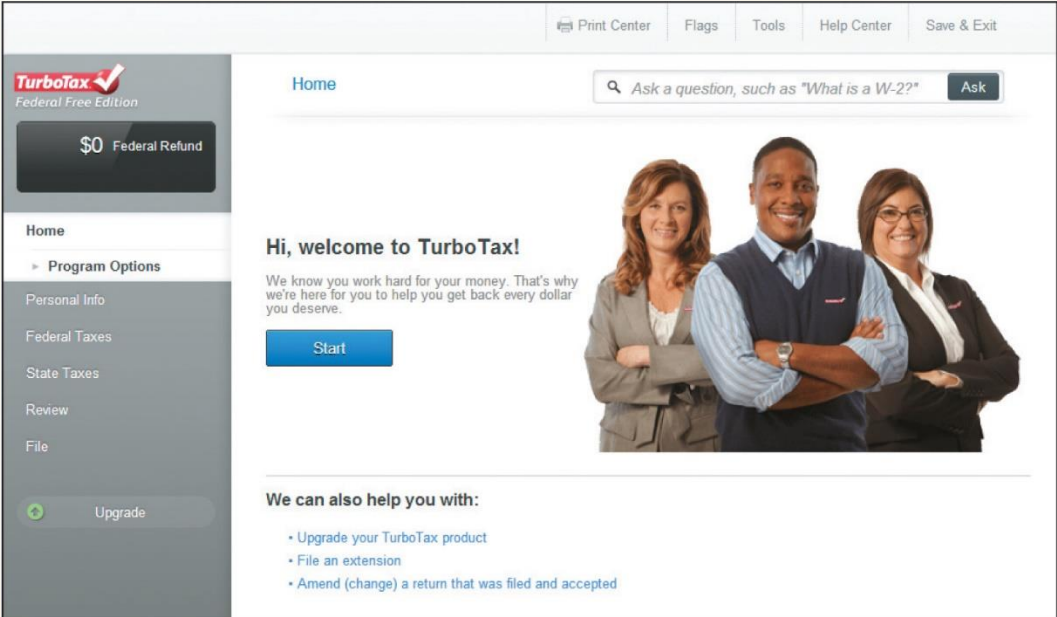 - Electronic checkbook registers

  - Automatic bill payment tools

- Examples

  - Quicken

  - Mint:

Productivity and Business Software:
Personal Financial Software

- ## Tax preparation software

  - – Intuit TurboTax

  - – H&R Block at Home

Small Business Software

- Accounting software
  - Track accounts receivable and accounts payable
  - Inventory management, payroll, and billing
  - Examples
    - Intuit QuickBooks
    - Sage Peachtree

Productivity and Business Software: Small Business Software

- Desktop publishing (DTP) software

  – Design books and publications

  – Examples

    - Microsoft Publisher

    - QuarkXPress

    - Adobe InDesign

Productivity and Business Software:
Small Business Software

- Web page-Authoring software
  - Design web pages
  - Examples
    - Microsoft Expression Web
    - Adobe Dreamweaver

Productivity and Business Software:
Software for Large and Specialized Businesses

PROJECT MANAGEMENT

Creates scheduling charts to plan and track specific tasks and to coordinate resources

CUSTOMER RELATIONSHIP MANAGEMENT (CRM)

Stores sales and client contact information in one central database

ENTERPRISE RESOURCE PLANNING (ERP)

Controls many "back office" operations and processing functions such as billing, production, inventory management, and human resources management

E-COMMERCE

Facilitates website creation and hosting services, shopping cart setup, and credit card–processing services

VERTICAL MARKET

Addresses the needs of businesses in a specific industry or market such as the real estate, banking, and automotive industries

COMPUTER-AIDED DESIGN (CAD)

Creates automated designs, technical drawings, and 3-D model visualizations for architecture, automotive, aerospace, and medical engineering industries

Check Your Understanding

1. What's the difference between application software and system software?

- The term software refers to a set of instructions that tells the computer what to do.
- Application software is the software you use to do everyday tasks at home, school, and work. Application software includes the following:
- System software is the software that helps run the computer and coordinates instructions between application software and the computer's hardware devices. System software includes the operating system and utility programs.

Check Your Understanding

2. What are the different ways I can access and use software?

- There are two types of software that you can install on your computer:
    - Proprietary (or commercial) software is software you buy.
    - Open source software is program code that is free and publicly available with few licensing and copyright restrictions. The code can be copied, distributed, or changed without the stringent copyright protections of software products you purchase.
- Web-based applications are those that are hosted online by the vendor and made available to the customer over the Internet. This web-based distribution model is also referred to as Software as a Service (SaaS). Web-based applications are accessed via an Internet connection to the site that hosts the software.

Check Your Understanding

3. What kinds of applications are included in productivity software?

Productivity software programs include the following:
- Word processing: to create and edit written documents
- Spreadsheet: to do calculations and numerical and what-if analyses easily
- Presentation: to create slide presentations
- Database: to store and organize data
- Note-taking: to take notes and easily organize and search them
- Personal information manager (PIM): to keep you organized by putting a calendar, address book, notepad, and to-do lists within your computer

Individuals can also use productivity software to help with business-like tasks such as managing personal finances and preparing taxes.

Check Your Understanding

4. What kinds of software do small and large businesses use?

Businesses use software to help them with the following tasks:
- Finances and accounting
- Desktop publishing
- Web page authoring
- Project management
- Customer relationship management (CRM)
- Enterprise resource planning (ERP)
- E-commerce

Businesses may use specialized business software (or vertical market software) that is designed for their specific industry. Some businesses also use specialized drawing software to create technical drawings and computer-aided design (CAD) software to create 3-D models.

Programs That Let You Play

- Multimedia and Entertainment Software

- Managing Your Software

Multimedia and Entertainment Software

Multimedia and Entertainment Software

- Digital Image- and Video-Editing Software
- Digital Audio Software
- Gaming Software
- Educational and Reference Software
- Drawing Software
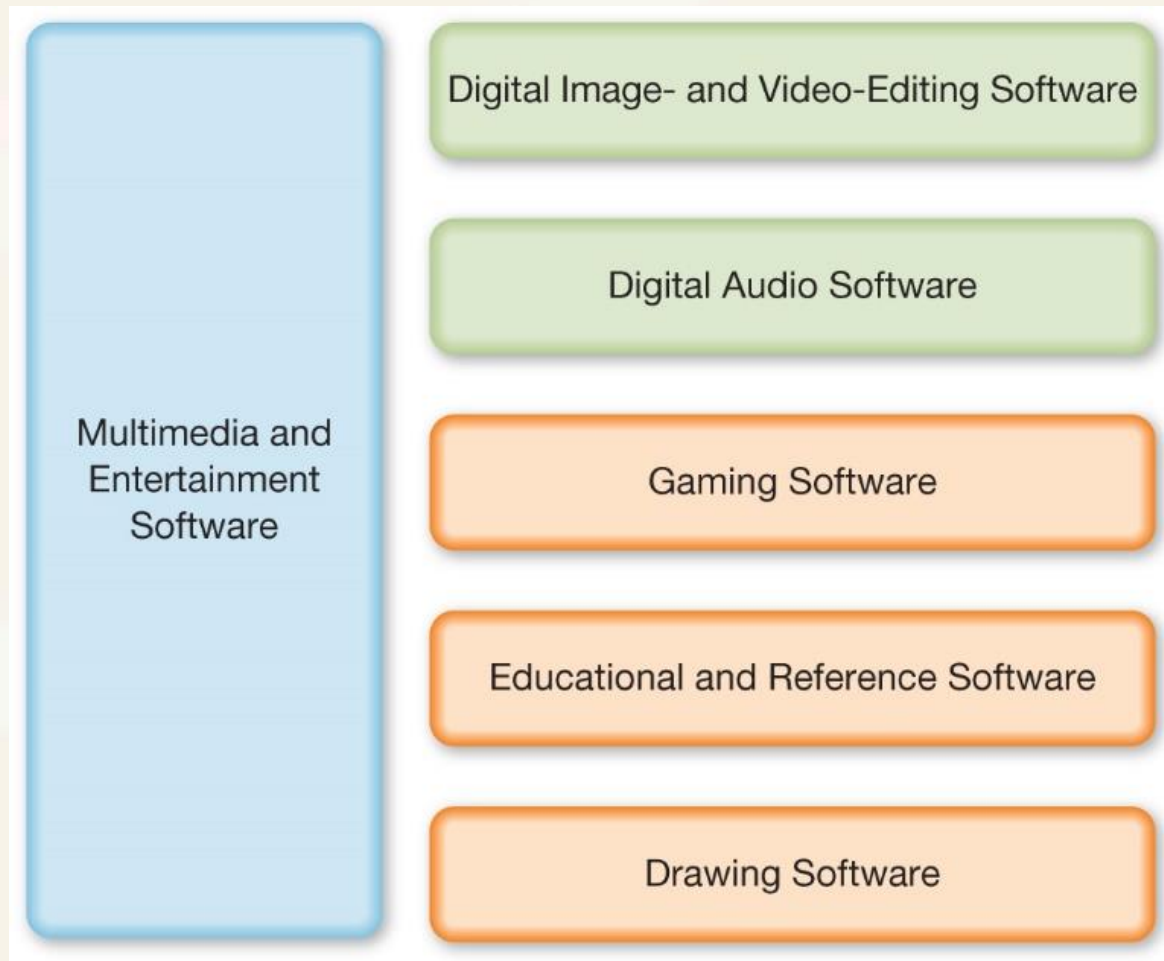
Multimedia and Entertainment Software: Digital Image- and Video-Editing Software

- Image-editing software

- Edit photographs and other images

- Online photo-sharing and photo-storing sites

Multimedia and Entertainment Software: Digital Image- and Video-Editing Software

- ## Examples
  - Adobe Photoshop Elements
  - Google Picasa

Image-editing tools

Images placed here and arranged in collage

E-mail, print, and export tools
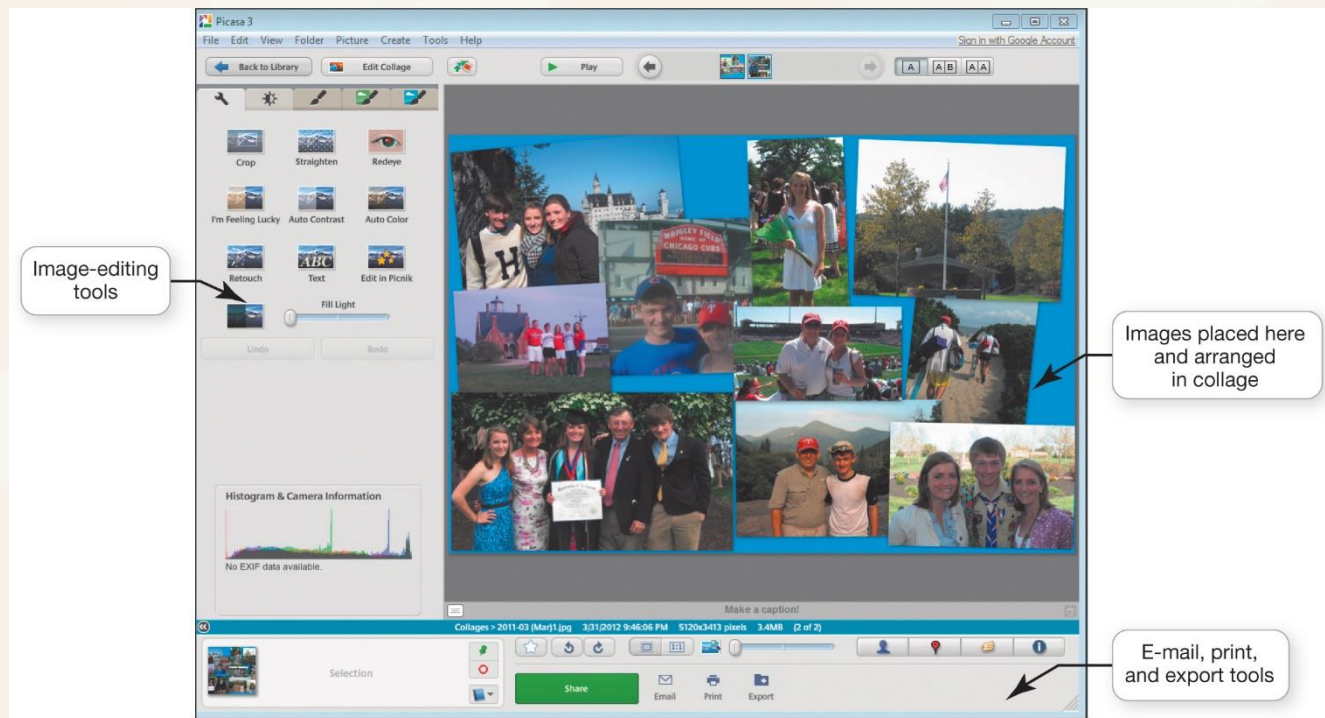
Multimedia and Entertainment Software: Digital Image- and Video-Editing Software

- Professional image editors might use:

    – Adobe Photoshop

    – Corel PaintShop Photo Pro

    – GIMP

Multimedia and Entertainment Software: Digital Image- and Video-Editing Software

- Video-editing software
- Examples
  - Adobe Premiere Pro and Apple's Final Cut Pro
  - Windows Movie Maker and iMovie

Video clips in clips pane

Window used to view or edit movie clips

Movie clips display in clip viewer

Transition icon controls transition effects between clips

Multimedia and Entertainment Software:
Digital Audio Software

- Digital audio files
- Downloaded music files, audiobooks, or podcasts
  - Compressed: MP3, ACC, WMA
  - Uncompressed: WAV, AIFF
- Create and record audio files
- Audio-editing software

Multimedia and Entertainment Software:
Gaming Software

- Create characters to extend a game
  - EverQuest
  - Oblivion
  - Unreal Tournament
- Create your own games
  - Unity
  - Adobe Flash
  - RPG Maker VK
  - GameMaker

Multimedia and Entertainment Software:
Educational and Reference Software

Test Preparation

Designed to improve your performance on standardized tests

Simulation

Allows you to experience a real situation through a virtual environment

Instructional

Designed to teach you almost anything from playing a musical instrument to learning a language or cooking

Trip Planning

Generates maps and provides driving instructions; some incorporate hotel, restaurant, and other trip information

Home Design/Improvement

Provides 2-D or 3-D templates and images to let you better visualize indoor and outdoor remodeling projects and landscaping ideas

Course Management

Web-based software system that creates a virtual learning experience, including course materials, tests, and discussion boards

Brain Training

Features games and activities to exercise your brain to improve your memory, processing speed, attention, and multitasking capabilities

Genealogy

Helps chart the relationships between family members through multiple generations

Multimedia and Entertainment Software:
Educational and Reference Software

- Tutorials for computer applications

- Simulation programs

Multimedia and Entertainment Software: Educational and Reference Software

- Course management software

- Online classes

- Examples
  - Blackboard
  - Moodle
  - Angel

Multimedia and Entertainment Software: Educational and Reference Software

- Collaboration tools

- Virtual office hours

- Examples

  - Whiteboards

  - Desktop sharing

Multimedia and Entertainment Software:
Drawing Software

- Create:

  - Two-dimensional, line-based drawings

  - Technical diagrams

  - Animations

- Professional-level

  - Adobe Illustrator

- Home and landscape planning

Managing Your Software:
Getting Software

- Students
  - Educational discount
    - Campus computer stores
    - College bookstores
    - Online software suppliers

Managing Your Software:
Getting Software

- Open source

  - Freeware: FileHippo; MajorGeeks

- Beta versions

  - Programs still under development

Managing Your Software:
Software Licenses

- End User License Agreement (EULA)

- States the following:

  – Ultimate owner of software

  – Whether copies can be made

  – Number of installations allowed

  – Warranties

Microsoft Software License Terms

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Print   OK

Managing Your Software:
Software Licenses

- Single License

- Multiuser licenses might be available

- Open source software

- Free software license
  - GNU
  - Copyleft

Managing Your Software:
Getting the Right Software for Your System

- Software programs have sets of system requirements

- Upgrade

- Update

- Backward-compatible

Managing Your Software:
Installing and Uninstalling Software

- DVD or downloading from the Internet

- Full installation

- Custom installation

Managing Your Software:
Installing and Uninstalling Software

- ## Uninstalling software in Windows 8

Installed applications pinned to Start

To unpin, right click on the application icon, then select Unpin from Start

Managing Your Software:
Installing and Uninstalling Software

- Recovering from a computer crash
  - Create a system repair disc
  - Recovery utility

Check Your Understanding

5. What types of multimedia and entertainment software are available?

- Multimedia software is software for playing, copying, recording, editing, and organizing multimedia files. Multimedia software includes the following:
  - Digital image- and video-editing software
  - Digital audio software
  - Specialty software to produce computer games
- Educational and reference software is available to help you master, study, design, create, or plan.
- Simulation (training) programs let users experience or control the software as if it were the actual software or an actual event.
- Course management software provides traditional classroom tools such as discussion areas, assignment features, and grade books over the Internet.
- Drawing software helps you create and edit simple line-based drawings or create more-complex designs for both imaginative and technical illustrations.

Check Your Understanding

6. What's important to know when buying software?

- You must purchase software unless it is freeware or open source.
- You're actually purchasing the license to use it and therefore must abide by the terms of the licensing agreement you accept when installing the program.
- Before installing software on your computer, ensure that your system setup meets the system requirements that specify the minimum recommended standards for the operating system, processor, primary memory (RAM), and hard drive capacity. Sometimes, there are other specifications for the video card, monitor, optical drive, and other peripherals.

Check Your Understanding

7. How do I install and uninstall software?

Installing:
- A full installation copies all the files and programs from the distribution disc to your computer's hard drive.
- A custom installation lets you decide which features you want installed on your hard drive.

Uninstalling:
- It's best to use the uninstall feature that comes with the operating system.
- Using the uninstall feature of the operating system when uninstalling a program will help you ensure that all additional program files are removed from your computer.