Computer - UOMU000003

Computer Software

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Objectives Overview

Determine the four types of application software

Distinguish between the seven different types of software availability

Describe how the operating system and utility programs interact with application software

Explain the features of a user interface

Determine the main characteristics of commonly utilized business applications

Objectives Overview

Determine the main characteristics of popular graphics and multimedia software

Determine the main characteristics of commonly used software for home, personal, and educational purposes
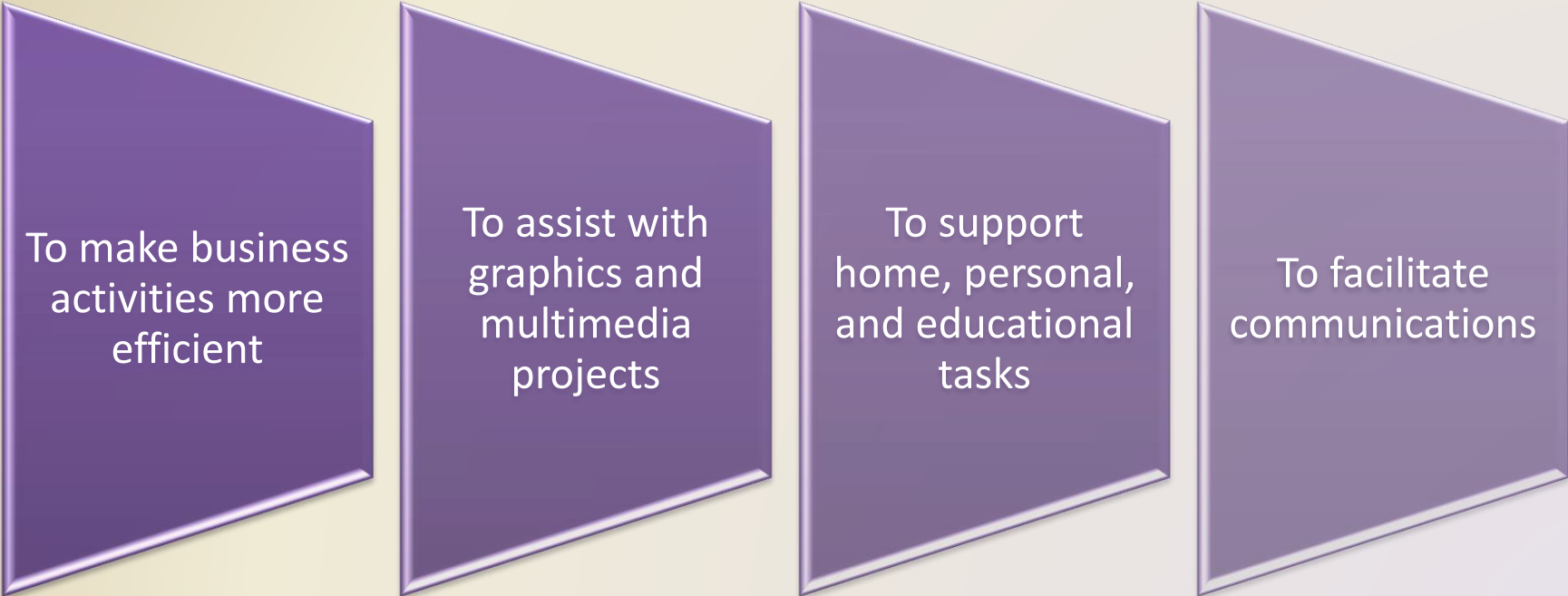
Explore the benefits of web applications and the methods for accessing them

Determine the types of application software utilized in communication systems

Explain the tools and resources provided to support learning in application software

Application Software

- **Application software** includes programs created to enhance user productivity and/or help with personal tasks. It serves a wide range of purposes:

To make business activities more efficient

To assist with graphics and multimedia projects

To support home, personal, and educational tasks

To facilitate communications

Application Software

Business

- Word Processing
- Spreadsheet
- Database
- Presentation
- Note Taking
- Personal Information Manager (PIM)
- Business Software for Phones
- Business Software Suite
- Project Management
- Accounting
- Document Management
- Enterprise Computing

Graphics and Multimedia

- Computer-Aided Design (CAD)
- Desktop Publishing (for the Professional)
- Paint/Image Editing (for the Professional)
- Photo Editing (for the Professional)
- Video and Audio Editing (for the Professional)
- Multimedia Authoring
- Web Page Authoring

Home/Personal/Educational

- Software Suite (for Personal Use)
- Personal Finance
- Legal
- Tax Preparation
- Desktop Publishing (for Personal Use)
- Paint/Image Editing (for Personal Use)
- Photo Editing and Photo Management (for Personal Use)
- Clip Art/Image Gallery
- Video and Audio Editing (for Personal Use)
- Home Design/Landscaping
- Travel and Mapping
- Reference and Educational
- Entertainment

Communications

- Web Browser
- RSS Aggregator
- E-Mail
- Blogging
- Instant Messaging
- Newsgroup/Message Board
- Chat Room
- FTP
- Text, Picture, Video Messaging
- VoIP
- Video Conferencing

Application Software

- ## Available in a variety of forms:
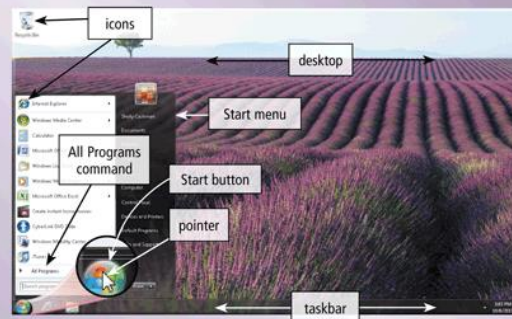
Packaged software	is mass-produced, copyrighted software for various users, available in stores or online. **Example: Microsoft Office Suite (e.g., Word, Excel, PowerPoint).**
Custom software	is developed to meet specific business needs when off-the-shelf solutions are inadequate. **Example: A hospital management system**
Web application	is a website that lets users access and interact with software online, like email, word processing, or games. **Example: Google Docs (a web-based word processor).**
Open source software	is free to use, modify, and share without copyright restrictions, often available for download online at no cost. **Example: Linux operating system (e.g., Ubuntu).**
Shareware	is copyrighted software offered for free for a trial, with payment required for continued use. **Example: WinRAR**
Freeware	is copyrighted software offered for free, with all rights retained by the creator. **Example: Adobe Acrobat Reader (free to view PDFs).**
Public-domain software	is free to use, copy, and distribute without copyright restrictions. **Example: SQLite (a public-domain database management system).**

Application Software

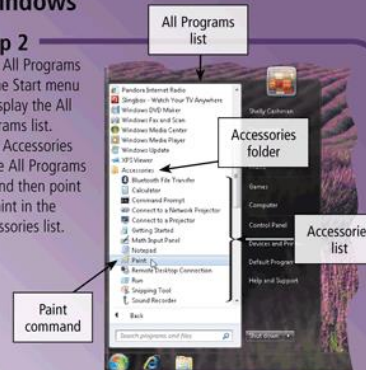One Way to Start and Interact with a Program from Windows

System Software

- **System software** serves as the interface between the user, the application software, and the computer's hardware, enabling the use of programs like word processing program.

- **Utility programs** a utility program is a type of system software that assists users with controlling or maintaining the operation of a computer, its devices, or its software.

- An important utility program is **antivirus software**, which protects computers from malware that acts without a user's knowledge and deliberately alters the computer's operations
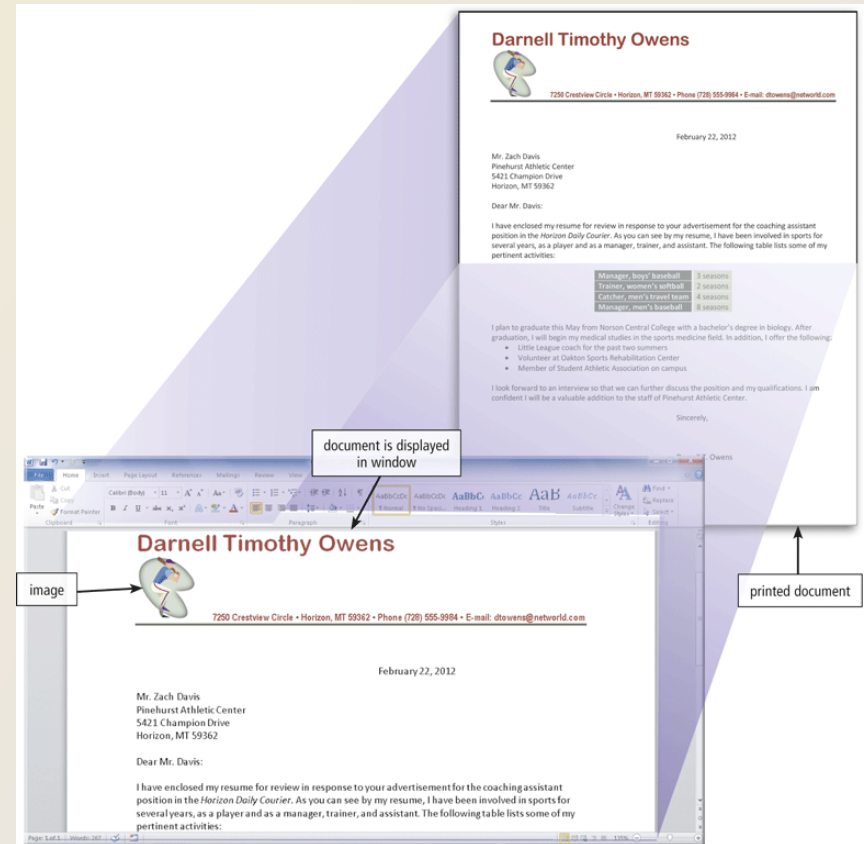
Business Software

- **Business software** is a type of application software designed to help individuals carry out business-related tasks.

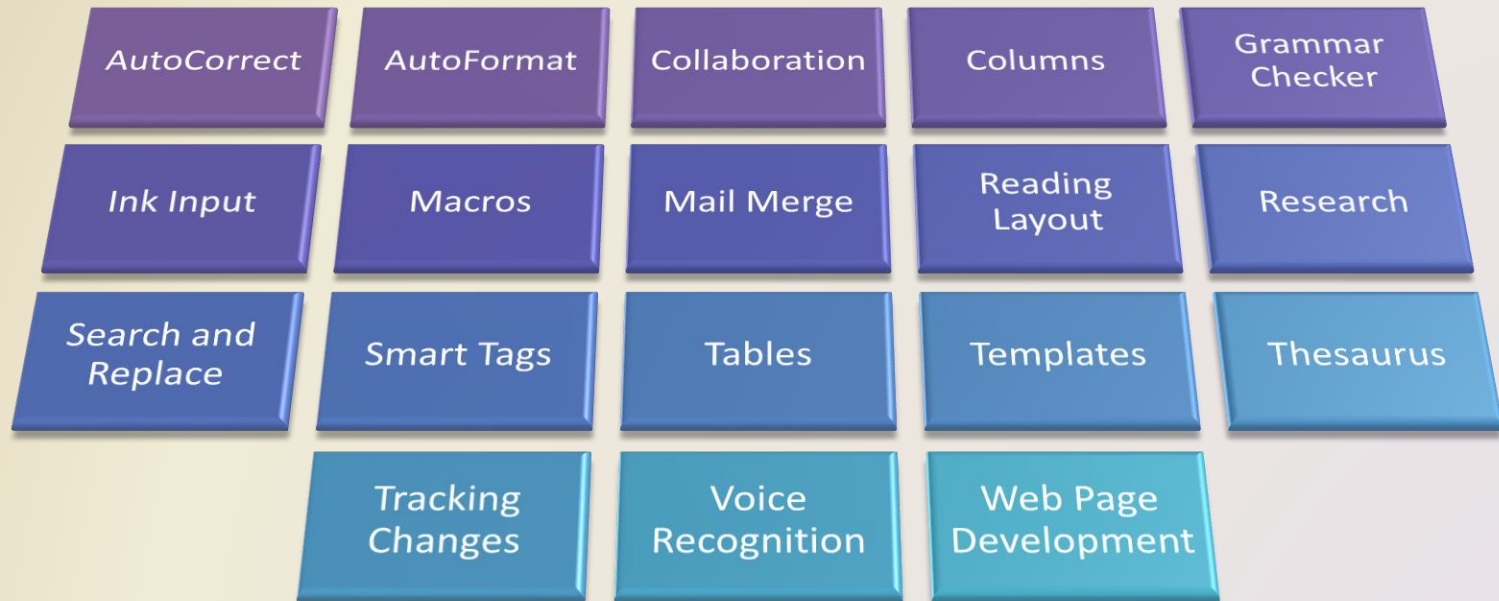|			
Word Processing	Spreadsheet	Database	Presentation
Note Taking	Personal Information Manager	Business Software for Phones	Business Software Suites
Project Management	Accounting	Document Management	Enterprise Computing Software

Business Software

- **Word processing software** enables users to generate and edit documents, containing mostly text and sometimes graphics.

- **Clip art** refers to a set of digital drawings, photographs, and various other images

Business Software

- Additional word processing features include

Business Software

- Developing a document

Edit a document

- Enter text and numbers
- Insert images
- Perform other tasks

Create a document

- Make changes to existing content
- Inserting, deleting, cutting, copying, and pasting

- Change appearance
  - **Font type**
  - **Font size**

Format a document

Business Software

- **Spreadsheet software** enables users to arrange data in rows and columns and carry out **calculations**. These rows and columns collectively are called a **worksheet**

Business Software

- Another standard feature of spreadsheet software is **charting**, which <u>depicts the data in graphical form</u>. A visual representation of data through charts often makes it easier for users to see at a glance the <u>relationship among the numbers.</u>
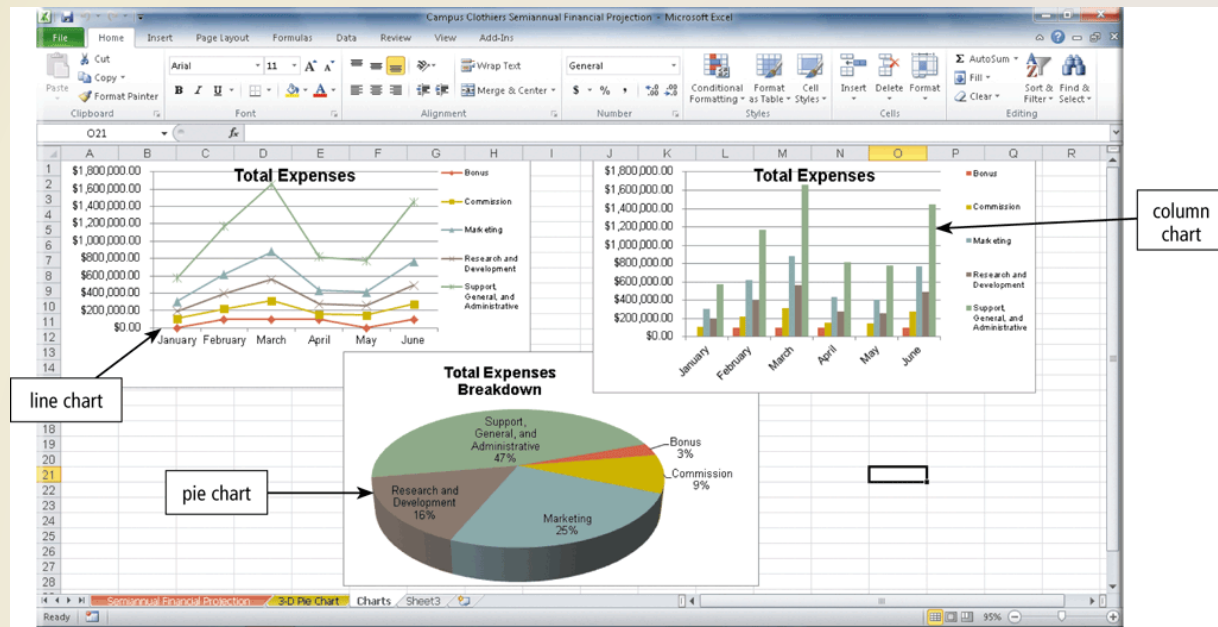
Business Software

- 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

Business Software

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

- The presentations can be viewed as **slides**, sometimes called *a slide show*, that are displayed on a large monitor or on a projection screen

Business Software
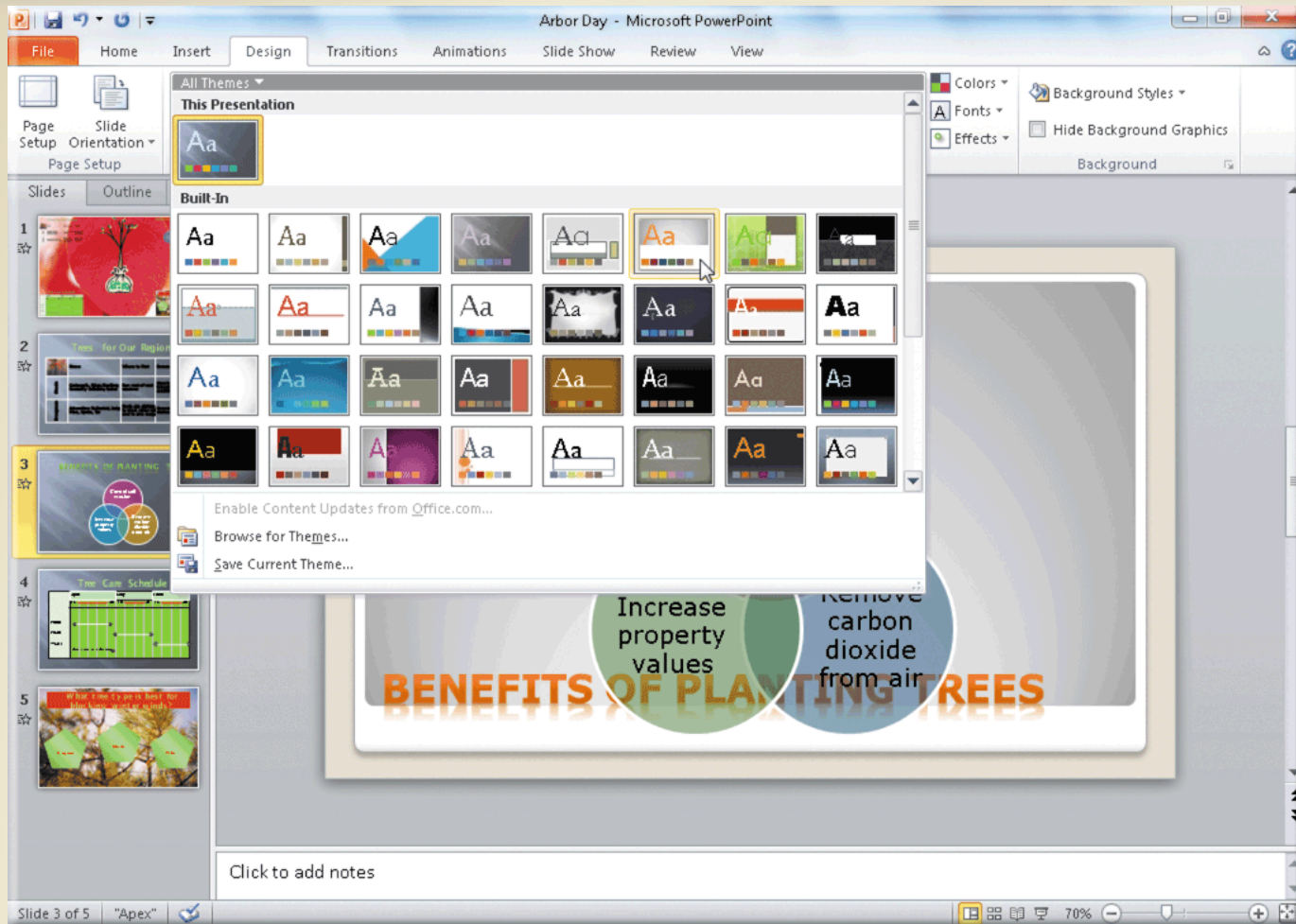
Business Software

- **Note taking software** is application software that enables users to enter typed text, handwritten comments, drawings, or sketches anywhere on a page and then save the page as part of a notebook.

- Note-taking software lets users record audio and take notes conveniently during meetings, class lectures, conferences, in libraries, and more.
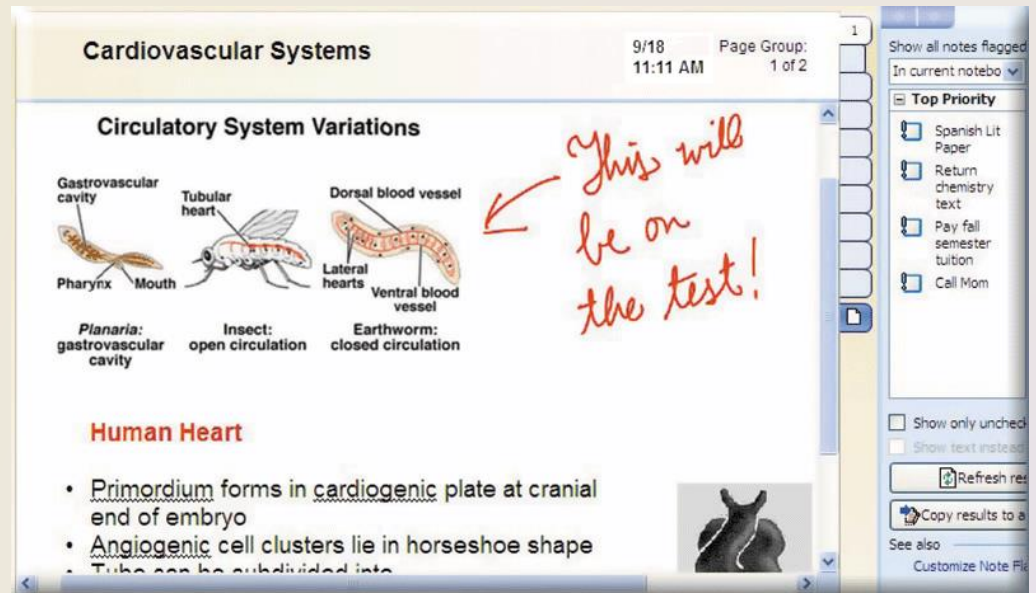
Business Software

- A **software suite** is a collection of individual programs available together as a unit

- A **personal information manager** (**PIM**) is application software that includes an **appointment calendar, address book, notepad**, and other features to help users organize personal information.

Business Software

- **Business Software for Phones** enables users to create and manage documents, notes, budgets, emails, messages, photos, e-books, travel plans, and browse the web.

- Scaled down versions of software are available to work with smart phones and other mobile devices

Mobile Health (mHealth) Applications

- **Mobile Health Apps** support healthcare through patient monitoring, medication reminders, and fitness tracking.

- **Examples: MyFitnessPal, Medisafe, or Fitbit.**

- **Benefits:**

  – Empowers patients with self-care tools.

  – Supports chronic disease management remotely.

Business Software

Project management software *allows a user to plan, schedule, track, and analyze the events, resources, and costs of a project*

Accounting software helps companies record and report their financial transactions

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

Business Software

- Enterprises typically require special computing solutions for various functional units
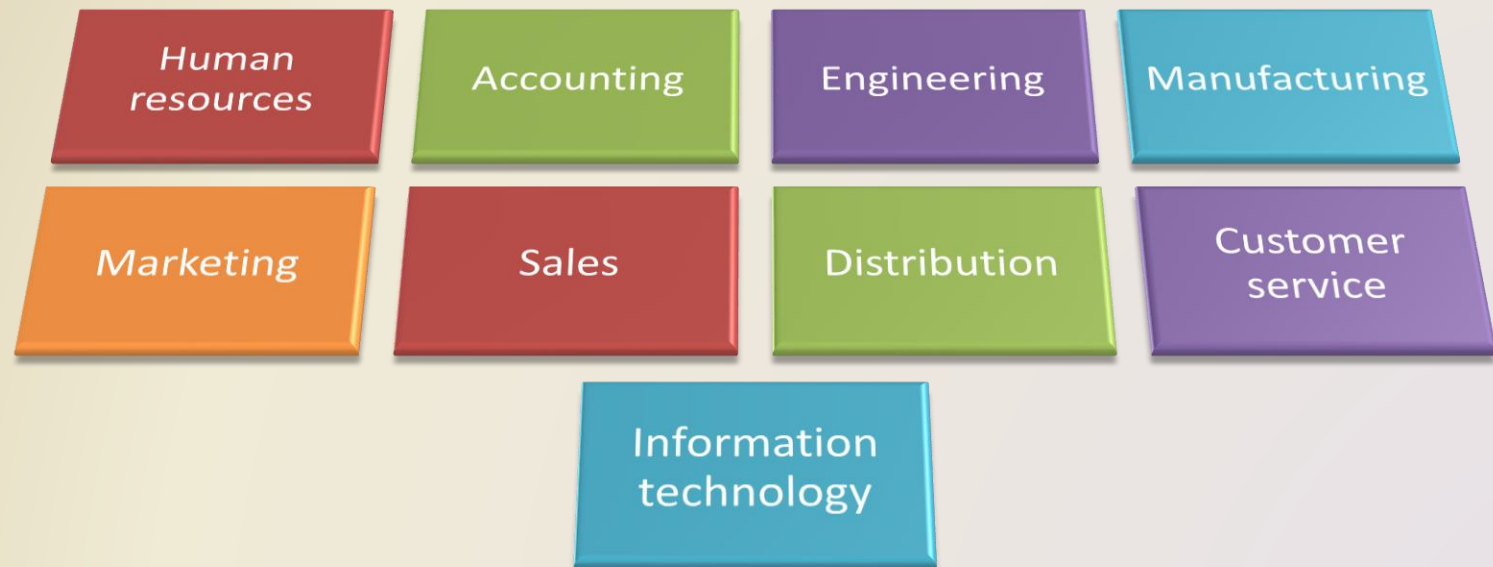
Medical Record Management Software

- **Electronic Health Records (EHR)** systems store patient information, enabling easy access, updates, and sharing among healthcare providers.

- **Examples: Epic Systems, Cerner, or Allscripts.**

- **Benefits:**

  - Streamlines patient management.

  - Reduces errors and duplication.

  - Facilitates better care coordination.

Graphics and Multimedia Software

Popular Graphics and Multimedia Software		
Application Software	**Manufacturer**	**Program Name**
Computer-Aided Design (CAD)	Autodesk	AutoCAD
	Chief Architect	Chief Architect
	Microsoft	Visio
Desktop Publishing (for the Professional)	Adobe	InDesign
	Corel	Ventura
	Quark	QuarkXPress
Paint/Image Editing (for the Professional)	Adobe	Illustrator
	Corel	Painter
	Microsoft	Expression Design
Photo Editing (for the Professional)	Adobe	Photoshop
	Arcadia	PhotoPerfect Ultimate
	Nik Software	Nik Professional Suite
Video and Audio Editing (for the Professional)	Adobe	Audition Premiere Pro Soundbooth
	Avid Technology	Avid Media Composer
	Cakewalk	SONAR
	Sony	ACID Pro
Multimedia Authoring	Adobe	Director
	Agilix	GoCourse
	SumTotal Systems	ToolBook Instructor
Web Page Authoring	Adobe	Dreamweaver Fireworks Flash
	Microsoft	Expression Web SharePoint Designer

Software for Home, Personal, and Educational Use

Popular Programs for Home/Personal/Educational Use

Application Software	Manufacturer	Program Name	Application Software	Manufacturer	Program Name
Personal Finance	IGG Software	iBank	Clip Art/Image Gallery	Broderbund	ClickArt
	Intuit	Quicken		Nova Development	Art Explosion
Legal	Broderbund	Home and Business Lawyer WillWriter		CoolArchive	CoolArchive
			Video and Audio Editing (for Personal Use)	Corel	VideoStudio
	Cosmi	Perfect Attorney		Microsoft	Windows Live Movie Maker
	Nolo	Quicken Legal Business Quicken WillMaker		Pinnacle Systems	Studio
Tax Preparation	2nd Story Software	TaxACT		Roxio	Buzz
	H&R Block	TaxCut	Home Design/ Landscaping	Broderbund	Instant Architect
	Intuit	TurboTax		Chief Architect	Better Homes and Gardens Home Designer
Desktop Publishing (for Personal Use)	Broderbund	The Print Shop PrintMaster		IMSI/Design	TurboFLOORPLAN
	Microsoft	Publisher	Travel and Mapping	DeLorme	Street Atlas
Paint/Image Editing (for Personal Use)	Corel	CorelDRAW Painter Essentials		Microsoft	Streets & Trips
	The GIMP Team	The Gimp		Google	Earth Maps
Photo Editing and Photo Management (for Personal Use)	Adobe	Photoshop Elements Photoshop Express	Reference	Fogware Publishing	Merriam-Webster Collegiate Dictionary & Thesaurus
	Corel	Paint Shop Pro Photo Ulead PhotoImpact MediaOne Plus		Microsoft	MSN Encarta
	Yahoo!	Flickr			
	Google	Picasa			
	Microsoft	Windows Live Photo Gallery			
	Roxio	PhotoShow			

Figure 3-21   Many popular programs are available for home, personal, and educational use.

Diagnostic and Imaging Software

- **Imaging and Diagnostic Tools** Specialized software processes and analyses data from medical imaging technologies like X-rays, MRIs, and CT scans.

- **Examples: OsiriX for radiology, 3D slicer for modeling.**

- **Benefits**:
  - Enhances visualization for accurate diagnoses.
  - Assists in pre-surgical planning.

Web Applications

- A Web application is a Web site that allows users to access and interact with software from any computer or device that is connected to the Internet

- Users often interact with Web applications directly at the Web site, referred to as the host, through their Web browser.

Popular Web Applications	
Program Name	**Type of Application Software**
Britannica.com	Reference
Dictionary.com	Reference
Flickr	Photo Editing and Photo Management
Gmail	E-Mail
Google Docs	Productivity Suite
Google Earth	Travel and Mapping
Google Maps	Travel and Mapping
MSN Encarta	Reference
Office Web Apps	Productivity Suite
Photoshop Express	Photo Editing
Picnik	Photo Editing
TaxACT Online	Tax Preparation
TurboTax Online	Tax Preparation
Windows Live Calendar	Personal Information Manager
Windows Live Hotmail	E-Mail
YouSendIt	File Transfer and E-Mail

Web Applications

Application Software for Communications

Web Browser	E-Mail	Instant Messaging	Chat Room
Text, Picture, Video Messaging	RSS Aggregator	Blogging	Newsgroup/Message Board
FTP	VoIP	Video Conferencing	

Application Software for Communications

Application Software for Communications

Web Browser
- Allows users to access and view Web pages on the Internet
- Requires a Web browser program
  - Integrated in some operating systems
  - Available for download on the Web free or for a fee

E-Mail
- Messages and files sent via a network such as the Internet
- Requires an e-mail program
  - Integrated in many software suites and operating systems
  - Available free at portals on the Web
  - Included with paid Internet access service
  - Can be purchased separately from retailers

Instant Messaging
- Real-time exchange of messages, files, audio, and/or video with another online user
- Requires instant messenger software
  - Integrated in some operating systems
  - Available for download on the Web, usually at no cost
  - Included with some paid Internet access services

Chat Room
- Real-time, online typed conversation
- Requires chat client software
  - Integrated in some operating systems, e-mail programs, and Web browsers
  - Available for download on the Web, usually at no cost
  - Included with some paid Internet access services
  - Built into some Web sites

Text, Picture, Video Messaging
- Short text, picture, or video messages sent and received, mainly on mobile devices
- Requires text, picture, video messenger software
  - Integrated in most mobile devices
  - Available for download on the Web, usually at no cost, for personal computers

RSS Aggregator
- Keeps track of changes made to Web sites by checking RSS feeds
- Requires RSS aggregator program
  - Integrated in some e-mail programs and Web browsers
  - Available for download on the Web, usually at no cost

Blogging
- Time-stamped articles, or posts, in a diary or journal format, usually listed in reverse chronological order
- Blogger needs blog software, or blogware, to create/maintain blog
  - Some Web sites do not require installation of blog software

Newsgroup/Message Board
- Online area where users have written discussions
- Newsgroup may require a newsreader program
  - Integrated in some operating systems, e-mail programs, and Web browsers

FTP
- Method of uploading and downloading files with other computers on the Internet
- May require an FTP program
  - Integrated in some operating systems
  - Available for download on the Web for a small fee

VoIP (Internet Telephony)
- Allows users to speak to other users over the Internet
- Requires Internet connection, Internet telephone service, microphone or telephone, and Internet telephone software or telephone adapter

Video Conferencing
- Meeting between geographically separated people who use a network such as the Internet to transmit video/audio
- Requires video conferencing software, a microphone, speakers, and sometimes a video camera attached to your computer

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Artificial Intelligence in Medicine

- **AI-Powered Medical Software** AI-based tools support diagnostics, treatment recommendations, and predictive analytics.

- **Examples: IBM Watson Health, Google DeepMind for eye disease detection.**

- **Benefits:**
  - Improves diagnostic accuracy.
 - Enhances patient care with personalized insights.

Learning Tools for Application Software

- **Online Help** is the electronic equivalent of a user manual

- You can ask a question or access the Help topics in subject or alphabetical order
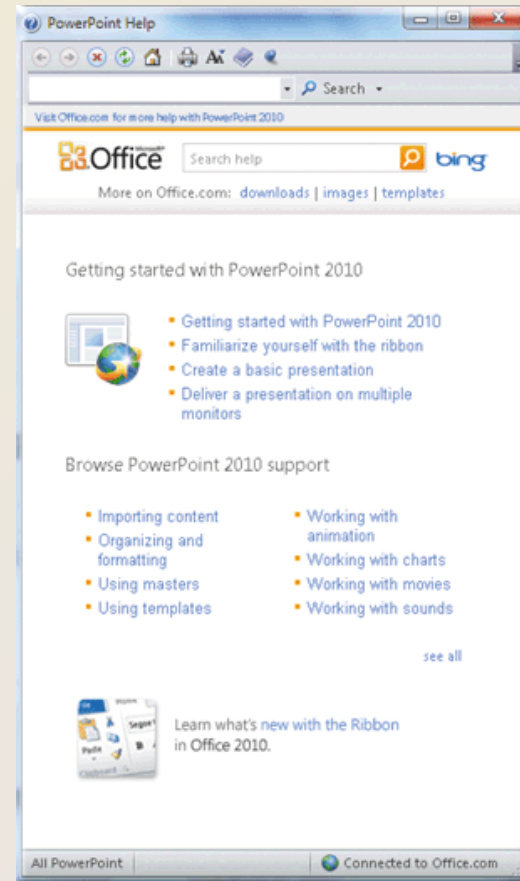
Learning Tools for Application Software

- Web-based Help provides updates and more comprehensive resources to respond to technical issues about software
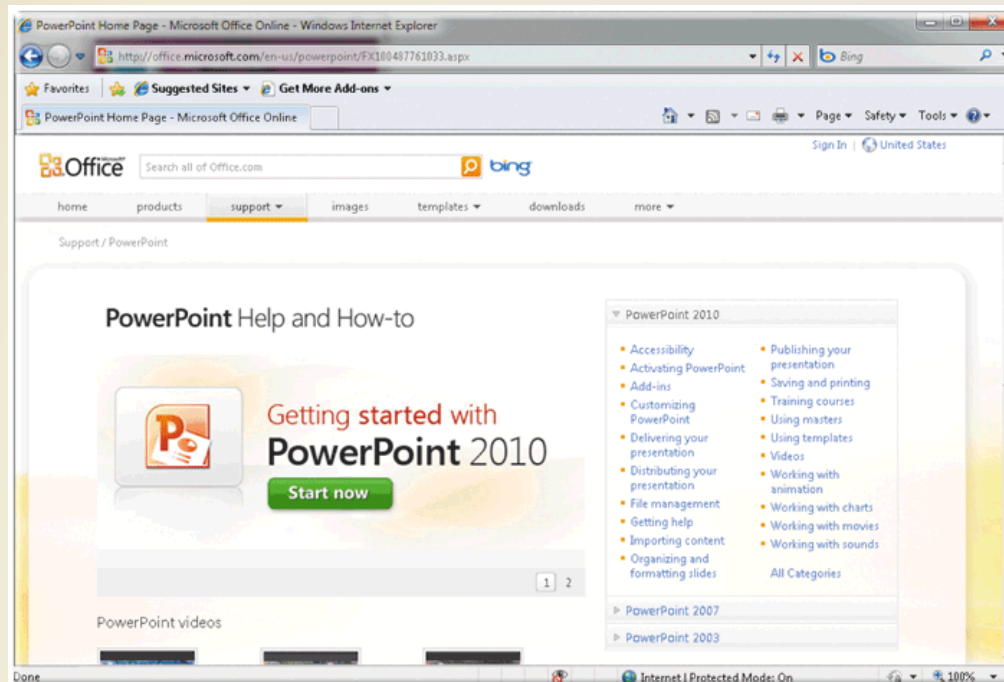
Learning Tools for Application Software

- **Web-based training** is a type of CBT that uses Internet technology and consists of application software on the Web

- **Distance learning** (**DL**) is the delivery of education at one location while the learning takes place at other locations

Summary

How to launch and engage with application software

Overview of different types of business software, graphic and multimedia software, as well as software for home, personal, and educational use.

Communication-related web applications and software programs

Tools for learning application software and online training platforms.

THANK YOU ☺