- Application software consists of programs designed to make users more productive and/or assist them with personal tasks.
- Users can create documents, develop presentations, design Web pages, draw and alter images, record video, file taxes, play games, and compose e-mail.

- Make business activities more efficient.
- Assist with graphics and multimedia projects.
- Support home, personal, and educational tasks.
- Facilitate communications.

#### **Four Categories of 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
- VolP

Video Conferencing



- Packaged software is mass-produced, copyrighted retail software that meets the needs of a wide variety of users.
- Custom software performs functions specific to a business or industry.
- Web applications are Web sites that allow users to access and interact with software from any computer or device that is connected to the Internet.

- Open source software is software provided for use, modification, and redistribution. It has no restrictions from the copyright holder and can often be downloaded for free.
- **Shareware** is copyrighted software that is distributed at no cost for a trial period or as a scaled-down version of the full application.

- Freeware is copyrighted software provided at no cost by an individual or a company that retains all rights to the software.
- Public-domain software has been donated for public use and has no copyright restrictions.

- After you purchase or download software, you install it.
- Some programs ask you to register or active the software.
- Registering the software usually entitles you to product support.
- Product activation is a technique that some software manufacturers use to ensure the software is not installed on more computers than legally licensed.

# The Role of System Software

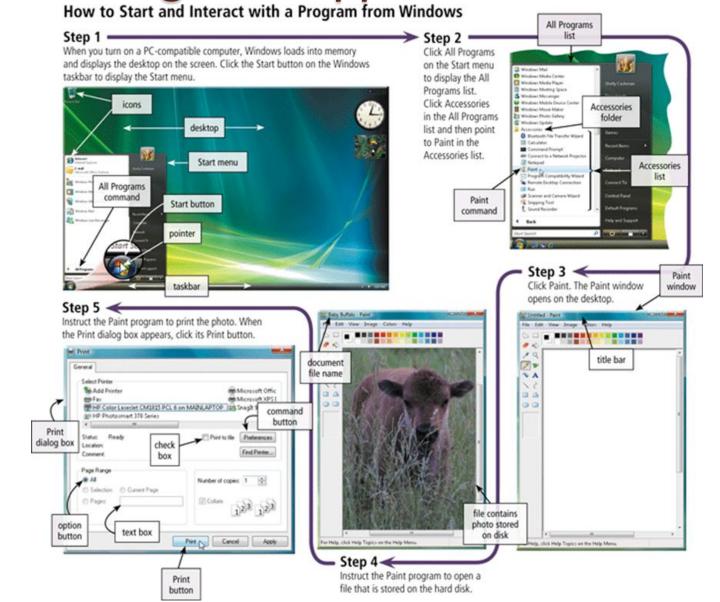
- System software serves as the interface between the user, the application software, and the computer's hardware.
- The operating system is *loaded* (copied) from the computer's hard disk into memory.
- Malicious software, or malware, is a program that acts without the user's knowledge and deliberately alters the computer's operations.

- The desktop is an on-screen work area that has a graphical user interface.
- A **button** is a graphical element that you activate to cause a specific action to occur.
- To click a button on the screen requires moving the pointer to the button and then pressing and releasing a button on the mouse (usually left).
- The pointer is a small symbol displayed on the screen that moves as you interact with the mouse or other pointing device.

- Windows desktop contains a Start button in the lower-left corner of the taskbar which displays the Start menu when clicked.
- A menu contains a list of commands from which you make selections.
- A command is an instruction that causes a program to perform a specific task.

- Once loaded into memory, a window appears on the desktop.
- A window is a rectangular area of the screen that displays data and information.
- The top of the window has a title bar, which is a horizontal space that contains the window's name.

- With a program open, you can create a new file or open an existing one.
- A file is a named collection of stored data, instructions, or information. (text, images, etc.)
- A file name is a unique combination of letters of the alphabet, numbers, and other characters that identifies a file.
- A dialog box is a window that provides information, presents available options, or requests a response.



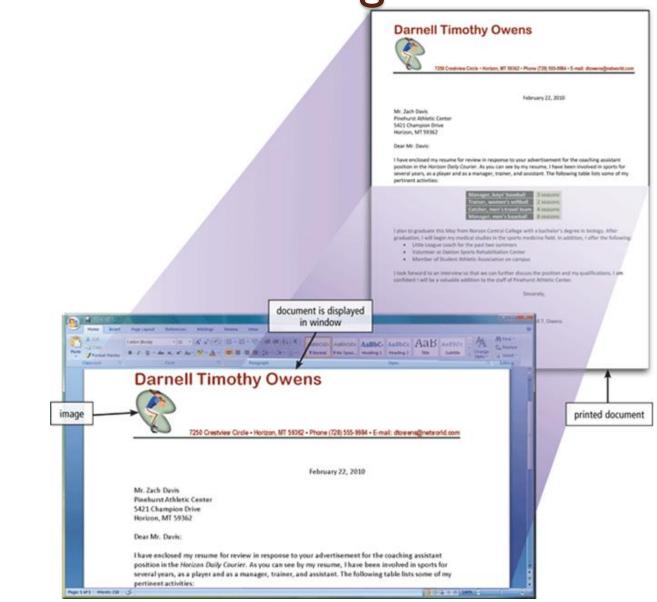
#### **Business Software**

- Business software is application software that assists people in becoming more effective and efficient while performing their daily business activities.
- They include programs such as word processors, spreadsheets, databases, and presentation software.

- Word processing software, sometimes called word processor, allows users to create and manipulate documents containing mostly text and sometimes graphics.
- Millions of people use them daily to develop documents such as letters, memos, reports, mailing labels, newsletters, and Web pages.

- A major advantage of using word processing software is that users easily can change what they have written.
- Users can insert, delete, or rearrange words, sentences, paragraphs, or entire sections.
- You can change the shape and size of the letters and apply special effects.

- Most word processing software allows users to incorporate graphical images, such as digital photos and clip art, in documents.
- Clip art is a collection of electronic drawings, photos, and other images.



- You can define the size of the paper on which to print and specify the margin, which is the portion of the page outside the main body of text.
- Wordwrap allows users to type words in a paragraph continually without pressing enter at the end of each line.

- Scrolling is the process of moving different portions of the document on the screen into view.
- Word processing software typically includes a spelling checker, which reviews the spelling of individual words, sections of a document, or the entire document.
- A header is text that appears at the top of each page, and a footer is text that appears at the bottom. (Page numbers, company names, etc.)

- When you create a document, you enter text or numbers, insert images, and perform other tasks using an input device.
- To edit a document means to make changes to its existing content.
  - Inserting text involves adding text to a document.
  - Deleting means removing text or other content.
  - Cutting is the process of removing a portion of the document and storing it in a temporary location called the *clipboard*, which also stores copied items.
  - Pasting is the process of transferring an item from the clipboard to a specific location.

- When users **format** a document, they change its appearance.
- This includes changing font, font size, and font style.
- A font is a name assigned to a specific design of characters.
  - Serif font has short decorative lines at the upper and lower ends of some characters.
  - Sans serif font does not have the short decorative lines.

- **Font size** indicates the size of the characters in a particular font, gauged by measurement system called points.
- A point is about 1/72 of an inch in height.
- A font style adds emphasis to a font. (bold, italic, underline, and color)

- During the process of creating, editing, and formatting, the computer holds the document in memory.
- When you save a document, the computer transfers the document from memory to a storage medium.
- When you print a document, the computer places the contents of the document on paper or some other medium.

#### Spreadsheet Software

- Spreadsheet software allows users to organize data in rows and columns and perform calculations on the data.
- These rows and columns collectively are called a worksheet.
- Like word processing software, spreadsheet software has basic features to help users create, edit, and format worksheets.

## Spreadsheet Organization

- Data is organized vertically in columns and horizontally in rows on each worksheet.
- Each sheet can have more than 16,000 columns and 1 million rows
- One or more letters identify each column, and a number identifies each row.

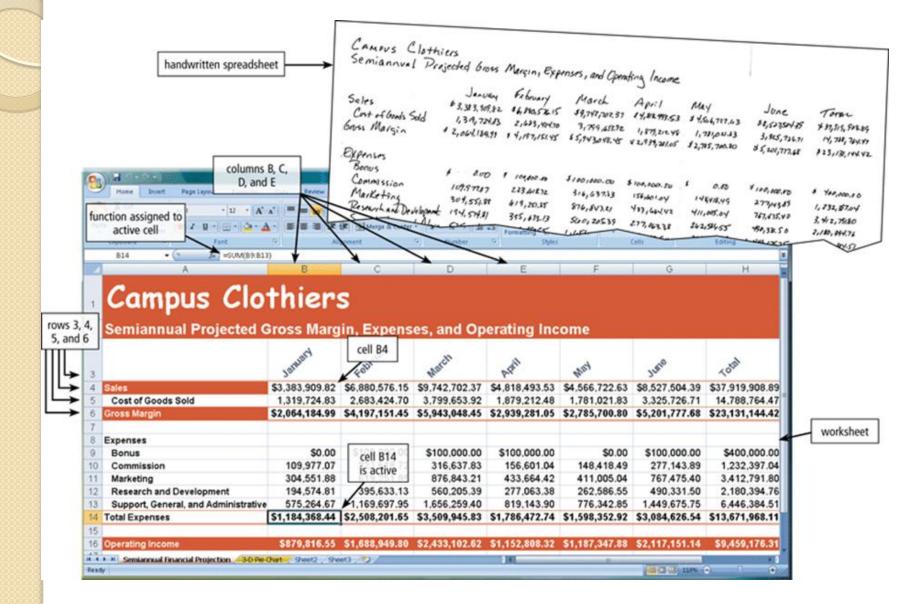
## Spreadsheet Organization

- A cell is the intersection of a column and a row.
- The cells are identified by their column and row. Column B, row 4 is called cell B4.
- The text, or *label*, entered in a cell identifies the worksheet data and helps organize the worksheet.

#### **Calculations**

- A value is a number that can be used in a calculation.
- A formula performs calculations on the data in the worksheet and displays the resulting value in a cell, usually the cell containing the formula.
- A function is a predefined formula that performs common calculations such as adding the values in a group of cells or generating a value such as the time or date.

#### Calculation



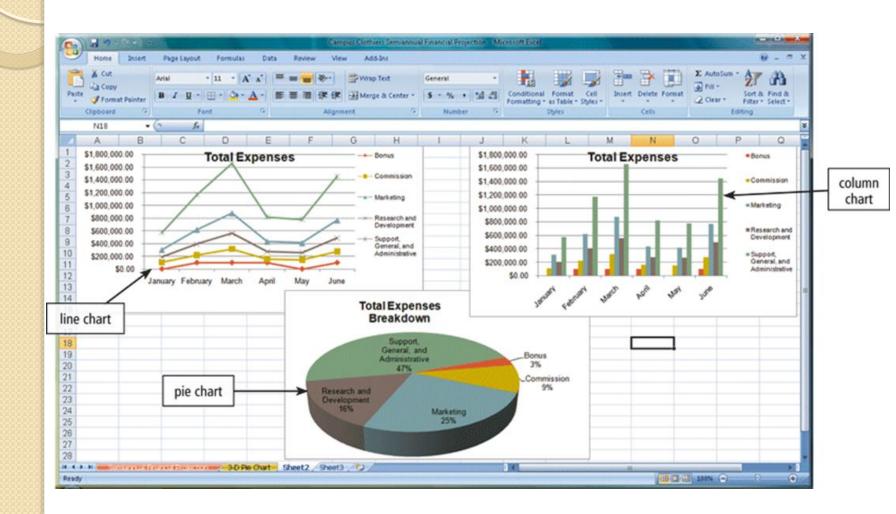
#### Recalculation

 Spreadsheet software automatically recalculates the rest of the worksheet when data changes.

# Charting

- Another feature of spreadsheet software is charting, which depicts the data in graphical form.
- A line chart shows a trend during a period of time by a rising or falling line.
- A column chart, also called a bar chart, displays bars of various lengths to show the relationship of data.
- A pie chart has the shape of a round pie cut into slices, showing the relationship of parts to a whole.

## Charting



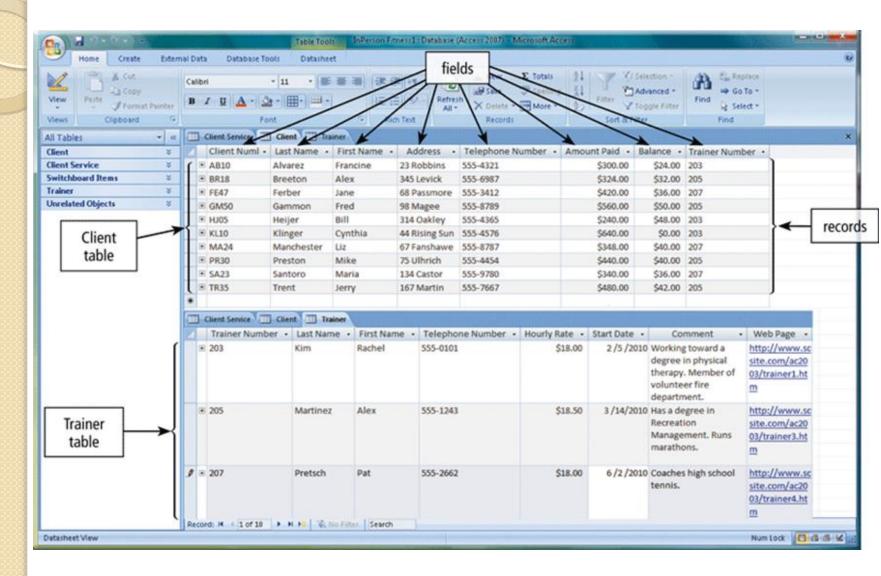
#### Database Software

- A database is a collection of data organized in a manner that allows access, retrieval, and use of that data.
- Database software is application software that allows users to create, access, and manage a database.
- You can add, change, and delete data; sort and retrieve data; and create forms and reports using the data.

#### Database Software

- A database consists of tables organized into rows and columns.
- Each row, called a record, contains data about a given person, product, object, or event.
- Each column, called a *field*, contains a specific category of data within a record.
- A query is a request for specific data from a database.

#### Database Software



#### Presentation Software

- Presentation software is application software that allows users to create visual aids for presentations to communicate ides, messages, and other information to a group.
- The information can be viewed as slieds, called a slide show, that are displayed on a large monitor or on a projection screen.

### Presentation Software

- Typically provides a variety of predefined formats.
- There is a variety of layouts for each individual slide, such as a title slide, a twocolumn slide, or a graphic slide.
- The slides can be timed to continue automatically and/or have transition effects.

#### Presentation Software

- Graphics are included in a clip gallery or can be imported (brought in from outside)
- The finished presentation can be printed out in forms including outline of text, audience handouts, and speaker notes.



# Note Taking Software

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

#### **Business Software Suite**

- A software suite is a collection of individual programs available together as a unit.
- They often include a word processor, spreadsheet, presentation, and e-mail software.
- Microsoft Office, Apple iWork, and Google Docs.
- The programs normally use a similar interface and share features.

### Personal Information Manager

- 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.
- Common amongst PDAs and smart phones.
- Some mobile devices can synchronize with the computer wirelessly while others can connect with a cable.

### **Business Software for Phones**

 Business software available for phones enables users to create documents and worksheets, manage databases and lists, create slide shows, take notes, manage budgets, and read e-mail messages.

# Project Management

- Project management software allows a user to plan, schedule, track, and analyze the events, resources, and costs of a project.
- Helps users manage project variables, allowing them to complete a project on time and within budget.

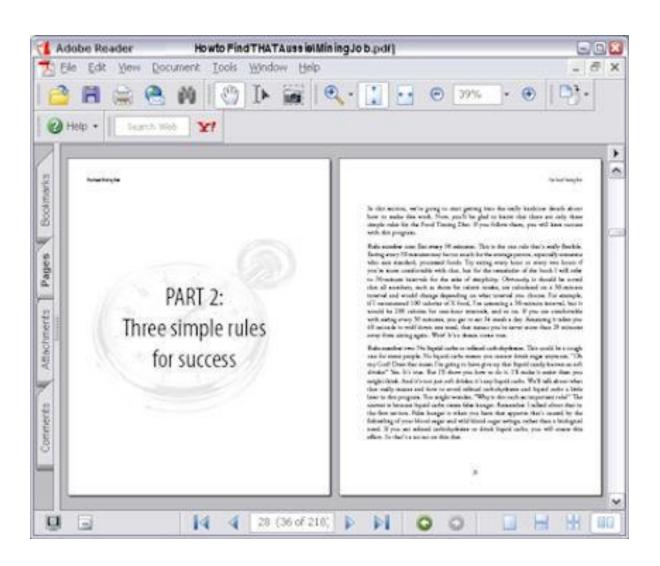
## Accounting Software

- Accounting software helps companies record and report their financial transactions.
- It also enables businesses to write and print checks, track checking account activity, and update reconcile balances on demand.

### Document Management Software

- 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.
- A popular format is PDF (Portable Document Format) developed by Adobe Systems.

### Document Management Software



## **Enterprise Computing Software**

 Larger organizations, called enterprises, often require special computing solutions because of their size and large geographic distribution.