



# Basic Application Software

## Chapter 3

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Basic Application Software

## Learning Outcomes

- Identify general-purpose applications
- Describe word processors, spreadsheets, presentation programs, and database management systems.
- Identify specialized applications.
- Describe graphics programs, web authoring programs, and other specialized professional applications.
- Describe mobile apps and app stores.
- Identify software suites.
- Describe office suites, cloud suites, specialized suites, and utility suites.

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## Introduction

- Not long ago, trained specialists were required to perform many of the operations you can now do with a personal computer.
- Competent end users need to understand the capabilities of basic application software including:
  - Word processors
  - Spreadsheets
  - Presentation programs
  - Database management systems



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Basic Application Software



## Application Software

- Application software
  - End user software
  - Accomplish a variety of tasks
- Three categories
  1. General Purpose Applications
  2. Specialized Applications
  3. Mobile Apps

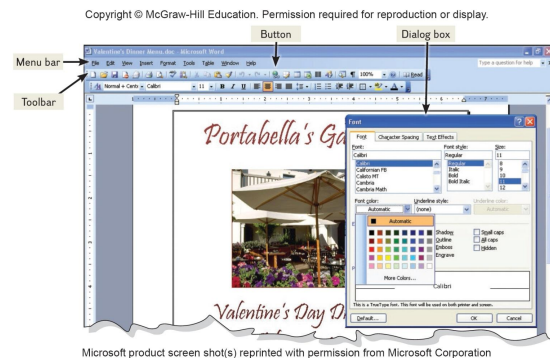
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## User Interface

- Graphical User Interface (GUI) consists of:

- Icons
- Pointer
- Windows
- Menus
- Toolbars
  - Buttons
- Dialog Boxes



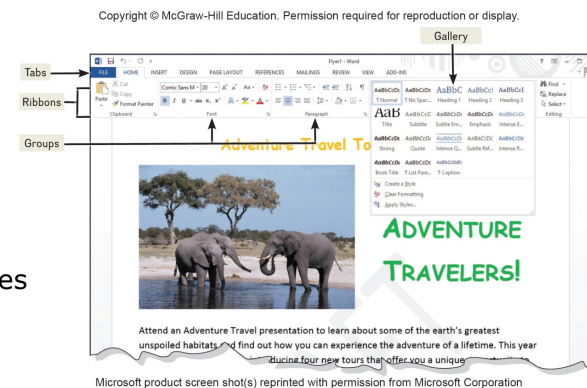
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## Common Features in Microsoft

- Ribbon GUI

- Ribbons
  - Groups
  - Contextual tabs
- Galleries
- Spell checkers
- Alignment
- Font and Font Sizes
- Tables
- Reports



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## General Purpose Applications

- General purpose applications include:

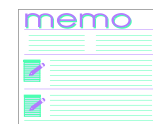
- Word processor programs
- Spreadsheet programs
- Presentation graphics programs
- Database management systems

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## Word Processor Programs

- Create text-based documents
  - Memos, letters, and faxes
  - Newsletters, manuals, and brochures
- Word processing programs
  - Microsoft Word
    - Most popular
  - Apple Pages
  - Google Docs
  - Corel WordPerfect
  - OpenOffice Writer



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# Creating a Flyer

- Flyer Features
  - Spell Checker
  - Center-alignment
  - Grammar Checker
  - Fonts
  - Font Sizes
  - Word Wrap
  - Character Effects

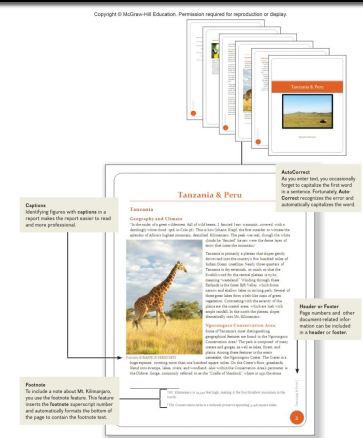


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# Creating a Report

- Report Features
  - AutoCorrect
  - Footnote
  - Header or Footer
  - Captions and Cross References
  - Tables



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# Spreadsheet Programs

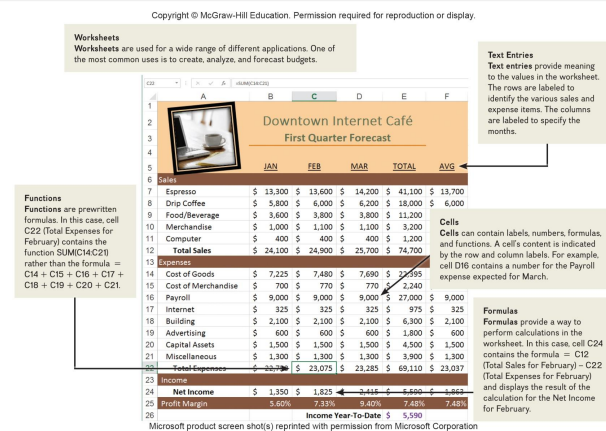
- Organize, analyze, and graph numeric data
- Spreadsheet programs
  - Microsoft Excel
    - Most widely used
  - Apple Numbers
  - OpenOffice Calc
  - Corel Quattro Pro
  - Google Sheets

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# Creating a Sales Forecast

- Features
  - Worksheets
  - Text entries
  - Functions
  - Cells
  - Formulas

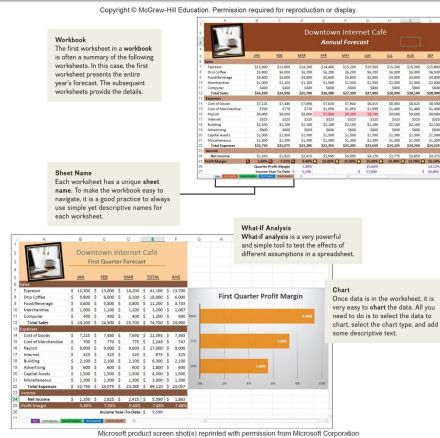


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## Analyzing Your Data

- Analysis Features
  - Workbook and worksheets
  - What-if Analysis



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## Presentation Graphics Programs

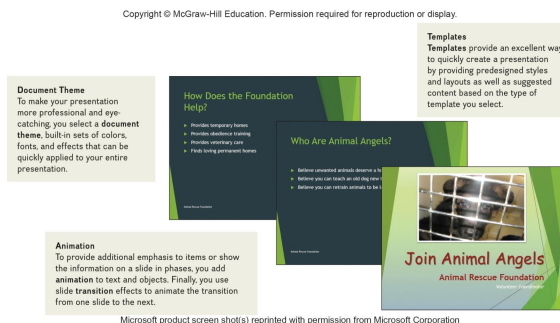
- Combine a variety of visual objects to create visually interesting presentations
- Presentation programs
  - Microsoft PowerPoint
  - OpenOffice Impress
  - Apple Keynote
  - Google Slides
  - Corel Presentations

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## Creating a Presentation

- Presentation Features
  - Document Theme
  - Animation
  - Templates



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## Database Management Systems (DBMS)

- A collection of related data
- Electronic equivalent of a file cabinet
- Two most widely used systems
  - Microsoft Access
  - OpenOffice Base
  - Apple FileMaker
  - Google Obvibase

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## Creating a Database

- First steps is to plan
- Database Features
  - Primary Key
  - Fields
  - Record
  - Table
  - Form

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**Primary Key**  
The primary key is the unique employee identification number. You considered using the last name field as the primary key but realized that more than one employee could have the same last name. Primary keys are often used to link tables.

**Fields**  
Fields are given field names that are displayed at the top of each table. You select the field names to describe their contents.

**Table**  
Tables make up the basic structure of a relational database with columns containing field data and rows containing record information. This table records basic information about each employee, including name, address, and telephone number.

Employee ID	Last Name	First Name	Address	City	State	Zip	Phone
1	Smith	John	1234 Main St.	Anytown	CA	90210	555-1234
2	Smith	Jane	5678 Main St.	Anytown	CA	90210	555-5678
3	Smith	Bob	9012 Main St.	Anytown	CA	90210	555-9012
4	Smith	Alice	3456 Main St.	Anytown	CA	90210	555-3456
5	Smith	Charlie	7890 Main St.	Anytown	CA	90210	555-7890
6	Smith	Diana	2345 Main St.	Anytown	CA	90210	555-2345
7	Smith	Frank	6789 Main St.	Anytown	CA	90210	555-6789
8	Smith	Grace	0123 Main St.	Anytown	CA	90210	555-0123
9	Smith	Henry	4567 Main St.	Anytown	CA	90210	555-4567
10	Smith	Ivy	8901 Main St.	Anytown	CA	90210	555-8901

**Record**  
Each record contains information about one employee. A record often includes a combination of numeric, text, and object data types.

**Form**  
Like printed paper forms, electronic forms should be designed to be easy to read and use. This form makes it easy to enter and view all employees data, including their photographs.

**Employee Records**

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## Specialized Applications

- Programs that more narrowly focused on specific disciplines and occupations
- Includes:
  - Graphics Programs
  - Web Authoring Programs

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## Graphics Programs

- Widely used in graphic arts
- Types of graphics programs are:
  - Desktop Publishing Programs
  - Image Editing Programs
  - Illustration Programs
  - Image Galleries

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## Desktop Publishing Programs

- Also known as Page Layout Programs
- Mix text and graphics to create brochures, newsletters, newspapers and textbooks
- Popular programs:
  - Adobe InDesign
  - Microsoft Publisher
  - QuarkXPress

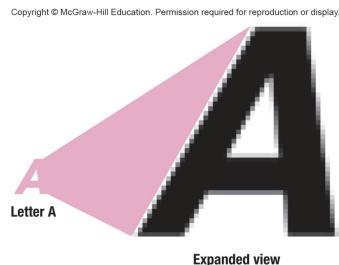
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## Image Editors

- Also known as Photo Editors
- Editing or modifying digital photographs
- Photographs consist of thousands of pixels that form images known as bitmaps
- Popular image editors
  - Adobe Photoshop
  - Corel PaintShop Pro
  - GIMP (GNU Manipulation Program)
  - Windows Live Photo Gallery



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## Illustration Programs

- Drawing programs
- Create and edit vector images
  - Vector illustrations
- Geometric shapes or objects
- Created by connecting lines and curves
- Defined by mathematical equations
- Popular Illustration Programs
  - Adobe Illustrator
  - CorelDraw
  - Inkscape

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## Video Editors

- Edit videos to enhance quality and appearance
  - Can now use your smartphone to edit videos
- Well-known programs
  - Windows Live Movie Maker
  - Apple iMovie
  - YouTube Video Editor

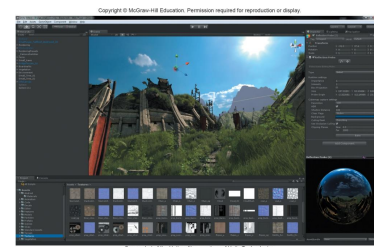


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## Video Game Design Software

- Video Game Design Software helps
  - Organize thoughts
  - Guide user through game design process
    - Character development
    - Environmental design
  - Free / inexpensive video game design software
    - YoYo GameMaker
    - Stencyl
    - Unity



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## Web Authoring Programs

- Web authoring is the creation of a site
  - Design
  - Document file displaying website's content
- Blog
  - Online diary/commentaries
- Web Authoring Programs
  - Typically used to create commercial sites
  - Web page editors or HTML editors
  - WYSIWYG (what you see is what you get)
- Most widely used programs
  - Adobe Dreamweaver
  - Microsoft Expression Web

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## Mobile Apps

- Mobile Applications or Mobile Apps
  - Add-on programs for a variety of mobile devices
  - Smartphones or tablets
- Apps
  - Breadth and scope are ever-expanding
  - 500,000 just for iPhone
  - Music, videos, social networking, shopping, games

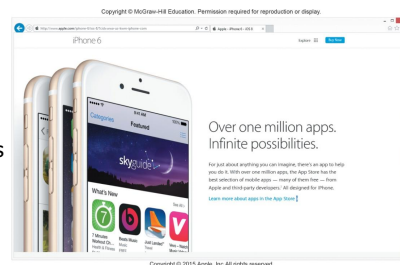


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## App Stores

- App Stores
  - Provides access to mobile apps for downloads
    - Apple's App Store
      - Apple Devices
      - [www.apple.com/itunes/charts](http://www.apple.com/itunes/charts)
    - Google Play
      - Android Devices
      - [Play.google.com/store/apps](http://play.google.com/store/apps)
    - Apps2go
      - Android and Apple Devices
      - [www.apps2go.com](http://www.apps2go.com)

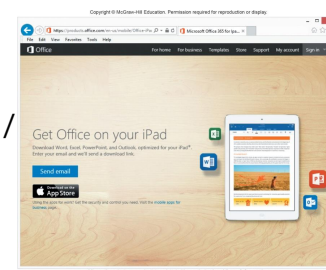


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## Software Suites

- Collection of separate application programs
  - Bundled together – sold as group
- Four types of suites
  1. Office suites or office software suite / productivity suites
    - Microsoft Office
    - Apple iWork, OpenOffice
  2. Cloud suites or online office suites
    - Google Docs (Making IT Work for You), Zoho, Microsoft Office 365



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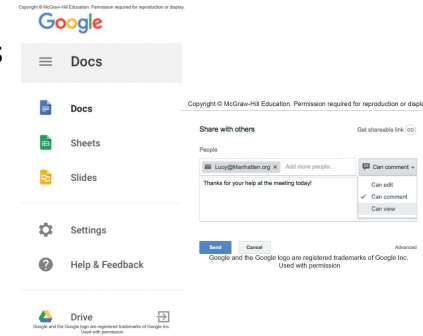
## Suites continued

- Specialized suites
  - Focus on specific applications
    - Corel Draw Graphics Suite X6
    - Moneyfree Software TOTAL Planning Suite
- Utility suites
  - Designed to make computing easier and safer
    - Norton Systems Works
    - Norton Internet Security suite

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## Making IT Work for You - Google Docs

- Tool to create and collaborate with others
- Creating /sharing documents
  - Free and easy to use
  - Free Google account
  - Free online storage



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## Careers In IT

- Software Engineers
  - Analyze users' needs and create application software
- Attributes
  - Good communication and analytical skills
  - Programming experience
  - Detail oriented
  - Web application experience
  - Analytical skills
- Earning potential of \$55,000 to \$71,000 annually



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## A Look to the Future

- Next-Generation User Interfaces
  - Doubtful a single interface will serve everyone
  - Must be comfortable to use
    - Touch / interactive screen
    - Voice recognition
    - Gestures
    - Augmented Reality



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## Open-Ended Questions (Page 1 of 2)

1. Explain the difference between general-purpose and specialized applications. Also discuss the common features of application programs, including those with traditional and ribbon graphical user interfaces.
2. Discuss general-purpose applications including word processors, spreadsheets, database management systems, and presentation graphics.

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## Open-Ended Questions (Page 2 of 2)

3. Discuss specialized applications, including graphics programs, video game design software, web authoring programs, and other professional specialized applications
4. Describe mobile apps, including popular apps and app stores.
5. Describe software suites, including office suites, cloud suites, specialized suites, and utility suites.

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