



Application Software

Chapter 3

Computing
Essentials 2014

Competencies (Page 1 of 2)

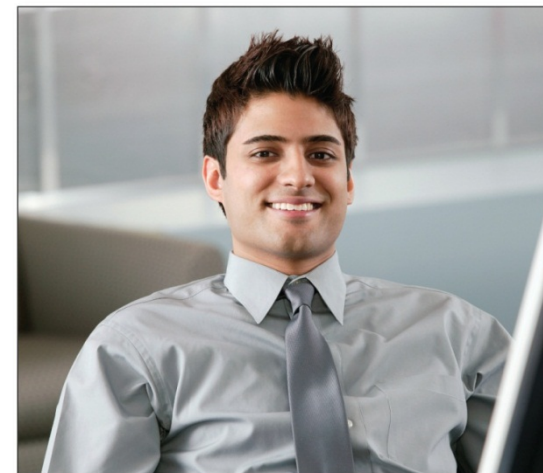
- Discuss general-purpose applications
- Discuss word processors, spreadsheets, database management systems, and presentation programs.
- Discuss specialized applications.
- Describe graphics programs, web authoring programs, and other specialized professional applications.

Competencies (Page 2 of 2)

- Describe mobile apps and app stores.
- Discuss software suites.
- Describe office suites, cloud suites, specialized suites, and utility suites.

Introduction

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



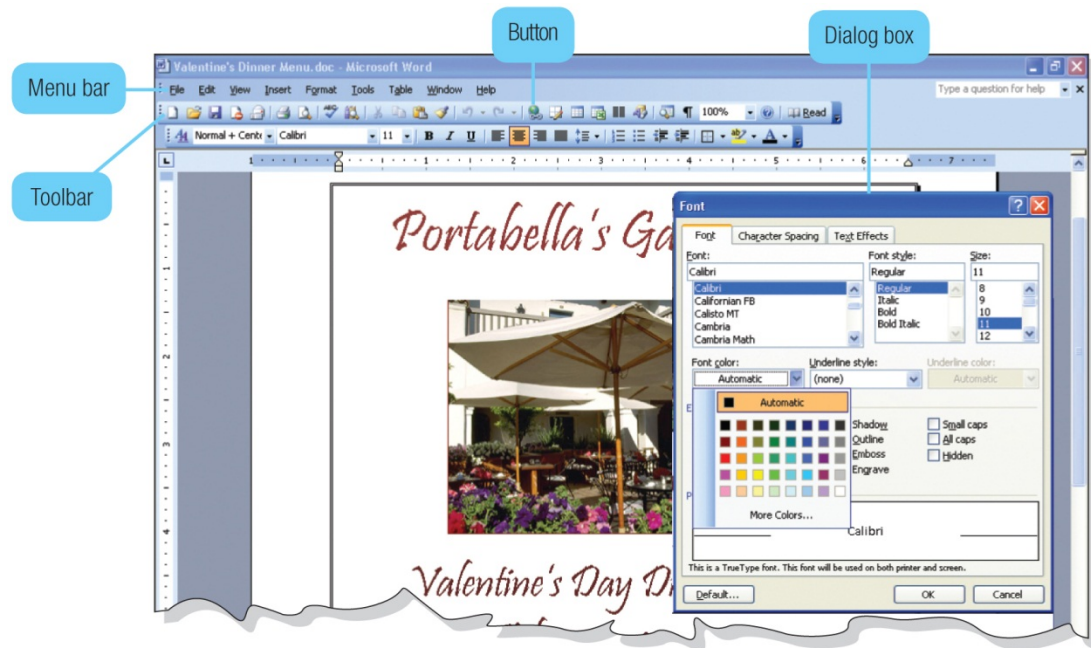


Application Software

- Application software is end user software that is used to accomplish a variety of tasks
- Three categories
 1. General Purpose Applications
 2. Specialized Applications
 3. Mobile Apps

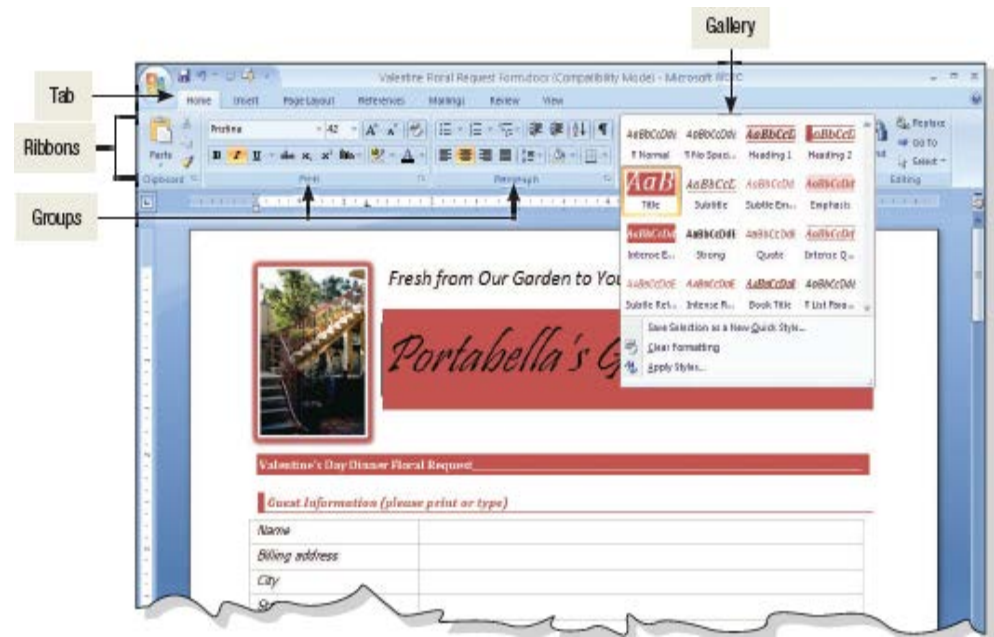
Common Features

- Graphical User Interface (GUI)
- Icons
- Pointer
- Windows
- Menus
- Toolbars
 - Button
- Dialog Boxes
- Spell checkers
- Alignment
- Font and Font Sizes
- Tables
- Reports



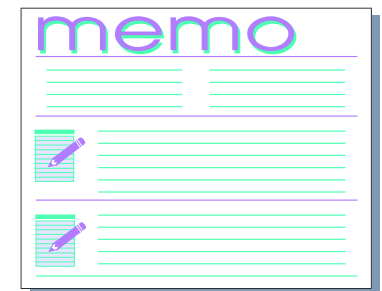
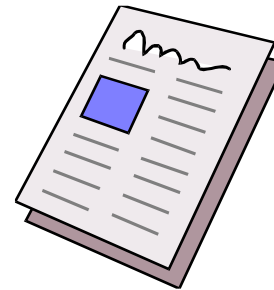
Common Features in Microsoft

- Ribbon GUI
 - Ribbons
 - Tabs
 - Groups
 - Contextual tabs
 - Galleries



Word Processors

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





Spreadsheets

- Programs that organize, analyze, and graph numeric data
- Spreadsheet programs
 - Microsoft Excel
 - Apple Numbers
 - OpenOffice Calc


Creating a Sales Forecast

Worksheets

Worksheets are used for a wide range of different applications. One of the most common uses is to create, analyze, and forecast budgets.

Text Entries

Text entries provide meaning to the values in the worksheet. The rows are labeled to identify the various sales and expense items. The columns are labeled to specify the months.

	A	B	C	D	E	F
1		Downtown Internet Café <i>First Quarter Forecast</i>				
2						
3						
4						
5						
6		JAN	FEB	MAR	TOTAL	AVG
7	Sales					
8	Beverage	\$ 13,600	\$ 14,600	\$ 15,600	\$ 43,800	\$ 14,600
9	Food	\$ 7,100	\$ 7,300	\$ 7,400	\$ 21,800	\$ 7,267
10	Internet	\$ 4,000	\$ 4,300	\$ 4,500	\$ 12,800	\$ 4,267
11	Merchandise	\$ 3,100	\$ 3,200	\$ 3,300	\$ 9,600	\$ 3,200
12	Total Sales	\$ 27,800	\$ 29,400	\$ 30,800	\$ 87,000	\$ 29,000
13	Expenses					
14	Cost of Goods	\$ 6,950	\$ 7,300	\$ 7,600	\$ 21,850	\$ 7,283
15	Payroll	\$ 7,500	\$ 7,500	\$ 7,500	\$ 22,500	\$ 7,500
16	Computers	\$ 6,400	\$ 6,400	\$ 6,400	\$ 19,200	\$ 6,400
17	Lease	\$ 5,500	\$ 5,500	\$ 5,500	\$ 16,500	\$ 5,500
18	Marketing	\$ 1,000	\$ 1,000	\$ 1,000	\$ 3,000	\$ 1,000
19	Miscellaneous	\$ 1,500	\$ 1,500	\$ 1,500	\$ 4,500	\$ 1,500
20	Total Expenses	\$ 28,850	\$ 29,200	\$ 29,500	\$ 87,550	\$ 29,183
21	Income					
22	Net Income	\$ (1,050)	\$ 200	\$ 1,300	\$ 450	\$ 150
23	Profit Margin	-3.78%	0.68%	4.22%	0.51%	
24			Income Year-To-Date	\$ 450		

Cells

Cells can contain labels, numbers, formulas, and functions. A cell's content is indicated by the row and column labels. For example, cell D15 contains a number for the Payroll expense expected for March.

Functions

One advantage of using **functions** rather than entering formulas is that they are easier to enter. In this case, cell C20 (Total Expenses for February) contains the function SUM(C14:C19) rather than the formula =C14+C15+C16+C17+C18+C19.

Formulas

Formulas provide a way to perform calculations in the worksheet. In this case, cell C22 (Net Income for February) contains the formula =C12 (Total Sales for February) - C20 (Total Expenses for February) contains a number for the Payroll expense expected for March.



Database Management Systems (DBMS)

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



Presentation Graphics

- Programs that combine a variety of visual objects to create visually interesting presentations
- Presentation programs
 - Microsoft PowerPoint
 - OpenOffice Impress
 - Apple Keynote



Specialized Applications

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

Graphics

- Widely used in graphic arts
- Use:
 - Desktop Publishing Programs
 - Image Editing Programs
 - Illustration Programs
 - Image Galleries

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



Image Editors

- Also know as Photo Editors
- Specialized graphics programs for editing or modifying digital photographs
- Photographs consist of thousands of pixels that form images known as bitmaps
- Popular image editors
 - Adobe Photoshop
 - Corel Paint shop Pro
 - GIMP (GNU Manipulation Program)
 - Windows Live Photo Gallery

Making IT Work for You - Image Editing

- Tool to manage your images locally and on the cloud
- Windows Live Photo Gallery
 - Free and easy to use
 - Identify and tag
 - 7GB free online storage

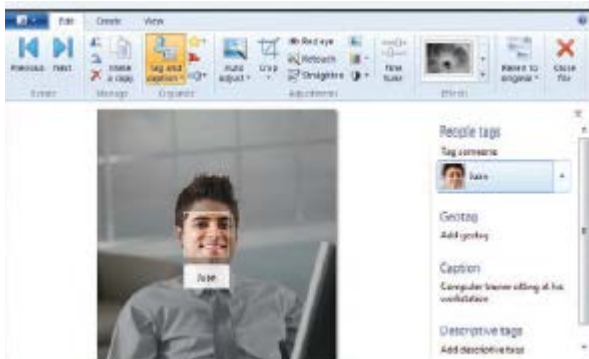
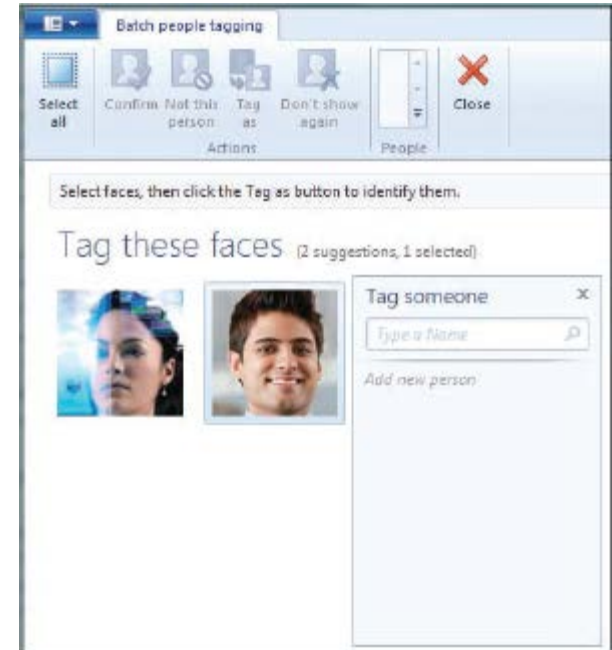


Illustration Programs

- Also known as drawing programs
- Create and edit vector images
- Use geometric shapes or objects created by connecting lines and curves defined by mathematical equations
- Popular Illustration Programs
 - Adobe Illustrator
 - CorelDraw
 - Inkscape

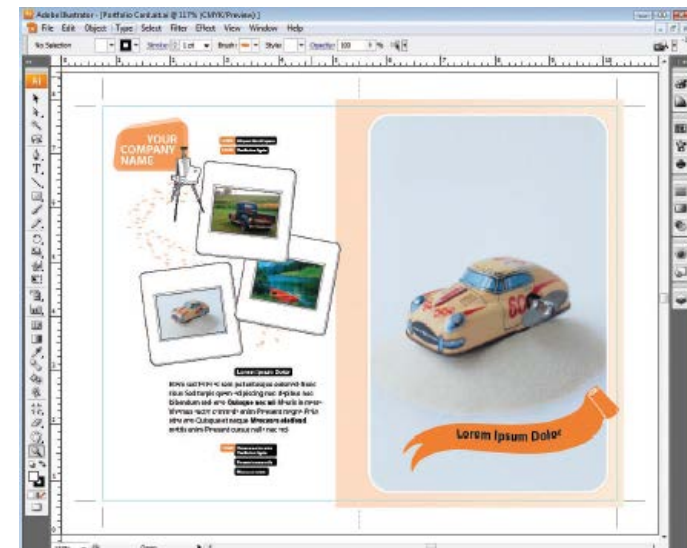


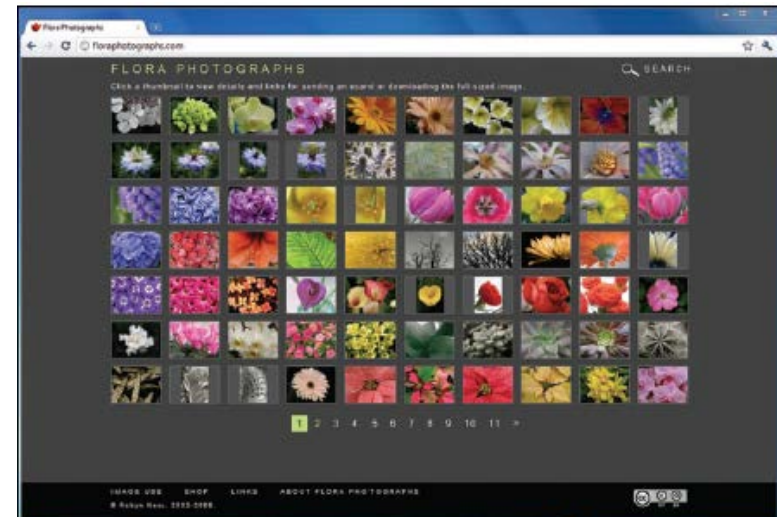
Image Galleries

- Libraries of electronic images
- Used for a variety of applications
- Provides visual interest
- Two types
 - Stock photographs
 - Clip art

Organization	Site
Classroom Clipart	www.classroomclipart.com
MS Office clip art	office.microsoft.com/clipart
iStockphoto	istockphoto.com
Flickr Creative Commons	www.flickr.com/creativecommons

Web Authoring Programs

- Web authoring is the creation of a site
 - Design
 - Document file displaying website's content
- Graphical site map
 - Overall site design
- Multimedia Elements
 - Animations
 - Flash
 - WYSIWYG



Mobile Apps

- Mobile applications are add-on programs for smartphones or tablets
- Apps
 - 500,000 just for iPhone
 - Social networking, messaging, web browsing, QR codes
- App Stores
 - Provides access to mobile apps
 - Apple's App Store
 - Google Play
 - Windows Phone Marketplace



App	Focus	Site
Apple App Store	iOS devices	www.appstore.com
Google Play	Android devices	play.google.com
BlackBerry App World	BlackBerry products	appworld.blackberry.com
Windows Phone Marketplace	Windows phones	windowsphone.com/marketplace

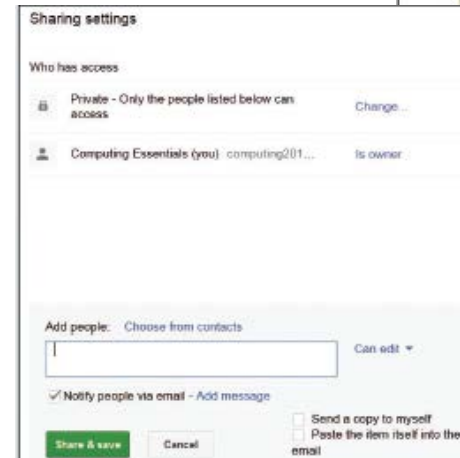
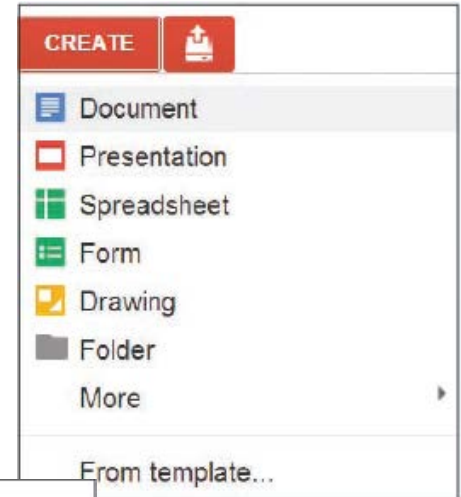
Software Suites

- Collection of separate application programs bundled together and sold as a group
- Office suites or office software suite / productivity suites
 - Microsoft Office
 - Apple iWork, OpenOffice
- Cloud suites or online office suites
 - Google Docs, Zoho, Microsoft Web Apps
- Specialized suites
- Utility suites
 - Norton Systems Works
 - Norton Internet Security suite



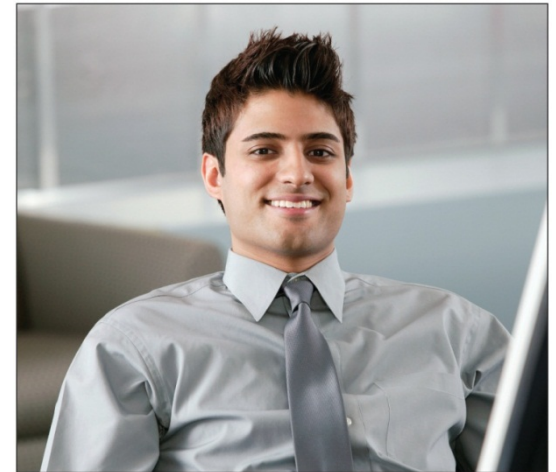
Making IT Work for You - Google Docs

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



Careers In IT

- **Software Engineers analyze users' needs and create application software**
- **Attributes**
 - Good communication skills
 - Programming experience
 - Detail oriented
 - Web application experience
 - Analytical skills
- **Earning potential of \$53,000 to \$97,000 annually**



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?



Open-Ended Questions (Page 1 of 2)

- 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.
- Define general-purpose applications including word processors, spreadsheets, database management systems, and presentation graphics.
- Discuss specialized applications, including graphics programs, web authoring programs, and other professional specialized applications

Open-Ended Questions (Page 2 of 2)

- Describe mobile apps, including QR code readers and app stores.
- Describe software suites, including office suites, cloud suites, specialized suites, and utility suites.