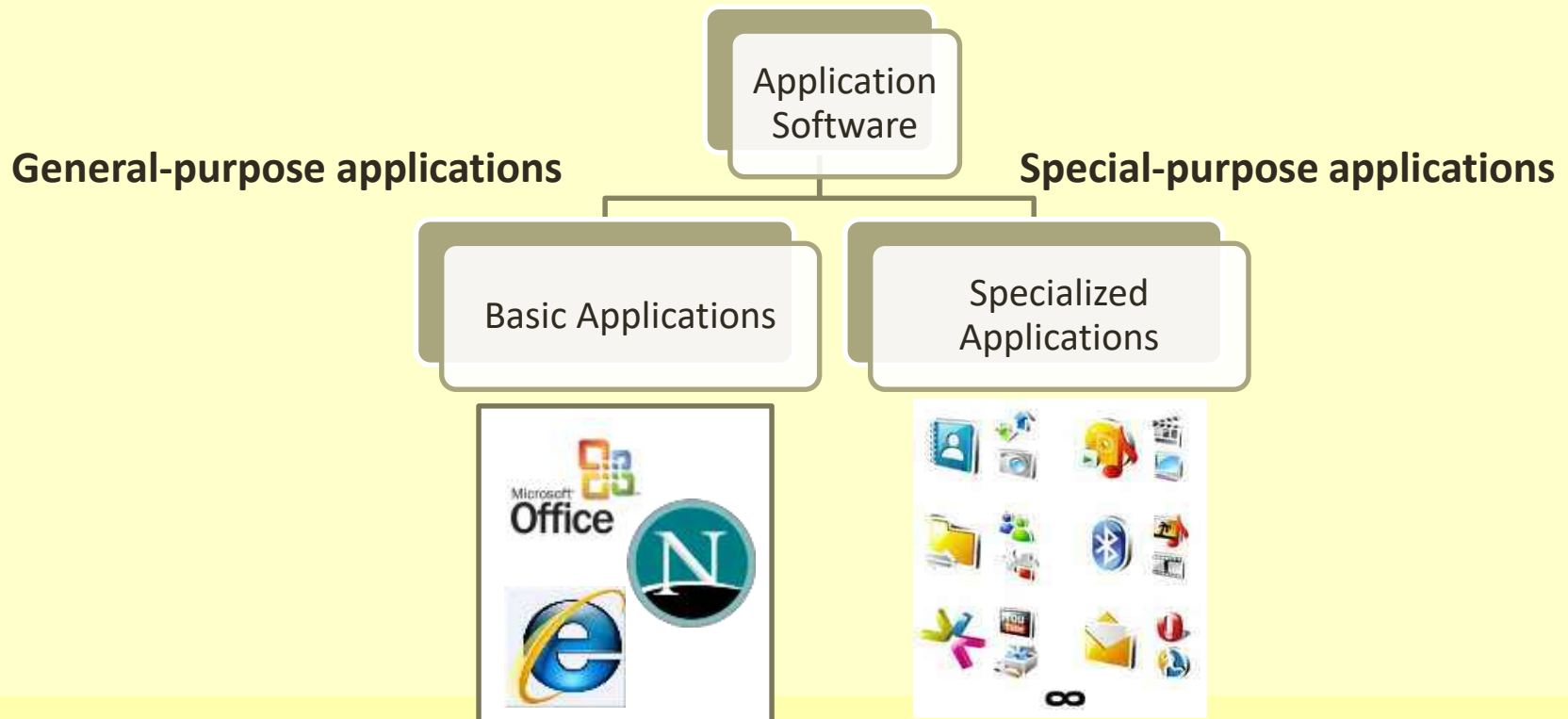


Lecture 02

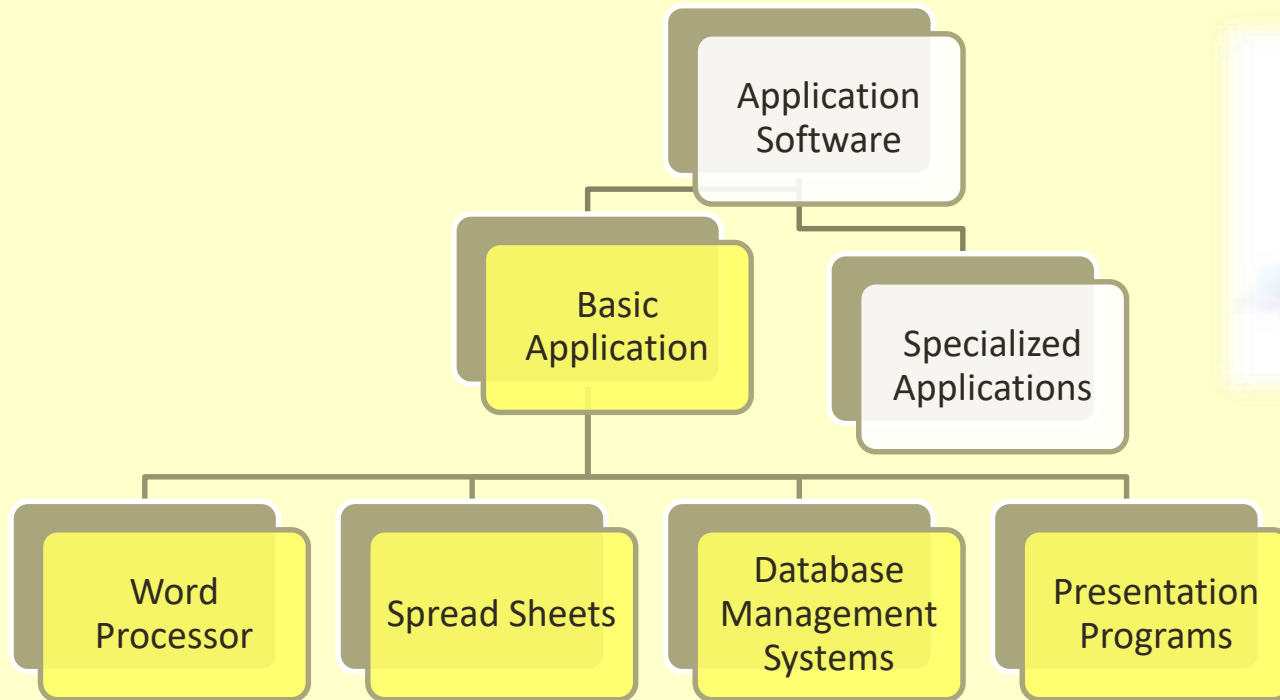
Application Software

Application Software

Application software: is end user software that is used to accomplish a variety of tasks (also known as **apps**)



Application Software



| Emp ID | Emp Name | Emp Address | Emp City | Emp State | Emp Zip | Emp Phone | Emp Email | Emp Title | Emp Salary | Emp Hire Date | Emp Termination Date |
|--------|---------------|-----------------|---------------|-----------|---------|--------------|---------------------------|-----------------------|------------|---------------|----------------------|
| 1000 | John Doe | 1234 Main St | New York | NY | 10001 | 212-555-1234 | john.doe@company.com | Software Engineer | \$75,000 | 2000-01-01 | 2005-12-31 |
| 1001 | Jane Smith | 5678 Elm St | Los Angeles | CA | 90001 | 310-555-5678 | jane.smith@company.com | Marketing Manager | \$85,000 | 2001-03-15 | 2006-06-30 |
| 1002 | Bob Johnson | 9012 Oak St | Chicago | IL | 60601 | 312-555-9012 | bob.johnson@company.com | Sales Representative | \$65,000 | 2002-07-01 | 2007-03-31 |
| 1003 | Alice Brown | 3456 Pine St | San Francisco | CA | 94101 | 415-555-3456 | alice.brown@company.com | Product Designer | \$90,000 | 2003-09-10 | 2008-01-01 |
| 1004 | Charlie Davis | 7890 Cedar St | Phoenix | AZ | 85001 | 602-555-7890 | charlie.davis@company.com | Operations Manager | \$70,000 | 2004-02-20 | 2009-05-15 |
| 1005 | Diana Prince | 2345 Birch St | Seattle | WA | 98101 | 206-555-2345 | diana.prince@company.com | Human Resources | \$60,000 | 2005-04-05 | 2010-08-31 |
| 1006 | Frank Miller | 6789 Maple St | Portland | OR | 97201 | 503-555-6789 | frank.miller@company.com | Quality Assurance | \$55,000 | 2006-06-18 | 2011-11-30 |
| 1007 | Grace Wilson | 1357 Spruce St | Denver | CO | 80201 | 303-555-1357 | grace.wilson@company.com | Systems Administrator | \$80,000 | 2007-08-01 | 2012-02-28 |
| 1008 | Harry White | 4567 Ash St | San Diego | CA | 92101 | 619-555-4567 | harry.white@company.com | Business Development | \$95,000 | 2008-10-12 | 2013-04-30 |
| 1009 | Ivy Green | 8901 Hickory St | San Jose | CA | 95101 | 408-555-8901 | ivy.green@company.com | Finance Analyst | \$72,000 | 2009-12-01 | 2014-07-31 |
| 1010 | Jack Black | 2468 Poplar St | San Antonio | TX | 78201 | 214-555-2468 | jack.black@company.com | Customer Support | \$50,000 | 2010-01-15 | 2015-01-15 |

Employee ID: 12345

First Name: Charles Photo:

Last Name: Smith

Address: 10000 Peach St

City: Atlanta

State: GA

ZIP Code: 30311

Home Phone: 404-555-1234

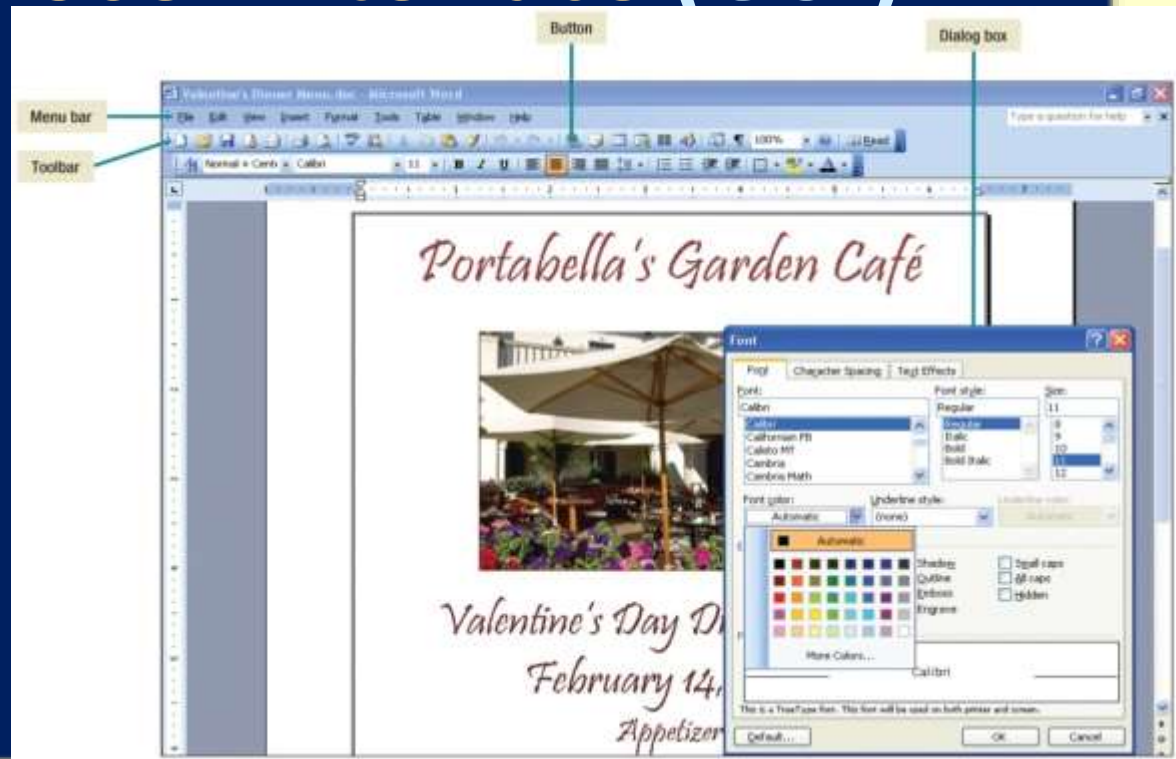
Gender: M

Birth Date: 02/01/1980



Common features

1. Graphical User Interface (GUI)
2. Icons
3. Windows
4. Menus
5. Toolbars



Tool bar:

- Quick access to commonly used commands
- Contains **buttons** that provide shortcuts



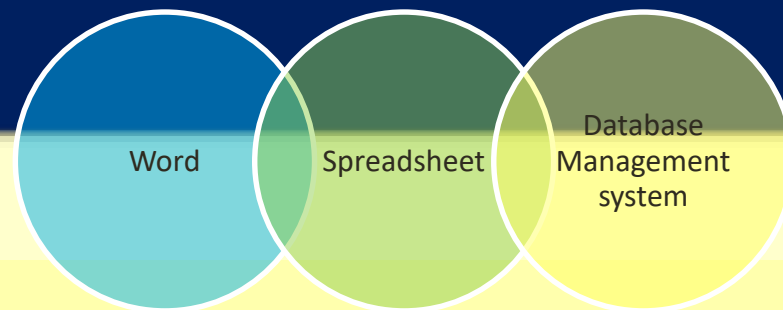
What's next?? ...Speech Recognition

- Use speech recognition program to select menu options and do different activities ...
- **Speech recognition:** Allows your voice to control application software



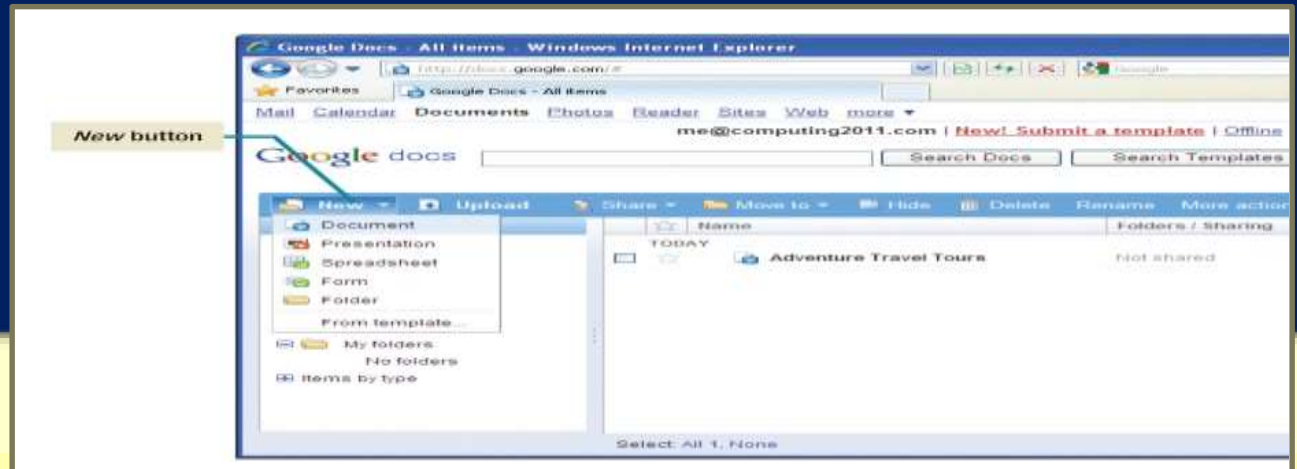
Integrated Packages

- A single program that provides the functionality of several widely used programs
 - Popular with many home users
 - Classified as personal or home software
- **Advantage:** are cost and simplicity
- **Disadvantage:** limited functions
- The most widely used package is Microsoft Works



Software Suites

- Collection of separate application programs bundled together and sold as a group
- Four types of suites:
 1. Productivity suites or office software suite (e.g., Microsoft Office)
 2. Cloud suites or online office suites (e.g., Google Docs)
 3. Specialized suites (graphics and planning ..Chapter 4)
 4. Utility suites (e.g., Norton Internet Security suite)



In this Section...

Specialized applications : let users perform advanced computing tasks

Graphics Programs

1

Audio and Video Software

2

Multimedia Programs

3

Web Authoring

4

Artificial Intelligence

5



Introduction



Create websites



Graphics Design



Musicians and Artists work from home



Lecture 02

You can surf the web and scan documents and update your blog

1. Graphics programs

Desktop
Publishing

Image
Editors

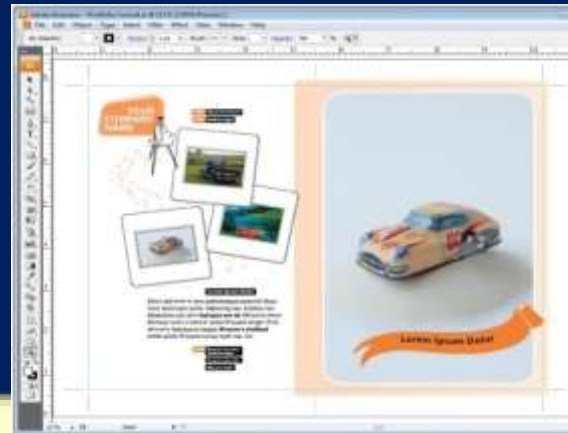
Illustration
Programs

Image
Galleries

Graphics
Suites

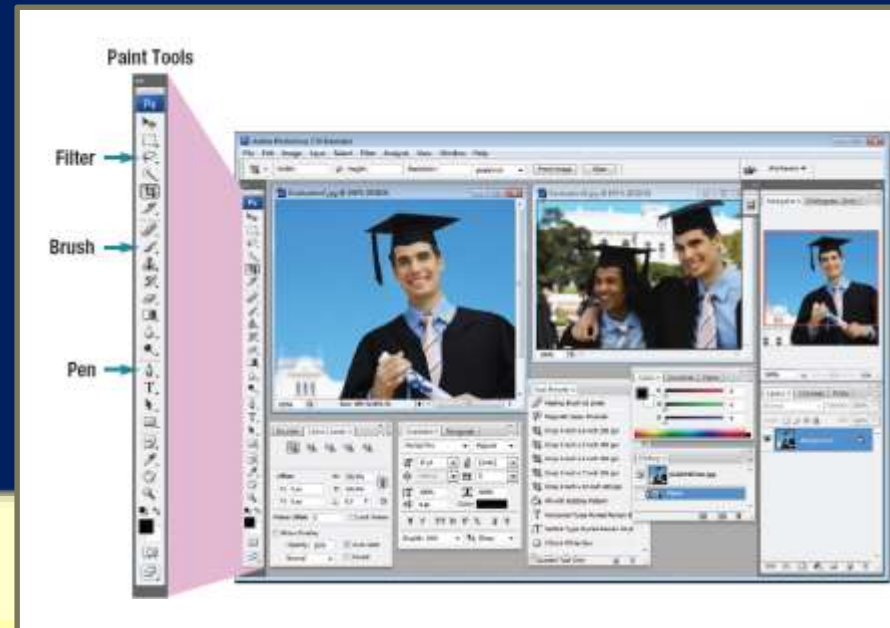
1. Graphics: Desktop Publishing

- Programs that allow you to **Mix text and graphics** to create publications with **Professional quality**
- Desktop publishers focus on **Page Design, Layout, and provides greater flexibility**.
- Popular programs
 - Adobe InDesign
 - Microsoft Publisher
 - QuarkXPress



1. Graphics: Image Editors

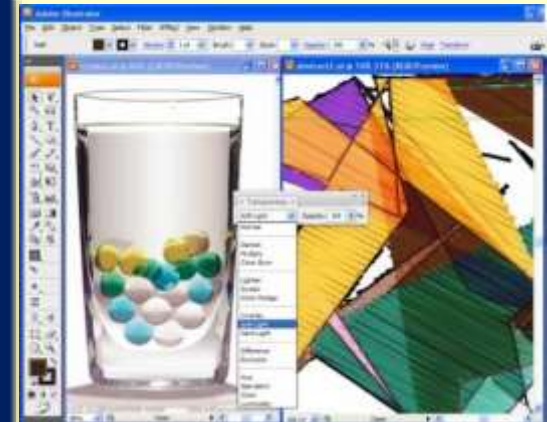
- Image Editor = Photo Editor
- Programs for **creating** and **editing** bitmap images
 - Bitmap images use thousands of dots or **pixels** to represent an image
 - Each dot has a specific location, color, and shade.
 - Bitmap images are also called **raster images**
- Popular programs
 - **Paint.NET**
 - **Adobe Photoshop**
 - **Corel Paint Shop Pro**



1. Graphics: Illustration Programs

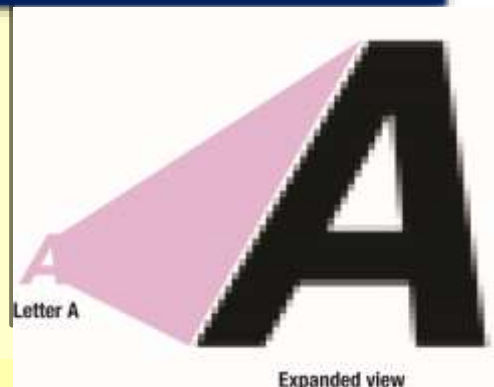
- **Vector**: another common type of graphic file
- Vector Image = Vector Illustration
- Vector images use geometric shapes or objects by connecting lines and curves
- Popular programs
 - Adobe Illustrator
 - Inkscape
 - CorelDRAW

Adobe Illustrator

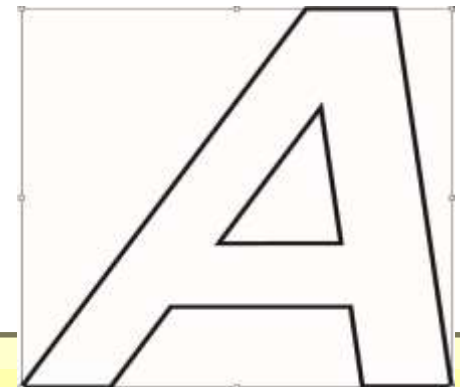


Bitmap Image

Inkscape



Vector Image



1. Graphics: Image Galleries

- Libraries of electronic images
- Used for a variety of applications
- Two basic types

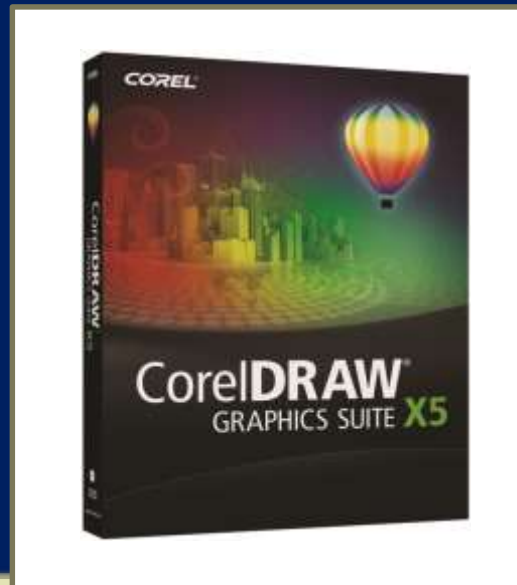
1. Stock photographs : Photographs

2. Clip art: Graphic illustration

| Organization | Site |
|-------------------------|--|
| Classroom Clipart | www.classroomclipart.com |
| ClipArt.com | www.clipart.com |
| Graphics Factory | www.graphicsfactory.com |
| MS Office clip art | office.microsoft.com/clipart |
| iStockphoto | istockphoto.com |
| Flickr Creative Commons | www.flickr.com/creativecommons/ |

1. Graphics: Graphic Suites

- Bundled graphic programs
- Can buy a larger variety of graphics programs at a lower cost
- Examples:
 - CorelDRAW Graphics Suite
 - Adobe Creative Suite



In this Chapter...

Specialized applications : let users perform advanced computing tasks

Graphics Programs

1

Audio and Video Software

2

Multimedia Programs

3

Web Authoring

4

Artificial Intelligence

5



Lecture 02

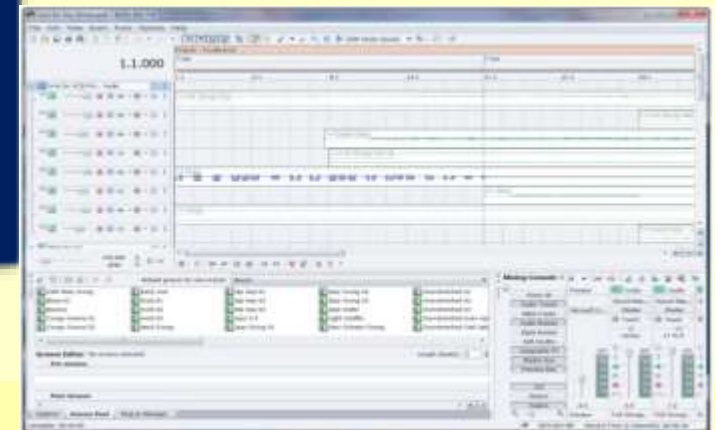


2. Audio and Video

Video Editing
Software

Audio Editing
Software

- **Video editing software**
 - Create and edit movies
 - Enhance digital video footage
 - **Apple's iMovie or Windows Movie Maker**
- **Audio editing software**
 - Create and edit audio clips and make MP3s
 - **Apple's Garage Band or Sony's ACID**



Windows Movie Maker



- <http://www.youtube.com/watch?v=3ZZij3NNyVg>

In this Chapter...

Specialized applications : let users perform advanced computing tasks



3. Multimedia

- The integration of a variety of media into one presentation
i.e. Video...Music...Voice...Graphics...Text
- Include user **interactivity** that allows the user to
 - Choose the information to view
 - Control the pace and flow of information
 - Respond to items and give feedback
 - Links and Buttons
- **Multimedia Authoring Programs:** Special programs used to create multimedia presentations.
 - Adobe Director
 - Toolbook



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Lecture 02



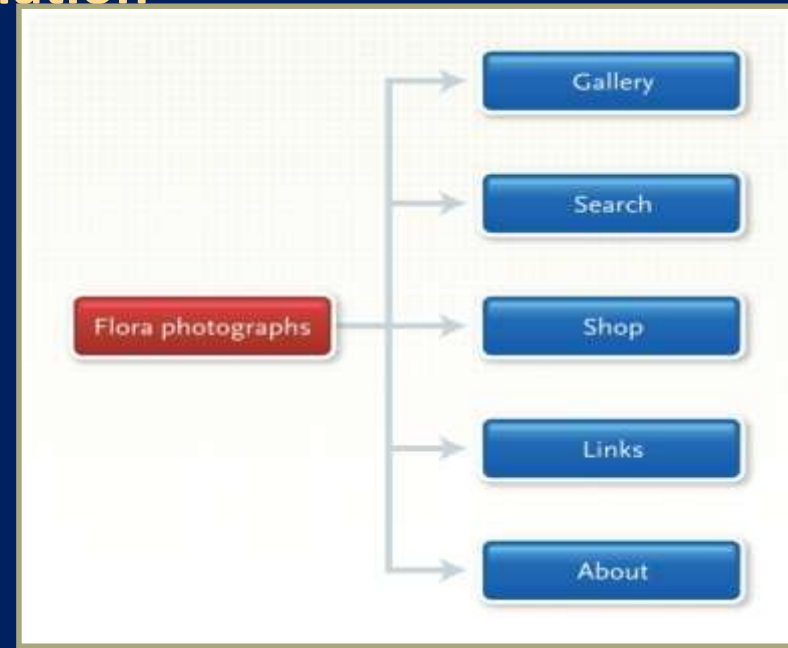
4. Web Authoring

- **Web Authoring:** creating a website
- Many individuals create their own personal sites, called **Web logs** or **blogs**, to keep in touch with friends and family



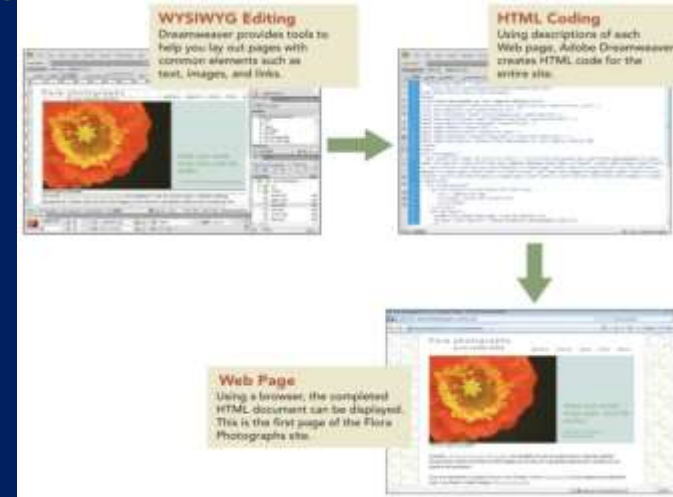
4. Web Authoring : Web Site Design

- First step is to determine website content
- Interactive multimedia form of communication
 - Create a **graphical map** of overall content
 - Add multimedia elements like animation
- **Macromedia's Flash**



4. Web Authoring: Web Authoring Programs

- Known as **Web page editors** or **HTML editors**
 - Provide support for Web site design
 - Creates HTML coding
- Popular programs
 - Adobe Dreamweaver
 - NetObjects Fusion
 - Microsoft Expression
- Some web authoring programs **WYSIWYG** (What You See Is What You Get)..
Don't need to used or know HTML to design websites..



WIX: Create your own website for **FREE**

1

Choose a design...

2

Customize it with ease...

3

Publish online instantly...



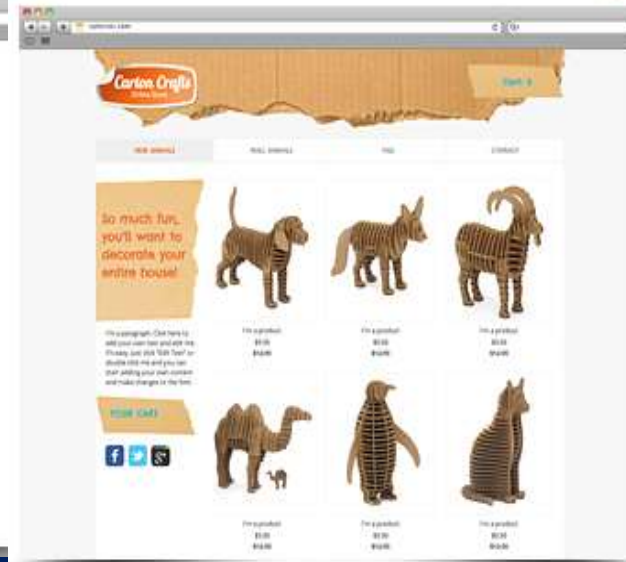
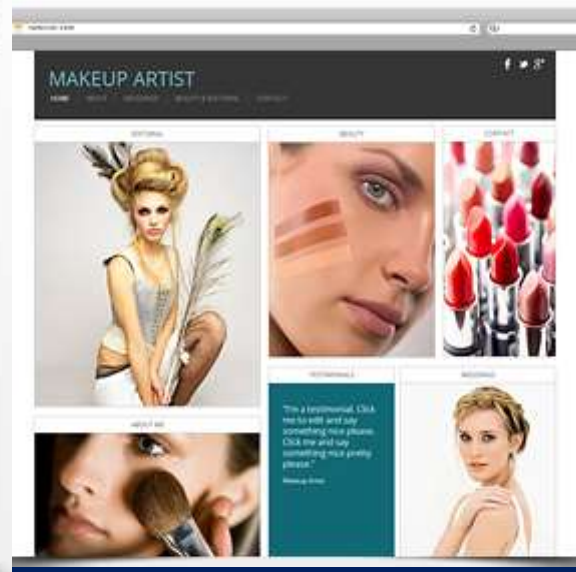
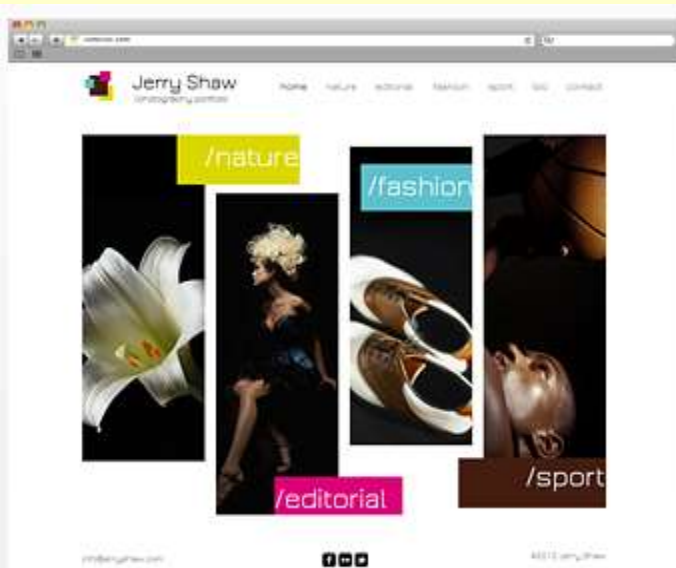
About WIX:

http://www.youtube.com/user/wixmypage?feature=results_main

Tutorial

http://www.youtube.com/watch?v=cjjRw0Xd8nE&feature=player_embedded

Start your Own Business...



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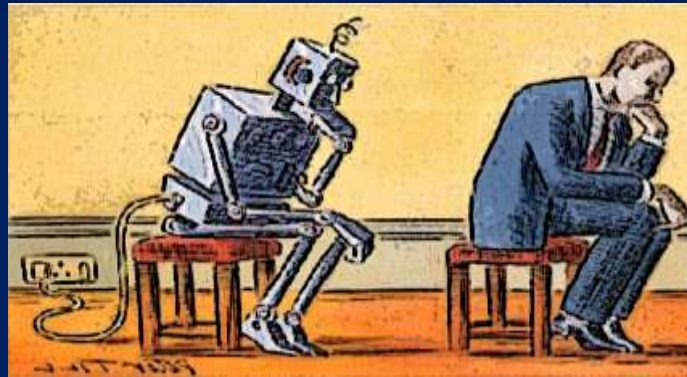


5. Artificial Intelligence

- AI: Attempts to simulate human senses, thoughts, and actions

Reasoning... Learning from past experiences... using Senses

Artificial Intelligence Structured Problems



- Designed to help people and organizations become more productive
- Three areas of AI

Virtual reality

1



Knowledge-based (expert) systems

2



Robotics

3



5. Artificial Intelligence: Virtual Reality (VR)

- Artificial or simulated reality generated in 3D by a computer
- Virtual Reality (VR) = Artificial Reality = Virtual Environment
- One of famous application:
 - Second Life



5. Artificial Intelligence: Knowledge-Based (Expert) Systems




What if you capture the know-how of an expert and make it available for everyone?

This is what we call:
knowledge based or Expert Systems

5. Artificial Intelligence: Knowledge-Based (Expert) Systems

- Artificial intelligence uses a database for assistance
- Database is known as a **knowledge base** and it contains :
 - **Facts**
 - **Rules to relate facts**
 - **User Input to formulate Recommendation and Decisions**
 - **The sequence is determined by the users interaction and the knowledge base**
- Many expert systems use **Fuzzy Logic**
- Fuzzy Logic : allow users to respond to questions in a very humanlike way.
 - **i.e. System Question: How your classes were going?**
 - **You could respond: Ok..Great..Terrible...and so on.**

Example: Expert System

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- Allergies
- Anxiety Disorders
- Arthritis
- Asthma
- Back Pain
- Bipolar Disorder
- Cancer
- Cholesterol

**Exam Room Ethics**
What would your doctor do in a tricky situation?
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5. Artificial Intelligence: Robotics

- The field of study concerned with using **robots**
- Robots: are computer-controlled machines
 - Mimic the motor activities of living things
 - Four types of robots:
 - **Perception System Robots** – imitate some of the human senses
 - **Industrial Robots** – perform tasks in factories, etc.
 - **Mobile Robots** – can move and perform tasks
 - **Household Robots** – perform household chores like vacuuming



Cell Phone Apps

- Cell phone apps are add-on features that perform a variety of tasks (e.g., address books, to-do lists, and alarms)
 - Over 10,000 apps for the iPhone alone
- App stores are Web sites that allow you to download apps for a nominal fee or free
 - Examples include Apple's App Store and Android Market



Thanks!

