

# Microsoft Office 2007

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## Essential Introduction to Computers

and How to Purchase a  
Personal Computer



# Objectives

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- Define the term computer and discuss the four basic computer operations: input, processing, output, and storage
- Define data and information
- Explain the principal components of the computer and their use
- Describe the use of magnetic disks, USB flash drives, and other storage media
- Discuss computer software and explain the difference between system software and application software

# Objectives

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- Identify several types of personal computer application software
- Discuss computer communications channels and equipment and the Internet and World Wide Web
- Define e-commerce
- Explain how to purchase a personal computer

# What is a Computer?

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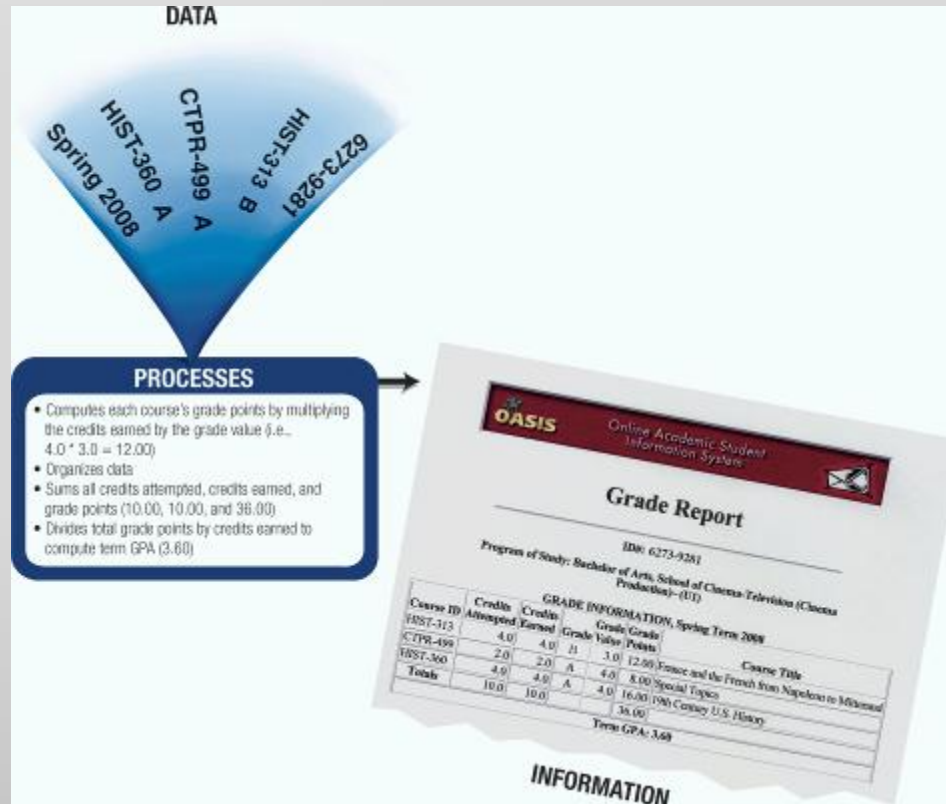
- An electronic device, operating under the control of instructions stored in its own memory, that can:
  - Accept data (input)
  - Process the data according to specified rules (process)
  - Produce results (output)
  - Store the results for future use (storage)

# What is a Computer?



# What Does a Computer Do?

- Four basic operations compromise the information processing cycle

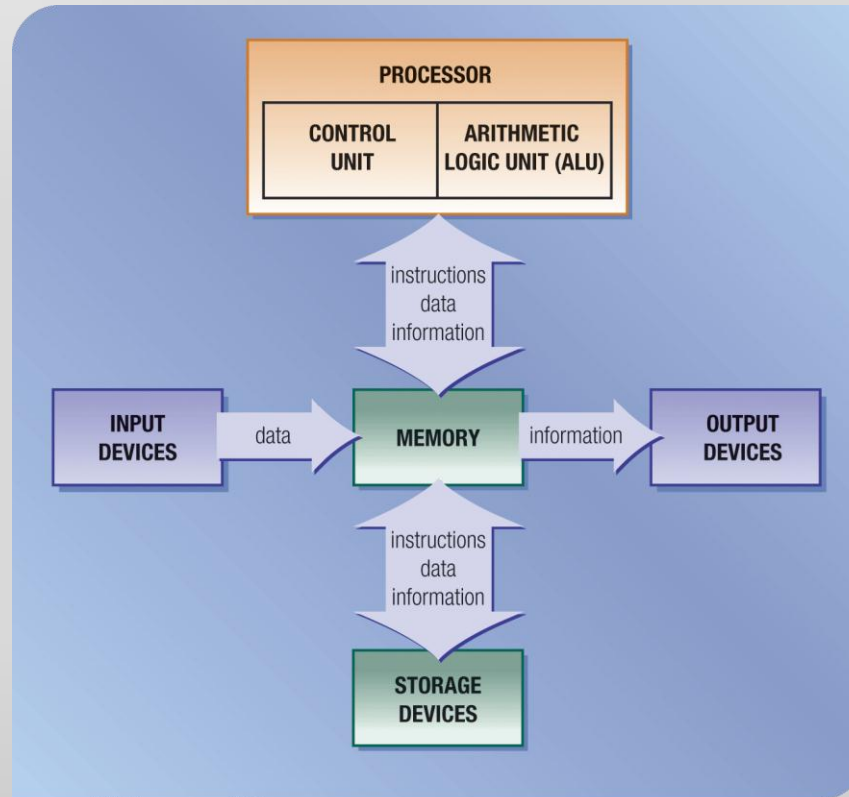


# What are the Components of a Computer?

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- The six primary components of a computer are input devices, the processor (control unit and arithmetic/logic unit), memory, output devices, storage devices, and communications devices
- The processor, memory, and storage devices are housed in a box-like case called the system unit

# What are the Components of a Computer?



# Input Devices

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- An input device is any hardware component that allows you to enter data, programs, commands, and user responses into a computer
  - A keyboard is an input device that contains keys you press to enter data into the computer
  - A stylus is a small metal or plastic device that looks like a ballpoint pen, but uses pressure instead of ink to write, draw, or make selections
  - Smart phones often include a digital camera so users can send pictures and videos to others

# Input Devices



# Input Devices

- A mouse is a pointing device that fits comfortably under the palm of your hand
  - Pointer or mouse pointer
  - Most notebook computers come with a touchpad



# System Unit

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- The system unit is a case that contains electronic components of the computer used to process data
  - The processor (CPU) interprets and carries out the basic instructions that operate a computer
    - Arithmetic/logic unit
  - Memory (RAM) consists of electronic components that temporarily stores instructions waiting to be executed by the processor, data needed by those instructions, and the results of processed data

# System Unit



# Output Devices

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- Output devices make the information resulting from processing available for use
  - An impact printer prints by striking an inked ribbon against the paper
  - Nonimpact printers form characters by means other than striking a ribbon against paper
    - Inkjet
      - Photo printers
    - Laser



# Display Devices

- A display device is an output device that visually conveys text, graphics, and video information
  - Monitor
    - Flat panel monitor
      - LCD
    - CRT



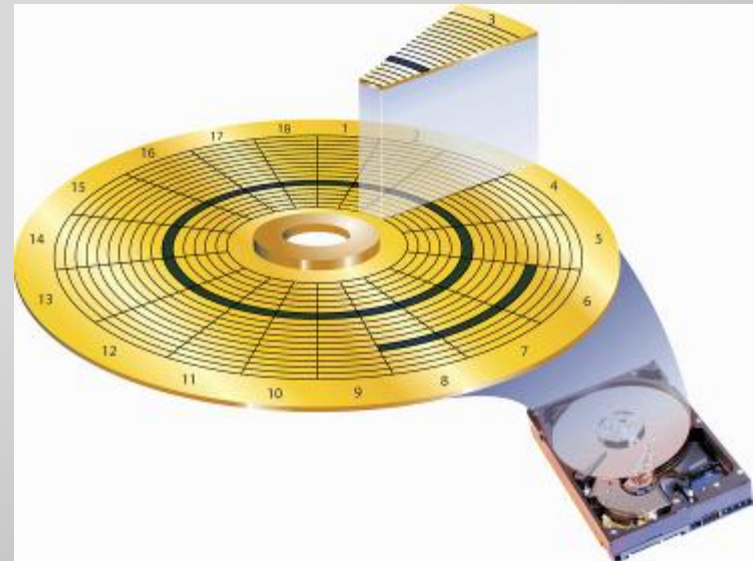
# Display Devices

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# Storage Devices

- A storage device is used to store instructions, data, and information when they are not being used in memory
  - Magnetic disks use magnetic particles to store items on a disk's surface
    - Formatting
    - Track
    - Sectors
    - Portable storage medium



# Storage Devices

- A hard disk is a storage device that contains one or more inflexible, circular platters that magnetically store data, instructions, and information
  - Head crash
  - Backup



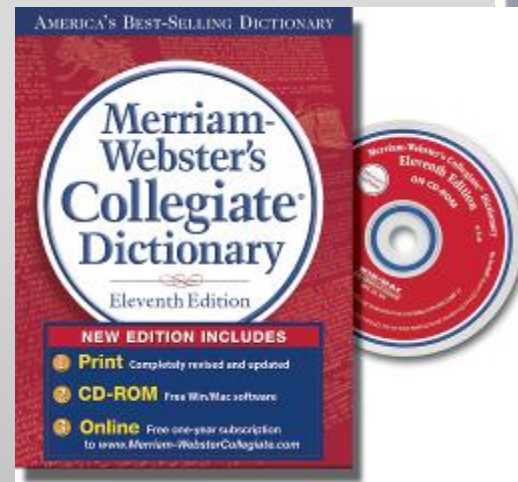
# Storage Devices

- A floppy disk is an inexpensive portable storage medium



# Storage Devices

- An optical disc is a portable storage medium that consists of a flat, round, portable disc made of metal, plastic, and lacquer that is written and read by a laser



# Storage Devices

- Tape is a magnetically coated ribbon of plastic housed in a tape cartridge
  - Tape drive



# Storage Devices

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- Miniature mobile storage media are rewriteable media usually in the form of a flash memory card, USB flash drive, or a smart card

# Storage Devices



# Storage Devices

- A smart card stores data in a thin microprocessor embedded in the card



# Communications Devices

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- A communications device is a hardware component that enables a computer to send and receive data, instructions, and information to and from one or more computers
  - Transmission media

# Computer Software

- System software consists of programs to control the operations of computer equipment
  - Operating system
    - Microsoft Windows Vista
    - Microsoft Windows XP
    - Apple Mac OS X
    - Linux
  - Booting
  - Graphical user interface (GUI)
    - Icon

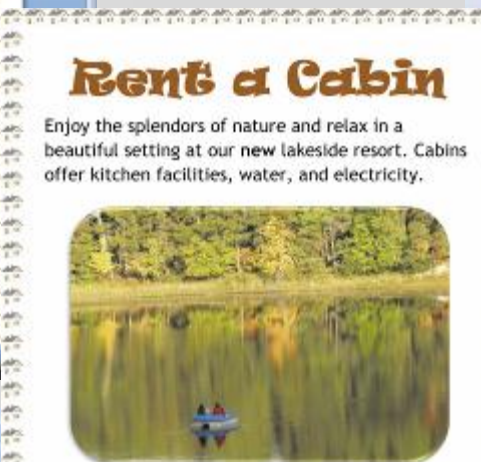


# Computer Software

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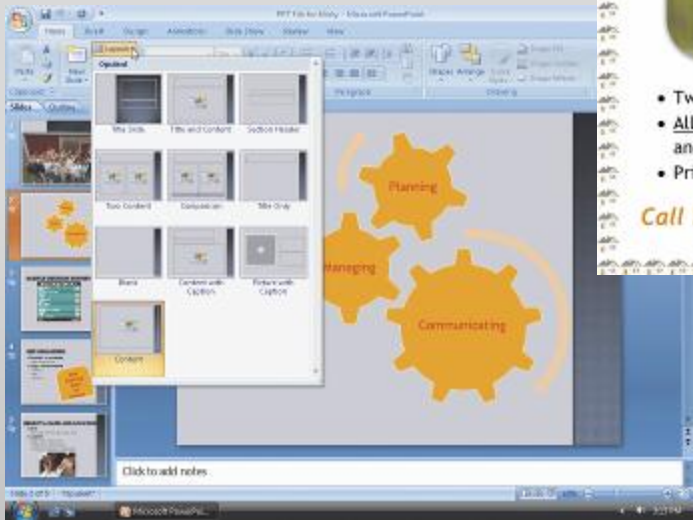
- Application software consists of programs designed to make users more productive and/or assist them with personal tasks
  - Word processing
  - Spreadsheet
  - Database
  - Presentation graphics

# Computer Software



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**Washon's IT Hardware & Services**  
Projected Annual Revenue and Expenditures

	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Total
<b>Revenue</b>					
Sales	\$77,230,192	\$82,827,610	\$79,461,034	\$73,616,364	\$312,463,540
Licensing	67,823,910	82,912,813	89,771,819	82,613,480	312,718,240
<b>Total Net Revenue</b>	<b>\$144,264,192</b>	<b>\$146,734,823</b>	<b>\$169,172,853</b>	<b>\$135,629,802</b>	<b>\$605,181,710</b>
<b>Expenditures</b>					
Marketing	\$19,113,889	\$19,309,758	\$21,222,993	\$17,890,258	\$77,536,898
Payroll	34,116,095	34,498,666	37,880,889	31,932,420	138,395,491
Equipment	31,375,267	31,697,150	34,337,596	26,367,824	127,277,037
Leases			360,000		360,000
Education	9,376,517	6,472,711	10,411,235	6,778,352	38,898,816
Administrative	19,474,384	19,674,893	21,623,335	18,327,868	79,999,540
<b>Total Expenditures</b>	<b>\$113,455,851</b>	<b>\$114,619,869</b>	<b>\$126,275,949</b>	<b>\$106,193,861</b>	<b>\$460,545,470</b>
<b>Operating Income</b>	<b>\$30,768,251</b>	<b>\$31,114,214</b>	<b>\$42,896,904</b>	<b>\$26,825,941</b>	<b>\$124,606,310</b>

**Inventory**

Item Number	Description	On Hand	Cost	Selling Price	Supplier Code	Add New Field
3600	Bell Cop	39	\$13.15	\$38.95	LG	
3650	Emergency Sticker	38	\$8.90	\$1.90	989	
4000	Backlog	18	\$4.95	\$7.80	LG	
4000	Forum Finger	25	\$2.95	\$5.80	LG	
5502	jersey	12	\$23.40	\$24.75	AC	
8308	Knives	39	\$3.96	\$4.80	989	
8340	Motor Cables	7	\$9.25	\$6.80	989	
7818	Toe Strap	30	\$9.50	\$24.95	AC	
7918	Wipe	3	\$33.90	\$17.80	LG	

Supplier Code	Supplier Name	Telephone Number	Add New Field
AC	Ace Clothes	616-355-9235	
LG	Liga Goods	317-988-1888	
989	Mary's Novelties	317-555-4347	

# Networks and the Internet

- A network is a collection of computers and devices connected together, often wirelessly, via communications devices and transmission media
  - Local area network
  - Wide area network



# Networks and the Internet

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- The world's largest network is the Internet, which is a worldwide collection of networks that connects millions of businesses, government agencies, educational institutions, and individuals
  - Internet service provider (ISP)
  - Online service provider (OSP)
  - Wireless Internet service provider (WISP)

# Networks and the Internet

- The World Wide Web contains billions of documents called Web pages
  - Web page
  - Web site
  - Web browser
  - Uniform Resource Locator (URL)
  - Hypertext transfer protocol



# Networks and the Internet

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- When you conduct business activities online, you are participating in electronic commerce, also known as e-commerce
  - Business to consumer (B2C)
  - Consumer to consumer (C2C)
  - Business to business (B2B)

# How to Purchase a Personal Computer

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- Do you want a desktop computer or mobile computer?
- For what purposes will you use the computer?
- Should the computer be compatible with the computers at school or work?

# How to Purchase a Desktop Computer

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- Determine the specific software you want to use on your computer
- Know the System Requirements of the Operating System
- Look for bundled software
- Avoid buying the least powerful computer available
- Consider upgrades to the mouse, keyboard, monitor, printer, microphone, and speakers

# How to Purchase a Desktop Computer

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- Determine whether you want to use telephone lines or broadband (cable or DSL) to access the Internet
- If you are using a dial-up or wireless connection to connect to the Internet, then select an ISP or OSP
- Use a worksheet to compare computers, services, and other considerations
- If you are buying a new computer, you have several purchasing options: buying from your school bookstore, a local computer dealer, a local large retail store, or ordering by mail via telephone or the Web
- If you are buying a used computer, stay with name brands such as Dell, Gateway, Hewlett-Packard, and Apple

# How to Purchase a Desktop Computer

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- If you have a computer and are upgrading to a new one, then consider selling or trading in the old one
- Be aware of hidden costs
- Consider more than just price
- Avoid restocking fees
- Use a credit card to purchase your new computer
- Consider purchasing an extended warranty or service plan

# How to Purchase a Notebook Computer

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- Purchase a notebook computer with a sufficiently large active-matrix screen
- Experiment with different keyboards and pointing devices
- Make sure the notebook computer you purchase has a CD and/or DVD drive
- If necessary, upgrade the processor, memory, and disk storage at the time of purchase

# How to Purchase a Notebook Computer

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- The availability of built-in ports and a port extender on a notebook computer is important
- If you plan to use your notebook computer for note-taking at school or in meetings, consider a notebook computer that converts to a Tablet PC
- Purchase a notebook computer with a built-in wireless network connection
- If you are going to use your notebook computer for long periods without access to an electrical outlet, purchase a second battery

# How to Purchase a Notebook Computer

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- Purchase a well-padded and well-designed carrying case
- If you travel overseas, obtain a set of electrical and telephone adapters
- If you plan to connect your notebook computer to a video projector, make sure the notebook computer is compatible with the video projector
- For improved security, consider a fingerprint scanner

# How to Purchase a Tablet PC

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- Make sure the Tablet PC fits your mobile computing needs
- Decide whether you want a convertible or pure Tablet PC
- Be sure the weight and dimensions are conducive to portability
- Port availability, battery life, and durability are even more important with a Tablet PC than they are with a notebook computer

# How to Purchase a Tablet PC

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- Experiment with different models of the Tablet PC to find the digital pen that works best for you
- Check out the comfort level of handwriting in different positions
- Make sure the LCD display device has a resolution high enough to take advantage of Microsoft's ClearType technologies
- Test the built-in Tablet PC microphone and speakers

# How to Purchase a Tablet PC

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- Consider a Tablet PC with a built-in PC video camera
- Review the docking capabilities of the Tablet PC
- Wireless access to the Internet and your e-mail is essential with a Tablet PC
- Review available accessories to purchase with your Tablet PC

# How to Purchase a Personal Mobile Device

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- Determine the programs you plan to run on your device
- Consider how much you want to pay
- Determine whether you need wireless access to the Internet and e-mail or mobile telephone capabilities with your device
- For wireless devices, determine how and where you will use the service

# How to Purchase a Personal Mobile Device

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- Make sure your device has enough memory and storage
- Practice with the touch screen, handwriting recognition, and built-in keyboard before deciding on a model
- Decide whether you want a color display
- Compare battery life

# How to Purchase a Personal Mobile Device

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- Seriously consider the importance of ergonomics
- Check out the accessories
- Decide whether you want additional functionality
- Determine whether synchronization of data with other devices or personal computers is important

# Summary

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Complete

