الكلية : الطب

القسم او الفرع : فرع علم وظائف الاعضاء (الفسلجة)

المرحلة: الأولى

أستاذ المادة : م.م مصطفى عزيز فياض

اسم المادة باللغة العربية : الحاسوب

اسم المادة باللغة الإنكليزية : Computer

اسم المحاضرة الثالثة باللغة العربية:

اسم المحاضرة الثالثة باللغة الإنكليزية : Computer Components Part Three

RAM (Main Memory)

- its a primary storage or random access memory (RAM).

- it temporarily holds data and programs for use during processing (volatile)

- Any information stored in RAM is lost when the computer is turned off.

- RAM is the memory that the computer uses to temporarily store the information as it is being processed. The more information being processed the more RAM the computer needs.

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ROM: Read Only Memory

ROM is part of memory

- Programmed at manufacturing time
- Its contents cannot be changed by users
- It is a permanent store

DIFFERENCES BETWEEN
RAM AND ROM

	RAM	ROM
Data and program	Stores during and after processing	Stored by manufacturer
Content	Stores information temporarily	Stores instructions (Information) permanently
Processing time	Very fast, but uses a lot of power	Fast, but uses very little power
Volatility	Volatile	Non-volatile

Secondary Storage

❑ Stores data and programs permanently: its retained after the power is turned off
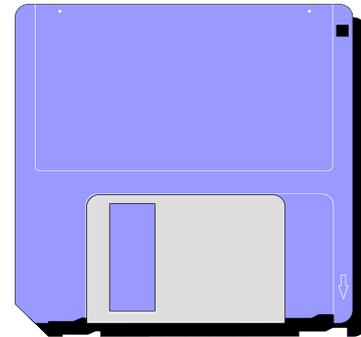
❑ Examples

- Hard Drive (Hard Disk)

    Located outside the CPU, but most often contained in the system cabinet

- Floppy Disk

- Optical Laser Discs

    ❖ CD-ROM, CD-RW, and DVD

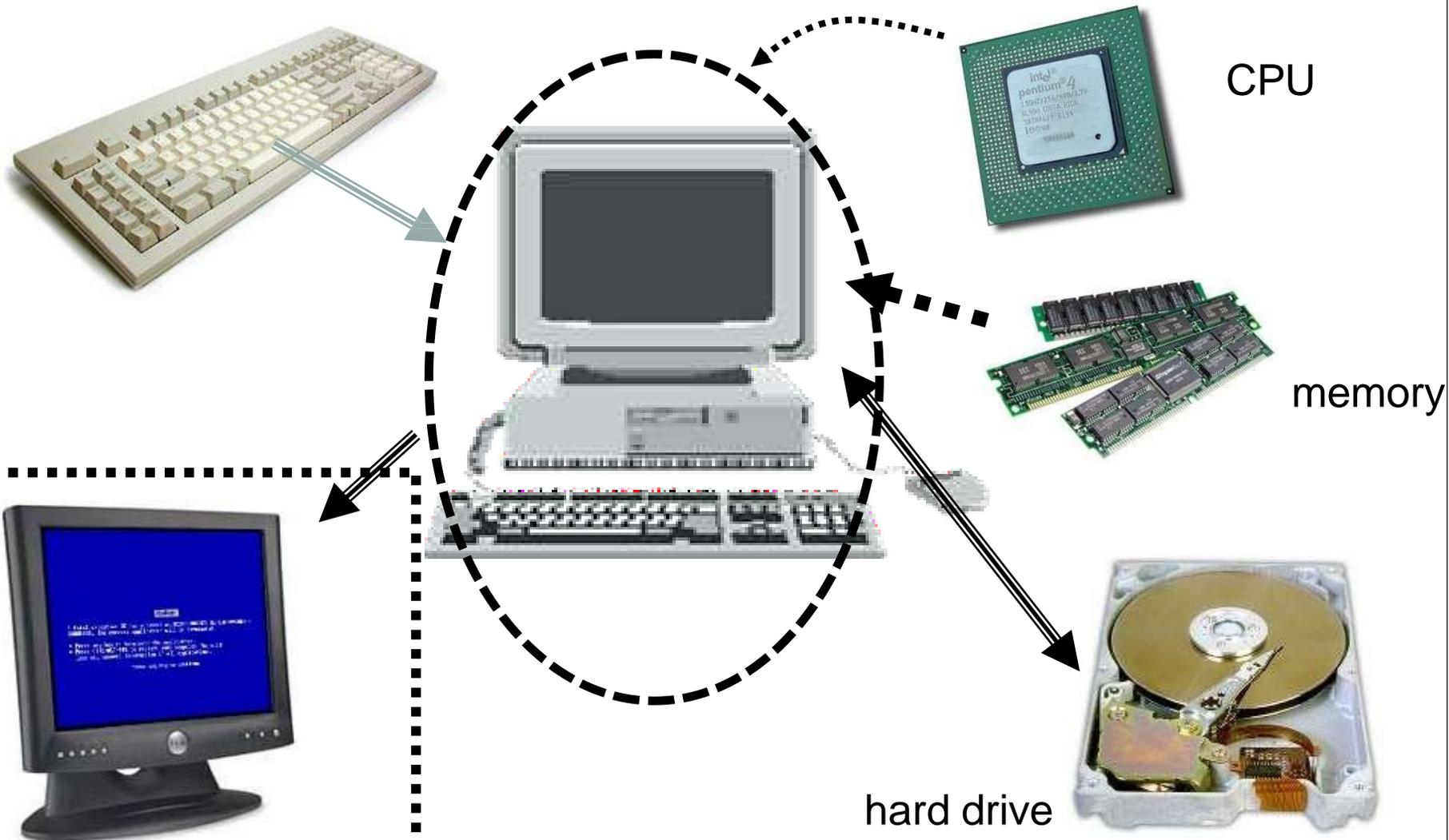# Kinds of Disk **Drives**

Common Secondary Media

- ## Optical Laser Discs

- CD ROM & DVD's
    - Data is represented as pits and lands
    - Some kinds are read only (CD-ROM) and some Kinds are rewritable (CD-RW)
    - Significantly more capacity and faster operating than diskettes

Hardware Organization

CPU

memory

hard drive

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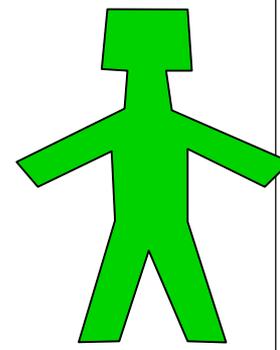**Output ...**

Output Devices

Pieces of equipment that <u>translate</u> the <u>processed information</u> from the <u>CPU</u> into a form that <u>humans</u> can understand.

Processed information

Parts of a Computer Output Devices

- **Monitor**

- **Printer**

- **Speaker/Headphone**

Output Devices

- Monitors
- Printers
  - ➢ Dot matrix printers
  - ➢ Ink jet printers
  - ➢ Laser printers
- Sound Blasters (Sound Card By Creative Lab)
- Controlling other devices

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Software

The instructions that tell the computer what to do

1. Application Software - helps end-users perform general purpose tasks
2. System Software - enables application software to interact with the computer

Application Software – Basic Tools

- Word processors– **example:**

    Microsoft word

- Spreadsheets-- **example:**

    Microsoft Excel

- Database managers-- **example:**

    Microsoft Access

- Graphics-- **example: Photoshop**

Four Kinds of Computers

1. Microcomputers
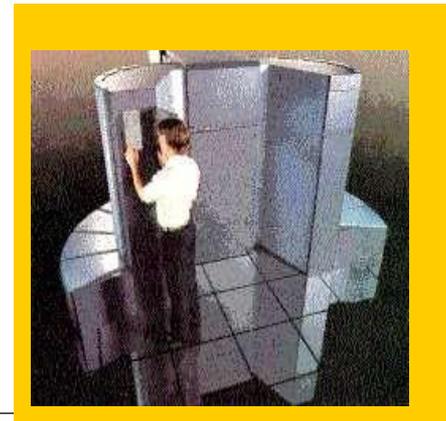

2. Minicomputers
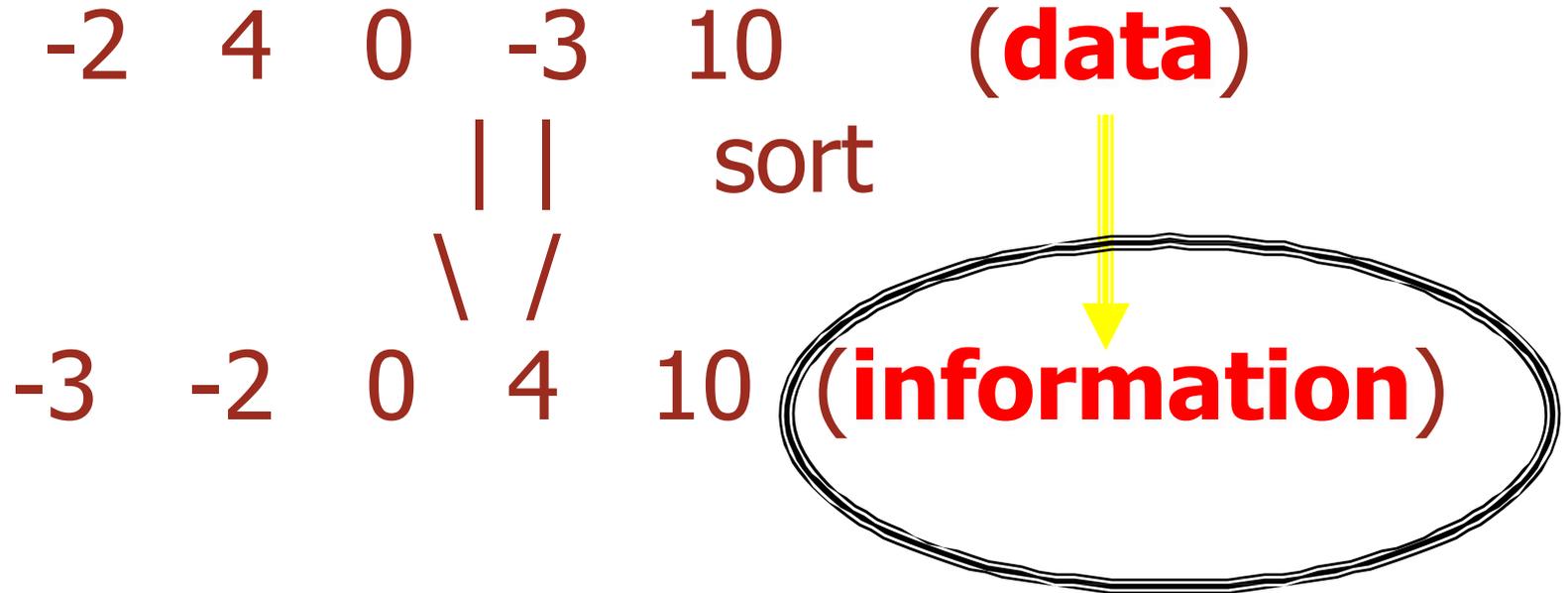

3. Mainframe computers

4. Supercomputers

- Microcomputer =>Personal Computer => PC
- There are **3** types of the Microcomputers :
  1. Laptop
  2. Desktop
  3. Workstation

Characteristics of Computers

1- Store a large amount of data and information for a long period of time.

2- process data and information in high accuracy level .

3- Speed in processing data information.

4- Sharing of information / network.

✓ **Data**: is the name given to basic facts such as names and numbers.

✓ **Information**: is data that has been converted into a more useful or intelligible form.

✓ **Knowledge**: arrangement of information and classifying information of the same type or the same topic.

- e. g.

-2　4　0　-3　10　　(**data**)

| |　　sort

\ /

-3　-2　0　4　10　(**information**)

Processing **data** produces **information**, and processing information produces **knowledge**.

Computer Viruses

Computer Viruses

- A computer virus is an <u>application program</u> designed and written to destroy other programs.

- It has the ability to:
  - Link itself to other programs
  - Copy itself (it looks as if it repeats itself)