Faculty of Computers and Information
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Modeling and Simulation

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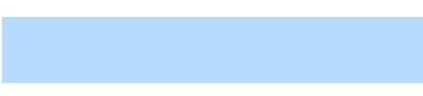Information Systems Dept.

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Parts of a CBIS

- Five parts
  - Hardware
  - Software
  - Database
  - Telecommunications
  - Networks

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Software

- **Software**
  - **Computer programs that govern/determine/control the operation of the computer**

Software

- **Software is computer instructions or data.**

- **Anything that can be stored electronically is software.**

- **The storage devices and display devices are hardware.**

Software

- **The distinction between software and hardware is sometimes confusing because they are so integrally linked. Clearly, when you purchase a program, you are buying software.**

- **But to buy the software, you need to buy the disk (hardware) on which the software is recorded.**

Software

- **Software is often divided into two categories. Systems software includes the operating system and all the utilities that enable the computer to function.**
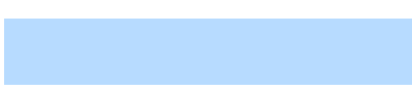
Software

- **Applications software includes programs that do real work for users.**

- **For example, word processors, spreadsheets, and database management systems fall under the category of applications software**

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Database

- **Database**
  - **An organized collection of facts and information.**
  - **A collection of information organized in such a way that a computer program can quickly select desired pieces of data.**

Database

- **A database is a collection of information organized in such a way that a computer program can quickly select desired pieces of data. You can think of a database as an electronic filing system.**

Database

- **Traditional databases are organized by <u>fields</u>, <u>records</u>, and <u>files</u>. A field is a single piece of information; a record is one complete set of fields; and a file is a collection of records.**
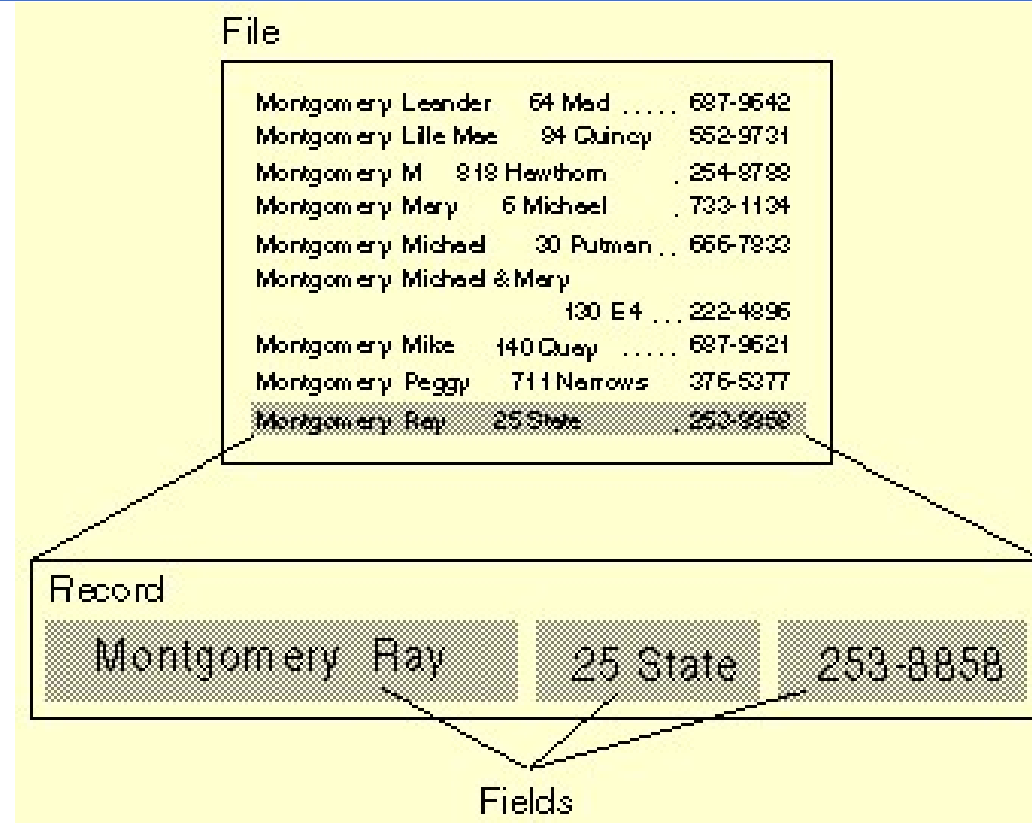
Database

- **For example, a telephone book is analogous to a file. It contains a list of records, each of which consists of three fields: name, address, and telephone number.**
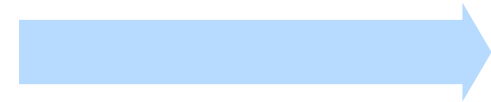
Database

File

Montgomery Leander	64 Mad	687-9642
Montgomery Lille Mae	94 Quincy	552-9731
Montgomery M	818 Hawthorn	. 254-9788
Montgomery Mary	6 Michael	. 733-1134
Montgomery Michael	30 Putman ..	666-7833
Montgomery Michael & Mary		
	130 E 4 ...	222-4896
Montgomery Mike	140 Quay	687-9621
Montgomery Peggy	711 Narrows	376-5377
Montgomery Ray	25 State	. 253-8858

Record

Montgomery Ray	25 State	253-8858

Fields

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Telecommunications

- **Telecommunications**
  - **The electronic transmission of signals for communications; enables organizations to link computer systems into effective networks.**
  - **Refers to all types of data transmission, from voice to video.**

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Networks

- **Networks (Computer Networks)**
  - **Used to connect computers and computer equipment in a building, around the country, across the world, to enable electronic communications.**

Networks

- **Computer Networks**
  - **A group of two or more computer systems linked together.**

Networks

- **There are many types of computer networks, including:**

  1. local-area networks (LANs):

  2. wide-area networks (WANs):

Networks

- **local-area networks (LANs): The computers are geographically close together (that is, in the same building).**

- **wide-area networks (WANs): The computers are farther apart and are connected by telephone lines or radio waves.**

Questions

Q1: **What is the difference between LAN and WAN?**

Questions

Q2: A _____is a single piece of information.

a) field

b) record

c) file

d) None of these

Questions

Q3: **_____ refers to all types of data transmission, from voice to video .**

a) processing

b) manipulation

c) realization

d) Telecommunications

Questions

Q4: Software programs are computer _____.

a) processing

b) manipulation

c) realization

d) instructions

Questions

Q5: **_____software includes programs that do real work for users .**

a) Systems

b) Networks

c) Databases

d) Applications

Questions

Q6: _____software includes the operating system and all the utilities that enable the computer to function .

a) Systems

b) Networks

c) Databases

d) Applications

Questions

Q7: Computer _____ is group of two or more computer systems linked together.

a) System

b) Network

c) Database

d) Application

Questions

Q8: Software can be defined as computer programs that _____the operation of the computer.

a) increase

b) control

c) enhance

d) accelerate

Questions

Q9: software and hardware are _____linked.

a) not

b) integrally

c) rarely

d) None of these

Questions

Q10: _____ means the computers are geographically close together .

a) WAN

b) LAN

c) WEB

d) MAN

Questions

Q11: _____ means the computers are farther apart and connected by telephone lines or radio waves.

a) WAN

b) LAN

c) WEB

d) MAN

Questions

Q12: Database can be considered as an electronic _____system.

a) business

b) filing

c) WEB

d) commerce

Questions

Q13: The electronic _____ of signals enables organizations to link computer systems into effective networks.

a) modification

b) transmission

c) implementation

d) realization