Computer-Based Information Systems (CBIS)

- **Hardware**
  - Computer equipment used to perform input, processing, and output activities

- **Software**
  - Computer programs that govern the operation of the computer

- **Database**
  - Organized collection of facts and information
Computer-Based Information Systems (CBIS)

• Telecommunications
  - Electronic transmission of signals for communications, and enables organizations to link computer systems into effective networks
  - Networks
  - Used to connect computers and computer equipment
Computer-Based Information Systems (CBIS)

- Internet
  - The world’s largest telecommunications network
- Intranet
  - A network that uses Internet technology within an organization
Computer-Based Information Systems (CBIS)

- **People**
  - The most important elements in most CBIS

- **Procedures**
  - Strategies, policies, methods, and rules for using CBIS
Computer-Based Information Systems (CBIS) (Figure 1.8)
Business Information Systems

- **Transaction**
  - Any business related exchange.

- **Transaction processing system**
  - An organized collection of people, procedures, software, databases, and devices used to record completed business transactions.
Transaction Processing System (Figure 1.9)
E-Commerce

- Any business transaction executed electronically between parties involving the exchange of goods and/or services for an equitable consideration.
E-Commerce
(Figure 1.10)
Management Information System

• Management Information System
  ▪ Organized set of people, procedures, databases, and devices used to provide routine information to managers and decision makers.
Management Information System (Figure 1.11)
• Decision Support Systems
  - A set of people, procedures, databases, and devices used to support problem-specific decision making.
Decision Support Systems
(Figure 1.12)
Artificial Intelligence (AI) and Expert Systems

- **Artificial Intelligence (AI)**
  - A field that involves computer systems taking on the characteristics of human intelligence

- **Expert Systems (ES)**
  - Give the computer the ability to make suggestions and act like an expert in a particular field
Artificial Intelligence (AI) (Figure 1.13)
Systems Development

- Systems Development
  - The activity of creating or modifying existing business systems.
Systems Development

• Systems Investigation
  ▪ Gains a clear understanding of the problem to be solved or opportunity to be addressed.

• Systems Analysis
  ▪ Defines the problems and opportunities of the existing system.
Systems Development

- **Systems Design**
  - Determines how the new system will work to meet the business needs defined during systems analysis.

- **Systems Implementation**
  - Creating or acquiring the various system components defined in the design step, assembling them, and putting the new system into operation.
Systems Development

• System Maintenance and Review
  ▪ Checks and modifies the system so that it continues to meet changing business needs.
Literacy

• Computer Literacy
  ▪ A knowledge of computer systems and equipment and the ways they function.

• Information Systems Literacy
  ▪ A knowledge of how data and information are used by individuals, groups, and organizations.
Information Systems in the Functional Areas of Business

- Functional Areas and Information Systems
  - Financial information systems
  - Accounting information systems
  - Marketing information systems
  - Manufacturing information systems
  - Human resources management information systems
  - Legal information systems
Information Systems in Industry

- Airline industry
- Investment firms
- Banks and savings and loan companies
- Transportation industry
- Publishing companies
- Health care organizations
- Retail companies
- Power management & utility companies