

What Is an Information System

Introduction to Information System

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Learning Objectives

- Define what an information system is by identifying its major components;
- Describe the basic history of information systems;
- Describe the information system component;

Topic:

- Definisi sistem informasi
- Sejarah perkembangan PC
- Komponen-komponen sistem informasi
 - Hardware
 - Software
 - Data & database
 - Networking & communication
 - Keamanan sistem informasi

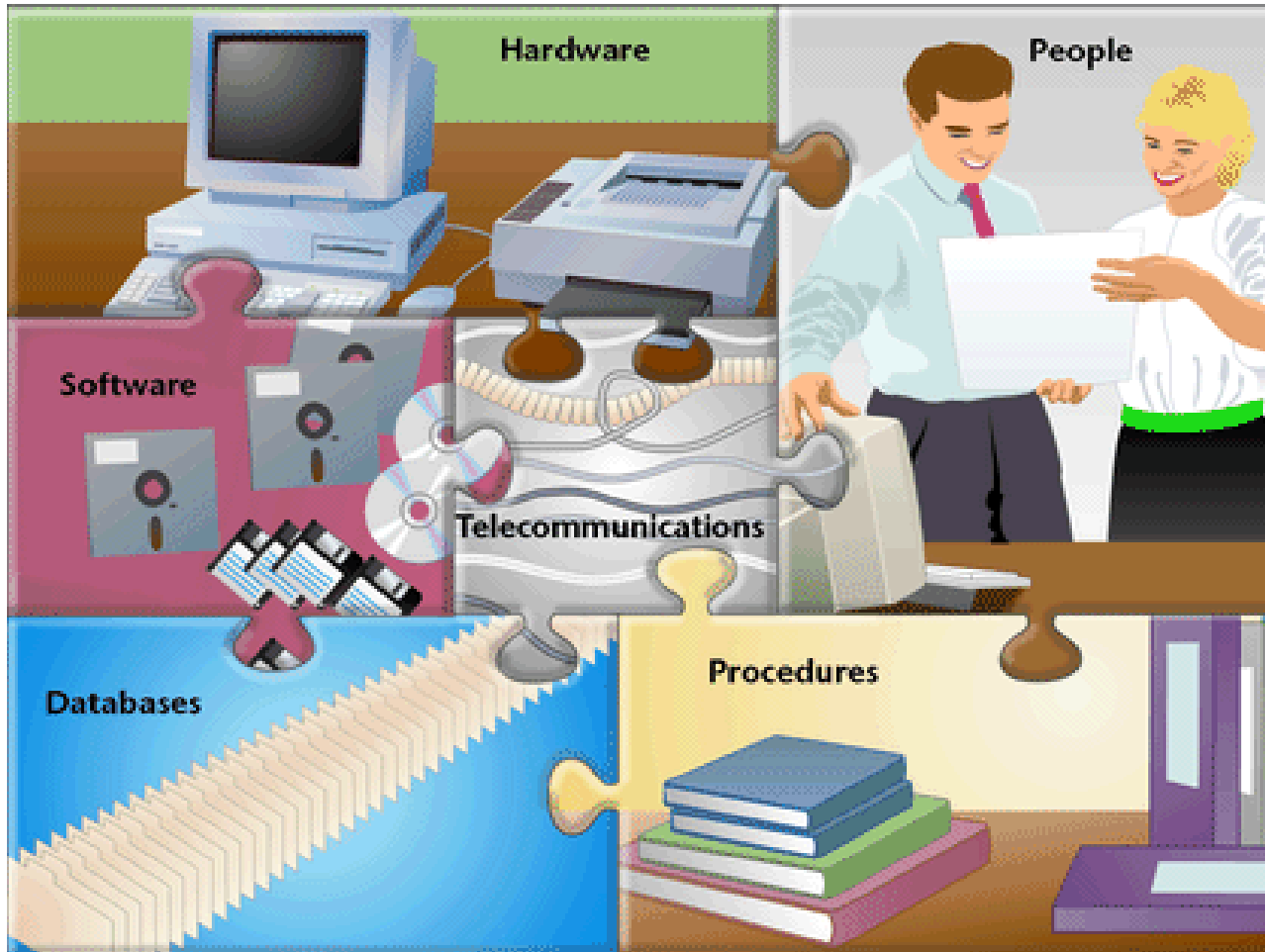
Information System

- Information systems (IS) is the study of complementary networks of hardware and software that people and organizations use to collect, filter, process, create, and distribute data.
- Information systems are combinations of hardware, software, and telecommunications networks that people build and use to collect, create, and distribute useful data, typically in organizational settings.
- Information systems are interrelated components working together to collect, process, store, and disseminate information to support decision making, coordination, control, analysis, and visualization in an organization.

Types of Information Systems

- The IT architecture and IT infrastructure provide the basis for all information systems in the organization
- **Information system (IS)** collects, processes, stores, analyzes, and disseminates information for a specific purpose
- **Today** organizations employ many different types of information systems.

Computer-Based Information Systems (CBIS)



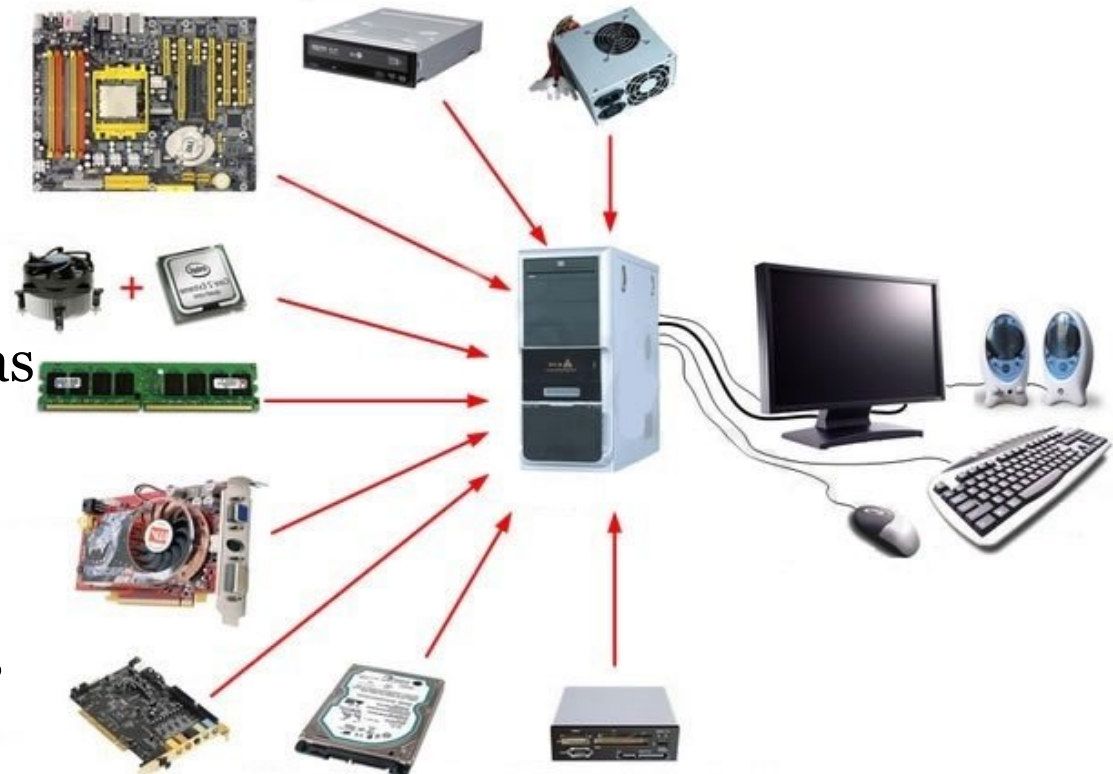
Computer-based Information Systems (CBIS) use computer technology to perform some or all of their task.

Major Capabilities of Information Systems

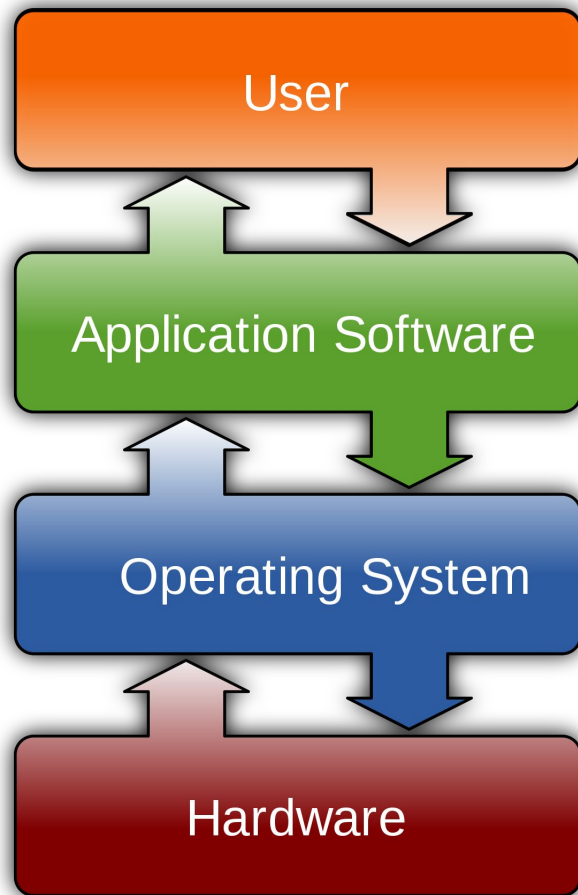
- Perform high-speed, high-volume numerical computations
- Provide fast, accurate communication and collaboration within and among organizations
- Store huge amounts of information in a small, easy-to access space
- Allow quick and inexpensive access to vast amounts of information worldwide
- Interpret vast amounts of data quickly and efficiently
- Increase the effectiveness and efficiency of people working in groups in one place or in several locations anywhere
- Automate both semia utomatic business processes and manual tasks

Hardware

- desktop computers
- laptop computers
- mobile phones
- tablet computers
- e-readers
- storage devices, such as flash drives
- input devices, such as keyboards, mice, and scanners
- output devices such as printers and speakers.



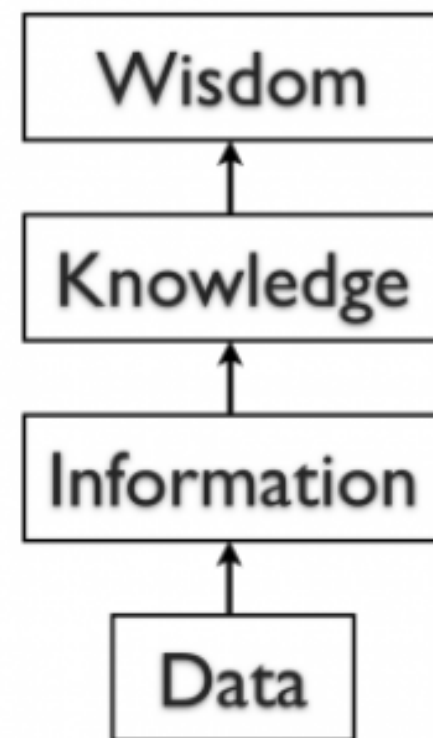
Software



- Software can be broadly divided into two categories: operating systems and application software.
- **Operating systems** manage the hardware and create the interface between the hardware and the user.
- **Application software** is the category of programs that do something useful for the user.

Data & database

- Data
 - Data are the raw bits and pieces of information with no context.
 - If I told you, “15, 23, 14, 85,” you would
 - not have learned anything
- Data can be quantitative or qualitative
 - Quantitative data is numeric
 - Qualitative data is descriptive



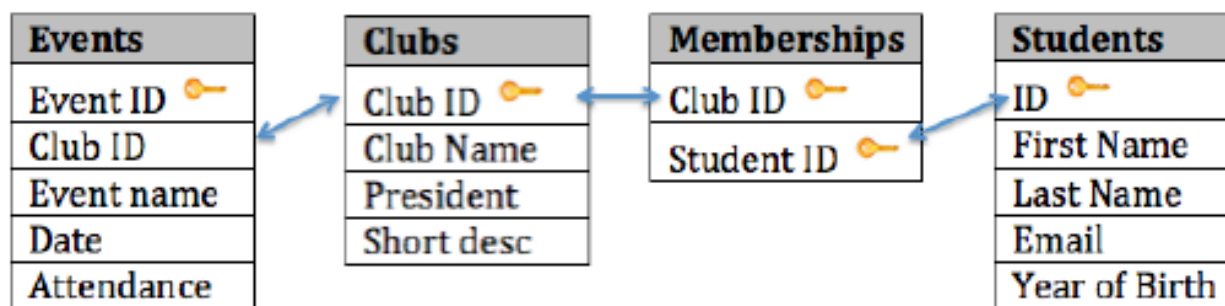
Data & database

- Database
 - organized collection of related information.
- Databases are not always digital – a filing cabinet, for instance, might be considered a form of database. For the purposes of this text, we will only consider digital databases.

Database

Fields (Columns)

	First Name	Last Name	Major	Birthdate
Records (Rows)	Ann Marie	Cortez	Political Science/Pre-Law	02/01/1993
	Evan	Nguyen	Business	3/12/1994
	Michelle	Smith	Computer Science	5/10/1992



Student Clubs database diagram

Network Applications

- **Bagaimana sebuah bisnis/ organisasi/ perusahaan menggunakan jaringan komputer untuk mendukung setiap kegiatannya ?**
- 4 kategori utama dukukan jaringan komputer dalam bisnis
 - *discovery*
 - *communication*
 - *collaboration*
 - *Web services*

Web 2.0

- Istilah web 2.0 digunakan untuk menggambarkan aplikasi-aplikasi internet generasi baru yang merevolusi cara kita berinternet.
 - Web 2.0 Information Technologies and Applications
 - Categories of Web 2.0 Sites

Web 2.0 Information Technologies and Applications

- AJAX (Asynchronous JavaScript and XML)
- Tagging
- Blogs and Blogging
- Wikis
- Really Simple Syndication
- Podcasts and Videocasts

Categories of Web 2.0 Sites

- Social Networking
- Aggregators
- Mashups



Telecommuting



Telecommuting adalah perjanjian kerja dimana karyawan memperoleh fleksibilitas bekerja dalam hal tempat dan waktu kerja dengan bantuan teknologi telekomunikasi. (<http://www.scribd.com/doc/66422517/Pengertian-Telecommuting#scribd>) kegiatan bepergian ke kantor atau tempat kerja digantikandengan hubungan telekomunikasi. Dengan sistem ini, banyak karyawan yang pada akhirnya bekerja di rumah, sementara lainnya, yang lazim disebut pekerja nomaden.

Any questions?



Task

- Diskusi dalam kelompok tentang pengalaman kalian dalam kehidupan sehari-hari

Referensi

- *Introduction to Information Systems, Third Edition*, R. Kelly Rainer Jr, Casey G. Cegielski, Wiley
- *Information Systems for Business and Beyond*, David T. Bourgeois, Ph.D.

Gracia

Grazie Danke

Thank You

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