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Information Systems

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Information Systems

Information systems are the software and hardware systems that support data-intensive applications.

So, the purpose of an information system is to turn raw data into useful information that can be used for decision making in an organization.

Typical Components of Information Systems

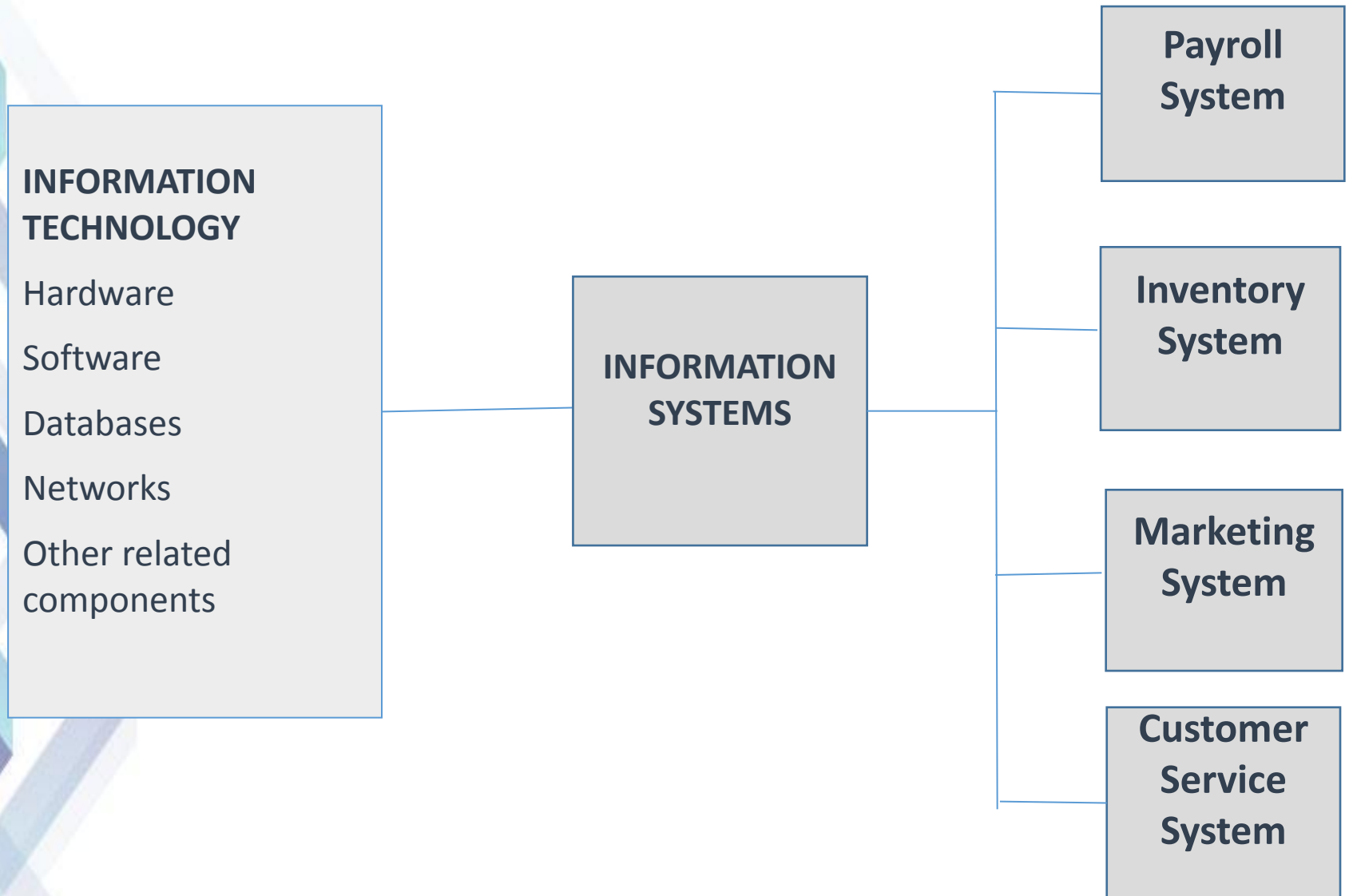
While information systems may differ in how they are used within an organization, they typically contain the following components:

- **Hardware:** Computer-based information systems use computer hardware, such as processors, monitors, keyboard and printers.
- **Software:** These are the programs used to organize, process and analyze data.
- **Databases:** Information systems work with data, organized into tables and files.
- **Network:** different elements need to be connected to each other, especially if many different people in an organization use the same information system.
- **Procedures:** These describe how specific data are processed and analyzed in order to get the answers for which the information system is designed.

History

The first large-scale mechanical information system was Herman Hollerith's census tabulator. Invented in time to process the 1890 U.S. census, Hollerith's machine represented a major step in automation, as well as an inspiration to develop computerized information systems

IT and IS



Many major companies are built entirely around information systems. These include eBay, a largely auction marketplace; Amazon, an expanding electronic mall and provider of cloud computing services; and Google, a search engine company that derives most of its revenue from keyword advertising on Internet

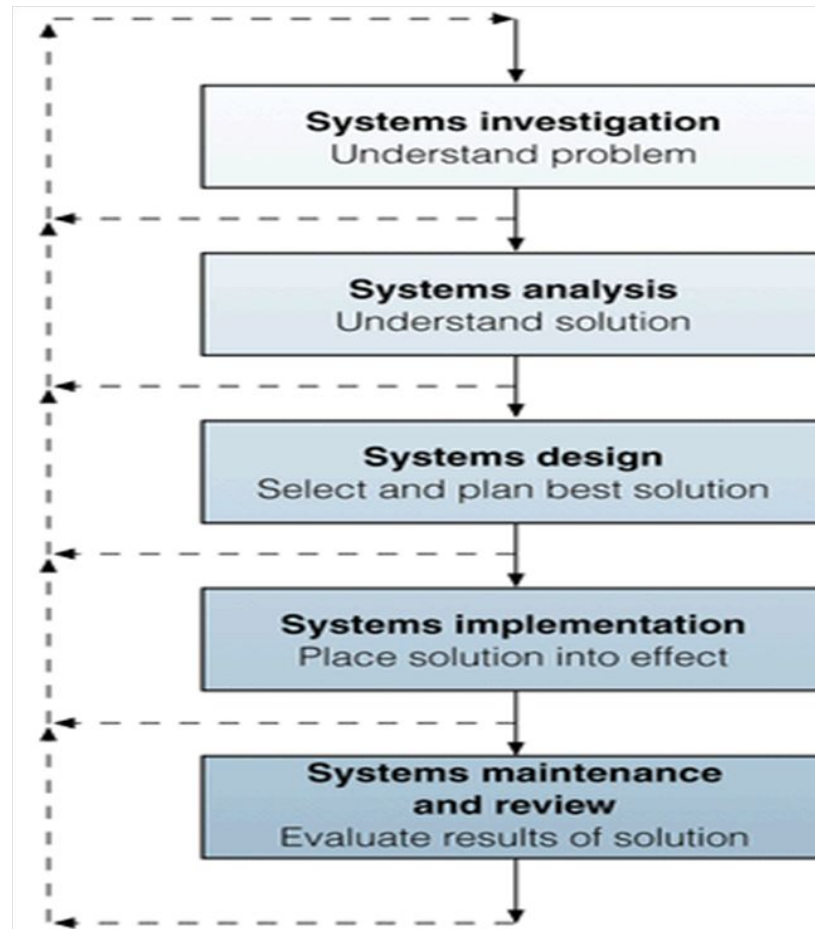




Information system development

Information technology departments in larger organizations tend to strongly influence the development, use, and application of information technology. A series of methodologies and processes can be used to develop and use an information system.

Information system development



A programming language can be used to develop and use an information system.

The most popular of them are: C, C++, Java, PHP, Python



Information systems security

Information systems security is responsible for the integrity and safety of system resources and activities. Most organizations in developed countries are dependent on the secure operation of their information systems. In fact, the very fabric of societies often depends on this security. Multiple infrastructural grids—including power, water supply, and health care—rely on it. Information systems are at the heart of intensive care units and air traffic control systems.

Conclusion

Information systems is a discipline of study that is generally situated in business schools. The essential objective of the discipline is to develop and study the theories, methods, and systems of using information technology to operate and manage organizations and to support their marketplace offerings. The discipline employs a socio technical approach, placing the study of information technology in the context of management, organizations, and society.

Glossary

- **Programming language** : a computer language used for writing computer programs.
- **applications** : a computer program designed to be used for a particular purpose, e.g. a word processor spreadsheet or database program
- **C++**: an object oriented superset of the C programming language commonly used for writing applications programs for the Microsoft Windows operating system;
- **computer hardware**: Physical equipment used for input, processing, and output activities in an information system
- **computer software**: Detailed, preprogrammed instructions that control and coordinate the work of computer hardware components in an information system.
- **database** : A collection of data organized to service many applications at the same time by storing and managing data so that they appear to be in one location.

Glossary

- **Java:** Programming language that can deliver only the software functionality needed for a particular task, such as a small applet downloaded from a network; can run on any computer and operating system.
- **information technology (IT) infrastructure:** Computer hardware, software, data, storage technology, and networks providing a portfolio of shared IT resources for the organization.
- **input controls:** The procedures to check data for accuracy and completeness when they enter the system.
- **software package:** A prewritten, pre coded , commercially available set of programs that eliminates the need to write software programs for certain functions.



Thank you for attention!