

PANDANGAN PERTAMA : KOMPUTER

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Source; The computer continuum

Topik Bahasan:

- Bagaimana komputer berinteraksi dengan hidup kita setiap hari?
- Mana yang bisa dianggap sebuah komputer atau yang tidak?
- Mengapa komputer menggunakan sistem biner?
- Apa sajakah karakteristik dari berbagai jenis komputer?
- Bagaimana komputer digunakan sekarang ini?

Invasi Komputer Ke manusia

- 6:15 AM - Timer in coffee maker turns on
- 6:30 AM - Computerized alarm clock rings
- 7:30 AM - Drive car/airbag,brakes,radio
- 8:00 AM - Check email at work
- 9:00 AM - Check in-coming voice mail
- 10:00 AM - Receive in-coming fax
- 12:00 PM - Buy gift. Electronic Kiosk
- 1:15 PM - Reserve airline ticket over Internet
- 3:00 PM - Pick up paycheck
- 5:15 PM - Stop off at ATM
- 6:30 PM - Grocery store /Checkout
- 11:30 PM - Microwave dinner



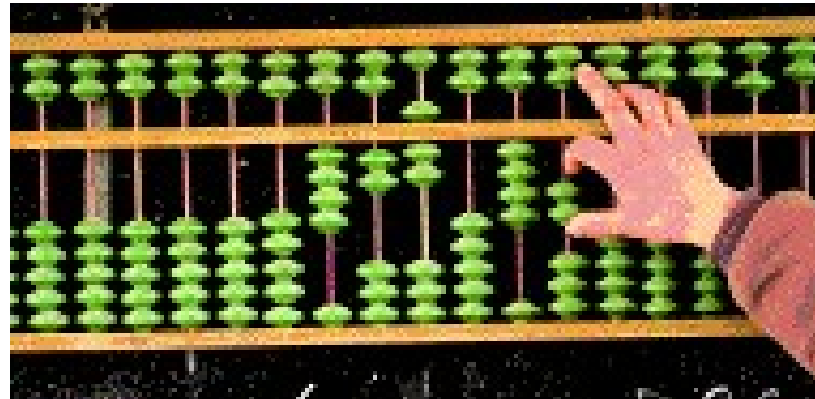
Mana yang termasuk Komputer atau Bukan

- ***Definisi:***

- Sebuah komputer adalah sebuah alat yang dapat mengambil data, menggunakan data, dan menghasilkan sebuah bentuk informasi yang berbeda yang terkait dengan (tetapi tidak sama) data asli

Termasuk sebuah komputer bukan ?

- It is an early calculation device that only holds numbers for the person using it



Termasuk sebuah komputer bukan ?

- Stonehenge adalah sebuah computer
 - Dibutuhkan pergerakan planet-planet, matahari dan benda langit lainnya dan menyediakan informasi mengenai gerhana dan peristiwa dalam astronomi lainnya



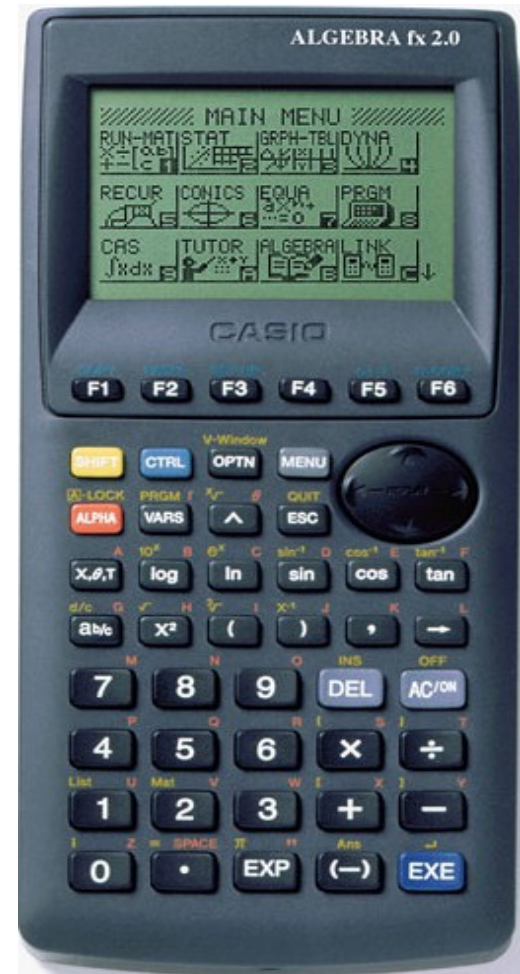
Termasuk sebuah komputer bukan ?

- Timbangan berat termasuk sebuah computer
 - Dibutuhkan dalam jumlah tarikan gravitasi antara tubuh manusia dan bumi dan menyediakan kami dengan jumlah pon atau kilogram



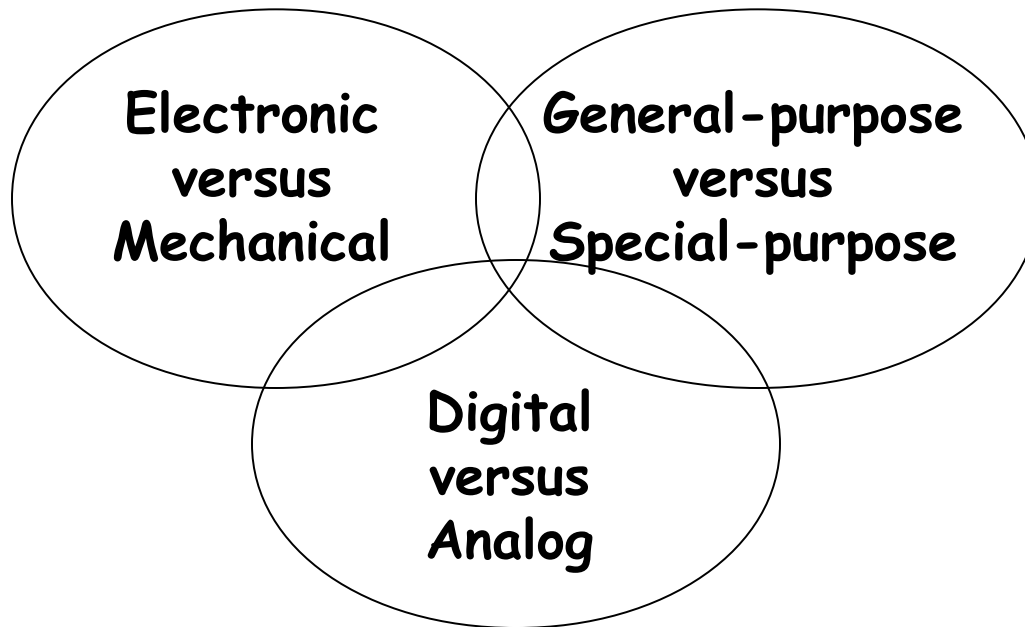
Termasuk sebuah komputer bukan ?

- Sebuah calculator adalah sebuah komputer
 - Mereka dapat melakukan penghitungan aritmetika sederhana dan powerful untuk model-model yang menghasilkan output grafis



Jenis Komputer

- Komputer dapat diklasifikasikan Menjadi 3 Kumpulan karakteristik:



Jenis Komputer

- Electronic Computer
 - Dibangun dari transistor dan rangkaian elektronika.
 - Memerlukan sumber listrik untuk menjalankan.
- Mechanical Computer
 - Dibangun dari kombinasi persneling, tuas dan / atau per
 - Memproduksi sendiri energi intrinsik (Tidak memerlukan listrik untuk bekerja)

Jenis Komputer

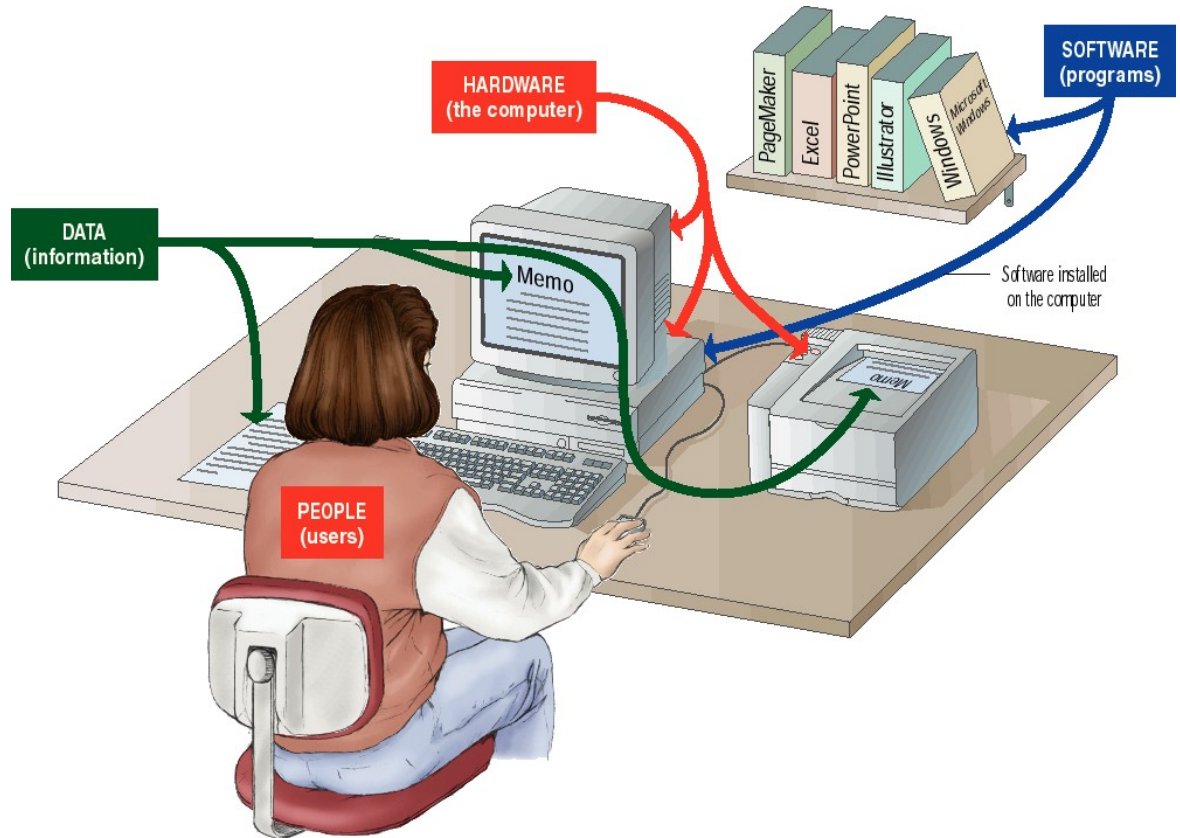
- General-purpose Computer
 - Tidak dibangun untuk fungsi khusus
 - Fleksibel untuk mengerjakan tugas
 - Misal, desktop or laptop computers, workstations
- Special-purpose Computer
 - Dibangun untuk fungsi/kegunaan khusus
 - Misal, a bathroom scale, a speedometer, or a CD player , Rudal Control, ETC

Jenis Komputer

- Digital Computer
 - One that functions in discretely varying quantities
 - Produces or gives results that are also discretely varying
- Analog Computer
 - One that functions in continuously varying quantities
 - Produces or gives results that are also continuously varying

Bagian dari Sistem Komputer

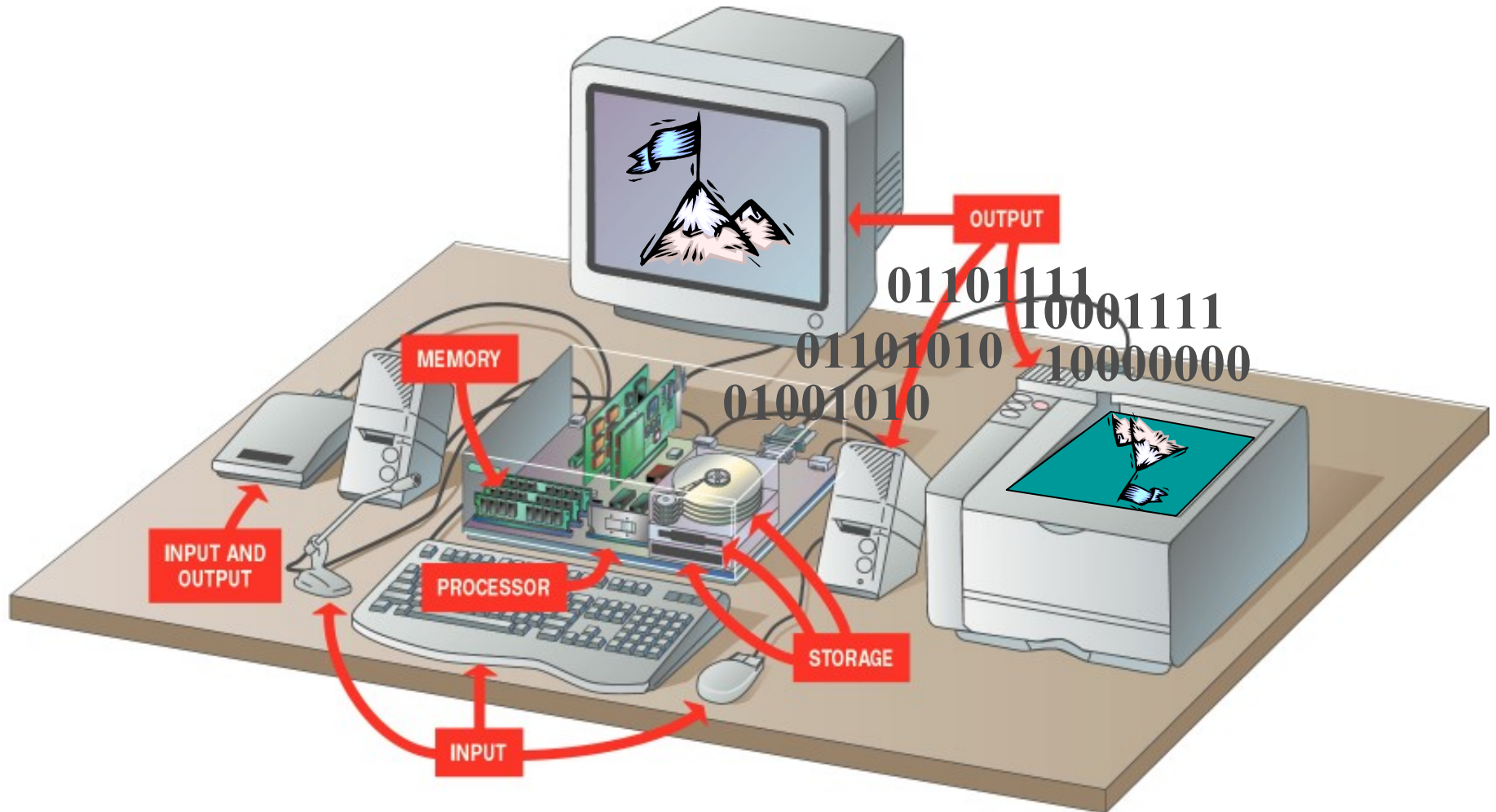
- Komponen sistem komputer
 - Hardware
 - Software
 - Data
 - User



- The General-purpose electronic digital computer
 - General Purpose: Can be used in many different fields of work
 - Electronic: Requires a source of electricity to function
 - Digital: Made up of binary circuitry (Each can be set to one of one two possible conditions)
 - Controlled by humans; Presents results in a way usable by humans

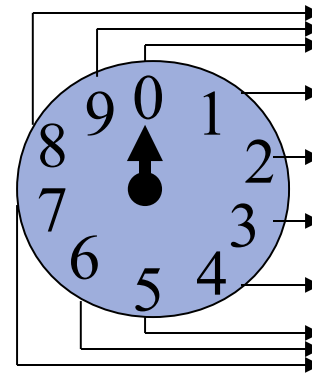
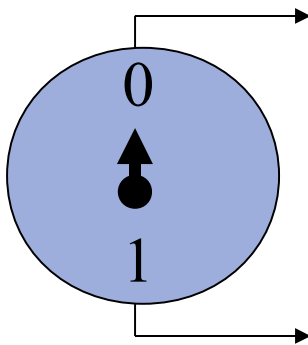
- Digital computers are made up of four major components:
 - **Input units** - Humans interface with the computer through devices like the mouse and keyboard
 - **Memory** - Stores programs and other data
 - **Central Processing Unit** - “Brain” controls all computer operations, processes information, computes results
 - **Output Units** - The computer displays results to the human through devices like the printer and monitor

The General-Purpose Electronic Digital Computer



Mengapa Komputer bekerja secara digital?

- Simply, because using the binary system is cheap and reliable
- Building computers using any other system would be too expensive and become less reliable



Applications: Making the Computer Work for You

- Applications (Application Programs)
 - Sets of computer instructions designed to perform a particular application or task
- Examples of popular application programs:
 - Word or WordPerfect for word processing
 - Excel for keeping a ledger
 - Norton's Utilities for checking disks for damage
 - Database

Applications: Making the Computer Work for You

- Productivity Tools
 - First designed for the business setting
 - Targeted increased speed and accuracy for office workers
 - Now used in homes, schools, and in offices
- Four types are included in this category:
 - Word Processing; Electronic Spreadsheets; Database Management Systems; Presentation Graphics

Applications: Making the Computer Work for You

- Word Processors
 - Most commonly used computer application programs on the market today
 - Have replaced the typewriter in the creation of text documents
 - Can be used to create: (to name a few)
 - Letters
 - Reports
 - Essays
 - Brochures
 - Advertising copy
 - Books

Applications: Making the Computer Work for You

- Electronic Spreadsheets
 - Allows you to enter numeric information and formulas into the computer in rows and columns
 - Performs calculations and recalculations immediately
 - Can be used for forecasting and what-if projections
 - Most have graphing capabilities

Applications: Making the Computer Work for You

- Database Management Systems (DBMS)
 - DBMS are the computer programs that are used to organize small to large amounts of information in a meaningful way
 - Allows entry, updating, and retrieval of information in a meaningful format
 - Can add information
 - Modify information
 - Delete information
 - Print information in a variety of formats

Applications: Making the Computer Work for You

- Presentation Graphics
 - A tool that combines the computer and a display system to present multiple types of visual and audible information
 - Text
 - Images and animation clips
 - Charts
 - Hyperlinks (text that can access pages on the WWW)
 - Can be viewed one-by-one or as a continuous slide show
 - Animation can be added for effect (fade

Applications: Making the Computer Work for You

- Computer Control
 - Tools used to make the computer run efficiently
 - Used to make the computer perform certain tasks
- Three types are listed in this category:
 - Programming Languages, Operating Systems, and Utilities

Applications: Making the Computer Work for You

- Programming Languages
 - Each programming language has its own vocabulary and structural rules.
 - Programmers use these languages to construct programs containing lists of instructions for the computer to perform.
 - Popular languages include:
 - Ada
 - Java
 - Visual Basic
 - C++

Applications: Making the Computer Work for You

- Operating Systems
 - A collection of programs that manage and control all operations and coordinate all hardware components of the computer.
 - Some functions include:
 - Controlling the mouse pointer.
 - Sending data to the printer and screen.
 - Managing files.
 - Formatting disks.
 - Popular Operating Systems include Windows, Unix, MacOS, VMS, Linux, OS/2.

Applications: Making the Computer Work for You

- Utilities

- Help to keep the computer running properly by:

- Making adjustments in efficiency.
 - Faster operation.
 - More efficient memory and hard disk use.
 - Better communication connections.
 - Making repairs to damaged disks and files.
 - Identifying and eliminating viruses.

Applications: Making the Computer Work for You

- Internet and Web Tools
 - Tools used to make easy access of the Internet possible.
 - Tools used to create a web presence.
- Three tools are listed in this category:
 - Web Browsers, Search Services, Web Page Builders.

Applications: Making the Computer Work for You

- Web Browsers
 - Most commonly used tool to access the World Wide Web.
 - These programs allow web pages to be displayed on the computer screen that may include:
 - Text
 - Graphic images, animation and streamed video
 - Sound
 - Three-dimensional virtual reality environments
 - The two most widely used web browsers today include Microsoft Explorer and Netscape Navigator.

Applications: Making the Computer Work for You

- Search Services
 - Tools used to help search for specific information on the WWW.
 - Many free search services exist on the WWW.
 - Type in a search criteria (key words to look for).
 - The search service will then locate pages on the web that contain that search criteria.
 - A few popular web search services include [HotBot](#), [Alta Vista](#), [Excite](#), and [DogPile](#).

Applications: Making the Computer Work for You

- Web Page Builders
 - Tools used to create web pages.
 - Some word processors and presentation programs include web page design capability.
 - Type in the document as you wish it to look on the WWW.
 - Have the word processing program save it in the HTML (special web document) format.
 - Stand-alone web page builders allow you to design more complex and sophisticated web sites.