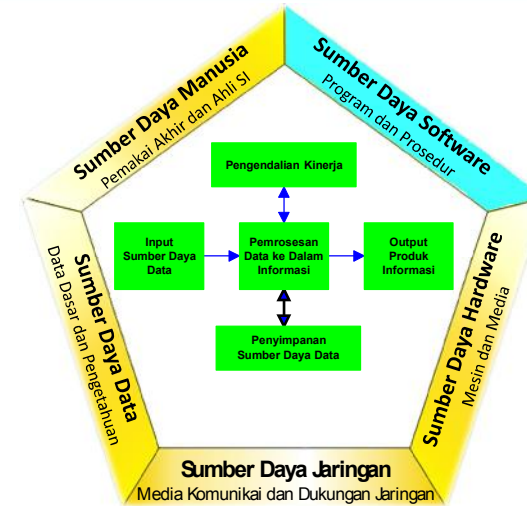


# Manajemen Sistem Informasi

Minggu ke 07



## Sumber Daya Sistem Informasi



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### POKOK BAHASAN

## Mengelola Sumber Daya Perangkat Lunak (2)

### Tujuan Instruksional Khusus

1. Jenis Perangkat Lunak
2. Perangkat Lunak Aplikasi Umum
3. Perangkat Lunak Aplikasi Khusus

### Deskripsi Singkat

Pertemuan ini diharapkan agar Mahasiswa mempunyai pengetahuan dasar tentang berbagai sistem aplikasi (perangkat lunak) yang harus dikelola dalam sebuah organisasi / perusahaan

### Bahan Bacaan

1. Discovering Computer 2011, Gary B. Shelly and Misty E. Vermaat, Course Technology, Cengage Learning
2. Sistem Informasi Manajemen, Mengelola Perusahaan Digital, Edisi 8, Kenneth C. Laudon, Jane P. Laudon, Penerbit Andi Yogyakarta, 2005
3. Pengantar Sistem Informasi Edisi 12, James O'Brien, PENERBIT SALEMBA EMPAT JAKARTA



## Application Software

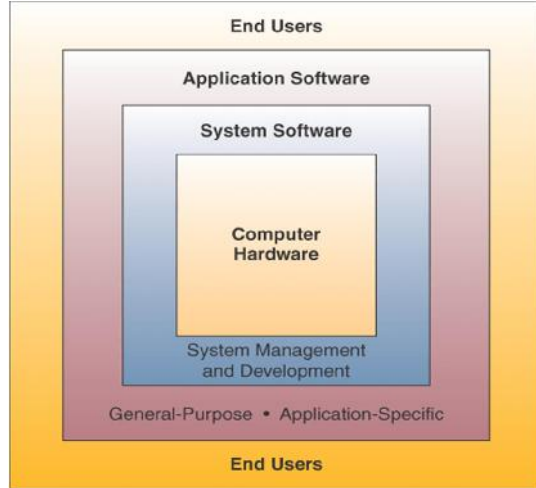
### Four Categories of Application Software

Business	Graphics and Multimedia	Home/Personal/Educational
<ul style="list-style-type: none"> <li>• Word Processing</li> <li>• Spreadsheet</li> <li>• Database</li> <li>• Presentation</li> <li>• Note Taking</li> <li>• Personal Information Manager (PIM)</li> <li>• Business Software for Phones</li> <li>• Business Software Suite</li> <li>• Project Management</li> <li>• Accounting</li> <li>• Document Management</li> <li>• Enterprise Computing</li> </ul>	<ul style="list-style-type: none"> <li>• Computer-Aided Design (CAD)</li> <li>• Desktop Publishing (for the Professional)</li> <li>• Paint/Image Editing (for the Professional)</li> <li>• Photo Editing (for the Professional)</li> <li>• Video and Audio Editing (for the Professional)</li> <li>• Multimedia Authoring</li> <li>• Web Page Authoring</li> </ul>	<ul style="list-style-type: none"> <li>• Software Suite (for Personal Use)</li> <li>• Personal Finance</li> <li>• Legal</li> <li>• Tax Preparation</li> <li>• Desktop Publishing (for Personal Use)</li> <li>• Paint/Image Editing (for Personal Use)</li> <li>• Photo Editing and Photo Management (for Personal Use)</li> <li>• Clip Art/Image Gallery</li> <li>• Video and Audio Editing (for Personal Use)</li> <li>• Home Design/landscaping</li> <li>• Travel and Mapping</li> <li>• Reference and Educational</li> <li>• Entertainment</li> </ul>
<h3>Communications</h3>		
<ul style="list-style-type: none"> <li>• Web Browser</li> <li>• RSS Aggregator</li> </ul>	<ul style="list-style-type: none"> <li>• E-Mail</li> <li>• Blogging</li> </ul>	<ul style="list-style-type: none"> <li>• Instant Messaging</li> <li>• Newsgroup/Message Board</li> <li>• Chat Room</li> <li>• FTP</li> <li>• Text, Picture, Video Messaging</li> <li>• VoIP</li> <li>• Video Conferencing</li> </ul>

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## Interface Between End Users and Computer



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## Operating Systems

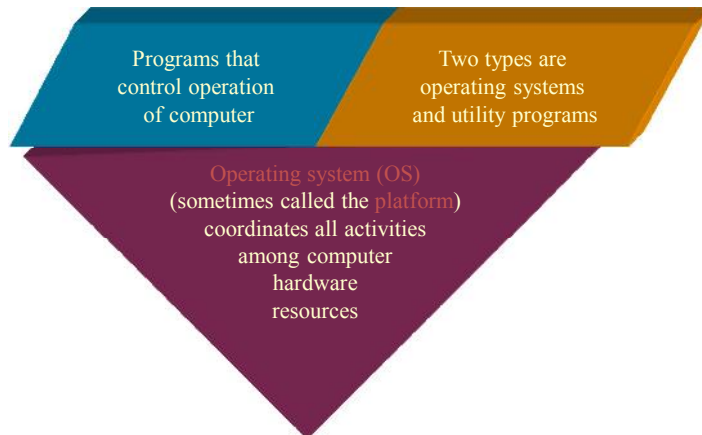
- Integrated system of programs that...
  - Manages the operations of the CPU
  - Controls the input/output, storage resources, and activities of the computer system
  - Provides support services as the computer executes application programs
- The operating system must be loaded and activated before other tasks can be accomplished

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## System Software (OS & Utilities)

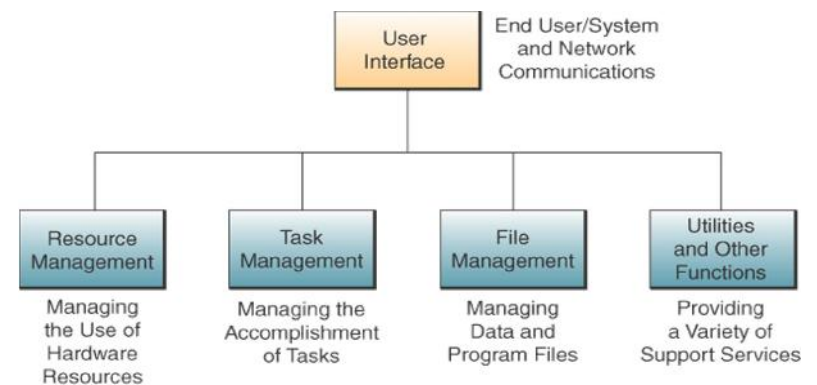
What is system software?



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## Operating System Basic Functions

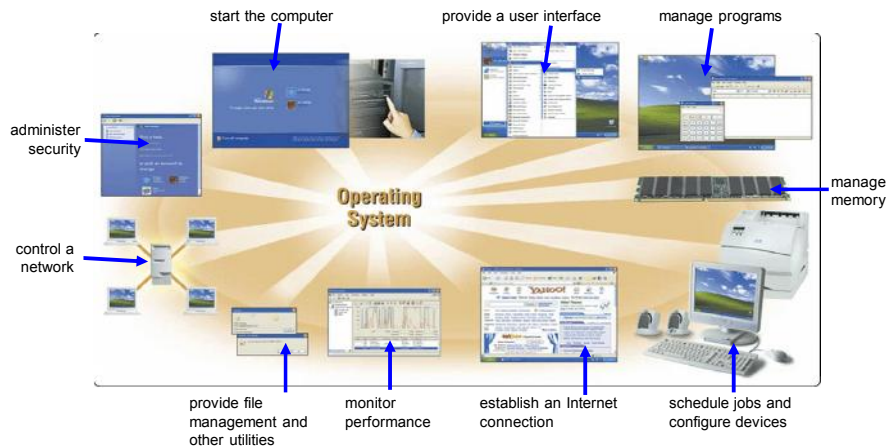


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## Operating Systems ( main functions)

What are the functions of an operating system?

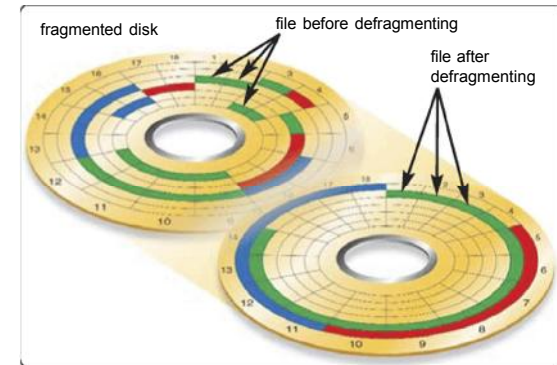


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## Resource Management

- Reorganizes files and unused space into contiguous sectors on hard disk so programs run faster.



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## Resource Management

- Part of the operating system that manages the hardware and networking resources of a computer system
  - Includes CPU, memory, secondary storage devices, telecommunications, and input/output peripherals
- Common functions
  - Keeping track of where data and programs are stored
  - Subdividing memory; providing virtual memory capability

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## Popular Operating Systems

- Windows
  - GUI, multitasking, networking, multimedia
  - Microsoft's operating system
  - NT, XP, 2003
  - Different versions manage servers
- Unix
  - Multitasking, multi-user, network-managing
  - Portable - can run on mainframes, midrange, and PCs
- Linux
  - Low-cost, powerful reliable Unix-like operating system
  - Open-source
- MACOSX
  - Apple operating system for the iMac
  - GUI
  - Multitasking
  - Multimedia

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## Other System Software

- Utilities
  - Miscellaneous housekeeping functions
  - Example: Norton utilities includes data backup, virus protection, data compression, etc.
- Performance Monitors
  - Programs that monitor and adjust computer system to keep them running efficiently
- Security Monitors
  - Monitor and control use of computer systems to prevent unauthorized use of resources

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## Programming Tools

### Procedural Languages:

- BASIC, BASICA, GWBASIC, QBASIC
- COBOL
- FORTRAN
- PASCAL

### Object Oriented Languages

- JAVA → Object Oriented
- C++ → Object Oriented
- SMALLTALK → Object Oriented
- Alice (game programming) → Object Oriented (based on Java)
- VISUAL BASIC.NET → Object Based

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## Programming Tools

- Help programmers identify and minimize errors while they are programming
  - Graphical programming interfaces
  - Programming editors
  - Debuggers
- CASE Tools
  - A combination of many programming tools into a single application with a common interface
  - Used in different stages of the systems development process

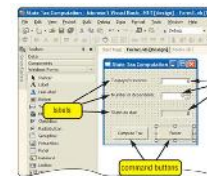
- 14 -



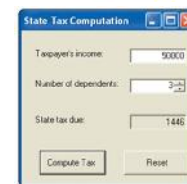
## Programming Tools

- Suite of visual programming languages and RAD tools
- .NET is set of technologies that allows program to run on Internet
- **Visual Basic** is used to build complex object-based programs

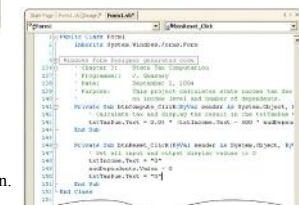
**Step 1.** The programmer designs the user interface.



**Step 2.** The programmer assigns properties to each object on the form.



**Step 3.** The programmer writes code to define the action of each command button.



**Step 4.** The programmer tests the application.

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