



Al-Mustaqbal University

College of Engineering and Technology

Department of Medical Instrumentation Techniques Engineering

Class: First Class

Subject: Principal Computer

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Lecture Address: Operating system

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Examples of Operating Systems:

- **Disk Operating System (DOS):** It consists of a set of programs and commands, but it does not allow the user to run more than one program at a time and does not support executing multiple commands simultaneously. It requires a certain level of expertise in computing to use it effectively, making it not very user-friendly.
- **Windows Operating System:** It is a graphical user interface (GUI) operating system, meaning users interact with it through a mouse and dropdown menus. It allows for:
 - 1- Running multiple programs simultaneously.
 - 2- Using languages like Arabic and others as the interface language.
 - 3- Expanding the mouse's functionality beyond selection and execution, to include tasks like setting configurations and copying or deleting files.
 - 4- Running media applications (such as audio and video players).



Example of Operating system

```
MS-DOS Prompt
Auto
C:\WINDOWS>cd ..
C:\>
E:\>copy c:\mymusi\1\sync\1\*. *
c:\mymusi\1\sync\1\N Sync & Gloria Estefan - Music Of My Heart.mp3
c:\mymusi\1\sync\1\N Sync - Best of My Life.mp3
c:\mymusi\1\sync\1\N Sync - Bye Bye Bye.mp3
c:\mymusi\1\sync\1\N Sync - I Drive Myself Crazy.mp3
c:\mymusi\1\sync\1\N Sync - I Want You Back.mp3
c:\mymusi\1\sync\1\N Sync - Tearin' up my heart.mp3
c:\mymusi\1\sync\1\N Sync - God Must Have Spent A Little More Time On You.mp3
7 file(s) copied
E:\>_
```



Disk Operating System (DOS)
Windows Operating System
Apple Macintosh Operating System
Unix Operating System



واجهة التطبيق الرسومية GUI

- **Graphical User Interface (GUI):**
The graphical user interface is an additional part of the operating system that displays windows and dropdown menus, allowing you to interact with the computer using a mouse. Examples of operating systems that use this interface include Windows 95, 98, NT, 2000, and XP.
- **Advantages of Using a Graphical User Interface:**
 - 1- There is a similarity in the way all programs are interacted with.
 - 2- The way to run programs is not highly dependent on the manufacturer.
 - 3- Interaction with application programs follows the same method as with the operating system.
 - 4- It allows programmers to easily write consistent programs.



Application Software

- **Application Software:** It is a type of software that you can use after loading the operating system. Examples of such software include word processing programs, spreadsheets, databases, presentation tools, and multimedia applications.
- Microsoft Word
- Microsoft Excel
- Microsoft Access
- Microsoft PowerPoint
- Flash



Introduction to Computer Networks



Basics of Computer Networks:

Network Definition: A computer network consists of a group of devices •
connected to each other to share resources.

Benefits of Networking:

- 1- Information Sharing**
- 2- Device Sharing**
- 3- Software Sharing**
- 4- Information Security**

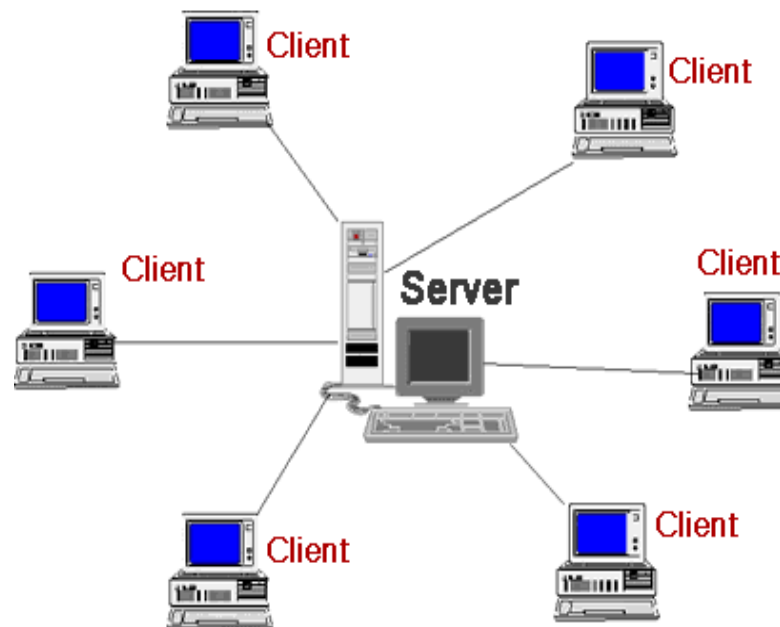


Network Interaction Axis:

- **Network Terminology Related to Devices:**
- **Server:** High-performance computer systems with large storage and processing capabilities. They provide resources and services to the network and are considered the most important devices in the network.
- **Client:** Personal computers or terminal units that receive resources and services from the server. They do not have control privileges over the network.
- **Network Resources:** These refer to files, printers, and devices used within the network.

Network Interaction Axis:

The Client-Server Model





Types of Networks Based on Distance:

There are two main types of networks.

Local Area Network (LAN)

