



# COMPUTER BASICS

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AL-HIKMAH UNIVERSITY COLLEGE-  
ENGINEERING CYBERSECURITY AND CLOUD  
COMPUTING TECHNOLOGIES

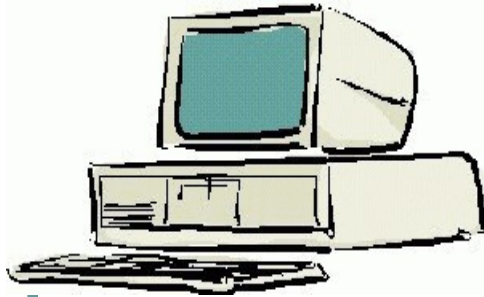


# THE FUTURE IS TECHNOLOGY

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# What is a Computer?



An electronic device that stores, retrieves, and processes data, and can be programmed with instructions. A computer is composed of hardware and software, and can exist in a variety of sizes and configurations.

# Hardware & Software

The term hardware refers to the physical components of your computer such as the system unit, mouse, keyboard, monitor etc.



The software is the instructions that makes the computer work. Software is held either on your computers hard disk, CD-ROM, DVD or on a diskette (floppy disk) and is loaded (i.e. copied) from the disk into the computers RAM (Random Access Memory), as and when required.



# Types of Computers

## ~~Mini and Mainframe Computers~~

Very powerful, used by large organisations such as banks to control the entire business operation. Very expensive!



## ~~Personal Computers~~

Cheap and easy to use. Often used as stand-alone computers or in a network. May be connected to large mainframe computers within big companies.



# Hardware Components

~~Input Devices -- "*How to tell it what to do*" --~~

-A keyboard and mouse are the standard way to interact with the computer. Other devices include joysticks and game pads used primarily for games.

~~Output Devices -- "*How it shows you what it is doing*" --~~

-The monitor (the screen) is how the computer sends information back to you. A printer is also an output device.



# Hardware Components

## ~~INPUT DEVICES~~

### The Mouse

Used to 'drive' Microsoft Windows

### The Keyboard

The keyboard is still the commonest way of entering information into a computer

### Tracker Balls

an alternative to the traditional mouse and often used by graphic designers



# Hardware Components

## INPUT

### DEVICES

**Scanners** A scanner allows you to scan printed material and convert it into a file format that may be used within the PC



### Touch Pads

A device that lays on the desktop and responds to pressure



### Light Pens

Used to allow users to point to areas on a screen



### Joysticks

Many games require a joystick for the proper playing of the game



# Hardware Components

## ~~OUTPUT~~

### DEVICES VDU

The computer screen is used for outputting information in an understandable format

### Printers

There are many different types of printers. In large organizations laser printers are most commonly used due to the fact that they can print very fast and give a very high quality output.





# Hardware Components

## OUTPUT

### DEVICES

**Plotters** A plotter is an output device similar to a printer, but normally allows you to print larger images.

### Speakers

Enhances the value of educational and presentation products.

### Speech synthesisers

Gives you the ability to not only to display text on a monitor but also to read the text to you



# Hardware Components

~~Storage Devices — "How it saves data and programs"~~

-Hard disk drives are an internal, higher capacity drive which also stores the operating system which runs when you power on the computer.

- "Floppy" disk drives allow you to save work on small disks and take the data with you.



# Hardware Components

## Hard Disks

Speed:

Very fast!

The speed of a hard disk is often quoted as "average access time" speed, measured in milliseconds. The smaller this number the faster the disk.

Capacity:

Enormous! Often 40/80 Gigabytes. A Gigabyte is equivalent to 1024 Megabytes.

Cost:

Hard disks costs are falling rapidly and normally represent the cheapest way of storing data.



# Hardware Components

## ~~Diskettes (Floppy Disks)~~

Speed:

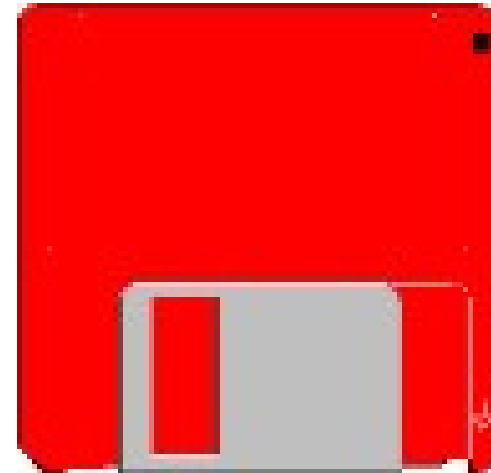
Very slow!

Capacity:

Normally 1.44 Mbytes.

Cost:

Very cheap.





**THANK YOU**

