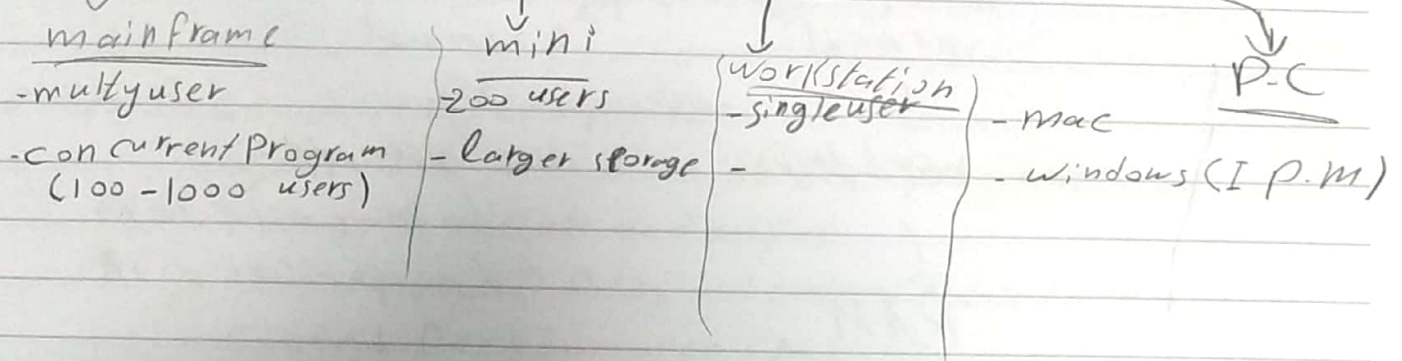


## Section 1

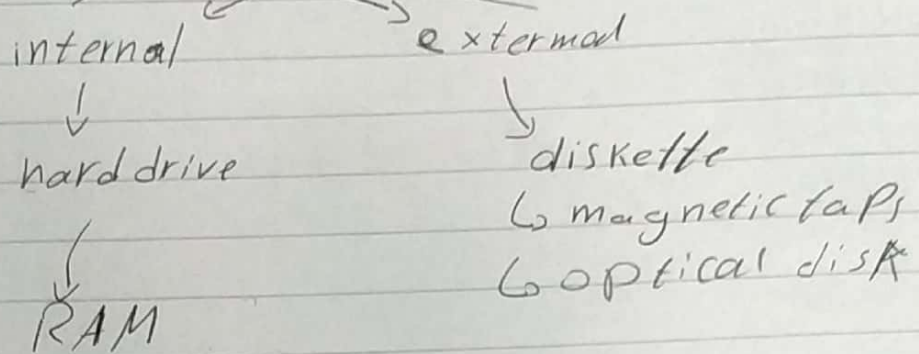
### Computer



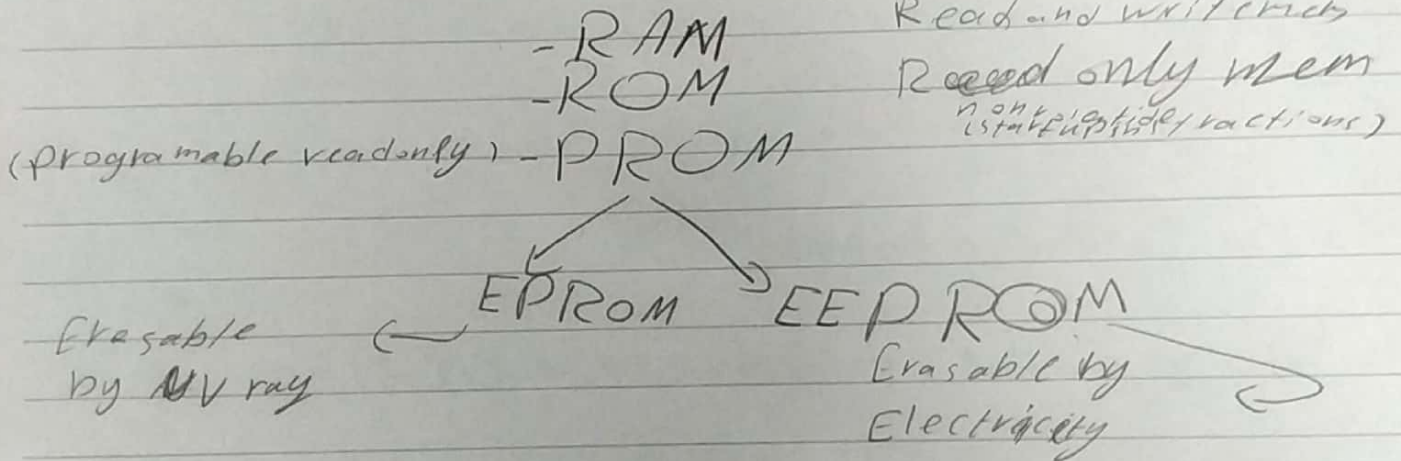
### How a computer works?

- 1- entering data (accept input)  $\Rightarrow$  (No. - text - image - video)
- 2- listing, manipulate (in CPU)
- 3- Storageing (in hard)
- 4- Sending output (printer-screen-USB)

## Storage devices



## Memory



## Binary system

$$(21)_{10} = (10101)_2 \quad (15)_{10} = (1111)_2$$

$$(35)_{10} = (100011)_2$$

2	35	1
2	17	1
2	8	0
2	4	0
2	2	0
2	1	1

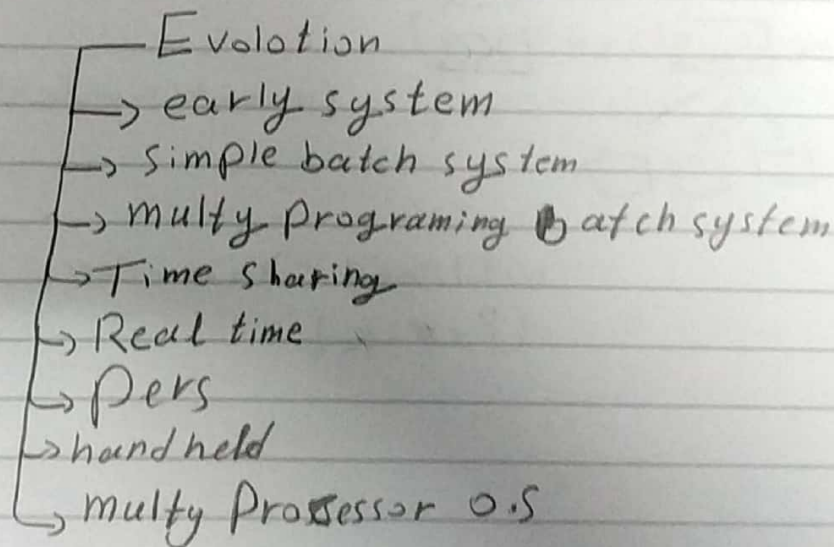


## ch 2 operating system

### \* interface user & computer

- Start the execution of the programs
- recognize inputs and output
- Keep track of files and control access to them
- Control Performance statistics
- Error detection
  - Memory error
  - device failure
  - arithmetic overflow

### \* Control and allocate resources (CPU, Memory, I/O devices)



simple (95)

(GUI) windows ← Types → Mac (1986) (GUI)

(commands) linux ← → unix (commands)

M.U

M.T

T.S

O.S

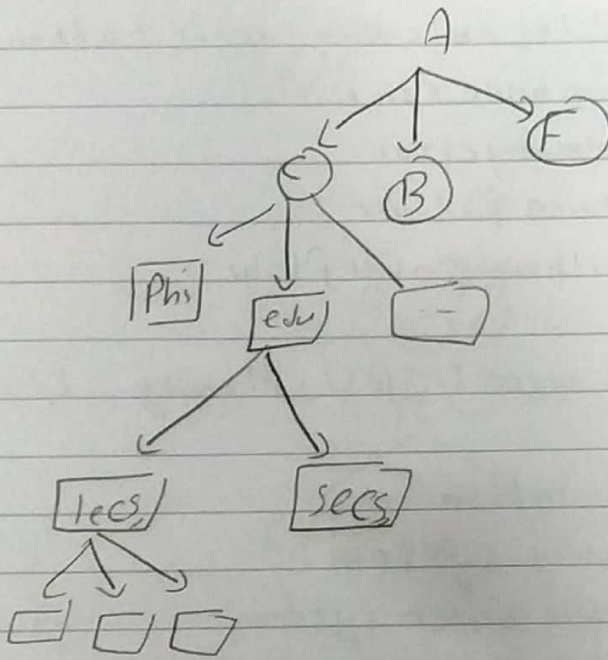
2000

2000

Kernel → وسيط بين المستخدم والعتاد (لترجمة اللغة إلى لغة الآلة)

Clip board → حافظه لل Copy و Cut

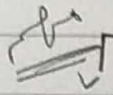
File management →



Wildcard characters  
(?, #, \*)

# Ch3

## Network



geographic area

- PAN (Personal area network)

- LAN (Local area network)

devices

Switch

Media

functional relationship

- Peer to Peer  
[1, 10] devices



~~- WAN~~

- MAN (Metropolitan area network)

- WAN (wide area network)

- Client server