⑥ Personal Computer O.S

→ Personal computer os provides a good interface "to a single user."

→ These are ois which are mainly used for
① Word processing
② spread sheets
③ internet access.

→ This type of OS are used for "PERSONAL USE".

Eg: of personal computer os,laptoP, Tablets, Computer system.

Eg: of PC OS Windows-XP, Window-T, window7, Windows 10,11, Linux; Unix OS, Mac-OS.

→ personal Computer os are used for "Personal use Such as":

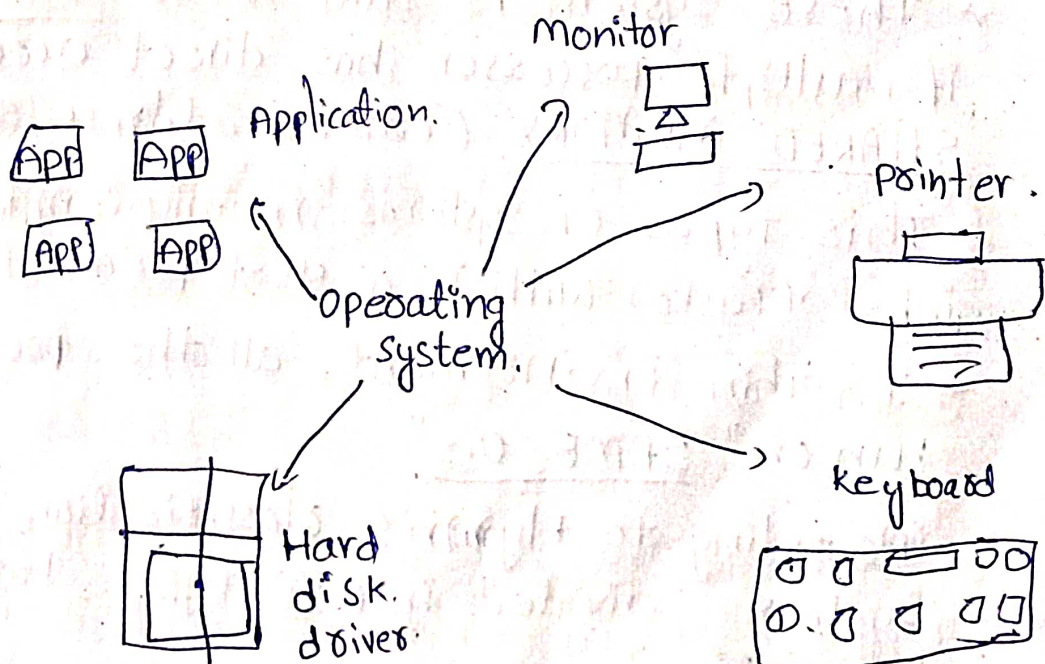1) Reading Articles from Internet.
2) Creating Websits. / programing.
3) Chatting with the friends → using social media
4) Developing projects - using MS-word, PPT.
5) Palying video.

→ The first personal computer OS in as Introduced in year "1981" is it is "IBM PC."

→ fig: shows - pc - OS.

monitor

Application.

App App

App App

Operating System.

Printer.

Hard disk. driver.

keyboard

Advantages of pc os:-

① education.

② It a is also used for entertainment.

③ It is also used for Communication -Networks.

④ It is also used for E-Commerce.

Disadvantages of PCOS:-

① Internet addiction.

② physical side effects.

⑦ Parallel processing Systems:-

This are the × systems mainly designed to speed up execution of "Multiple programs," where. programs are partitioned into "smaller part.

→ These systems are also known as multi proce-ssor systems (or) Tightly coupled Systems.

* These system is said to be "Parallel-System" if multiple processor has direct access to "SHARED MEMORY". (common address space)
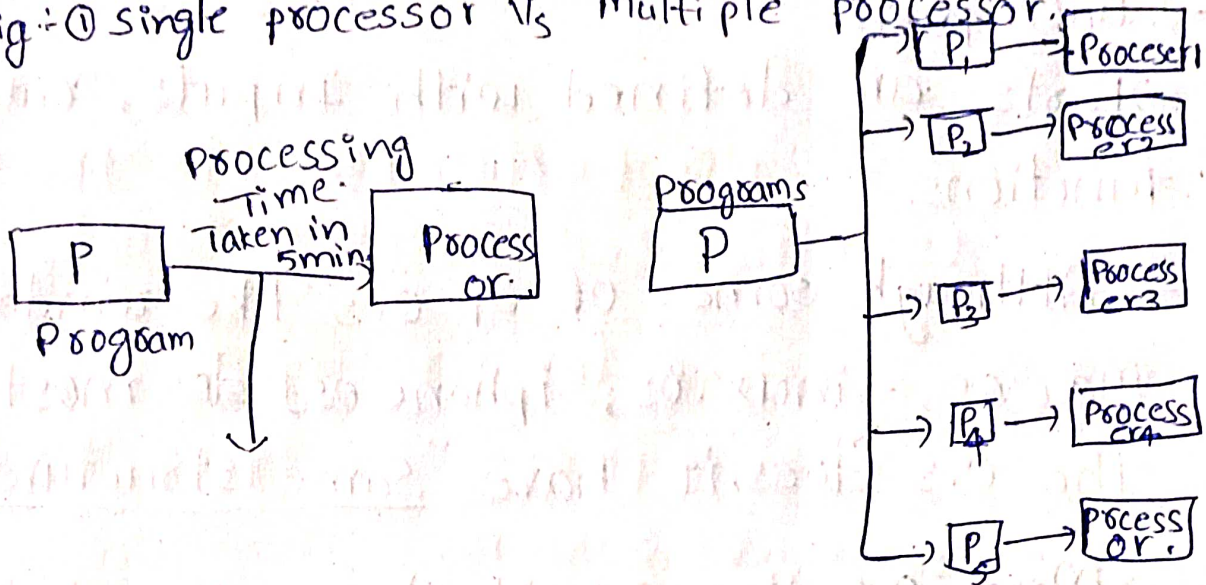
* This types of systems mainly complete all the jobs (Tasko) with in a short period of time.

* In thin Environment, all the process shoul run on "SAME O.S".

→ According to Flynn's classification Compute Systems divided into ④ types based on. "Parallelism".

(i) SISD → [Single Instruction Single data stream]
(ii) SIMD → [Single Instruction Multiple data stream]
(iii) MISD → [Multiple Instruction Single data stream]
(iv) MIMD → [Multiple Instruction Multiple data stream]

fig:① single processor Vs multiple processor.

Processing Time Taken in 5min

P → Program → Processor

Programs P → P_1 → Processor1, P_2 → Processor2, P_3 → Processor3, P_4 → Processor4, P_5 → Processor.

Advantages :-

① It saves the time, it also execute all the applications simultaneously.

② sharing of resources will be done Parallely (or) simultaneously.

③ It also handles "Large - complex programs" (or) Problems

Disadvantages of PPS:-

① The involves more High cost.

② The maintainnce will be high.

③ It requires Huge power computation. consumption.

→ # System Components:

→ O.s is large are complex System which can be created by "partitioning" them into "Smaller Parts".

← Each parts.

→ Parts are defined with Inputs, output & functions.

→ Although some of of O.s like windows, Mac os, Linux.Os, iphone os] do most of the O.s doesn't have "Same structure".

→ Most of the O.s it shares the similar. System Components. [Such memory mangmen Process mangment, file mangment I/o]

<u>def</u>

 * Component in O.s plays a key Role for. making differents parts of system Working ~~togethar.~~ togather.

✱ The following are the system. Caro ⑧ Components O.s.

① process management.
② File Management
③ Netwook Management.
④ Memory Management
⑤ Secondary storage Management.
⑥ Input Iouput device Management.

⑦ Security Management.

⑧ A Command Interpreter System. [system Interface]

① **Process Management:-**

This function mainly handle the.

① The Creation

② execution. & teromantion of the process

② **File Management!**

This function mainly handle (or) provides the Creation |deletion. of files. in a Correspondi-ng directions. and also responabile for mani-pulating files.

③ **Network Management:-**

Network management is a function which enables the Communcation b/w differe-nt system (or) devices that type of the management is called network.

④ **Memory Managementi-**

This function mainly allocates/deallocates the main memory to the poocesses is called memory management.

⑤ **Secondary Storage Management:-**

This function mainly Poovides the Concept of storage allocation it also@ allocates free-space management .and also responable for disk Scheddulaing.

⑥ **I/o management:-**
This function is mainly manag
the Input & output devices management
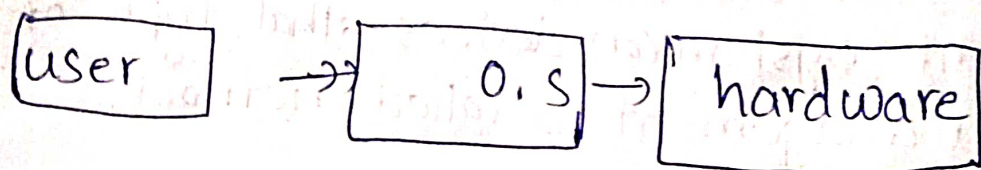and along with the device drivers.

⑦ **Security management:-**
This function protects the syste
from unauthorized Access & Attacks.

⑧ **Command Interpreter mansystem:-**
It is a primary Interface b/w the
user & rest of system.

operating system Services:-

–) O·S provides Interaction b/w the user &
Computer hardware.

| user | → | O. S | → | hardware |

→ Here, the user doesn't directly Interacts
with hardware.

–) Hag User gets the services form the
hardware; by the requesting the o.s.

–) An o.s act as a primary "resource
manager", which mainly manages all the
hardware Parts. (processer, memory. I/o)

-> An O.S mainly operates of 2 Modes.
① User Mode. -> eg:- Compilers, editors -> runs on user mode.
② kernel mode -> eg:- Os code runs on kernel mode.