



# **SNS COLLEGE OF ENGINEERING**

Kurumbapalayam (Po), Coimbatore – 641 107

**An Autonomous Institution**

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A' Grade  
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai



## **DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**COURSE NAME : 23ITT101 Problem Solving and C Programming**

**I YEAR /I SEMESTER**

**Unit 1- INTRODUCTION TO PROBLEM SOLVING TECHNIQUES**

**Topic 1: Fundamentals - Computer Hardware and Software**



# Brain Storming



1. What is Hardware? Examples?



# What is Computer?



- Its an electronic Device that is used for information Processing.
- Computer.. Latin word.. Compute.
- Calculation Machine.



# Basic Computer Hardware



Physical devices of computer system :

**Processor:** It executes instructions

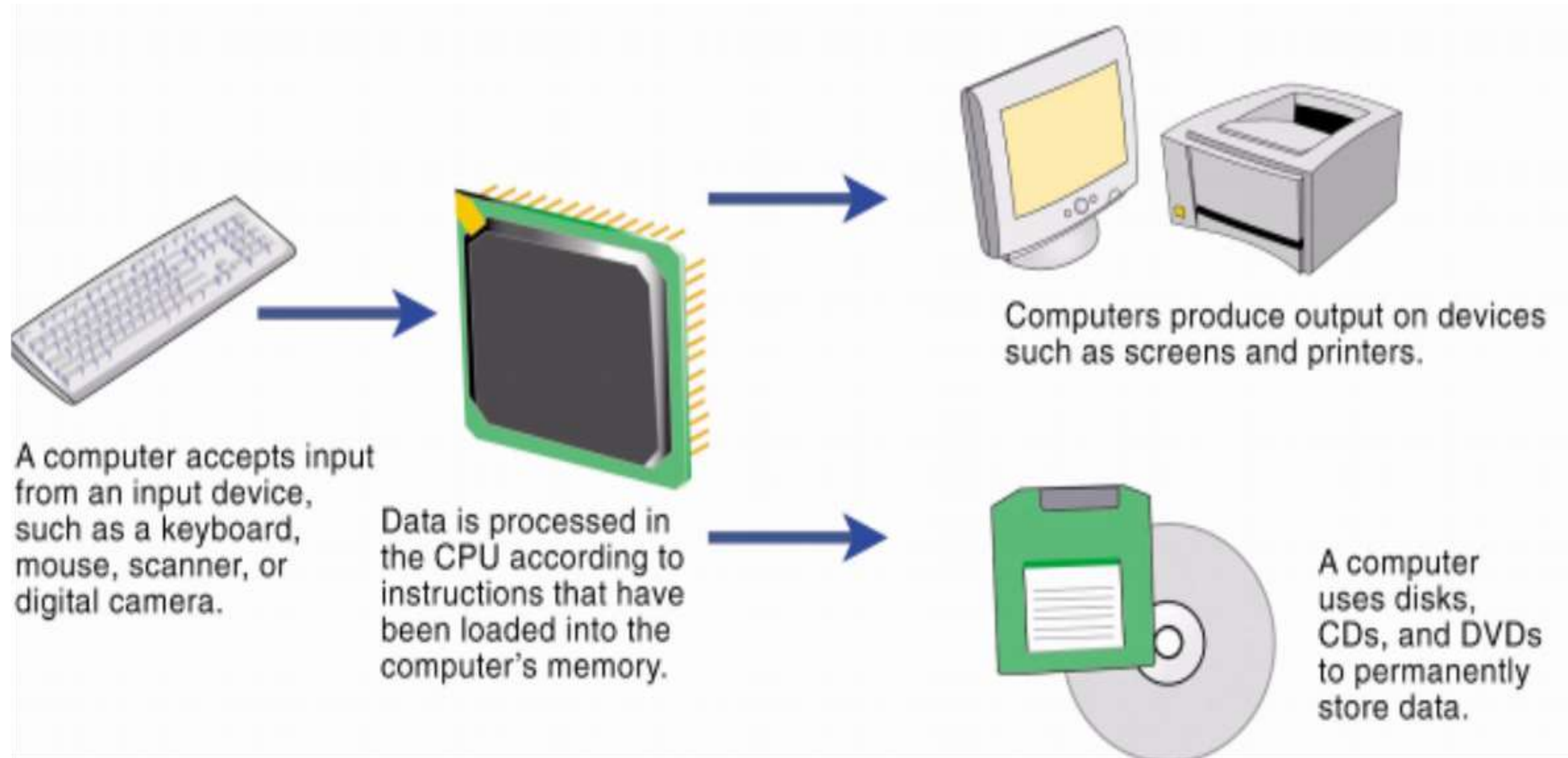
**Memory:** It is the primary memory for data transfer between the CPU and storage.

**Motherboard:** It is the part that connects all other parts or components of a computer.

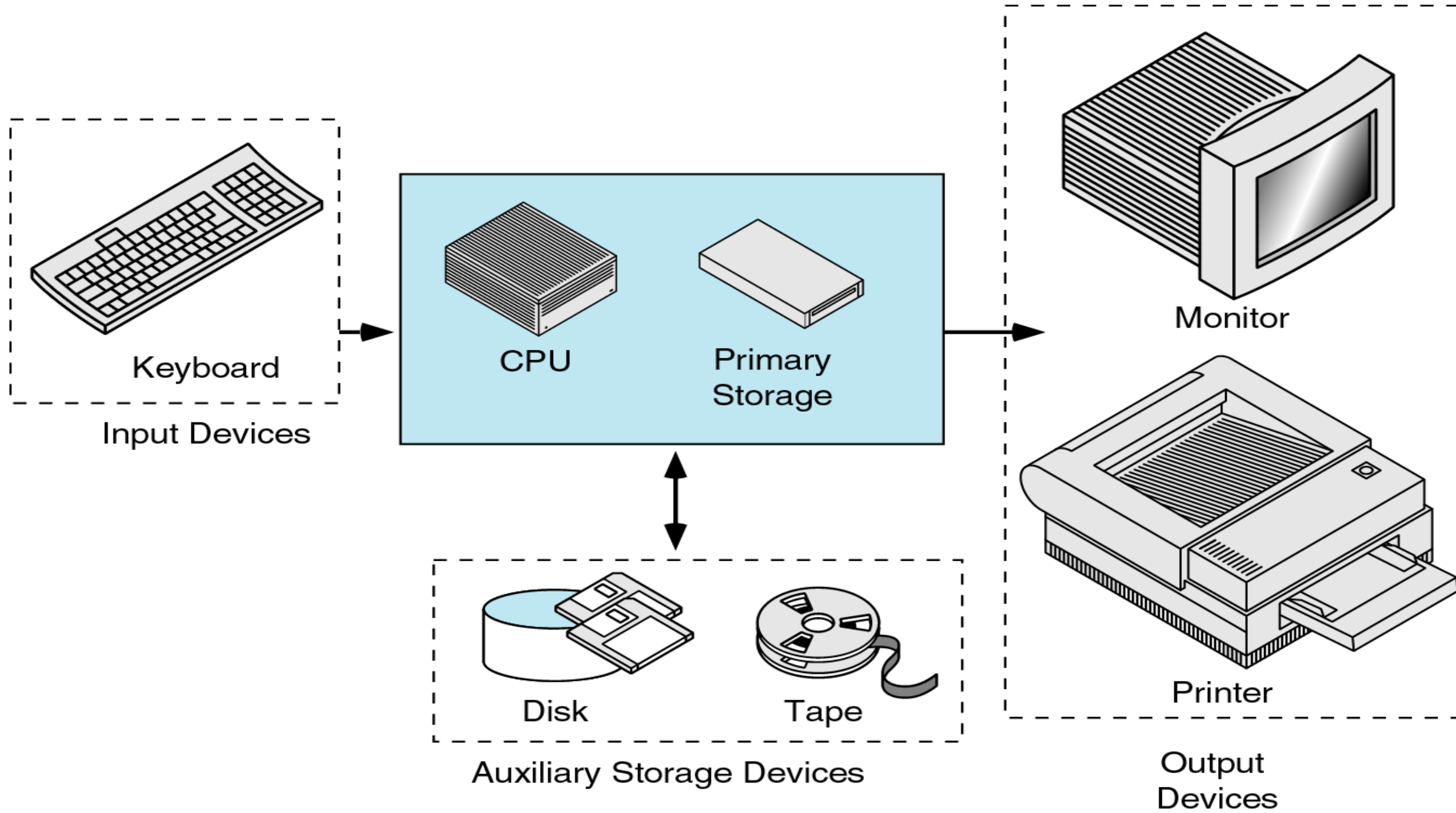
**Storage Device:** It stores data permanently, e.g., hard drive.

**Input Device:** It allows you to communicate with the computer or to input data, e.g., a keyboard.

**Output Device:** It enables you to see the output, e.g., monitor.

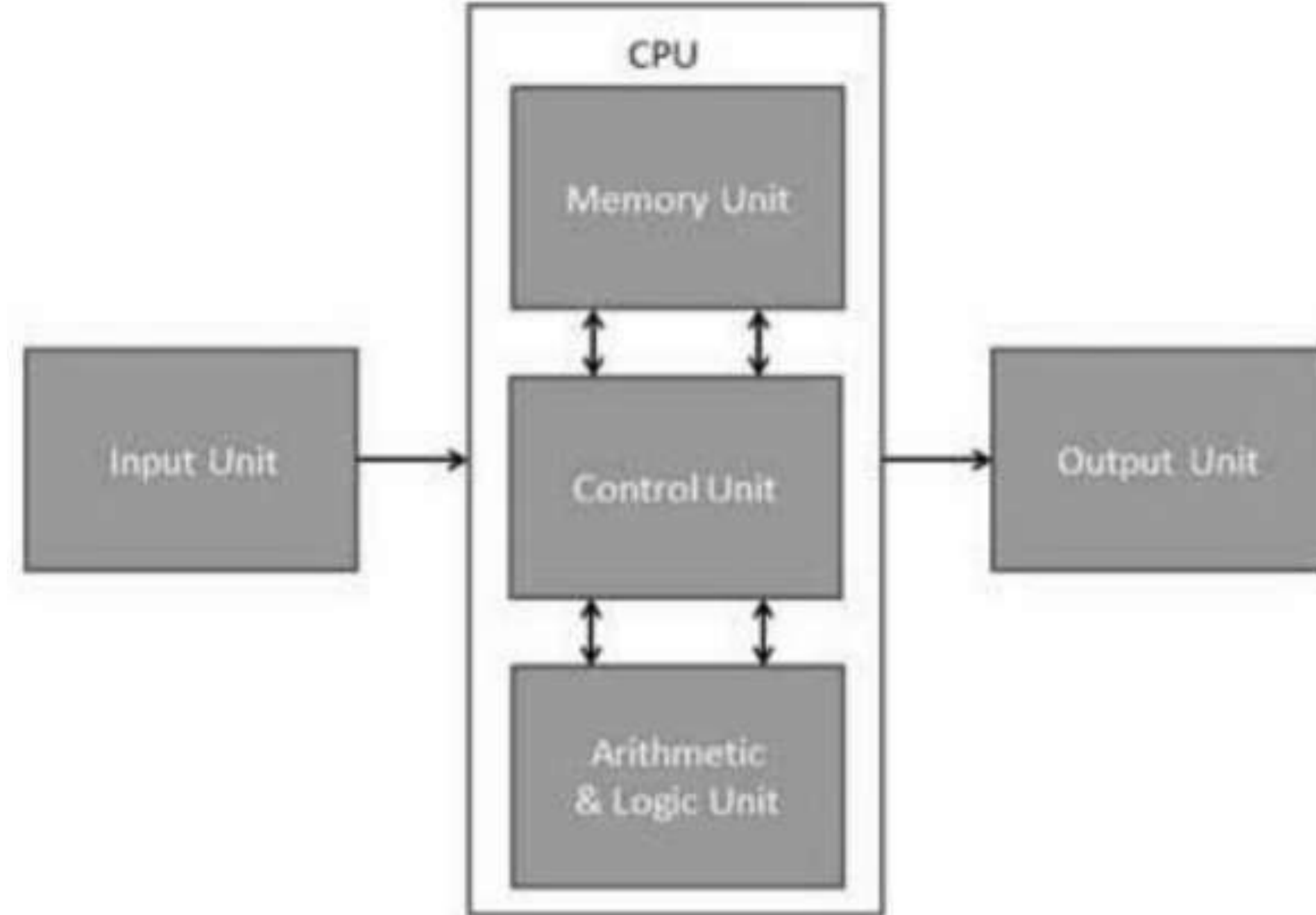


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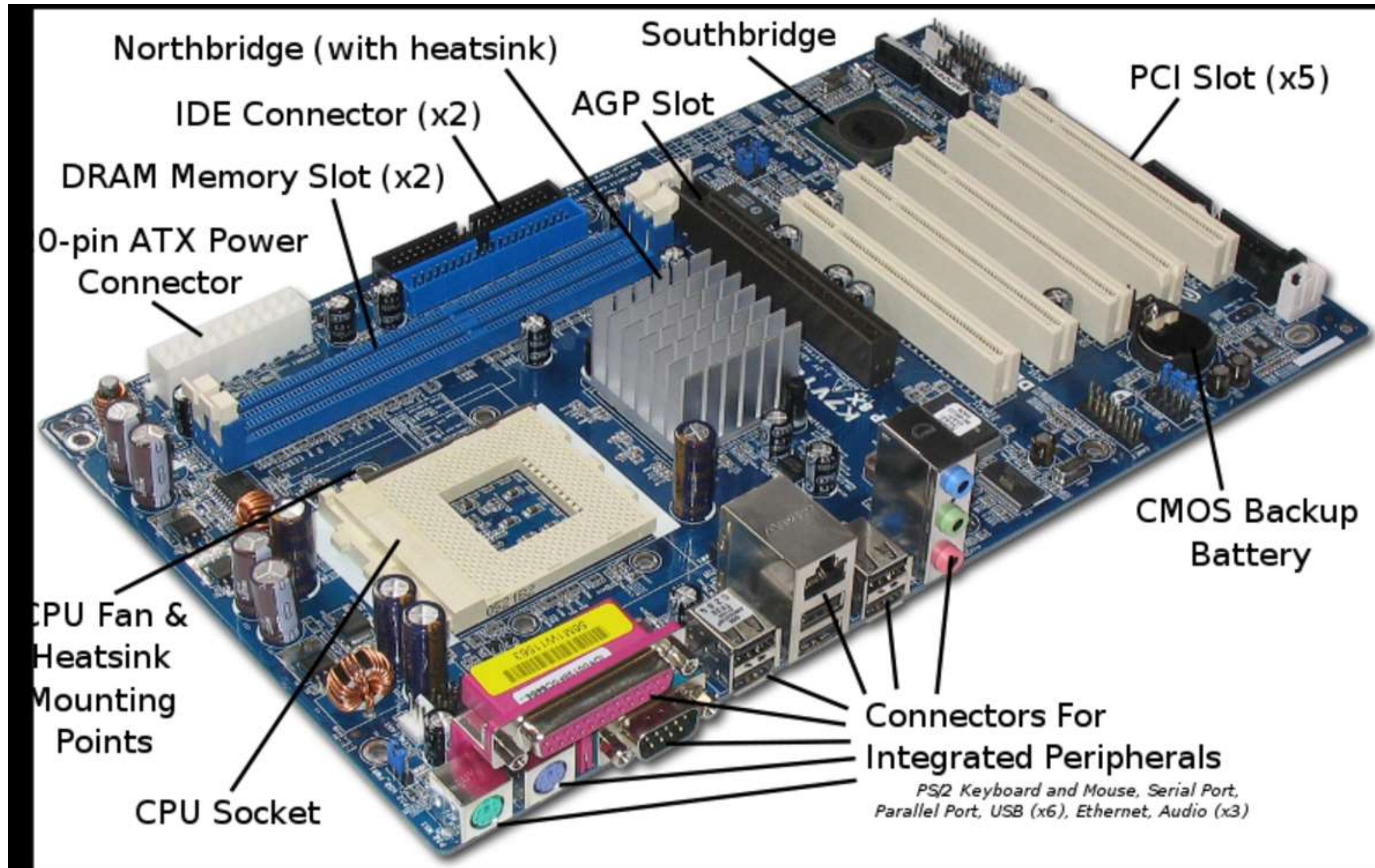
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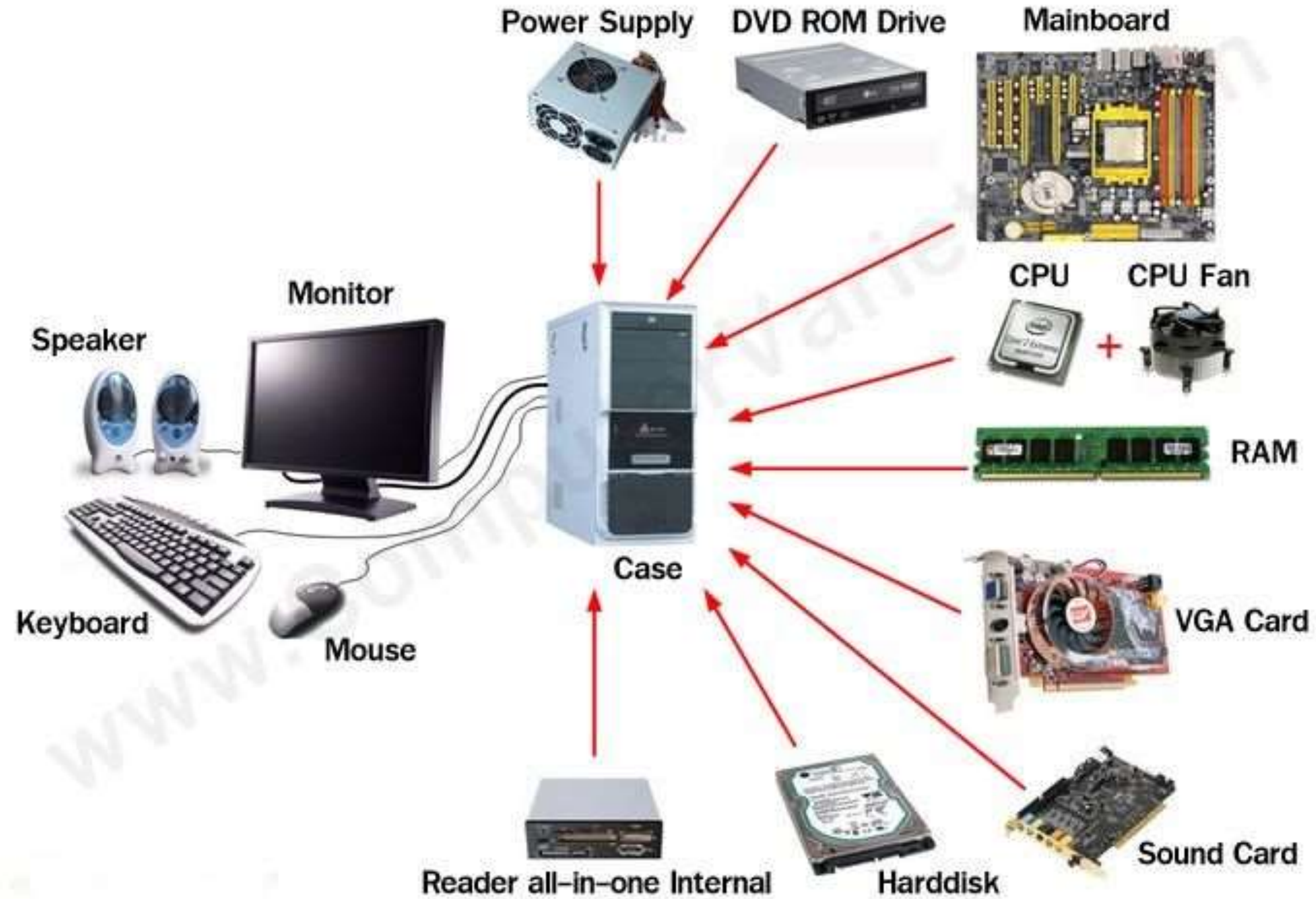


| Sr. No. | Operation            | Description  |
|---------|----------------------|--|
| 1       | Take Input           | The process of entering data and instructions into the computer system.  |
| 2       | Store Data           | Saving data and instructions so that they are available for processing as and when required.                     |
| 3       | Processing Data      | Performing arithmetic, and logical operations on data in order to convert them into useful information.          |
| 4       | Output Information   | The process of producing useful information or results for the user, such as a printed report or visual display. |
| 5       | Control the workflow | Directs the manner and sequence in which all of the above operations are performed.                              |

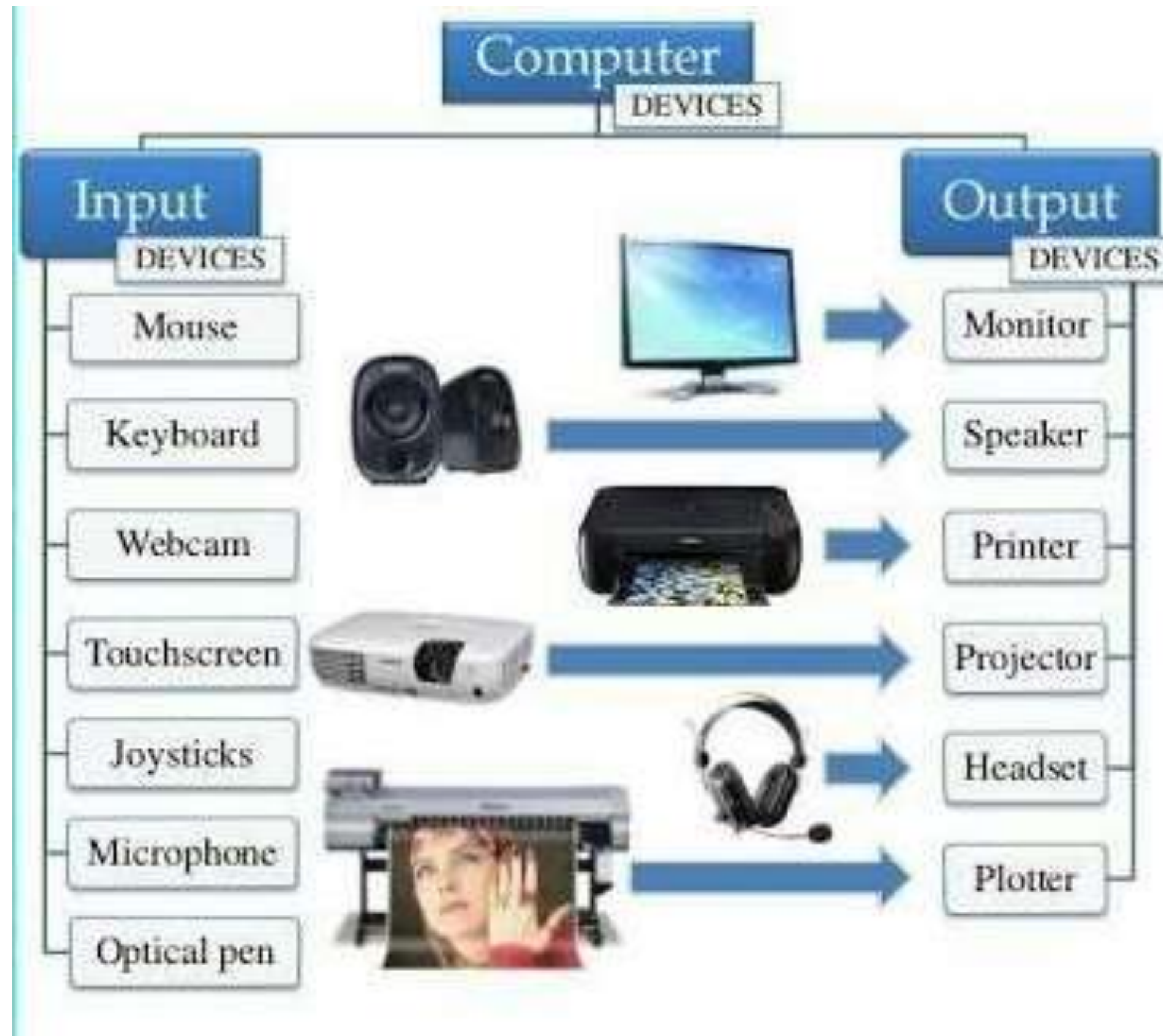


# Mother board





# I/O Devices





# Brain Storming



1. What is Software?
2. How to develop software?



# What is Software?



- Software is a set of programs, which is designed to perform a well-defined function. A program is a sequence of instructions written to solve a particular problem.

There are two types of software –

- System Software
- Application Software



# System Software



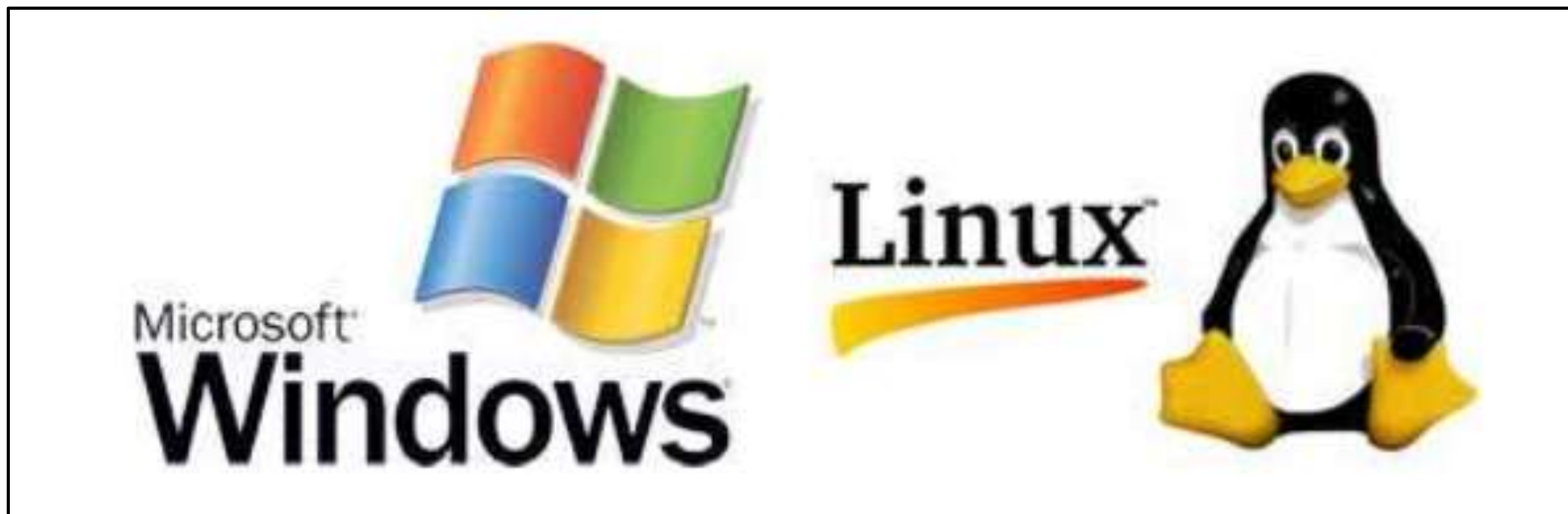
- The system software is a collection of programs designed to operate, control, and extend the processing capabilities of the computer itself.
- System software is generally prepared by the computer manufacturers. These software products comprise of programs written in low-level languages, which interact with the hardware at a very basic level.
- System software serves as the interface between the hardware and the end users.



## Conti...



- Some examples of system software are Operating System, Compilers, Interpreter, Assemblers, etc.





## Conti...



Here is a list of some of the most prominent features of a system software –

- Close to the system
- Fast in speed
- Difficult to design
- Difficult to understand
- Less interactive
- Smaller in size
- Difficult to manipulate
- Generally written in low-level language





# Application Software



- Application software products are designed to satisfy a particular need of a particular environment. All software applications prepared in the computer lab can come under the category of Application software.
- Application software may consist of a single program, such as Microsoft's notepad for writing and editing a simple text. It may also consist of a collection of programs, often called a software package, which work together to accomplish a task, such as a spreadsheet package.



## Conti...



Examples of Application software are the following –

- Payroll Software
- Student Record Software
- Inventory Management Software
- Income Tax Software
- Railways Reservation Software
- Microsoft Office Suite Software
- Microsoft Word
- Microsoft Excel
- Microsoft PowerPoint

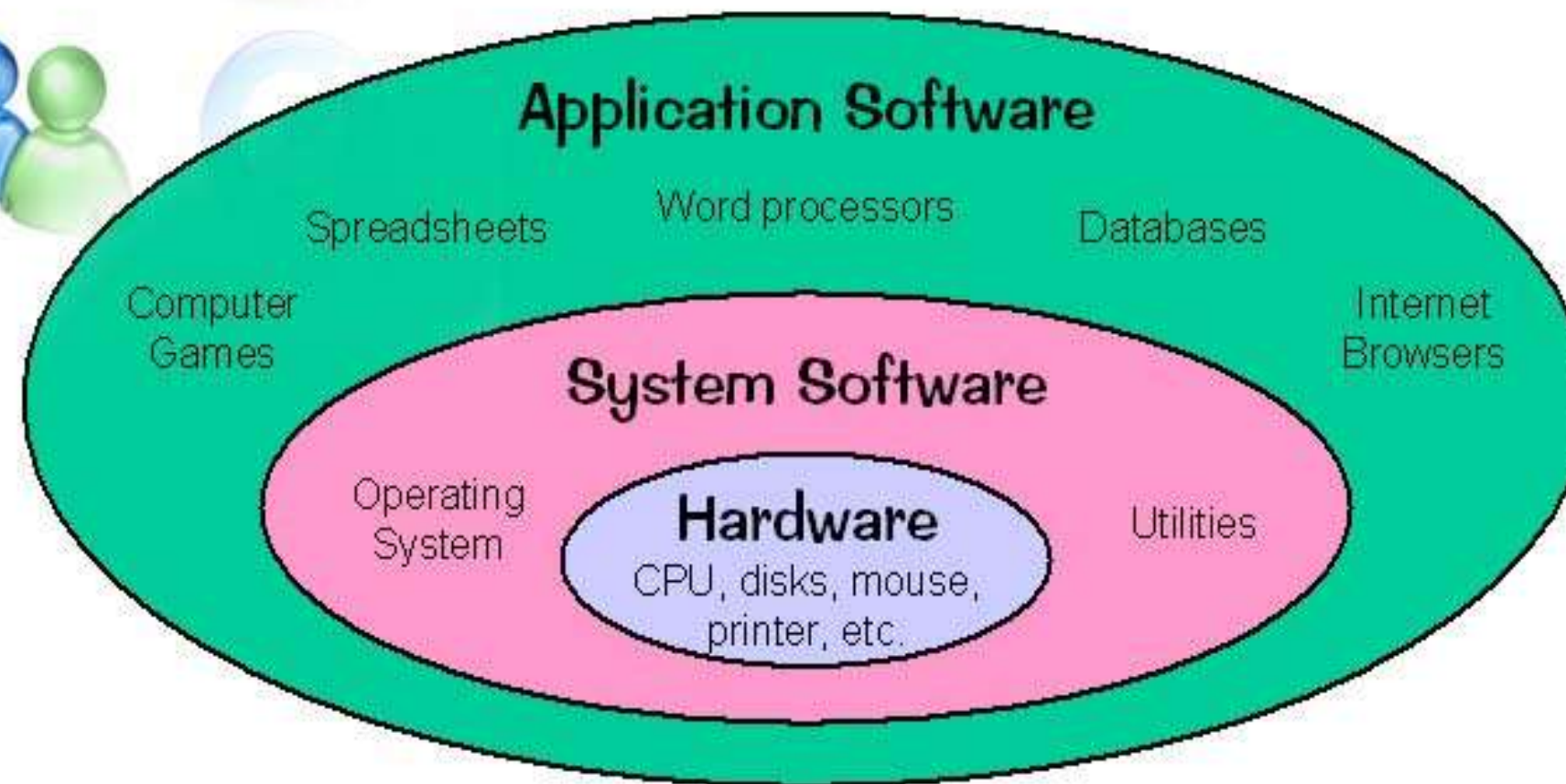


# Examples for Application Software



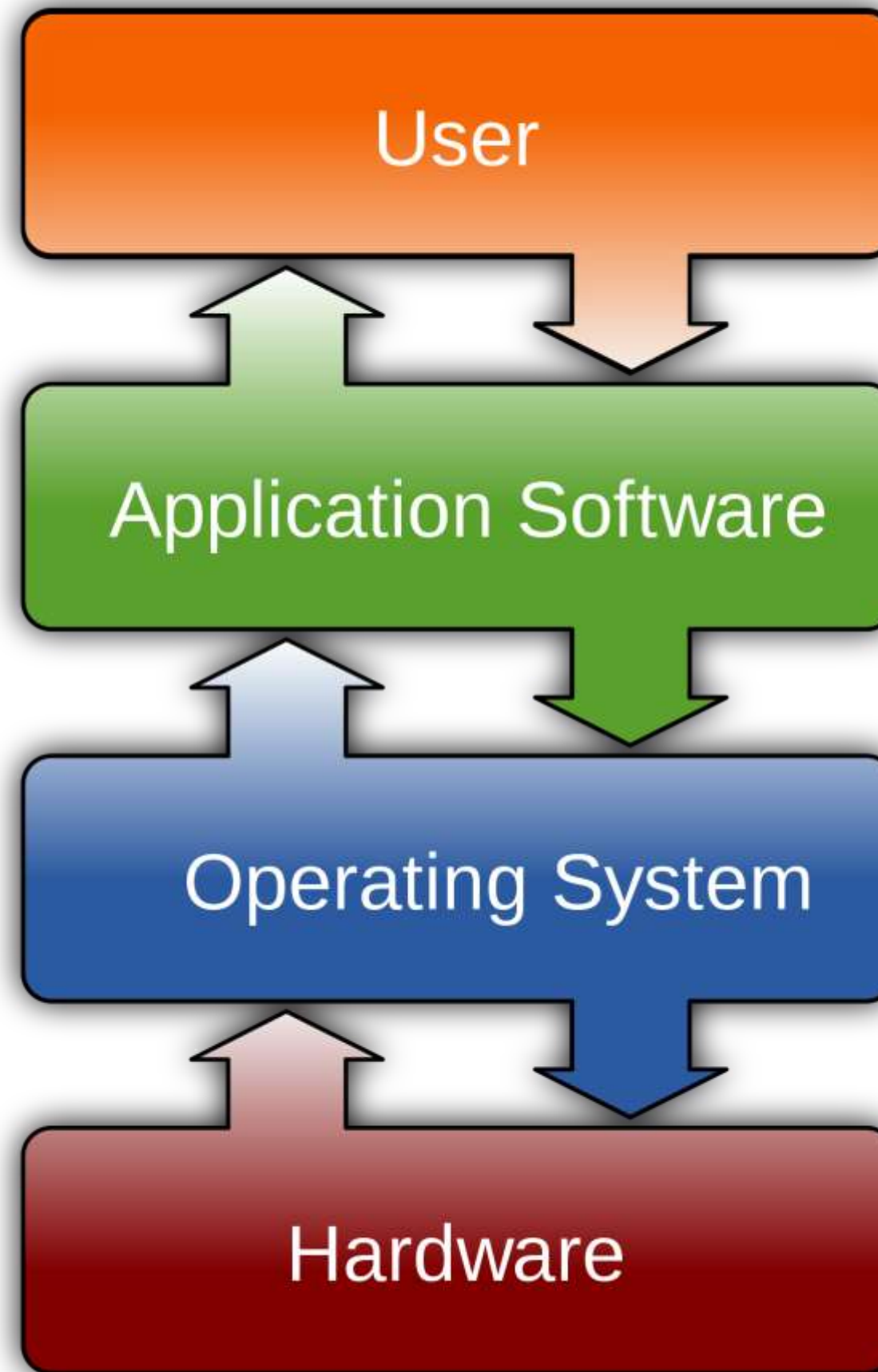


# Computer Software





# User, Software and Hardware





# Assessment 1



1. What is computer hardware?

Ans : \_\_\_\_\_

2. List out hardware components of computer?

Ans : \_\_\_\_\_

3. What is software and explain its types?

Ans : \_\_\_\_\_





# References



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**Thank You**