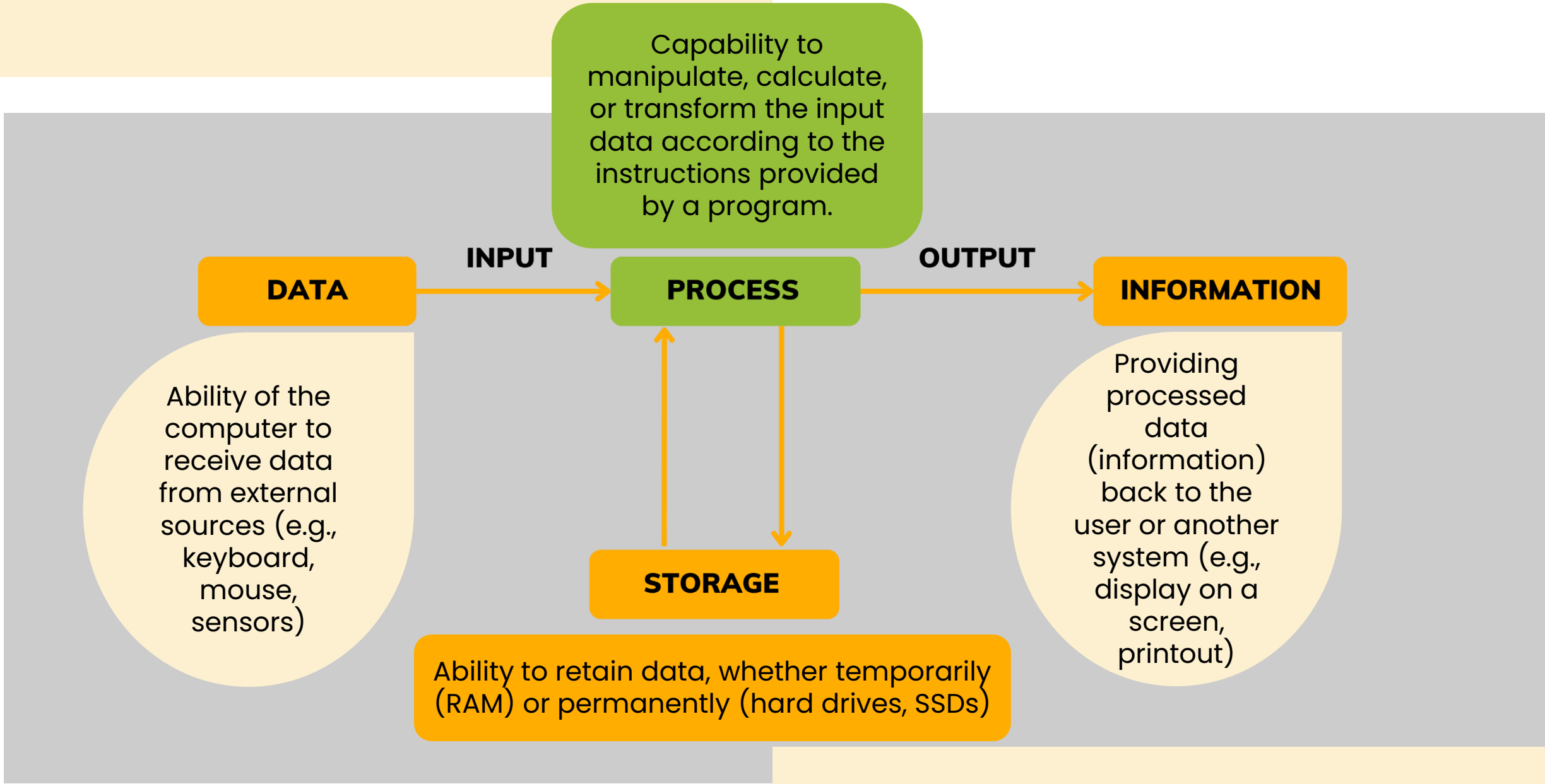
Introduction to Computers

introduction

Let's GO!

What Is Computer?

A computer is an electronic programmable device that accepts data input, processes data, stores it, and outputs information.


Capability to manipulate, calculate, or transform the input data according to the instructions provided by a program.
INPUT
OUTPUT
DATA
PROCESS
INFORMATION
Ability of the computer to receive data from external sources (e.g., keyboard, mouse, sensors)
Providing processed data (information) back to the user or another system (e.g., display on a screen, printout)
STORAGE
Ability to retain data, whether temporarily (RAM) or permanently (hard drives, SSDs)

Super Computers

These are high intelligent specialized computers designed to handle sophisticated tasks in large plants.

- ❑ They can handle large Volumes of scientific computations.
- ❑ Used in defence, Nuclear plants, climate and weather stations, scientific research, and large manufacturing plants.

Mainframe

Mainframes are powerful computers used for large data processing jobs. They are mainly used by government institutions and large companies for tasks such as census, industry and consumer statistics, enterprise resource planning, and financial transaction processing.

Mini Computers

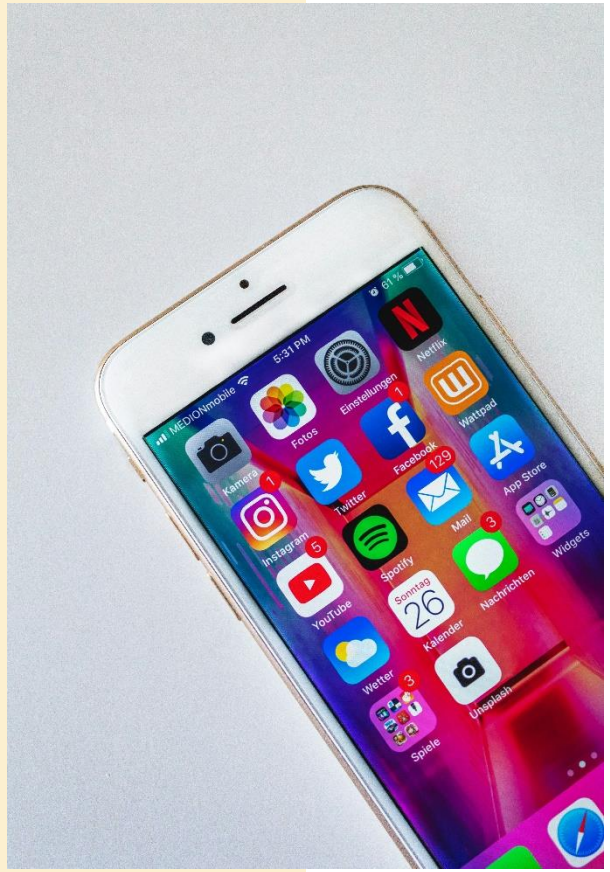
Mini computers, also known as **mid-range computers**, are smaller than mainframes but more powerful than personal computers.

- ❑ Used in manufacturing processes, research laboratories, and small to medium-sized businesses for specific tasks.

Micro Computers

Microcomputers, commonly known as personal computers, are the most common type of computer designed for individual use.

- ❑ **Used for general-purpose tasks such as word processing, internet browsing, gaming, and personal productivity.**



Basic Computer System

A computer system is an integrated set of hardware and software designed to perform data processing tasks.

It consists of **input**, **processing**, **storage**, and **output** components.

Input Devices

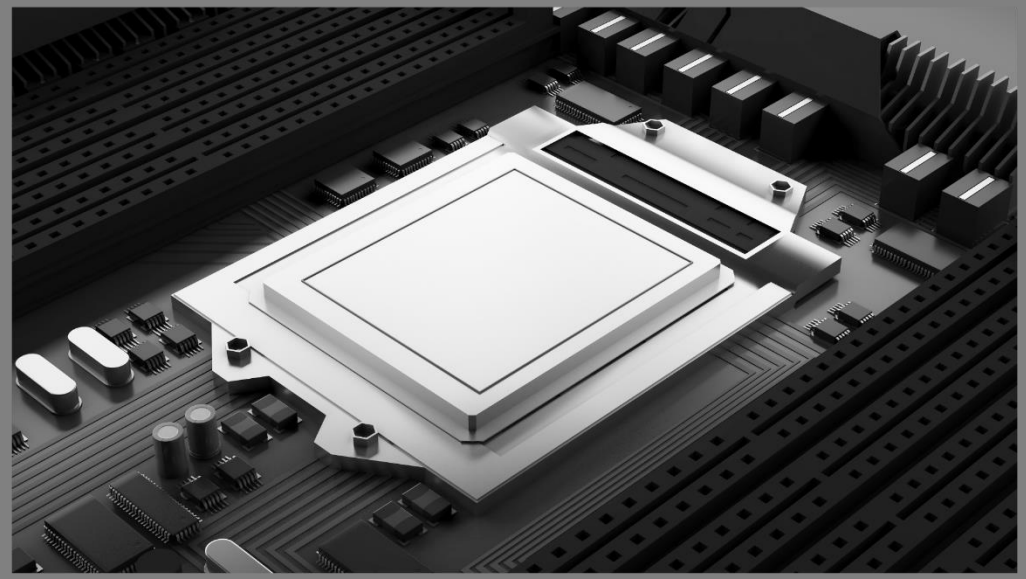
Devices that are used to enter data into a computer.

Examples: Keyboard, touchscreen, barcode reader, gamepad, microphone, digital camera, touchpad, mouse, scanner etc.

Central Processing Unit (CPU)

The CPU is the brain of the computer where data processing takes place.

- ❑ Control Unit (CU) and Arithmetic Logic Unit (ALU).



Memory (RAM)

Random Access Memory (RAM) is temporary storage that holds data and instructions for the CPU.

- ❑ Provides quick read and write access to a storage medium that the CPU can access directly.

Note: RAM is volatile; data is lost when power is turned off

Storage Devices

Devices that store data permanently.

Examples: Hard Disk Drive (HDD), Solid State Drive (SSD), USB flash drives.

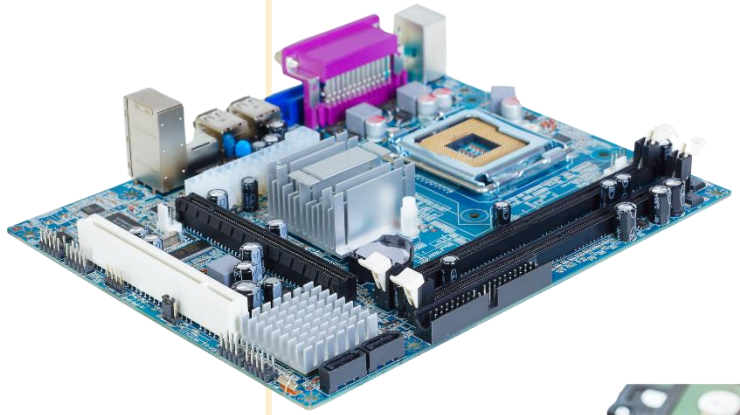
❑ Retain data and programs even when the computer is turned off.

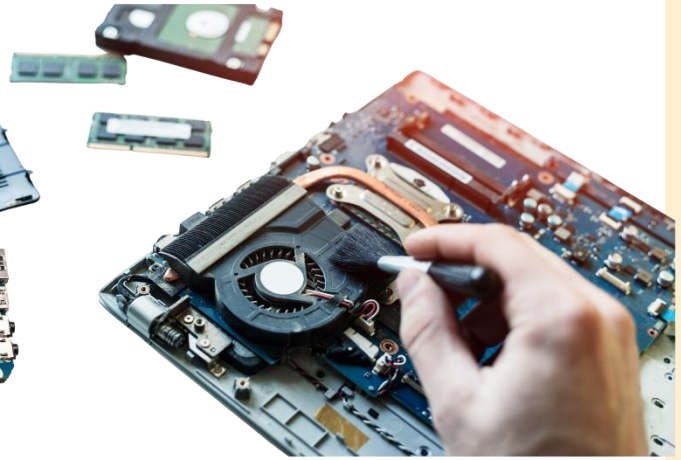
Output Devices

Devices that receive data from the computer and present it to the user. Examples: Monitor, Earphones, Headsets, Speakers, Projectors, Printer etc.

- **Converts processed data into a human-readable form.**

Motherboard





The main circuit board that connects all components of a computer.

Components: CPU, RAM slots, expansion slots, storage connectors, and various ports.

- **Allows communication between the CPU, memory and other hardware components.**

Power Supply Unit (PSU)

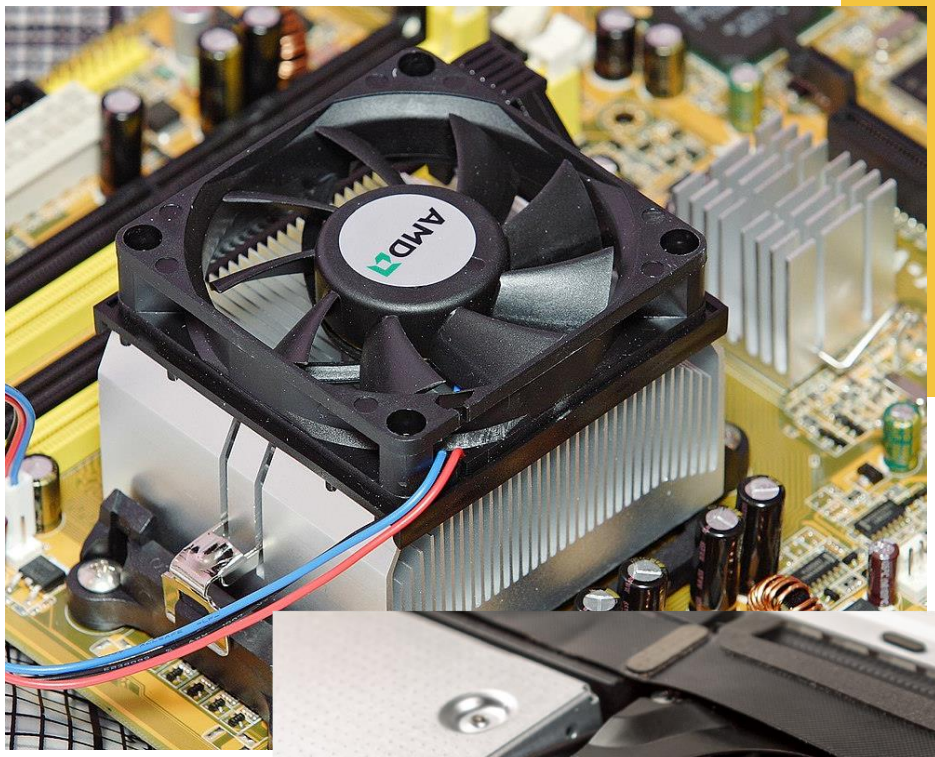
Converts electrical power from an outlet into a usable form for the computer.

- ❑ **Supplies power to all internal components of the computer**

Cooling System

Keeps the computer components cool to prevent overheating.

Components: Fans, heat sinks, liquid cooling systems.



❑ **Function: Maintains optimal operating temperatures for the CPU, GPU, and other components.**

Questions and Answers

QUIZ TIME!!!

What is this?

Input device or
Output device?

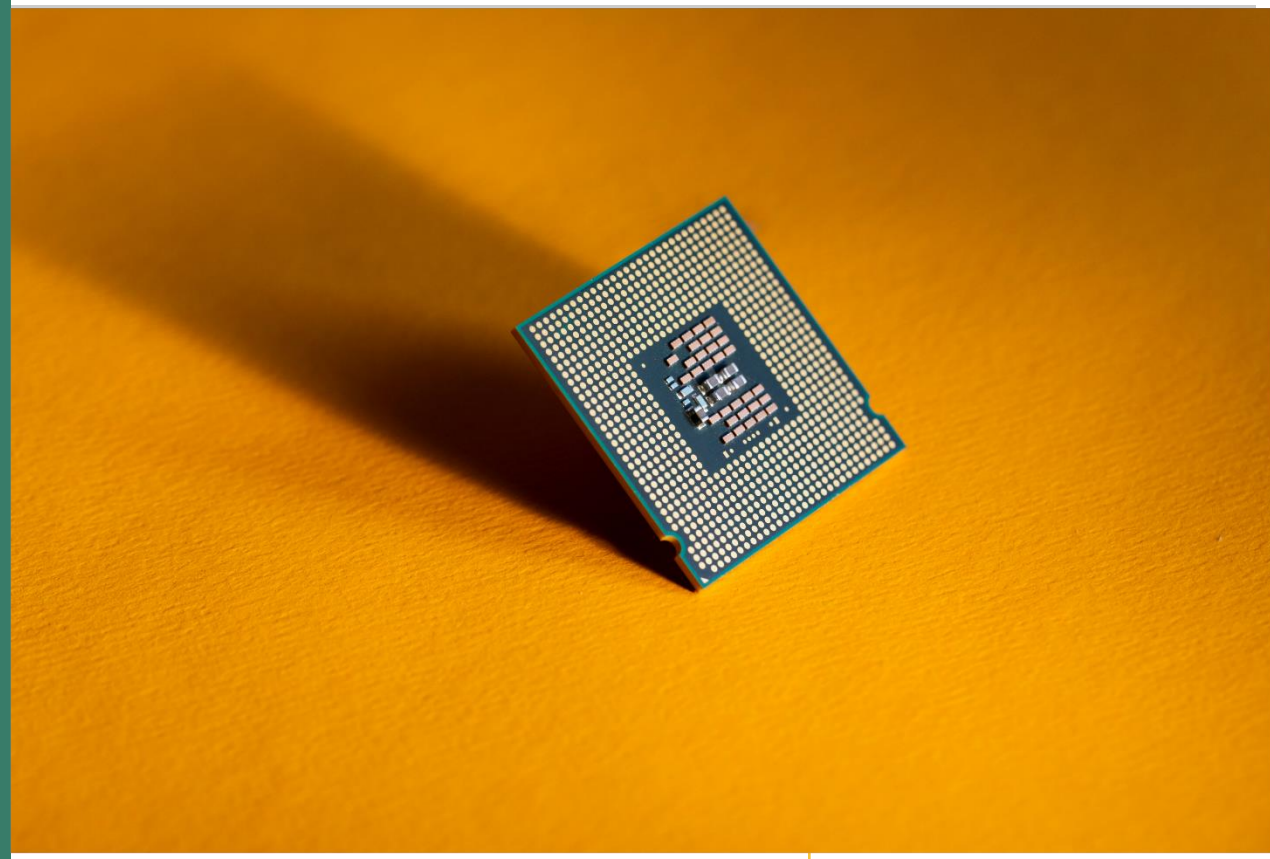
What is this?

Input device or
Output device?

What is this?

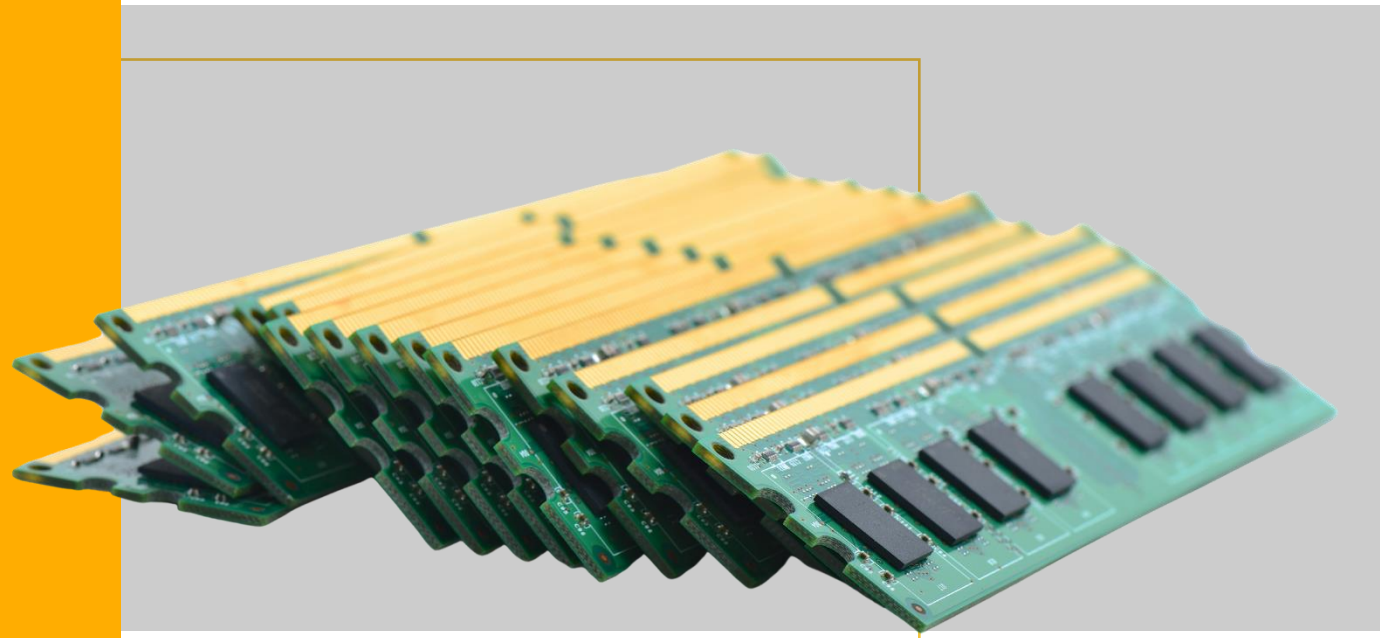
Used for?

What is this?



What is this?

Output device or
Storage device?



True or False

A barcode reader is an example of an output device.

RAM is used for permanent data storage.

The motherboard is the main circuit board that connects all computer.

The PSU converts electrical power from an outlet into a usable form for the computer.

A scanner is an example of an input device.

Thanks **For Joining Us**

Designed and Presented by
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