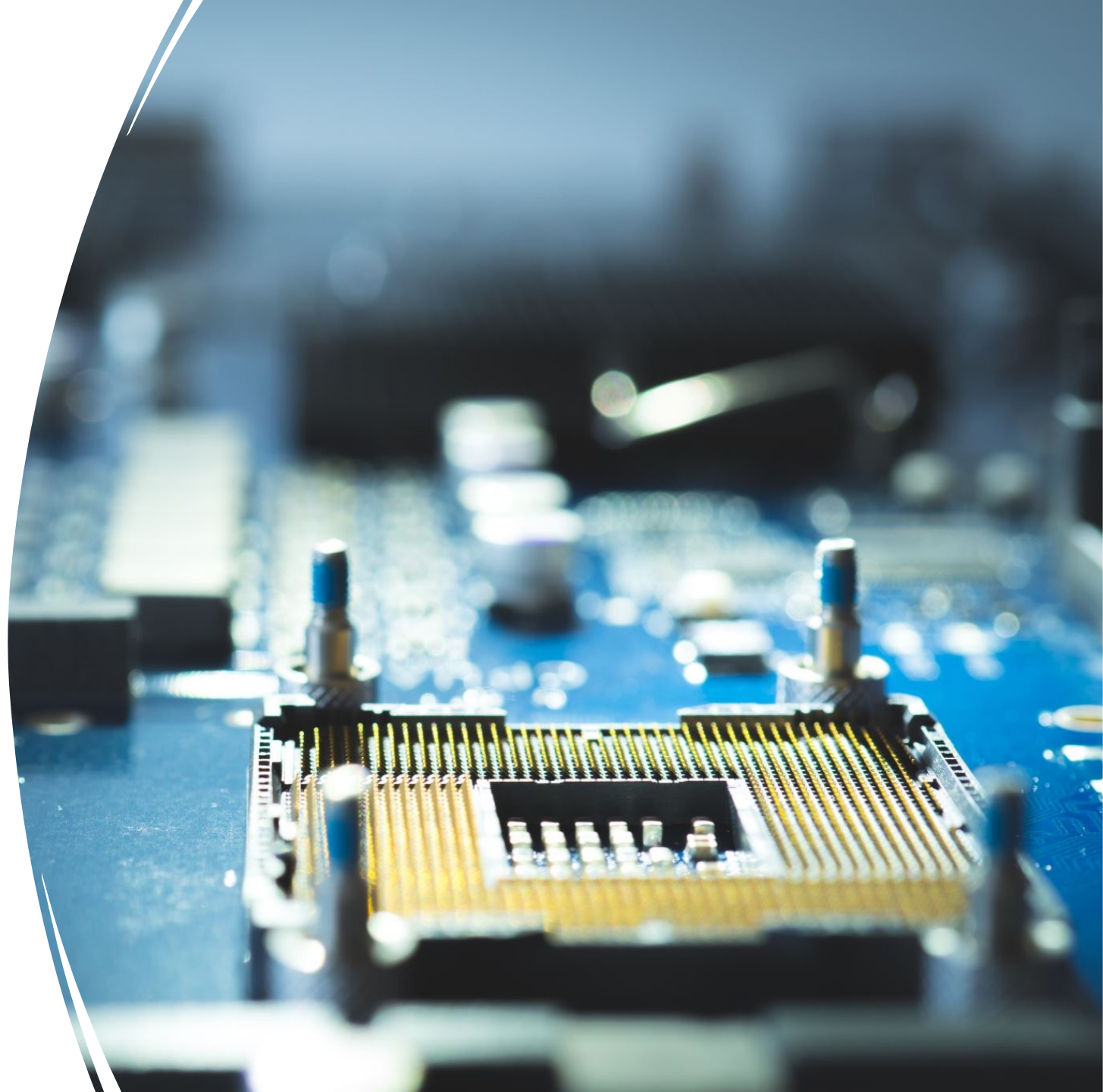# Computer Hardware, Pt 2

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Going over the last lesson

- Categories of computers
- Basic Parts and Functions of a computer
- Operating Systems

Categories of computers

- Supercomputers: Highly advanced computing machine designed to perform complex and large-scale calculations at very high speeds.

- Mainframe: Powerful computer system used by large organizations for bulk processing data, such as transaction processing, databases and large-scale computing tasks.

- Servers: Powerful computers designed to provide data, services, or resources to other computers over a network.

Categories of computers

- Personal Computer and Mobile Devices: A computer designed to meet the needs of an individual user.
  - Desktop Computers
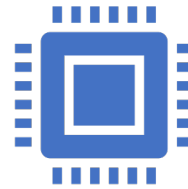 - Laptop Computers
  - Mobile Devises

Basic Parts of the Computer
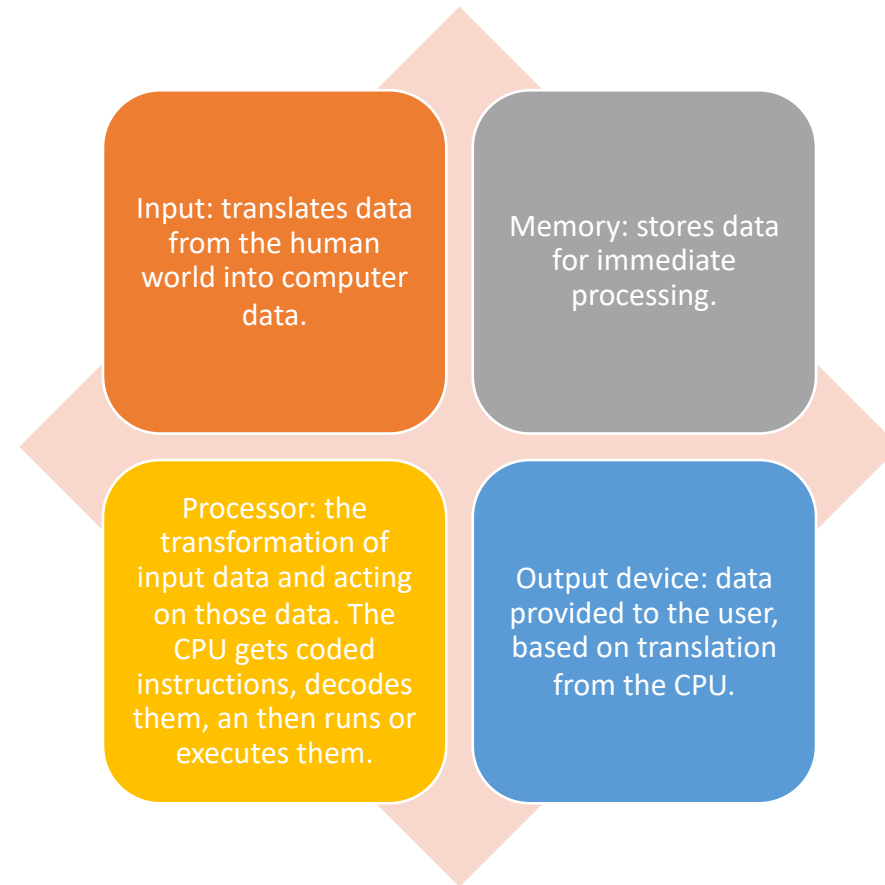
Input device   Memory   Processor   Output device

Basic Parts of the Computer

Input: translates data from the human world into computer data.

Memory: stores data for immediate processing.

Processor: the transformation of input data and acting on those data. The CPU gets coded instructions, decodes them, an then runs or executes them.

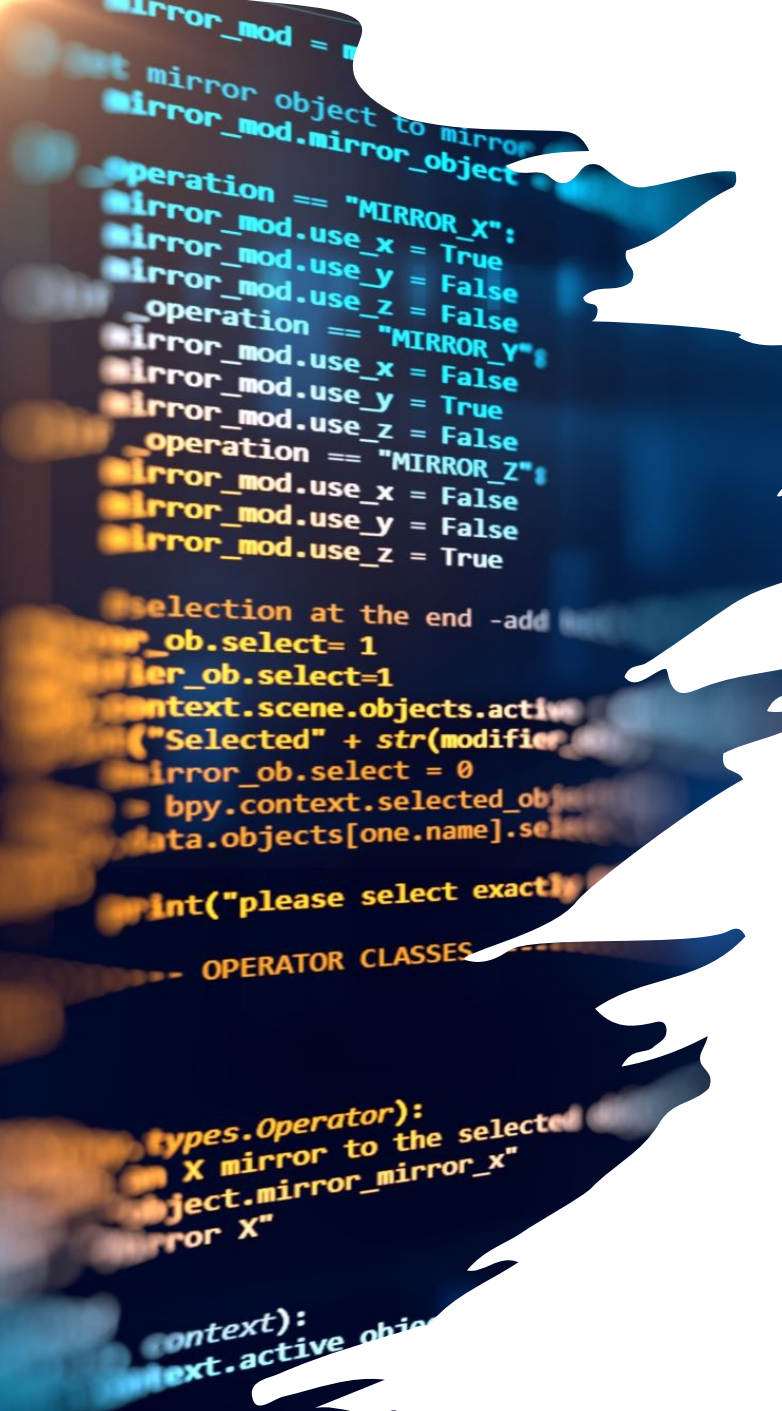Output device: data provided to the user, based on translation from the CPU.

Operating Systems

- Is the software that manages all of the devices, as well as locates and provides instructions for the CPU.

Input Devices and Their functions

- Keyboard: inputting text or numeric data

- Pointing device: allows the user to control the movement of the curser or pointer.

- Touch Screen: senses applied pressure

- Digital input device: used to digitize images so they can be used t=by the computer.

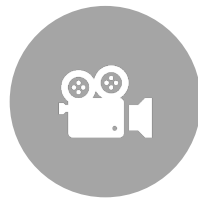- Input text devices: converts image to text that can be used in the computer.

Output Devices and Their functions

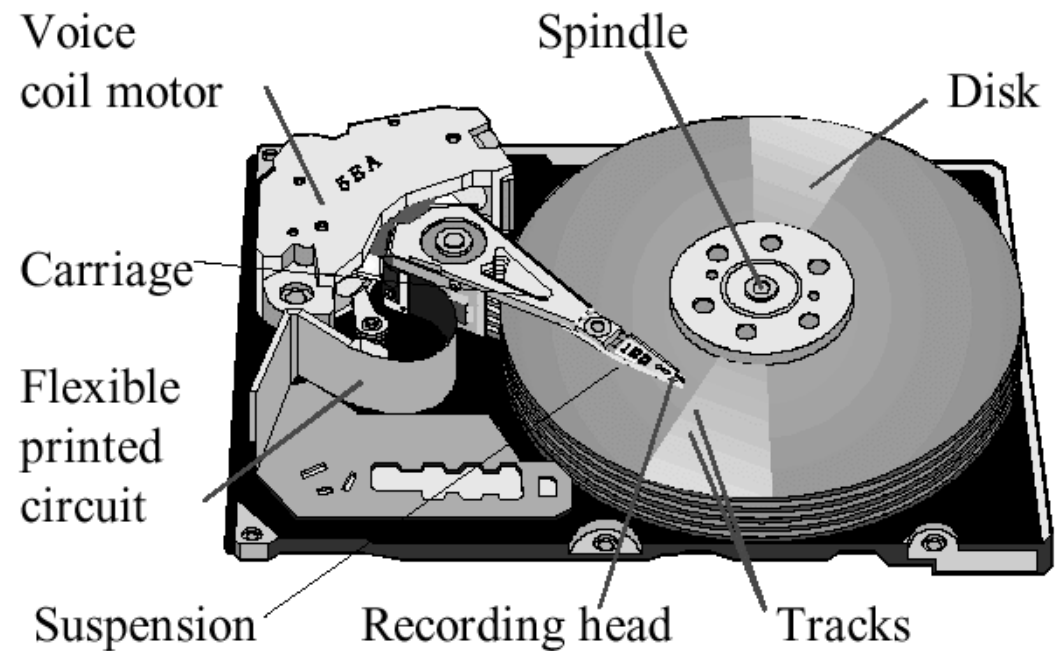Monitors: provides display for the output.

Projectors: projects video images as a projection output.

Printers: Output of image and text-based data.

Storage Devices

- Magnetic Media
  - Hard drive: a sealed unit that contains a stack of individual disk, or platters, which are magnetic media that rotates at a very high speed.

Voice coil motor

Spindle

Disk

Carriage

Flexible printed circuit

Suspension

Recording head

Tracks

Optical Storage
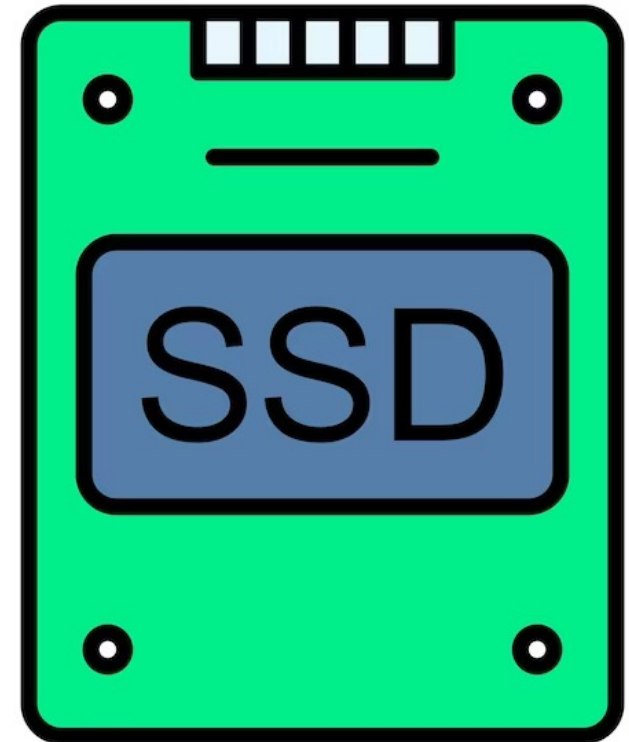
- Saves data as tiny pit in foil on a plastic disk.
    - CDs
    - DVDs
    - Blue Ray

Solid State Drives

- SSDS: similar to RAM, but they have an integrated circuit to stare data as involatile memory rather than volatile memory.
  - Flash drives are SSDs

Questions:

- What are the Four Main categories of computers

- What are the four functions of a computer?

- What does an input device provide to the computer?

- Why are device drivers needed when attaching peripherals to a computer?

- What is the purpose of the operating system?

- What is the function of the user interface?

Vocab words

arithmetic/logic unit (ALU)	Booting	central processing unit (CPU)	clock speed
Firmware	Memory	Processing	input

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