**Computer software**, or simply **software**, is a collection of data or computer instructions that tell the computer how to work. This is in contrast to physical hardware, from which the system is built and actually performs the work. Computer hardware and software require each other and neither can be realistically used on its own.

Computer **hardware** includes the physical parts of a computer, such as the case, central processing unit (CPU), monitor, mouse, keyboard, computer data storage, graphics card, sound card, speakers and motherboard.

By contrast, **software** is the set of instructions that can be stored and run by hardware. Computer software includes computer programs, applications, libraries, operating systems, device drivers, programming tools, even malware.

Hardware is so-termed because it is "hard" or rigid with respect to changes, whereas software is "soft" because it is easy to change.

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**Input devices** allow the user to enter information into the system, or control its operation. Most personal computers have a mouse and keyboard, but laptop systems typically use a touchpad instead of a mouse. Other input devices include webcams, microphones, joysticks, and image scanners.

**Output devices** are designed around the senses of human beings. For example, monitors display text that can be read, speakers produce sound that can be heard. Such devices also could include printers or a Braille embosser.

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Because computer parts contain hazardous materials, there is a growing movement to recycle old and outdated parts. Computer hardware contain dangerous chemicals such as: lead, mercury, nickel, and cadmium.

Recycling a computer can be made easier by taking out certain reusable parts. For example, the RAM, DVD drive, the graphics card, hard drive or SSD, and other similar removable parts can be reused. Components frequently contain copper, gold, tantalum, silver, platinum, palladium, and lead as well as other valuable materials suitable for reclamation.

The central processing unit contains many toxic materials. It contains lead and chromium in the metal plates. Resistors, semi-conductors, infrared detectors, stabilizers, cables, and wires contain cadmium. The circuit boards in a computer contain mercury, and chromium. When these types of materials, and chemicals are disposed improperly will become hazardous for the environment.

According to the United States Environmental Protection Agency only around 15% of the **e-waste** actually is recycled. When e-waste byproducts leach into groundwater, are burned, or get mishandled during recycling, it causes harm. Health problems associated with such toxins include impaired mental development, cancer, and damage to the lungs, liver, and kidneys. That's why even wires have to be recycled.

Computer monitors, mice, and keyboards all have a similar way of being recycled. For example, first, each of the parts are taken apart, then all of the inner parts get separated and placed into its own bin.

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🖳 A **mainframe computer** is a much larger computer that typically fills a room and may cost many hundreds or thousands of times as much as a personal computer. They are designed to perform large numbers of calculations for governments and large enterprises.