

Intro to Computers - Vocab

Application - Software designed to perform specific tasks or functions for end-users, often with a graphical user interface for ease of use.

Base Unit - The central housing of a computer that contains the motherboard, CPU, RAM, storage, and other components; also known as the system unit or tower.

BIOS - Basic Input/Output System, a firmware that initializes and configures hardware components during startup, and provides a basic set of low-level instructions to control input/output operations.

Compression - A process of reducing the size of digital data or files by removing or encoding redundant or unnecessary information, making them easier to transfer or store.

- **Lossy Compression** - Reduces the size of data by removing some of the original information, resulting in some loss of quality.
- **Lossless Compression** - Reduces the size of data without removing any of the original information, resulting in no loss of quality.

CPU - Central Processing Unit, or processor. The “brain” of a computer that performs calculations, executes instructions, and manages other hardware components by sending and receiving signals.

- **Clock Speed** - The frequency at which a CPU can execute instructions, measured in GHz (gigahertz), which determines the speed and efficiency of the processor.
- **Core** - A processing unit within a CPU that can execute instructions independently, allowing for parallel processing and improved multitasking performance.

Defragmentation - The process of consolidating fragmented data on a hard drive to improve overall performance.

Digital Literacy - The ability to effectively use and understand digital technologies such as computers, the internet, and mobile devices.

Discrete Graphics - A separate graphics card that is installed in a computer system to provide higher performance and advanced graphics capabilities, such as gaming, video editing, or 3D rendering.

DisplayPort - A digital display interface standard used to connect video sources to display devices, supporting high-definition video and audio transfer, and offering advanced features such as multiple displays, high refresh rates, and adaptive sync technology.

Driver - A piece of software that allows your computer's operating system to communicate with hardware devices.

Electrical Surge - A sudden and temporary increase in voltage or current in an electrical circuit, often caused by lightning, power outages, or other electrical disturbances, which can damage electronic devices and components.

Ergonomics - The science of designing and arranging equipment and furniture in a way that maximizes human comfort, safety, and productivity, often applied to computer workstations to reduce physical strain and injuries.

Ethernet - A standard for connecting computers and other devices in a local area network (LAN) using wired connections.

EXE - An executable file format for Windows operating systems, containing program instructions that are executed when the file is opened, often used for installing or running software programs.

File - A collection of data that is stored in a computer system, typically containing information or instructions that can be executed or used by software applications.

- **File Format** - The structure and organization of data in a file, often defining how data is encoded, compressed, and stored. Associated with an extension.
- **File Extension** - The part of a file name that comes after the dot, typically indicating the file format or type, such as .jpg, .mp3, and .pdf.

Firmware - A type of software that is embedded into hardware devices, such as computer components, smartphones, and home appliances, providing basic control and functionality, often updated by the manufacturer to fix bugs or add new features.

Folder - A digital container used for organizing and storing files and other folders, making it easier to access and manage them.

GIF - Graphics Interchange Format, a file format for digital images that uses lossless compression, supporting animated images and simple graphics, often used for web graphics and memes.

GPU - Graphics Processing Unit, a specialized processor designed to handle complex calculations and graphics rendering, allowing for faster and smoother display of images and video.

Hardware - The physical components of a computer system that can be seen and touched, including the CPU, memory, storage devices, input/output devices, and peripherals.

HDD - Hard Disk Drive, a type of non-volatile storage device that uses spinning disks coated with magnetic material to store and retrieve digital data.

HDMI - High-Definition Multimedia Interface, a video and audio interface standard used to connect digital audio and video sources to compatible display devices, supporting high-definition video and audio transfer over a single cable.

Input - Information that the user gives to the computer.

Integrated Graphics - Graphics processing capabilities that are built into the CPU, allowing for basic graphics performance without the need for a separate graphics card.

JPEG - Joint Photographic Experts Group, a common file format for digital images, using lossy compression to reduce file size and maintain high image quality.

LAN - Local Area Network, a computer network that connects devices within a limited geographical area, such as a home, office, or school.

Malware - Malicious software designed to harm or disrupt computers, often spread through emails, downloads, or infected websites.

Metadata - Data about data; information that describes the properties and characteristics of data or files, including date, author, location, and other details that can be used for identification, organization, and retrieval.

Motherboard - The main circuit board of a computer that connects and communicates with various components such as the CPU, memory, storage devices, and input/output devices.

MP3 - MPEG Audio Layer III, a digital audio file format that uses lossy compression to reduce the file size while maintaining reasonable sound quality, often used for music playback and sharing.

Operating System - The system software that manages computer hardware and software resources, providing common services for computer

programs and controlling computer hardware. Examples include Windows, macOS, and Linux.

Output - Information that the computer gives to the user.

PDF - Portable Document Format, a file format developed by Adobe Systems that captures all the elements of a printed document as an electronic image that can be viewed, printed, and shared across different platforms.

Peripheral - A device that is connected to a computer system to provide additional functionality or input/output capabilities, such as a keyboard, mouse, printer, or scanner.

PNG - Portable Network Graphics, a file format for digital images that supports lossless compression, transparency, and high color depth, often used for web graphics and image editing.

Power Supply - hardware that converts power from a wall outlet into power that a computer can use.

- **Uninterruptible Power Supply** - A device that provides battery backup power in the event of a power outage.

RAM - Random Access Memory, a type of volatile memory used by a computer to temporarily store data that is currently being used.

Refresh Rate - The number of times per second that a display updates its image, usually measured in Hertz (Hz).

Resolution - The number of pixels displayed on a screen, usually expressed as the number of pixels horizontally and vertically, such as 1920 x 1080.

Software - Programs and applications that run on a computer and provide instructions to the hardware to perform specific tasks.

SSD - Solid State Drive, a type of non-volatile storage device that uses flash memory to store and retrieve digital data, providing faster access times and higher performance than traditional HDDs.

USB - Universal Serial Bus, a standard for connecting peripheral devices to a computer system, providing a fast and reliable way to transfer data and power devices.

Utility Software - Software designed to perform specific tasks or functions, such as system maintenance, file management, data backup, and antivirus protection, often providing tools for optimizing system performance and troubleshooting issues.

Volatile Storage - Computer memory that requires a continuous source of power to retain stored data, such as RAM, where data is lost when power is turned off or interrupted. Non-volatile storage is retained even after the power is turned off.

WAV - A digital audio file format that uses lossless compression to preserve the original sound quality, often used for professional audio recording and editing.