200 Most Useful Computer Terms

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Hardware Basics	
Motherboard	The main circuit board everything else connects to. Think of it as the backbone of your system.
CPU	The "brain" that processes instructions. The faster the CPU, the zippier your computer will feel.
RAM	Where active programs and data get temporarily stored for quick access. More RAM means better multitasking.
Hard Drive	Your computer's long-term storage for files, programs, and the operating system itself.
SSD	A faster, pricier type of storage that makes your computer boot up and load programs much quicker.
NVMe	An even faster SSD interface. If you want the absolute quickest response times, look for an NVMe SSD.
GPU	A special processor optimized for graphics. Critical for gaming, 3D work, and video editing.
PSU	The power supply unit. Converts AC power from your wall outlet to DC power the computer components need.
PCIe	A versatile high-speed connector for add-in cards like GPUs, SSDs, capture cards, etc.
Form Factor	Refers to a computer's physical size and shape, like a laptop vs a desktop tower.
CMOS	A chip that stores key settings like the system time and hardware config. Powered by a coin battery.
BIOS/UEFI	Low-level software that runs when you first start your computer. Handles booting the OS.
POST	The Power-On Self Test. A series of quick checks the computer runs at startup.
Heatsink	A block of metal fins that draws heat away from the CPU or GPU. Usually topped with a fan.

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Essential Peripherals	
Monitor	The display screen. Comes in different sizes, resolutions, and panel types like LCD, LED, OLED.
Keyboard	For typing and giving your computer commands. I'm a sucker for a nice mechanical keyboard.
Mouse	Lets you precisely point at and interact with things on screen. Gaming mice are a whole rabbit hole!
Speakers/Headphones	For pumping out audio, obviously. A good set of headphones can really up your jam sessions.
Microphone	Useful for calls, voice commands, recording, etc. Laptop mics can be pretty hit or miss.
Webcam	A small video camera, handy for video calls and conferences. Some have IR for Windows Hello.
Printer	For getting physical copies of documents and photos. All-in-one models can scan and copy too.
Software Essentials	
OS	Short for Operating System. The main software that manages your computer's hardware and software.
Application	A program designed for a specific task, like a web browser, photo editor, or game.
Web Browser	Your portal to the internet. Chrome, Firefox, and Edge are some of the most popular.
File	A discrete package of data, like a document, photo, or program.
Folder/Directory	A virtual container for organizing files. Folders can contain other folders for a nested hierarchy.
Icon	A small graphic that represents a file, folder, or program. Double-click an icon to open it.
Antivirus	Software that detects and removes malware like viruses, spyware, and ransomware.

Firewall	Monitors incoming and outgoing network traffic to protect your system and data.
Drivers	Software that lets your OS communicate with a particular piece of hardware.
Firmware	Permanent software programmed into a read-only memory on devices like routers and IoT gadgets.
GUI	A Graphical User Interface, which is how most modern OSes and apps present themselves.
CLI	A Command Line Interface for controlling a computer by typing text commands. Still has its uses!
System Tray	That little area, usually bottom-right on Windows, that holds status icons and background apps.
Control Panel	A collection of tools and settings for configuring your Windows system.
Terminal	A text-based interface for running commands. Called Command Prompt on Windows, Terminal on Mac.
Package Manager	A tool for easily installing, updating, and managing software. Essential for Linux users.
Task Manager	Provides info about running processes and resource usage. Helps identify unresponsive programs.
Common Computer Actions	
Cut	Removes the selected data and copies it to the clipboard.
Copy	Copies the selected data to the clipboard without removing the original.
Paste	Inserts the data from the clipboard at the current cursor position.
Undo	Reverses the last action. A real lifesaver for those accidental deletions!
Redo	Reverses the undo to restore a change. Not as common as undo since mistakes are more frequent.

Find	Searches for a specific piece of data, like a certain word in a document.
Print Screen	Captures an image of your screen and copies it to the clipboard. Very useful for sharing!
Boot	The process of powering on the computer and loading the operating system.
Reboot/Restart	Shuts down and then immediately starts the computer back up. Helps resolve many issues.
Shut Down	Properly powers down the computer, saving data and closing programs first.
Sleep/Standby	A low-power state that quickly resumes where you left off. Ideal for taking breaks.
Hibernate	Saves your system state to disk and shuts down. Uses zero power but is slower to resume.
Install	The process of setting up a new program or hardware device on your computer.
Uninstall	Removes a program and its associated files from your computer. Helps free up space.
Update	Patches a program with fixes and improvements. It's wise to stay updated.
Upgrade	Installing a newer version of a program or swapping in a better hardware component.
Dual Boot	Having two separate OSes installed, with the ability to choose between them at startup.
Storage & File Management	
File Extension	The part after the dot in a filename, like .jpg or .mp3, that tells you its format.
Hidden Files	Files configured not to show up in regular file browsers. Usually system files.
Shortcut	A small file that just points to another file, folder, or program. Handy for quick access.

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Permissions	Settings that control whether a user can view, edit, or execute a particular file.
Compression	Encoding data to take up less space. ZIP and RAR are common compressed formats.
System Files	Program files your OS needs to function. Best not to tinker with these.
Temp Files	Temporary files programs generate in the background. Can usually be safely deleted.
File Sharing	Making files accessible to other computers on a network or the internet.
Read-Only	A file that can be viewed but not edited. Helps protect important data from changes.
Archive	A collection of files bundled into a single file for storage or sharing, often compressed.
Folder Hierarchy	The nested tree-like structure of folders within folders on a drive.
Root Directory	The top-level folder that contains all other folders on a drive. Referred to as C:.
Path	The complete location of a file or folder, like C:\Users\YourName\Documents\Report.docx.
Partitioning	Dividing a physical drive into separate logical drives, each with its own filesystem.
File System	The method an OS uses to organize data on a drive, like NTFS or exFAT.
Formatting	Erasing and preparing a drive to work with a particular file system.
Fragmentation	When files get scattered around a drive. Can slow performance. Defragging fixes this. (Not applicable to SSDs)
Cloud Storage	Storing files on remote servers so they're accessible from anywhere over the internet.
Redundant Storage	Having multiple copies of data to prevent loss if one drive fails.

NAS	Network Attached Storage. A dedicated file server that provides storage over a network.
RAID	Combining multiple drives to improve performance and/or fault tolerance. Several types exist.
USB Flash Drive	A small, portable SSD that plugs into a USB port. Great for moving files between PCs.
External Drive	A hard drive or SSD in a case that connects to a computer, usually via USB.
File Formats	
Text	Plain unformatted text. TXT files are the universal standard.
Images	Visual data like photos and graphics. JPG, PNG, and GIF are typical formats.
Audio	Sound data like music and recordings. MP3 and WAV are the usual suspects.
Video	Moving pictures and sound together. MP4, AVI and MKV are prevalent formats.
Compressed	Any file that's been made smaller with compression. ZIP and RAR for general files, MP3 for audio, JPG for images, etc.
Spreadsheet	Data organized into a grid of cells. Microsoft Excel's XLSX is a de facto standard.
Presentation	For slideshows and lectures. Microsoft's PPTX is commonly used.
Database	A structured collection of data, often with multiple tables. Access, MySQL, Oracle are big players.
CSV	For tabular data like spreadsheets. Very simple and universally supported.
JSON	Lightweight data interchange format that's easy for humans to read and write.
XML	A widely used markup language for encoding documents in a way both humans and computers can read.

YAML	Similar to JSON but strives to be even more human-friendly. Great for configuration files.
Markdown	A lightweight markup language for formatting plain text. Used all over the web, including in this article!
SVG	Scalable Vector Graphics. An XML-based image format that can scale to any size without pixelation.
WebP	A modern image format that offers better compression for the web than JPG or PNG.
EPUB	The standard ebook format. Supports flowable text content with images and formatting.
MKV	Matroska Video. A versatile multimedia container that can hold video, audio, subtitles, and metadata.
Internet & Web	
Web	Short for World Wide Web. The collective network of public websites and pages linked via hyperlinks and URLs.
HTTP	The Hypertext Transfer Protocol that powers the web. More secure HTTPS is becoming the standard.
SSL	Secure Sockets Layer. An encryption protocol used to secure data sent over the internet. Usually via HTTPS.
URL	A web address specifying the location of a resource on the internet. Like www.pctips.com/things-to-do-in-computer/.
ISP	Your Internet Service Provider. The company you pay to get internet access, like Comcast or AT&T.
Bandwidth	How much data you can send over a connection in a given time. ISPs state speeds in Mbps.
Domain Name	The part of a URL that identifies a website, like google.com or en.wikipedia.org.
Email	The most essential internet communication tool. You'll need an email address for most online services.
Search Engine	A website that finds other websites based on keywords. Google is the quintessential example.

Download	Receiving data from a remote system. Contrast with uploading data to a remote system.
Streaming	Watching video or listening to audio in "real time", as it's sent to you, rather than downloading first.
The Cloud	A marketing buzzword for services provided over the internet, rather than locally on your device.
Hosting	Paying a company to store your website's files and data on a server so it's accessible 24/7.
Client	Your web browser, the program that requests resources from a web server and displays them to you.
Server	A powerful computer that stores websites and apps, "serves them up" to client devices upon request.

Networking Know-How

IP Address	A unique string of numbers that identifies each device on a network. Like a virtual return address.
MAC Address	A permanent ID number assigned to a device's network card when it's manufactured.
LAN	A Local Area Network. A small network confined to one area, like your home or office.
Ethernet	A wired networking technology for connecting devices in a LAN, usually via Cat5 or Cat6 cables.
Wi-Fi	The wireless alternative to Ethernet. The 802.11 family of radio-based networking standards.
Router	Routes data between networks. Most home "routers" are actually routers, switches, and wireless access points in one unit.
Modem	Converts signals between analog (like cable or phone lines) and digital (like Ethernet). The bridge between your home network and the internet.
Switch	Connects multiple wired devices on a network so they can talk to each other.
Firewall	Monitors traffic between networks to block suspicious activity. Can be hardware or software.

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Port	A virtual endpoint for network communication. Different services use specific port numbers, like 80.
DNS	The Domain Name System. Translates human-friendly domain names like google.com into IP addresses.
DHCP	Automatically assigns IP addresses to devices on a network. Saves you from configuring them manually.
Subnet Mask	Defines which part of an IP address identifies the network and which part identifies the device.
NAT	Network Address Translation. Lets multiple devices share one public IP address. A key router feature.
VLAN	A Virtual LAN. Partitions a physical network into separate virtual networks for improved management and security.
QoS	Quality of Service. Prioritizes certain types of network traffic, like voice or video, for a smoother experience.
Throughput	The actual amount of data that gets sent over a connection in a given time. Less than bandwidth due to overhead.
Latency	How long it takes data to get from source to destination. Lower latency means snappier connections.
Jitter	Variation in latency. Too much can cause choppy audio and laggy video.
Packet Loss	The percentage of data packets that get lost in transit. Can noticeably degrade voice and video quality.
Redundancy	Having multiple paths for data to travel. Helps maintain connectivity if one path fails.
Security Essentials	
Encryption	Scrambling data so it can only be read with a special key. A must for sensitive info.
Authentication	Proving a user's or device's identity, usually with a username and password.
Two-Factor Authentication (2FA)	An extra login step beyond a password, like a code from an app. Enable it wherever you can!

Password Manager	An encrypted vault for storing and generating strong passwords. Way better than using the same password everywhere.
Privacy Settings	Options to control how your data is collected and used. Review them in your OS, browser, and apps.
VPN	A Virtual Private Network. Encrypts your internet traffic and masks your IP address for better privacy.
Backup	A spare copy of important data in case the original is lost or damaged. Back up to an external drive or cloud storage.
Phishing	Tricking people into revealing sensitive info by posing as a trusted entity. Be wary of emails asking you to log in or download attachments.
Spam	Unsolicited bulk messages, usually email. Most inboxes filter spam out automatically.
Malware	Catch-all term for malicious software like viruses, spyware, and ransomware. Only download from trusted sources.
Trojan	Malware disguised as legitimate software. Named after the famed Trojan Horse.
Virus	Malware that spreads by copying itself, like a biological virus. Evolved into more advanced forms:
Worm	A self-replicating virus that spreads over networks without needing to piggyback on another program.
Spyware	Malware that spies on your computer activity, collecting personal data to send to hackers.
Ransomware	Malware that encrypts your files and demands payment for the decryption key. Nasty stuff.
Adware	Malware that bombards you with unwanted ads. More annoying than dangerous, but still a pain.
Rootkit	Malware that burrows deep into your system to hide itself. Notoriously hard to detect and remove.
Bot	Automated malware that lets hackers remotely control your computer. Often used for...

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DDoS	A Distributed Denial of Service attack. When botnets flood a target system to overwhelm and crash it.
Zero-Day	A vulnerability that's exploited before the software maker knows about it and can fix it.
Social Engineering	Exploiting human psychology rather than technical vulnerabilities. Phishing is a prime example.
Brute-Force Attack	Attempting to guess a password by systematically trying every possible combination of characters.
Hash	A digital fingerprint of some data. Used to verify that files haven't been tampered with.
Salting	Adding random data to a hash to make it harder to crack. A pinch of salt keeps your hash secure!

Multimedia

Codec	Compresses and decompresses media data. Different formats use different codecs, like MP3 for audio and MPEG for video.
Container	A file format that stores compressed media along with metadata like subtitles. Examples are MP4 and MKV.
Ripping	Copying audio or video data from one format to another, like CD tracks to MP3 files.
Streaming	Playing media in real-time as it's sent over the internet. Services like Spotify and Netflix use streaming.
Aspect Ratio	The width-to-height ratio of a video or image. Old TVs used 4:3, modern ones use 16:9.
Resolution	The number of pixels in an image or video frame. Higher resolutions mean more detail.
Refresh Rate	How many times per second a screen completely redraws itself. Higher rates mean smoother motion.
Frame Rate	How many individual images make up one second of video. Films traditionally use 24FPS.
Bit Rate	The number of bits (data) processed per second. Higher bit rates mean better quality but larger files.

HDR	High Dynamic Range. Heightens a picture's dynamic range (contrast) for richer, more detailed images.
Surround Sound	Audio from multiple speakers positioned around you. 5.1, 7.1, Dolby Atmos are popular setups.

User Account Control & Permissions

User Account	A profile for logging into a system. Can be an administrator (full control) or standard user (limited).
Administrator	Like a super user. Has permission to install programs and change system settings.
Standard User	A normal account for day-to-day use. Can't accidentally (or purposely!) mess up the system.
Guest Account	For temporarily sharing your computer. Has very limited access to files and settings.
Password	A secret phrase that grants access to an account. The longer and more random, the better.
Permissions	Settings that control what a user can access and modify. Useful for locking down sensitive files.
Parental Controls	Features that restrict content and computer use. Handy for protecting kids online.
Remote Access	Accessing a computer over a network. Can be handy but also opens security holes if not set up right.

Data & Databases

Bit	The smallest unit of data. It's either a 1 or a 0, corresponding to an electrical switch being on or off.
Byte	8 bits lumped together. Represents a single character, like the letter 'A' or a dollar sign.
Megabyte (MB)	1,048,576 bytes, or 1024 kilobytes. A typical MP3 song is a few MB.
Gigabyte (GB)	1,024 MB. About the size of a movie download or modern video game.
Terabyte (TB)	1,024 GB. The usual size of a computer hard drive these days.

Petabyte (PB)	1,024 TB. Big data territory. Companies like Google and Facebook store data on this scale.
Exabyte (EB), Zettabyte (ZB), Yottabyte (YB)	Each one is 1,024 times bigger than the last. Mind bogglingly huge.
Database	An organized collection of data, typically stored electronically. Excel spreadsheets are like mini databases.
SQL	Structured Query Language. The programming language most databases use for managing data. Pronounced "sequel".
NoSQL	A newer type of database that's more flexible than SQL. Great for unstructured data like social posts.
Big Data	Data that's too huge and complex for traditional databases. Requires special tools to store and analyze.
Data Mining	Analyzing large data sets to uncover patterns and insights. Machine learning plays a big role here.

Basic Troubleshooting

Power Cycle	Completely shut down the device, wait a minute, then start it back up. Fixes a surprising number of issues.
Check for Updates	Glitches are often caused by out-of-date software. Keep your OS, drivers, and apps updated.
Scan for Malware	Viruses and their nasty friends can throw a real wrench in the works. Run a full system scan just to be safe.
Free Up Space	Low storage and memory can lead to poor performance. Try uninstalling apps you don't use or moving files to the cloud.
Close Unnecessary Programs	Every open program eats up resources. Close ones you're not actively using.
Reseat Cables	Loose connections can cause all sorts of quirks. Power down, unplug everything, blow out the dust, then carefully plug it all back in.
Check Event Viewer	A Windows tool that logs system events, including errors, crashes, and other helpful clues.
Safe Mode	A stripped-down Windows environment for troubleshooting issues. Hold Shift while clicking Restart.

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System Restore	Rolls Windows back to a previous state without affecting your files. A great "oops" button.
Factory Reset	Erases everything and starts fresh. The nuclear option for when all else fails.
Command Line	Need to get your hands dirty? Poke around with commands like ipconfig, ping, or sfc /scannow.
Google It	Whatever issue you're having, chances are someone else has had it too. See what solutions they found.
Ask for Help	Don't beat yourself up trying to fix something alone. Ask a friend, visit a forum, or call tech support.
Blue Screen of Death (BSOD)	A crash so bad, Windows can't recover. Note the error message and look it up later. Then take a deep breath and reboot.
Maintenance Musts	
Dust Cleaning	Canned air is your friend. Spray out your PC's vents and fans every few months to prevent overheating.
Software Updates	I know I sound like a broken record, but seriously. Update. Your. Software. Automatically if possible.
Disk Checks	Hard drives can develop bad sectors over time. Use tools like CHKDSK and Disk Utility to find and fix errors.
File Management	Every few months, clear out old files and organize the rest into folders. Future you will thank past you.
Backups	I can't stress this enough. Keep copies of important data on an external drive or in the cloud. One day, you'll be glad you did.
UPS	If you live in an area with unreliable power, consider an uninterruptible power supply. It'll gracefully shut your PC down if the lights go out.
Tips & Tricks	
Keyboard Shortcuts	Why reach for the mouse when you can navigate with a few keystrokes? Classics like Ctrl+C to copy and Alt+Tab to switch windows are game changers.
Clipboard History	The latest versions of Windows (and Mac) keep a history of everything you copy. Just press Win+V to see it.

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Cloud Storage	Store your stuff in the cloud so you can access it anywhere and free up space on your machine. OneDrive integrates nicely with Windows.
Snipping Tool	A handy utility for capturing screenshots. Way easier than the old Print Screen dance.
Virtual Desktops	Right click the taskbar and select "Show Task View button" to enable multiple virtual desktops. Great for organizing projects!
Snap Assist	Drag a window to the side of the screen to "snap" it there. Drag windows to corners to snap them to quarters. Mmm, satisfying.
God Mode	Okay, it's not THAT omnipotent. But it does cram a ton of system settings into one folder. Here's how to enable it... if you dare.
Quick Access	In File Explorer, right-click any folder and select "Pin to Quick access" for easy access later. I keep my most used folders there.