

LINUX COMMAND CHEAT SHEET



MOST USED LINUX COMMANDS

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|-------------------------|---|
| pwd | Displays the current working directory path, starting from the root (/) |
| rm [file_name] | To remove files you no longer need |
| less [filename] | Shows a file's contents one screen at a time |
| cd [directory] | Is used to change the current working directory in Linux |
| ls | To list files or directories in Linux |
| grep [PATTERN] [FILE] | Used to search for a string of characters in a specified file |
| ls-a | Used to enlist the current directory including the hidden files |
| cp [file] [destination] | Copying files from one location to another |
| mv [file] [destination] | Used to move files and directories from one location to another |
| mkdir [directory] | Allows users to create or make new directories |

LINUX DIRECTORY NAVIGATION

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| cd - | Controls to the previous directory level |
| cd or cd ~ | Used to change directory to the home directory |
| cd / | Used to change directory to the root directory |
| cd.. | Used to move to the parent directory of current directory |
| cd [/path/to/directory] | Go directly to directory |

LINUX FILE COMMANDS

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| rm -r [directory_name] | Remove a directory and files recursively |
| cp -r [directory_name1] [directory_name2] | Used to copy a directory including all its content from a source directory to the destination directory. |
| mv [file_name1] [file_name2] | Move file_name1 to file_name2 |
| tail [file_name] | Prints the last 10 lines from the file |
| ls -a | Used to enlist the current directory including the hidden files |
| cp [file_name1] [file_name2] | Used to copy files or group of files or directory |
| rm [file_name] | Deletes a file |
| pwd | Displays the current working directory path, starting from the root (/) |
| rmdir | It removes an empty directory on various operating systems |
| mkdir [directory] | Allows users to create or make new directories |
| curl [options] [URL] | A tool that enables data transfer over various network protocols. Supported protocols (HTTP, HTTPS, SCP, SFTP, FTP) |
| diff [file_name_1] [file_name_2] | Is used to display the differences in the files by comparing the files line by line |
| tar | Used to compress a group of files into an archive |
| locate [file_name] | Finds files in Linux using the file name |
| cat [file1] [file2] | It reads data from the file and gives their content as output |
| tar -cf | Creates or extracts archived files |
| wget [URL] | Used to download files from the internet. |
| echo [text]>>[file_name] | Used to display line of text/string that are passed as an argument |
| mv [file name] /path/to/new/location | Used to move files and directories from one location to another |
| tar -xvf [file_name] | Used to compress a group of files into an archive -x includes the eXtended attributes of the files (metadata) -v is verbose mode -f tells tar what file/archive you are unarchiving |
| gpg [file_name.gpg] | Encrypts the files securely |

LINUX SSH (LOGIN)

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| <code>ssh -i ~/.ssh/specific_ssh_fkey</code> | Distinguished other ssh key for connection |
| <code>ssh user@server -p other_port</code> | Operate a specific port declared in sshd_config |
| <code>ssh [IP address]</code> | Connect to a host |
| <code>ssh-copy-id hostname_or_IP</code> | Copy a unique key pair to server |
| <code>ssh user@server</code> | Connect to a server (default port) |
| <code>ssh user@server [command to run]</code> | Run a command on a remote server |

LINUX NETWORK DIAGNOSTICS COMMANDS

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|--|---|
| <code>ifup [options] -a [device]</code> | Used to activate the specified network interface |
| <code>hostname</code> | Used to obtain the DNS name and set the system's hostname or NIS domain name |
| <code>traceroute [host]</code> | Perform traceroute to [host] |
| <code>ifdown [options] -a[device]</code> | Disables a network interface |
| <code>hostname -l (capital 'i')</code> | Shows all IP addresses of computer |
| <code>netstat</code> | Displays information about different interface statistics, including open sockets, routing tables, and connection information |
| <code>ifconfig/ip</code> | Used to configure, control the queries from CLI and to enable or disable the IP address, view all network interfaces. Also to set up any/all the network interfaces such as Ethernet, wireless, modem and so on that are connected to your computer |
| <code>dig [record type] [domain]</code> | Gather information about a particular domain. Try "dig txt google.com" |
| <code>nettop</code> | Monitor network activity, showing a list of processes and corresponding process IDs with network connections |
| <code>ping [address]</code> | Send ICMP ECHO_REQUEST packets to network host at [address] |
| <code>nslookup [address]</code> | Use the IP address to discover a domain name, or vice versa. |

LINUX FILE COMMANDS

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|---|--|
| <code>ln -s /path/to/[file_name] [link_name]</code> | Creates a symbolic link to a file |
| <code>touch [file_name]</code> | Used to create, change and modify timestamps of a file |
| <code>wc</code> | Used to find out number of lines, word count, byte and characters count in the files |
| <code>gpg -c [file_name]</code> | Decrypts the files securely |
| <code>head [file_name]</code> | Allows you to easily get the top lines from the specified file or the standard input |
| <code>ls</code> | To list files or directories in Linux |

LINUX PIPES/REDIRECTION

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|---|---|
| <code><<</code> | Launch a file and captures user input until EOF |
| <code>></code> | Represents output redirection and redirects output to a file and overwriting the file |
| ex. <code>command_1 command_2 command_3</code> | A Linux pipe is a form of redirection used to combine two or more commands where the output of one command acts as the input of the next command in the sequence. |
| <code>>></code> | Redirects output to a file and appends the redirected output rather than overwrites |
| <code><</code> | Represents input redirection and redirects the given input file |

LINUX COMMAND CHEAT SHEET



SYSTEM INFORMATION

| | |
|---------------------------------------|---|
| cat /proc/cpuinfo | Display detailed information about the CPU |
| ps tree | Display a tree of running processes |
| du | Return disk usage |
| df -m | Display free storage in megabytes |
| du -h [directory] | Return disk usage in a readable file size format Eg. 1.1K or 15M 1.5G (-m shows file in megabytes and -g shows a file in gigabytes) |
| lshw less | List all hardware and pipes to the less command for easy reading and pagination |
| swapon -s | Swap information |
| lsusb (or -v for verbose) | Show information about all usb devices. |
| pmmap -x PID [pid] | Display memory information about a process |
| lspci (or -v for verbose) | Show information about all PCI |
| top | Display sorted information about processes |
| sudo systemctl restart [service_name] | Restart a service Eg. sudo systemctl restart apache2 |
| dmidecode less | Summarize BIOS information |
| kill [pid] | Terminate a process. Use the 'top' command to find the pid of a process |
| cat /etc/issue | The cat command shows information about a given directory, in this case /etc/issue. |
| free | Free shows system information such as free memory and swap in kibibytes |

USER CONTROLS AND MANAGEMENT USER WARNING: SOME OF THESE COMMANDS CAN BE DANGEROUS. USE WITH CAUTION.

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|--|--|
| (sudo) service ssh stop | Stop ssh service |
| (sudo) service ssh start | Start ssh service |
| (sudo) service ssh restart | Restart ssh service |
| (sudo) service ssh status | Check ssh service status |
| sudo passwd root | Set a new password for the root user, can be used to circumvent the sudo command |
| passwd | Change your password |
| useradd [user_name] | Create a new user |
| useradd -r [user_name] | Delete a user |
| finger [username] | Display information about a user |
| chmod [permission] [file_name] | Change the permissions of a file Eg. chmod 777 /path/to/file |
| groups [username] | Display the groups a user belongs to |
| chown user:group /path/to/file | Change ownership of a file |
| chown -R user:group /path/to/directory | Change the ownership of a directory and files |
| chroot [path] [command] | Change the root directory of a process |
| quit | Logout |
| w | Display currently logged in users |

LINUX COMMAND CHEAT SHEET



OTHER

| | |
|---|--|
| alias [new command name] =[command] | Create a temporary alias for a command |
| date | Display current system date and time |
| env | Display environment variables |
| [tab] | Autocomplete command you are typing, if autocomplete has been configured for your shell session. |
| history | Display prior used commands |
| shutdown | Turns a computer off |
| shutdown -r | Reboots a computer |
| at [-V] [-q queue] [-f file] [-mldbv] TIME | Run a command at a specific time |
| iostat | List CPU and I/O statistics |
| clear | Clear all information from the terminal window. Not useful for security. |
| crontab -e | Create a new crontab or edit an existing crontab |
| man [command name] | Display the manual or help file for a command |
| unset [variable_name] | Remove environment variable |
| export [variable_name] =[variable_value] | Create a new environment variable |

100% Linux Hands-on Exercise on Linuxpath.org

These Linux exercises from Linuxpath.org will help you learn everything about Linux from the boot process to advanced networking