Linux Command Cheat Sheet

MOST USED

ls	List files in directory
ls -a	List all files, including hidden ones
pwd	Show the directory currently working in
mkdir [directory]	Create a new directory
rm [file_name]	Remove a file
cd [directory]	Change working directory
mv [file] [destination]	Move file to new destination
cp [file] [destination]	Copy file to new destination
grep [PATTERN] [FILE]	Find lines containing [PATTERN] in [FILE]
less [filename]	Display the contents of a file or a command output one page at a time

FILE COMMANDS

ls	List files in directory
ls -a	List all files, including hidden ones
pwd	Show the directory currently working in
mkdir [directory]	Create a new directory
rm [file_name]	Remove a file
rm -r [directory_name]	Remove a directory and files recursively
rmdir	Remove an empty directory
cp [file_name1] [file_name2]	Copy the contents of the first file to a new destination, which can be in a second folder
cp -r [directory_name1] [directory_name2]	Recursively copy the contents of the first directory into the second directory
mv [file_name1] [file_name2]	Move file_name1 to file_name2
ln -s /path/to/[file_name] [link_name]	Create a symbolic link to a file
touch [file_name]	Create a new file
head [file_name]	Show the first 10 lines of a file
tail [file_name]	Show the last 10 lines of a file
gpg -c [file_name]	Encrypt a file
gpg [file_name.gpg]	Decrypt a file
wc	Print the number of words, lines, and bytes in a file

FILE COMMANDS (CONT.)

tar	Stands for for tape archive and is used used to create archive and extract archived files
tar -cf	Create an archive with a given file name
tar –xvf [file_name]	Unarchive an archive. -x includes the eXtended attributes of the files (metadata) -v is verbose mode -f tells tar what file/archive you are unarchiving
mv [file name] /path/to/new/location	Move a file to a new directory
cat [file1][file2]	Concatenate files and output
diff [file_name_1] [file_name_2]	File compare, line by line (note: di ff is whitespace sensitive)
echo [text]>>[file_name]	Echo prints arguments to standard output, '>>' redirects standard output to append to a file [file_name] defines target file name
locate [file_name]	Locate a file in the file system
curl [options] [URL]	Curl is used for transferring data from or to a server without user interaction. Curl is used to download or upload data using HTTP, HTTPS, SCP , SFTP , or FTP .
wget [URL]	Download a file from a server

NETWORK DIAGNOSTIC COMMANDS

ifconfig/ip	Get the IP address, MAC address, and MTU of available networks
ping [address]	Send ICMP ECHO_REQUEST packets to network host at [address]
nslookup [address]	Use the IP address to discover a domain name, or vice versa.
nettop	Monitor network activity, showing a list of processes and corresponding process IDs with network connections
netstat	Display which ports are active on your machine, their status, and what they're connected to
dig [record type] [domain]	Gather information about a particular domain. Try "dig txt google.com"

NETWORK DIAGNOSTIC COMMANDS (CONT.)

hostname	Display hostname of computer
hostname –I (capital 'i' not lowercase "L")	Display all IP addresses of computer
ifdown [options] -a|[device]	Shutdown network interface
ifup [options] -a	[device]	Start a network interface
traceroute [host]	Perform traceroute to [host]

DIRECTORY NAVIGATION

cd or cd ~	Go directly to home directory
cd ..	Move up one directory level
cd [/path/to/directory]	Go directly to directory
cd -	Navigate to the previous directory level
cd /	navigate to root directory

SSH (LOGIN)

ssh [IP address]	Connect to a host
ssh user@server	Connect to a server (default port 22)
ssh user@server -p other_port	Use a specific port declared in sshd_config
ssh user@server [command to run]	Run a command on a remote server
ssh-copy-id hostname_or_IP	Copy a unique key pair to server
ssh -i ~/.ssh/specific_ssh_fkey	Specify other ssh key for connection

PIPES/REDIRECTION

>	Represents output redirection and redirects output to a file and overwriting the file
>>	Redirects output to a file and appends the redirected output rather than overwrites
<	Represents input redirection and redirects the given input file
<<	Launch a file and and captures user input until EOF
| (ex. command_1 | command_2 | command_3)	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.

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SYSTEM INFORMATION

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

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

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

OTHER

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

Linux Courses from CBT Nuggets

These Linux courses from CBT Nuggets will help you learn everything about Linux from the boot process to advanced networking.

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