Linux

Basic Commands-

Sr. No.	Commands	Options	Use
1.	tty	-s:	check std. input Std. input connected to terminal.
2.	w	-u	Displays the output in more user-friendly format, including the current time, uptime, users and their processes.
		-s	Displays shorter version of output.
		-f	Displays the full hostname
3.	cal	-y	Displays calendar for entire year.
		-j	Displays Julian dates
		-w	Displays week no.
		-1	Displays a one-month Calendar (current)
		-3	Displays a three-month Calendar (previous, current, next)
4.	date	-d or date=STRING	Displays the date and time specified by string.
		-r	Displays the last modification time of specified file.
		-s or --set=STRING	Set the system date and time to specified string.
5.	init	0	Shut down the system.
		6	Reboots/Restarts the system.
		1	Switches to single-user mode (only root can access system).
6.	shutdown	-h or now	It immediately shutdown system.
		-r	It reboots the system.
		-c	It cancel shutdown timer.

7.	hostname	-s	Displays the short hostname, including domain name.
		-f	Displays fully qualified domain name.
		-i	Displays IP addresses associated with hostname.
8.	uname	-a	Displays all system information including os and kernel name.
		-s	Displays the kernel name.
		-r	Displays the kernel release.
		-v	Displays the kernel version.
		-o	Displays the operating system.
9.	free	-h	Display output in human readable format.
		-t	Display total line.
		-c	Display memory usage count times
10.	dmidecode	-t	Specifies the type of information to be displayed.
		-u	Displays output in human readable format.

Files and Editors-

Sr. No.	Commands	Options	Uses
1.	touch	-a	Change only access time.
		-c	Do not create file if it doesn't exist.
2.	cat	-n	Number all output lines.
		-s	Suppress repeated empty output lines.
		-b	Number non-empty output lines.
3.	vim	-R	Opens file in read only mode.
		-o <files>	Open multiple files in separate window.

Sr. No.	Commands	Options	Uses
4.	nano	-B	Backup previous version of current file.
5.	pico	-B	Backup previous version of current file.

Working with Files and Directories-

Sr. No.	Commands	Options	Uses
1.	mkdir	-p -m \<mode\>	Create parent directories as needed. Set the file mode
2.	rmdir	-p	Remove parent directory and its ancestors.
3.	rm	-r -f -i	Remove directories and their contents recursively. Ignores non existing files. Prompts for confirmation before removing each file.
4.	ls	-a -l -s -t -r -R -h	List all files including hidden. Use long listing format including permissions. Sort files by its size. Sort files by its modification time, newest first. Reverse: reverse the order of sort. Recursive: Lists subdirectories recursively. Display file size in human readable form.
5.	mv	-f -n	If destination file already exists, overwriting files. Do not overwrite an existing file.
6.	cp	-r -f	Copy directories recursively. If destination file already exists, overwriting files.

		-n	Do not overwrite an existing file.
7.	echo	-n	Suppress trailing new line character.
		-e	Enable interpretation of backslash escapes.
		-E	Disable interpretation of backslash escapes.
8.	more	-f	Count logical lines rather than screen lines.
		-p	Preserver screen content by clearing screen before displaying the file.
		-s	Squeeze multiple blank lines into one.
9.	less	-N	Display line numbers.
		-F	Quit immediately if entire file displayed on one screen.
10.	head/tail	-n	Display first/last specified line of the file (by default first 10).
		-c	Display first/last bytes of file instead of lines.

User Administration-

Sr. No.	Commands	Options	Uses
1.	useradd	-d	Specifies home directory for user.
		-m	Creates user's home directory if it doesn't exist.
		-g	Specifies primary group for new user.
		-G	Specifies additional group for new user should belong.
		-u	Specifies user ID for new user.
2.	passwd	-l	Locks the user's password, preventing login with account.
		-u	

Sr. No.	Commands	Options	Uses
		-d	Unlock previously locked user account.
		-e	Delete user's password.
		-S	Forces the user to change their password upon next login.
			Displays password status information for user.
3.	chage	-l	List password policy.
		-m	Min. days between password change.
		-M	Max. days between password change.
		-I	Displays Number of interactive days.
		-d	Force to change password.
4.	groupadd	-g	Specifies GID for new group.
		-o	Allow creation of new group with non-unique GID.
		-f	Forcefully creates group even if group are already exists.
5.	gpasswd	-a	Add user to specified group.
		-d	Removes a user from specified group.
		-A	Assign user as group admin.
		-r	Removes password for group.
		-M	Set list of members in group.

Permission Management-

Sr. No.	Commands	Options	Uses
1.	chown	-R	Recursively changes ownership of directories and their content.
		-c	Prints message only if the ownership actually changes.

2.	chgrp	-R	Recursively changes group ownership of directories and their content.
3.	chmod	-R	Recursively changes permissions of directories and their content.

Archiving, Filtering and Job Scheduling-

Sr. No.	Commands	Options	Uses
1.	tar	-c	Create an archive.
		-x	Extract files from Archive
		-f	Specify file name.
		-v	Verbose- Detail information.
		-t	Lists content from archive.
		-p	Preserve permission when extracting file/directory.
		-C	Copy from one archive to another archive.
			Compress archive using gzip.
		-z	Compress archive using bzip2.
		-j	
2.	zip	-d	Delete files from zip archive.
		-m	Delete input files after adding them to zip archive.
3.	at	-l	Lists the pending jobs.
		-r	Removes pending job specified by its number.
		-d	Delete pending jobs
4.	cron	-e	Edit the user's crontab job file.
		-l	List the jobs.
		-r	Remove user's crontab file.
		-u	Specify user whose crontab is to be modified.
5.	grep	-i	Ignores uppercase vs lowercase.

		-v	Invert matching, to select non-matching.
		-c	Print count of matching lines for each input file.
		-w	Watch whole words only.

Linux Package Management-

Sr. No.	Commands	Options	Uses
1.	rpm	-i	Install a package.
		-e	Remove a package.
		-U	Upgrade a package.
		-qa	Lists all installed packages.
		-ql	Lists files in packages.
2.	Apt-get	-install	Install a package.
		-remove	Remove a package.
		-update	Update the list of available packages.
		-upgrade	Upgrade the list of available packages.
		-purge	Remove a package along with its configuration files.
3.	yum	-install	Install a package.
		-remove	Remove a package.
		-update	Update the list of available packages.
		-upgrade	Upgrade the list of available packages.
		-list	List installed and available packages.

Linux Networking-

Sr. No.	Commands	Options	Uses

1.	ifconfig	up	Activate the specified interface.
		down	Deactivate the specified interface.
2.	nslookup	-debug	Enable debugging mode.
		-timeout	Sets the timeout period for DNS query.
		-port	Specifies the DNS server's port no.
3.	ping	-c	Specifies the number of packets to send.
		-i	Specifies the interval between sending each packet.
		-t	Sets the time to live(TTL) value for packets.
		-W	Specifies the timeout for each packet.
4.	traceroute	-I	Use ICMP echo requests instead of UDP datagrams.
		-T	Use TCP SYN packets instead of UDP or TCP tracerouting.
		-U	Use UDP datagrams for tracerouting.
		-p	Specify destination port for UDP/TCP tracerouting.
5.	mtr	-n	Do not resolve hostnames, display IP addresses only.
		-r	Generate report-style output.
		-c	Set the number of pings sending pings.
		-s	Set the size of ICMP packets.
6.	telnet	-l username	Specifies the username to use for logging in to the remote system.
		-a	Attempt automatic login.
		-d	Enable debugging mode.
		-r	Remote echo mode. Disable local echo.
7.	curl	-o	Save the downloaded file with a specified name.

| | | -L | Follow redirects. |
| | | -i | Include the HTTP response headers in the output. |

Linux Process Management-

Sr. No.	Commands	Options	Uses
1.	ps	-e	Display information about all process.
		-f	Full format listing. Provides more detailed information.
		-s	Display session id along with process information.
		-r	Sort processes by CPU usage (highest to lowest)
		-a	Display information about all processes
2.	top	-d	Specifies delay between updates.
		-n	Sets the number of iterations before top exits.
		-i	Starts top in idle -task mode.
		r	Renice the process
3.	kill	-9	Terminate immediately. (cannot be ignored).
		-15	Terminate gracefully (default if no signal specified.)
		-HUP	Hangup- restart daemons.
4.	jobs	-l	Lists process IDs in addition to jobs IDs and status.
		-p	Display only process IDs of background jobs.
		-r	Display only running jobs.
		-s	Display only stopped jobs.
		-x	

			Display only jobs that are terminated.
5.	nice	-n	Adjusts the niceness value. Range is from -20 to 19.
		-v	Display in verbose format.