Session - 5

Linux shell commands

essential Linux shell commands, with **examples** and **descriptions** to help you get started or revise effectively:

🔹 1. File and Directory Commands

Command	Description	Example
ls	List directory contents	ls -l
cd	Change directory	cd /home/user
pwd	Print current working directory	pwd
mkdir	Create new directory	mkdir newfolder
rmdir	Remove empty directory	rmdir oldfolder
touch	Create empty file	touch file.txt
rm	Remove file or directory	rm file.txt, rm -r folder/
cp	Copy files or directories	cp a.txt b.txt, cp -r dir1 dir2
mv	Move/rename files or directories	mv old.txt new.txt

🔹 2. File Viewing and Editing

Command	Description	Example
cat	View file contents	cat file.txt
more	Paginate file output (forward)	more file.txt
less	View file (forward/backward)	less file.txt
head	Show first lines of file	head -n 5 file.txt

Command	Description	Example
tail	Show last lines of file	tail -n 10 log.txt
nano	Open file in terminal editor	nano file.txt
vi or vim	Advanced text editor	vi file.txt

🔹 3. Process Management

Command	Description	Example
ps	Show running processes	ps aux
top	Real-time system monitor	top
kill	Terminate a process	kill 1234
killall	Kill process by name	killall firefox
bg	Resume a background process	bg %1
fg	Bring process to foreground	fg %1

🔹 4. Permissions and Ownership

Command	Description	Example
chmod	Change file permissions	chmod 755 script.sh
chown	Change file owner	chown user:user file.txt
ls -l	Show file permissions and ownership	ls -l

🔹 5. Disk and File System

Command	Description	Example
df	Show disk space usage	df -h
du	Show file/folder size	du -sh myfolder/

Command	Description	Example
mount	Mount a device	mount /dev/sdb1 /mnt
umount	Unmount a device	umount /mnt

6. Searching and Finding

Command	Description	Example
find	Find files by name, size, etc.	find . -name "*.txt"
grep	Search text in files	grep "error" log.txt
locate	Quickly find file paths (uses DB)	locate file.txt

7. Archiving and Compression

Command	Description	Example
tar	Archive files	tar -cvf archive.tar file1 file2
gzip	Compress a file	gzip file.txt
gunzip	Decompress a .gz file	gunzip file.txt.gz
zip	Create a zip archive	zip archive.zip file1 file2
unzip	Extract zip archive	unzip archive.zip

8. Networking

Command	Description	Example
ping	Test network connection	ping google.com
ifconfig	Show network interfaces	ifconfig
ip	Configure/show network settings	ip addr
wget	Download files via HTTP/FTP	wget http://example.com

Command	Description	Example
curl	Transfer data with URL syntax	curl -O http://example.com

🔹 9. User Management

Command	Description	Example
whoami	Show current user	whoami
id	Show UID and GID of user	id
adduser	Add a new user	sudo adduser john
passwd	Change user password	passwd

🔹 10. Miscellaneous

Command	Description	Example
history	Show command history	history
clear	Clear terminal screen	clear
echo	Print message or variable	echo "Hello World"
date	Show current date and time	date
uptime	System uptime and load	uptime

📘 Want More?

You can type:

bash

man <command>

to read the manual page of any command. Example:

bash