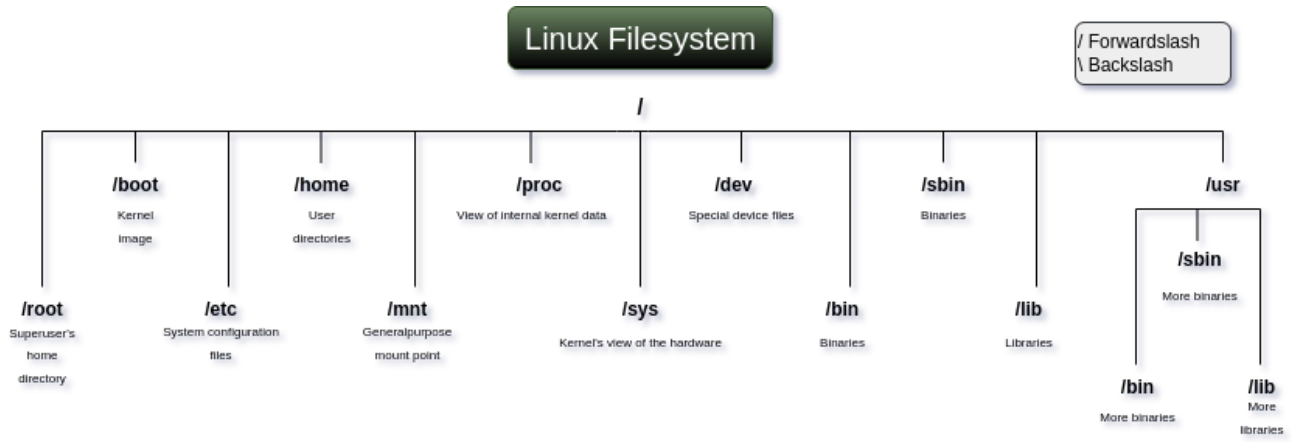
The Linux Filesystems

and

63 Common Terminal Commands



/boot: Contains boot-related files like the kernel. Modifying this can make the system unbootable.

/home: Stores user directories and personal data.

/proc: Provides information about the kernel and running processes. Useful for malware analysis and security monitoring.

/etc: Contains system configuration files. Hackers target this to alter system behavior.

/mnt: Used for mounting external drives and partitions.

/sys: Represents the kernel's view of hardware.

/dev: Contains special files for system devices. Can be used for direct disk access.

/bin & /sbin: Stores essential system binaries like ls, bash, and iptables.

/lib & /usr/lib: Holds shared libraries needed by executables.

/usr/bin & /usr/sbin: Additional binaries for regular users and system administration.

Most Important Directories in Hacking and Cybersecurity:

`/etc/passwd` & **`/etc/shadow`**: Contain user account info and hashed passwords.

`/var/log`: Stores system logs, crucial for forensic analysis.

`/proc`: Can be used to inspect hidden processes or rootkits.

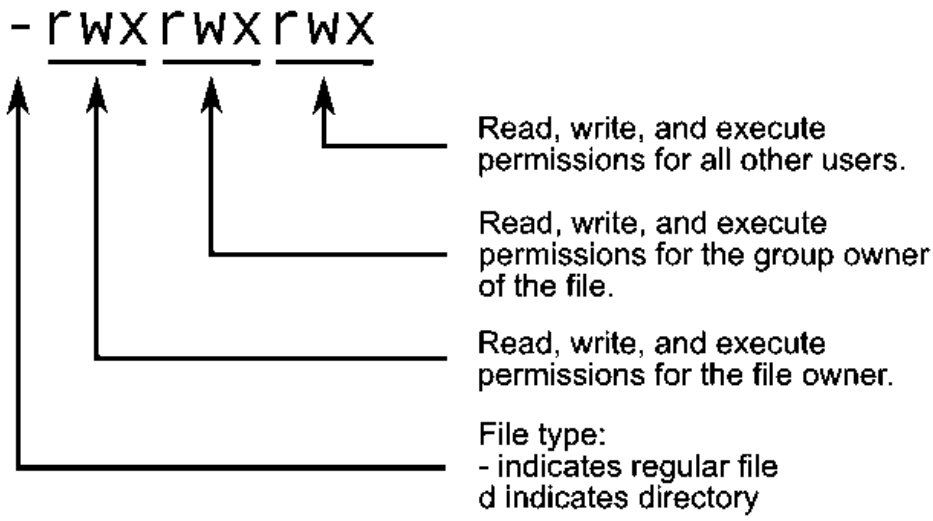
`/home`: Contains user data, which is often a target.

63 Common Terminal Commands

Basic Commands

pwd	Print working directory (shows current directory)
ls	List files and directories
(-la long format and hidden files	
-ltrh long format, time-based sorting, reverse and human-readable (size of files)	
)	
cd [directory]	Change directory
cd ..	Move up one directory
mkdir [directory]	Create a new directory
rmdir [directory]	Remove an empty directory
rm [file]	Remove a file
rm -r [directory]	Remove a directory and its contents (-r → recursive)
cp [source] [destination]	Copy files and directories
mv [source] [destination]	Move or rename files and directories
touch [filename]	Create an empty file
cat [file]	Display contents of a file
less [file]	View file contents page by page
more [file]	Similar to less, but only scrolls forward
head [file]	Show first 10 lines of a file
tail [file]	Show last 10 lines of a file
tail -f [file]	Monitor file for new content (useful for logs) (-f → follow)
echo "text"	Print text to the terminal
echo "text" > file	Write text to a file (overwrites)
echo "text" >> file	Append text to a file

File Permissions and Ownership



chmod [permissions] [file]	Change file permissions
chown [owner]:[group] [file]	Change file ownership
ls -l	Show detailed file permissions
umask	Display default permissions for new files

Searching and Finding Files

find /path -name [filename]	Search for a file by name
grep "pattern" [file]	Search for text in a file
grep -r "pattern" [directory]	Search recursively in a directory
locate [file]	Find file locations (requires updatedb)
which [command]	Locate an executable command
whereis [command]	Find command binary, source, and manual

Process Management

ps	Show active processes
ps aux	Show all running processes
top	Show real-time system resource usage
htop	Interactive process viewer (if installed)
kill [PID]	Terminate a process by Process ID
killall [name]	Kill all processes by name
pkill [pattern]	Kill processes by matching a name

bg	Resume a suspended process in the background
fg	Resume a suspended process in the foreground
Disk and Storage Commands	
df -h	Show disk space usage
du -sh [directory]	Show size of a directory
mount [device] [mountpoint]	Mount a filesystem
umount [device]	Unmount a filesystem
Networking	
ping [host]	Test network connection
curl [URL]	Fetch a web page content
wget [URL]	Download a file from the internet
hostname -I	Show IP address
ifconfig	Show network interfaces (deprecated, use ip a)
ip a	Show network interfaces and IPs
netstat -tulnp	Show open ports and services
ss -tulnp	Show open ports (modern alternative to netstat)
User Management	
whoami	Show current user
id	Show user ID and group ID
who	Show logged-in users
w	Show logged-in users with details
su [user]	Switch to another user
sudo [command]	Execute command as root
passwd	Change user password
useradd [username]	Create a new user
usermod -aG [group] [user]	Add user to a group
userdel -r [username]	Remove a user and their home directory
groupadd [groupname]	Create a new group
groups [username]	Show user groups