Linux System Health & Security Commands – Concise Guide

1. System Information

uname -a – Display kernel version and system information.

hostnamectl – Show system hostname and OS details.

uptime – Show how long the system has been running.

2. Resource Monitoring

top / htop – Monitor CPU, memory, and processes in real time.

free -h – Display memory usage in human-readable format.

df -h – Check disk space usage of mounted filesystems.

du -sh /path – Check the size of a directory.

3. Process Management

ps aux – List all running processes.

kill -9 – Terminate a process by its PID.

systemctl status – Check status of a service.

4. Networking & Ports

ip a – Display network interfaces and IP addresses.

ping – Check connectivity to another host.

ss -tuln – List listening ports and services.

netstat -tulnp – Show active connections and listening ports.

5. Logs & Troubleshooting

journalctl -xe – View system logs for troubleshooting.

dmesg ¦ less – Check kernel ring buffer for hardware/system messages.

tail -f /var/log/syslog – Monitor system log in real time.

6. User & Permission Management

whoami – Show current logged-in user.

id – Display user ID and group info.

chmod 600 file – Set strict permissions on a file.

chown user:group file – Change file ownership.

7. Security Basics

ufw status – Check firewall status.

ufw enable – Enable UFW firewall.

cat /etc/ssh/sshd_config ¦ grep PermitRootLogin – Check SSH root login policy.

find / -perm -4000 -type f 2>/dev/null – Find SUID binaries (potential risks).