

Top 300 Linux Commands Asked in Interviews



1. **ls** – Lists files and directories in the current directory.
2. **ls -al** – Lists all files, including hidden ones, with detailed information.
3. **pwd** – Prints the current working directory.
4. **cd /path/to/directory** – Changes the directory to the specified path.
5. **cd ..** – Moves up one directory level.
6. **mkdir new_directory** – Creates a new directory.
7. **rmdir empty_directory** – Removes an empty directory.
8. **rm -rf directory_name** – Deletes a directory and its contents recursively.
9. **touch file.txt** – Creates a new empty file.
10. **cat file.txt** – Displays the contents of a file.

11. **tac file.txt** – Displays the contents of a file in reverse order.

12. **nano file.txt** – Opens a file in the nano text editor.

13. **vim file.txt** – Opens a file in the Vim editor.

14. **vi file.txt** – Opens a file in the vi editor.

15. **echo "Hello, World!"** – Prints text to the terminal.

16. **echo "Hello" > file.txt** – Writes text to a file (overwrites existing content).

17. **echo "Hello" >> file.txt** – Appends text to a file.

18. **cp source.txt destination.txt** – Copies a file.

19. **cp -r source_directory destination_directory** – Copies a directory recursively.

20. **mv old_name.txt new_name.txt** – Renames a file.

21. **mv file.txt /path/to/destination/** – Moves a file to another directory.

22. **rm file.txt** – Deletes a file.



- 23. **find / -name "file.txt"** – Searches for a file by name starting from the root directory.
- 24. **find . -type f -name "*.log"** – Finds all log files in the current directory.
- 25. **locate file.txt** – Finds the location of a file using a pre-built index.
- 26. **updatedb** – Updates the locate command's index.
- 27. **grep "search_term" file.txt** – Searches for a term inside a file.
- 28. **grep -i "search_term" file.txt** – Case-insensitive search.
- 29. **grep -r "search_term" /path/to/search/** – Searches recursively in a directory.
- 30. **awk '{print \$1}' file.txt** – Prints the first column of a file.
- 31. **awk -F: '{print \$1}' /etc/passwd** – Prints the first field of the `/etc/passwd` file, separated by colons.
- 32. **sed 's/old/new/g' file.txt** – Replaces all occurrences of "old" with "new" in a file.
- 33. **sed -i 's/old/new/g' file.txt** – Replaces text in a file in place.
- 34. **sort file.txt** – Sorts lines in a file.

- 35. **sort -r file.txt**– Sorts lines in reverse order.
- 36. **uniq file.txt**– Removes duplicate lines from a sorted file.
- 37. **wc -l file.txt** – Counts the number of lines in a file.
- 38. **wc -w file.txt** – Counts the number of words in a file.
- 39. **wc -c file.txt** – Counts the number of bytes in a file.
- 40. **head -n 10 file.txt**– Displays the first 10 lines of a file.
- 41. **tail -n 10 file.txt** – Displays the last 10 lines of a file.
- 42. **tail -f file.txt** – Continuously monitors a file for changes.
- 43. **df -h** – Shows disk space usage in a human-readable format.
- 44. **du -sh directory_name** – Shows the size of a directory.
- 45. **free -m** – Displays memory usage in megabytes.
- 46. **uptime** – Shows system uptime and load average.
- 47. **who** – Displays currently logged-in users.
- 48. **whoami** – Displays the current logged-in username.

- 49.**id** – Displays the user ID (UID) and group ID (GID).
- 50.**groups username** – Displays groups a user belongs to.
- 51.**ps aux** – Displays running processes.
- 52.**top** – Displays real-time process information.
- 53.**htop** – An interactive process viewer (if installed).
- 54.**kill -9 PID** – Forcefully terminates a process.
- 55.**pkill process_name** – Kills processes by name.
- 56.**killall process_name** – Kills all processes with a specific name.
- 57.**jobs** – Lists background jobs.
- 58.**bg** – Resumes a background job.
- 59.**fg** – Brings a background job to the foreground.
- 60.**nohup command &** – Runs a command in the background, ignoring hangups.
- 61.**crontab -e** – Edits the crontab file to schedule tasks.

62.**crontab -l** – Lists scheduled cron jobs.

63.**crontab -r** – Removes all scheduled cron jobs.

64.**history** – Displays command history.

65.**!100** – Runs command number 100 from history.

66.**chmod 755 file.sh** – Changes file permissions.

67.**chown user:group file.txt** – Changes file ownership.

68.**chgrp group_name file.txt** – Changes file group ownership.

69.**ls -l | grep "^d"** – Lists only directories.

70.**df -i** – Shows inode usage.

71.**du -a** – Shows size of all files and directories.

72.**tar -cvf archive.tar directory/** – Creates a tar archive.

73.**tar -xvf archive.tar** – Extracts a tar archive.

74.**tar -czvf archive.tar.gz directory/** – Creates a compressed tar archive.



75. **tar -xzvf archive.tar.gz** – Extracts a compressed tar archive.

76. **zip -r archive.zip directory/** – Compresses a directory into a zip file.

77. **unzip archive.zip** – Extracts a zip file.

78. **scp file.txt user@remote:/path/** – Securely copies a file to a remote server.

79. **scp -r directory user@remote:/path/** – Securely copies a directory to a remote server.

80. **rsync -av source/ destination/** – Synchronizes directories.

81. **wget URL** – Downloads a file from a URL.

82. **curl -O URL** – Downloads a file from a URL.

83. **curl -I URL** – Retrieves HTTP headers from a URL.

84. **ping google.com** – Checks network connectivity.

85. **traceroute google.com** – Traces network route to a server.

86. **netstat -tulnp** – Shows network connections and listening ports.



87. **ss -tulnp** – Displays active connections (alternative to netstat).

88. **ip a** – Shows IP addresses.

89. **ifconfig** – Displays network interfaces (deprecated).

90. **hostname** – Displays the system hostname.

91. **uptime** – Shows system uptime.

92. **uname -a** – Displays system information.

93. **lscpu** – Shows CPU details.

94. **lsblk** – Lists information about storage devices.

95. **blkid** – Shows UUIDs of partitions.

96. **mount /dev/sdb1 /mnt** – Mounts a device.

97. **umount /mnt** – Unmounts a device.

98. **df -Th** – Displays file system types and disk usage.

99. **fdisk -l** – Lists partition tables.

100. **mkfs.ext4 /dev/sdb1** – Formats a partition with ext4.



- 101.**fsck /dev/sdb1** – Checks a filesystem for errors.
- 102.**echo \$?** – Displays the exit status of the last command.
- 103.**time command** – Measures command execution time.
- 104.**date** – Displays the current date and time.
- 105. **cal** – Displays a calendar.
- 106.**env** – Displays environment variables.
- 107.**export VAR=value** – Sets an environment variable.
- 108.**unset VAR** – Unsets an environment variable.
- 109.**alias ll='ls -al'** – Creates a command alias.
- 110.**unalias ll** – Removes an alias.
- 111.**basename /path/to/file.txt** – Extracts the filename from a given path.
- 112. **dirname /path/to/file.txt** – Extracts the directory path from a given file path.
- 113.**diff file1.txt file2.txt** – Compares two files line by line.

114. **cmp file1.txt file2.txt** – Compares two files byte by byte.
115. **stat file.txt** – Displays detailed information about a file.
116. **file file.txt** – Determines the file type.
117. **cut -d':' -f1 /etc/passwd** – Extracts the first field from a colon-separated file.
118. **paste file1.txt file2.txt** – Merges two files line by line.
119. **tee file.txt** – Writes output to both a file and the standard output.
120. **yes "text"** – Continuously outputs "text" until interrupted.
121. **watch -n 5 df -h** – Runs a command every 5 seconds.
122. **lsattr** – Lists file attributes.
123. **chattr +i file.txt** – Makes a file immutable (cannot be modified or deleted).
124. **chattr -i file.txt** – Removes immutability from a file.
125. **nohup command &** – Runs a command in the background and ignores hangups.

- 126. **jobs** – Lists active background jobs.
- 127. **fg %1** – Brings job number 1 to the foreground.
- 128. **bg %1** – Resumes a background job.
- 129. **disown -h %1** – Removes a job from the shell's job table.
- 130. **xargs** – Passes standard input as command arguments.
- 131. **ls | xargs rm** – Deletes all files in a directory.
- 132. **echo "file1 file2" | xargs rm** – Deletes specified files.
- 133. **uptime -p** – Shows how long the system has been running.
- 134. **uptime -s** – Shows the system start time.
- 135. **who -b** – Displays the last system boot time.
- 136. **last reboot** – Shows the system reboot history.
- 137. **dmesg | tail** – Displays the latest kernel messages.
- 138. **dmesg | grep error** – Searches the kernel logs for errors.
- 139. **journalctl -xe** – Views system logs.

- 140. **journalctl -f** – Monitors logs in real time.
- 141. **systemctl status service_name** – Checks the status of a systemd service.
- 142. **systemctl start service_name** – Starts a systemd service.
- 143. **systemctl stop service_name** – Stops a systemd service.
- 144. **systemctl restart service_name** – Restarts a systemd service.
- 145. **systemctl enable service_name** – Enables a service to start on boot.
- 146. **systemctl disable service_name** – Disables a service from starting on boot.
- 147. **systemctl list-units --type=service** – Lists all active system services.
- 148. **systemctl daemon-reload** – Reloads systemd configuration files.
- 149. **service service_name status** – Checks the status of a SysV service.
- 150. **service service_name start** – Starts a SysV service.

151. **service service_name stop** – Stops a SysV service.

152. **chkconfig --list** – Lists services managed by SysV init.

153. **chkconfig service_name on** – Enables a service on boot using SysV.

154. **chkconfig service_name off** – Disables a service from boot using SysV.

155. **modprobe module_name** – Loads a kernel module.

156. **lsmod** – Lists currently loaded kernel modules.

157. **rmmod module_name** – Removes a kernel module.

158. **insmod module.ko** – Inserts a module into the kernel.

159. **uname -r** – Displays the currently running kernel version.

160. **cat /proc/version** – Shows kernel version details.

161. **hostnamectl** – Displays and modifies the hostname.

162. **nmcli device status** – Shows network interfaces and their statuses.

163. **nmcli connection show** – Lists saved network connections.



164. **nmcli connection up eth0** – Brings up a network interface.
165. **nmcli connection down eth0** – Brings down a network interface.
166. **dhclient -r** – Releases the DHCP lease.
167. **dhclient eth0** – Obtains a new DHCP lease.
168. **ip link set eth0 up** – Brings up an interface.
169. **ip link set eth0 down** – Brings down an interface.
170. **tcpdump -i eth0** – Captures network packets on an interface.
171. **tcpdump -nn port 80** – Captures HTTP traffic.
172. **tcpdump -c 10 -i eth0** – Captures 10 packets and exits.
173. **iptables -L** – Lists firewall rules.
174. **iptables -A INPUT -p tcp --dport 22 -j ACCEPT** –
Allows SSH access.
175. **iptables -A INPUT -p tcp --dport 80 -j DROP** – Blocks
HTTP access.
176. **iptables -D INPUT -p tcp --dport 80 -j DROP** –



Removes a firewall rule.

177. `firewall-cmd --list-all` – Lists active firewall rules (Firewalld).

178. `firewall-cmd --permanent --add-port=443/tcp` – Opens port 443 permanently.

179. `firewall-cmd --reload` – Reloads the firewall rules.

180. `ufw status` – Checks UFW firewall status.

181. `ufw allow 22/tcp` – Allows SSH access.

182. `ufw deny 80/tcp` – Blocks HTTP access.

183. `ufw delete allow 22/tcp` – Removes an allowed rule.

184. `df -T` – Displays filesystem type.

185. `ls -lh` – Lists files with human-readable sizes.

186. `du -ch` – Shows total disk usage in human-readable format.

187. `htop` – Interactive process monitoring.

188. `top -o %MEM` – Sorts processes by memory usage.

- 189. **lsof -i :80** – Lists processes using port 80.
- 190. **strace -c ls** – Traces system calls used by a command.
- 191. **strace -e open ls** – Shows file open system calls used by ls.
- 192. **tcpdump -XX** – Captures packets with hex and ASCII output.
- 193. **watch -d -n 5 free -m** – Monitors memory usage every 5 seconds.
- 194. **iostat** – Monitors disk I/O usage by processes.
- 195. **lsusb** – Lists USB devices.
- 196. **lspci** – Lists PCI devices.
- 197. **uptime -p** – Shows how long the system has been running in a human-friendly format.
- 198. **dmidecode -t memory** – Displays RAM information.
- 199. **mpstat 1** – Displays CPU usage statistics.
- 200. **iostat -c 2 5** – Shows CPU statistics every 2 seconds for 5 iterations.
- 201. **vmstat 1 5** – Displays system performance statistics every second

for 5 iterations.

202. **sar -u 5 3** – Reports CPU usage every 5 seconds for 3 iterations.

203. **sar -r 5 3** – Reports memory usage every 5 seconds for 3 iterations.

204. **uptime -s** – Displays system startup time.

205. **iostat -o** – Shows processes doing the most disk I/O.

206. **dstat** – Displays system resource usage dynamically.

207. **mpstat -P ALL 5** – Displays CPU usage for all cores every 5 seconds.

208. **nice -n 10 command** – Runs a command with lower priority.

209. **renice -n 10 -p PID** – Changes priority of an existing process.

210. **ulimit -a** – Shows system resource limits.

211. **ulimit -n 10240** – Changes the maximum number of open file descriptors.

212. **getfacl file.txt** – Displays ACL (Access Control List) permissions of a file.



213. **setfacl -m u:username:rwx file.txt** – Grants a user additional file permissions.
214. **setfacl -x u:username file.txt** – Removes ACL permissions for a user.
215. **getsebool -a** – Lists all SELinux booleans and their statuses.
216. **setsebool -P httpd_can_network_connect on** – Allows Apache to make network connections in SELinux.
217. **semanage fcontext -l** – Lists default SELinux file contexts.
218. **restorecon -Rv /var/www/html** – Restores SELinux context for files.
219. **getenforce** – Displays the current SELinux mode (Enforcing/Permissive/Disabled).
220. **setenforce 0** – Switches SELinux to permissive mode.
221. **auditctl -l** – Lists all active audit rules.
222. **ausearch -m avc** – Searches SELinux denial messages.
223. **ausearch -m USER_LOGIN** – Searches authentication logs using audit logs.

224. **modinfo module_name** – Displays information about a kernel module.

225. **modprobe -r module_name** – Unloads a kernel module.

226. **ls -Z** – Displays SELinux contexts of files.

227. **ps -eZ** – Displays SELinux contexts of processes.

228. **firewall-cmd --list-services** – Lists allowed services in Firewalld.

229. **firewall-cmd --permanent --add-service=https** – Allows HTTPS traffic permanently.

230. **firewall-cmd --permanent --remove-service=https** – Removes HTTPS access.

231. **firewall-cmd --reload** – Reloads Firewalld rules.

232. **ufw enable** – Enables UFW firewall.

233. **ufw disable** – Disables UFW firewall.

234. **ufw status numbered** – Displays UFW rules with numbering.

235. **ufw delete 2** – Deletes UFW rule number 2.



236. **iptables -P INPUT DROP** – Sets default INPUT policy to DROP.
237. **iptables -P FORWARD DROP** – Drops forwarded packets by default.
238. **iptables -P OUTPUT ACCEPT** – Allows all outgoing traffic by default.
239. **iptables -A INPUT -p tcp --dport 22 -j ACCEPT** – Allows SSH access.
240. **iptables-save > rules.v4** – Saves iptables rules to a file.
241. **iptables-restore < rules.v4** – Restores iptables rules from a file.
242. **lsuf -p PID** – Lists open files by a process.
243. **lsuf -i :443** – Displays processes using port 443.
244. **lsuf /path/to/file** – Shows processes accessing a specific file.
245. **strace -o trace.log -p PID** – Traces system calls of a running process.
246. **strace -c ls** – Summarizes system calls used by a command.
247. **tcpdump -i eth0** – Captures network packets on interface eth0.

248. `tcpdump -nn -s0 -X -i eth0 port 80` – Captures and displays raw HTTP traffic.
249. `nc -zv google.com 443` – Checks if port 443 is open on google.com.
250. `nc -lvp 1234` – Starts a netcat listener on port 1234.
251. `rsync -avz /src/ user@remote:/dest/` – Syncs files securely over SSH.
252. `rsync -a --delete /src/ /dest/` – Synchronizes directories and removes extra files.
253. `scp -P 2222 file.txt user@remote:/path/` – Transfers a file using a non-default SSH port.
254. `ssh user@remote -p 2222` – Connects to a server using a different SSH port.
255. `ssh-keygen -t rsa -b 4096 -C "your_email@example.com"` – Generates an SSH key.
256. `ssh-copy-id user@remote` – Copies the SSH key to a remote host.
257. `ssh-agent bash` – Starts an SSH agent session.

- 258. `eval "$(ssh-agent -s)"` – Initializes the SSH agent.
- 259. `chmod 600 ~/.ssh/id_rsa` – Sets secure permissions on an SSH private key.
- 260. `chage -l username` – Displays password expiration details for a user.
- 261. `chage -M 90 username` – Sets the password to expire every 90 days.
- 262. `passwd username` – Changes a user's password.
- 263. `useradd -m -s /bin/bash newuser` – Creates a new user with a home directory.
- 264. `usermod -aG sudo username` – Adds a user to the sudo group.
- 265. `deluser username` – Removes a user.
- 266. `groupadd newgroup` – Creates a new group.
- 267. `usermod -G groupname username` – Adds a user to a group.
- 268. `groupdel groupname` – Deletes a group.
- 269. `crontab -e` – Opens the user's crontab for editing.

270. **crontab -l** – Lists scheduled cron jobs.

271. **crontab -r** – Removes all cron jobs for a user.

272. **echo "0 2 * * * /path/to/script.sh" | crontab - -**
Schedules a cron job to run a script at 2 AM daily.

273. **at now + 10 minutes** – Schedules a command to run in 10 minutes.

274. **at -l** – Lists pending scheduled jobs.

275. **systemctl list-timers** – Lists active systemd timers.

276. **timedatectl** – Displays system time settings.

277. **timedatectl set-timezone America/New_York** – Changes system timezone.

278. **hwclock --systohc** – Synchronizes hardware clock with system clock.

279. **date "+%Y-%m-%d %H:%M:%S"** – Displays date and time in a specific format.

280. **find /var/log -type f -mtime +30 -delete** – Deletes log files older than 30 days.



281. **journalctl --vacuum-time=30d** – Removes journal logs older than 30 days.
282. **du -ah /var/log | sort -rh | head -10** – Lists the 10 largest log files.
283. **logrotate -d /etc/logrotate.conf** – Tests log rotation configuration.
284. **fsck -y /dev/sda1** – Checks and repairs a filesystem.
285. **tune2fs -m 5 /dev/sda1** – Reserves 5% of space for root user.
286. **blkid** – Lists partitions and their UUIDs.
287. **mount -o remount,rw /** – Remounts the root filesystem as read/write.
288. **mkfs.ext4 /dev/sdb1** – Formats a partition with ext4.
289. **tune2fs -c 100 /dev/sda1** – Forces a filesystem check every 100 mounts.
290. **swapoff -a && swapon -a** – Restarts the swap space.
291. **free -h** – Displays RAM and swap usage in human-readable format.
292. **grep -i error /var/log/syslog** – Searches syslog for errors.

293.**dmidecode -t memory** – Displays memory module details.

294.**systemctl poweroff** – Shuts down the system.

295.**systemctl reboot** – Reboots the system.

296.**shutdown -h now** – Immediately shuts down the system.

297.**shutdown -r +10** – Reboots the system in 10 minutes.

298. **wall "System maintenance in 5 minutes"** – Broadcasts a message to all users.

299.**uptime** – Displays system uptime and load average.

300. **exit** – Logs out of the shell session.

