Linux Commands Cheatsheet

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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/path/to/directory – Changes the directory to the specified

5. cd .. – Moves up one directory level.

6. rmdir empty_directory – Removes an empty directory.

7. mkdir new_directory – Creates a new 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. nano file.txt – Opens a file in the nano text editor.

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

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 logs 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' with "new" in a file.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 -c file.txt – Counts the number of bytes in a file.

39. wc -w file.txt – Counts the number of words 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. top – Displays real-time process information.

52. ps aux – Displays running processes.

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 -0 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. lsblk – Lists information about storage devices.

94. lscpu – Shows CPU details.

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. unset VAR – Unsets an environment variable.

108. export VAR=value – Sets 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 output.file.txt – Writes output to both a file and the standard

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. bg %1 – Resumes a background job.

128. fg %1 – Brings job number 1 to the foreground.

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 configurationFiles.

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 down – Brings down an interface.

169. ip link set eth0 up – Brings up 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 (Firewalld).--list-all – Lists active firewall rules

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. iotop – 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. iotop -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. lsof -p PID – Lists open files by a process.

243. lsof -i :443 – Displays processes using port 443.

244. lsof /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 aUser.

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.