96 Linux Commands interview questions (and answers)

Questions

1. What is the Linux kernel, and what role does it play in the operating system?

2. Explain the difference between absolute and relative paths in the Linux filesystem.

3. Can you describe what a Linux distribution is? Give a few examples.

4. What does the pwd command do?

5. How can you list the files and directories in your current working directory?

6. What is the command to create a new directory?

7. How would you remove an empty directory?

8. What command is used to copy files?

9. How do you move or rename a file in Linux?

10. What command do you use to display the contents of a file?

11. How can you view the beginning of a file?

12. How do you view the end of a file?

13. What does the man command do, and how do you use it?

14. How can you find a specific file in a directory structure, knowing only part of the filename?

15. What is the command to change file permissions?

16. Explain the meaning of chmod 777.

17. How do you change the owner of a file?

18. What command is used to display a list of currently running processes?

19. How can you terminate a process?

20. What is the command to check disk space usage?

21. How do you find out which user is currently logged in?

22. What command is used to shut down or reboot the system?

23. What is the purpose of the sudo command?

24. How can you create a new user account?

25. How can you compress a file in Linux, and what is the common extension for compressed files?

26. What does 'pwd' show you, and why is it useful?

27. If you're lost in the terminal, how do you go back to your home directory?

28. Explain what a file extension is (like .txt or .pdf) and does Linux really care about it?

29. What's the difference between 'rm file' and 'rm -r directory'?

30. How can you see the contents of a text file directly in the terminal?

31. If you type a command wrong, how do you fix it without retyping the whole thing?

32. Imagine you have a file named 'MyNotes.txt'. How would you rename it to 'ImportantNotes.txt' using the command line?

33. What's a 'directory' in Linux, and how is it different from a 'file'?

34. How do you create a new folder named 'ProjectFiles' in your current location?

35. Explain what 'ls -l' does and what kind of information it gives you.

36. What's the purpose of the 'clear' command?

37. How can you find a specific file if you only know part of its name?

38. What do the 'up' and 'down' arrow keys do in the terminal?

39. Why is it super important to be careful when using the 'rm' command?

40. What is the command to show the manual page of another command?

41. How can you stop a command that's running forever in the terminal?

42. What's the difference between a relative and an absolute path?

43. Explain what the command 'chmod' is used for. A brief explanation is fine.

44. What does the command 'sudo' do, and why should you be careful when using it?

45. How do you check how much disk space is available on your computer using the terminal?

46. Explain what a pipe (|) does in Linux commands with a simple example.

47. How can you find all files modified in the last 24 hours, and then compress them into a single archive?

48. Explain how to use 'awk' to print the third word of each line in a file.

49. Describe a scenario where you would use 'sed' to replace all occurrences of a string in multiple files.

50. How do you monitor the real-time CPU usage of a specific process using command-line tools?

51. Explain how to create a user with a specific user ID (UID) and group ID (GID).

52. Describe how to set up SSH key-based authentication for a user on a remote server.

53. How can you use 'rsync' to synchronize only the modified files between two directories, preserving permissions and timestamps?

54. Explain how to find the largest files in a directory tree, sorted by size.

55. Describe how to redirect the standard output and standard error of a command to different files.

56. How can you use 'xargs' to execute a command on multiple files found by 'find'?

57. Explain how to list all the open files for a specific process.

58. Describe how to use 'netstat' or 'ss' to find out which process is listening on a specific port.

59. How do you schedule a job to run every Sunday at 3:00 AM?

60. Explain how to change the ownership and group of a file recursively for an entire directory tree.

61. Describe how to use 'iptables' or 'firewalld' to block traffic from a specific IP address.

62. How can you find all files that are owned by a specific user?

63. Explain how to use 'watch' to monitor the output of a command every few seconds.

64. Describe how to create a symbolic link and a hard link, and explain the difference between them.

65. How do you check the disk space usage of a specific directory?

66. Explain how to use 'grep' to find lines that match a pattern, but exclude lines that contain another pattern.

67. Describe how to use 'tar' to create an incremental backup of a directory.

68. How can you use 'lsof' to identify the process holding a file open?

69. Explain how to use the 'locate' command to quickly find files by name and how to update the locate database.

70. Describe how to configure a network interface using command-line tools.

71. How do you change the default umask value for new files and directories?

72. Explain how to use 'screen' or 'tmux' to manage multiple terminal sessions.

73. Describe how to find and kill a process by name.

74. How can you compare two text files and identify the differences between them?

75. How can you identify the files that have been modified in the last 24 hours, but exclude files in specific directories like /tmp?

76. Explain how you would diagnose high CPU utilization on a Linux server, focusing on identifying the specific processes causing the issue.

77. Describe your process for recovering data from a corrupted ext4 filesystem.

78. How would you set up a cron job to run a script every 15 minutes, only on weekdays, and log the output to a specific file?

79. Can you detail the steps involved in creating and configuring a RAID array on a Linux system?

80. Explain how you would use systemd to manage a custom service, including auto-restarts and dependency management.

81. How can you use the 'lsof' command to troubleshoot network connectivity issues for a specific application?

82. Describe your approach to auditing user activity on a Linux system for security purposes.

83. How do you use 'iptables' or 'firewalld' to configure a firewall with specific rules for allowing and denying traffic?

84. Explain how you would troubleshoot a slow-performing database server on Linux, focusing on disk I/O bottlenecks.

85. Describe how you'd configure and use SSH keys for passwordless authentication, and what security measures you'd implement to protect the keys.

86. How would you use the 'strace' command to debug a program that is crashing unexpectedly?

87. Explain how to use namespaces to create isolated environments for running applications, and what are the benefits?

88. How would you back up and restore a complete Linux system, including the bootloader and all partitions?

89. Describe how you would monitor the health and performance of a Linux server using tools like 'sar' or 'vmstat'.

90. Explain how you would use the 'tcpdump' command to capture and analyze network traffic for troubleshooting purposes.

91. How would you set up a reverse proxy using Nginx or Apache to improve the performance and security of a web application?

92. Describe your experience with Linux containers, and explain the difference between Docker and other containerization technologies.

93. How can you use the 'awk' command to process log files and extract specific information based on patterns?

94. Explain how to manage and troubleshoot DNS resolution issues on a Linux server.

95. How would you configure a Linux system to automatically mount a network share on boot?