

# Linux Interview Questions and Answers Top (1–50)

## 1. What is Linux?

**Answer:** Linux is an open-source, Unix-like operating system kernel used in servers, desktops, and embedded systems.

## 2. What are the components of Linux?

**Answer:** Kernel, Shell, File system, System libraries, System utilities.

## 3. What is the Linux kernel?

**Answer:** The core of the OS that manages hardware and system processes.

## 4. What is a shell in Linux?

**Answer:** An interface between user and kernel to execute commands.

## 5. What is the default shell in Linux?

**Answer:** Typically `bash` (Bourne Again SHell).

## 6. What is a Linux distribution?

**Answer:** A complete Linux OS version like Ubuntu, CentOS, Fedora, etc.

## 7. How do you list files in a directory?

**Answer:** Using `ls` command.

## 8. How to check current working directory?

**Answer:** `pwd`

## 9. How to change directories?

**Answer:** `cd <directory_path>`

## 10. How to create a file in Linux?

**Answer:** Use `touch filename` or `echo > filename`.

## 11. How to delete a file?

**Answer:** `rm filename`

## **12. How to create a directory?**

**Answer:** `mkdir dirname`

## **13. How to delete a directory?**

**Answer:** `rmdir dirname` or `rm -r dirname`

## **14. How to copy a file?**

**Answer:** `cp source dest`

## **15. How to move or rename a file?**

**Answer:** `mv old_name new_name`

## **16. How to view file contents?**

**Answer:** `cat`, `less`, `more`, `head`, `tail`

## **17. What is `chmod` used for?**

**Answer:** To change file permissions.

## **18. What is `chown` used for?**

**Answer:** Change file owner and group.

## **19. What are file permissions in Linux?**

**Answer:** Read (r), Write (w), Execute (x) for User, Group, and Others.

## **20. How to check disk usage?**

**Answer:** `df -h` (disk), `du -sh` (directory)

## **21. What does `ps` command do?**

**Answer:** Displays running processes.

## **22. How to find a running process?**

**Answer:** `ps aux | grep process_name`

## **23. How to kill a process?**

**Answer:** `kill PID` or `kill -9 PID`

## **24. What is a daemon?**

**Answer:** A background process that runs without user interaction.

## **25. How to schedule a task in Linux?**

**Answer:** Using `cron` with `crontab -e`.

## **26. What is a cron job?**

**Answer:** A scheduled task that runs automatically at defined times.

## **27. How to check current users?**

**Answer:** `who`, `w`, or `users`

## **28. How to check logged-in user?**

**Answer:** `whoami`

## **29. What is `sudo`?**

**Answer:** Allows a permitted user to execute a command as another user (usually root).

## **30. How to switch to the root user?**

**Answer:** `sudo -i` or `su`

## **31. How to list hidden files?**

**Answer:** `ls -a`

## **32. What is a symbolic link?**

**Answer:** A shortcut to another file using `ln -s target linkname`.

## **33. How to compress files in Linux?**

**Answer:** `tar -czf file.tar.gz folder/`

## **34. How to extract `.tar.gz` files?**

**Answer:** `tar -xzf file.tar.gz`

## **35. What is `grep` used for?**

**Answer:** To search for patterns in files.

**36. What is `find` used for?**

**Answer:** To search files/directories by name, size, etc.

**37. What is `top` command?**

**Answer:** Displays real-time system processes and resource usage.

**38. What is the difference between `>` and `>>`?**

**Answer:** `>` overwrites, `>>` appends.

**39. How to display system date/time?**

**Answer:** `date`

**40. What is `env` command?**

**Answer:** Displays environment variables.

**41. How to set environment variables?**

**Answer:** `export VAR=value`

**42. What is `ifconfig` or `ip` command?**

**Answer:** Shows network interfaces and IP addresses.

**43. What is SSH?**

**Answer:** Secure Shell to remotely access Linux systems.

**44. What is the difference between hard link and soft link?**

**Answer:** Hard link points to file content; soft (symbolic) link points to file path.

**45. What is inode?**

**Answer:** A unique number for each file that stores metadata.

**46. How to install a package in Ubuntu?**

**Answer:** `sudo apt install package_name`

**47. How to update all packages?**

**Answer:** `sudo apt update && sudo apt upgrade`

**48. What is `man` command?**

**Answer:** Shows manual pages for commands: `man ls`

**49. How to view running services?**

**Answer:** `systemctl list-units --type=service`

**50. How to reboot the system?**

**Answer:** `sudo reboot`