# Top 100 Linux Interview Questions and Answers

Mayank_Singh



## 1. What is the purpose of the grep command in Linux?

grep is used to search for specific patterns or strings within files. It prints the lines that match the given pattern.

## 2. How do you check the disk usage of a directory in Linux?

You can use the du command to check the disk usage of a directory:

du -sh /directory/path

## 3. What is a symbolic link in Linux?

A symbolic link, or symlink, is a file that points to another file or directory. It acts as a shortcut to the target file or directory.

## 4. How do you view the contents of a file in Linux without opening it?

You can use commands like cat, less, more, or head to view the contents of a file without opening it in an editor.
For example:

cat filename

## 5. What does the chmod command do?

chmod is used to change the file permissions of a file or directory.
For example:
chmod 755 filename

## 6. How do you terminate a running process in Linux?

You can use the kill command followed by the process ID (PID) to terminate a running process.
For example:
kill 1234

## 7. What is the purpose of the df command in Linux?

df displays the amount of disk space available on the file system.
For example:
df -h

## 8. How do you switch users in Linux?

You can switch users using the su command:
su - username

## 9. What is the rsync command used for?

rsync is used to sync files and directories between two locations, either locally or remotely.
For example:
rsync -avz /source/path /destination/path

## 10. How do you schedule a task in Linux using cron?

You can use the crontab command to schedule tasks. For example, to edit the cron jobs for a user:
crontab -e

## 11. What is the difference between hard link and soft link?

- A hard link points directly to the file data on disk, sharing the same inode.

- A soft link (symlink) points to another file and does not share the same inode.

## 12. How do you display the current environment variables?

You can display environment variables using the printenv or env command:

printenv

## 13. How do you compress files in Linux?

You can use the gzip, bzip2, or tar command to compress files.

For example, to compress a file using gzip:

gzip filename

## 14. How do you extract a tar.gz file in Linux?

You can extract a tar.gz file using the tar command:

tar -xzvf filename.tar.gz

## 15. How do you find large files in Linux?

You can use the find command to locate large files.

For example:

find / -type f -size +100M

## 16. What is a runlevel in Linux?

A runlevel is a mode of operation in Linux that defines the state of the machine after boot. Different runlevels are used for different purposes, such as single-user mode, multi-user mode, and graphical mode.

### 17. How do you list all open files in Linux?

You can use the lsof command to list all open files:

lsof

### 18. What does the touch command do?

touch is used to create an empty file or update the timestamp of an existing file.

For example:

touch filename

### 19. How do you find the IP address of your system in Linux?

You can find the IP address using the ip command:

ip addr show

### 20. How do you search for a specific word in all files in a directory?

You can use the grep command to search for a word in all files within a directory:

grep -r "search_word" /directory/path

### 21. How do you count the number of lines in a file in Linux?

You can use the wc command to count the number of lines in a file:

wc -l filename

### 22. What does the alias command do in Linux?

alias allows you to create shortcuts for commands.

For example:

alias ll= ls -la

### 23. How do you monitor real-time system processes in Linux?

You can use the top or htop command to monitor real-time system processes.
For example:
top

## 24. How do you check for open ports in Linux?
You can use the netstat or ss command to check for open ports.
For example:
netstat -tuln

## 25. What is NFS in Linux?
NFS (Network File System) is a protocol that allows you to share files and directories between systems over a network.

## 26. How do you create a new user in Linux?
You can use the useradd command to create a new user:
sudo useradd username

## 27. What is the ps command used for in Linux?
ps displays the currently running processes on the system.
For example:
ps aux

## 28. How do you set file permissions recursively in Linux?
You can use the chmod command with the -R flag to set file permissions recursively.
For example:
chmod -R 755 /directory/path

## 29. How do you check the status of a service in Linux?
You can use the systemctl command to check the status of a

service:
systemctl status servicename

## 30. What is the /etc/passwd file?

The /etc/passwd file stores information about user accounts on the system, including username, UID, GID, and home directory.

## 31. How do you copy files between two remote systems in Linux?

You can use the scp or rsync command to copy files between remote systems.
For example:
scp file user@remote:/path/to/destination

## 32. What is SSH and how do you use it?

SSH (Secure Shell) is a protocol used for secure remote login to systems.
To connect to a remote server, use:
ssh user@hostname

## 33. How do you rename a file in Linux?

You can use the mv command to rename a file.
For example:
mv oldfilename newfilename

## 34. How do you add a new group in Linux?

You can use the groupadd command to add a new group:
sudo groupadd groupname

## 35. How do you list all running services in Linux?

You can use the systemctl list-units command to list all

running services:

systemctl list-units --type=service

## 36. What does the nohup command do in Linux?

nohup allows a process to continue running even after you log out of the session.

For example:

nohup command &

## 37. How do you display disk partitions in Linux?

You can use the fdisk or lsblk command to display disk partitions.

For example:

fdisk -l or lsblk

## 38. How do you find the PID of a running process in Linux?

You can use the pidof or ps command to find the PID of a running process.

For example:

pidof processname

## 39. What does the df -h command do?

df -h shows the available disk space on your system in a human-readable format.

## 40. How do you update a package in Linux?

You can use apt-get or yum to update a package.

For example:

sudo apt-get update package_name

or

sudo yum update package_name

### 41. How do you find files containing specific text in Linux?

You can use the grep command to search for files containing specific text.

For example:

grep -r "text_to_search" /path/to/directory

### 42. How do you check memory usage in Linux?

You can use the free command to check memory usage.

For example:

free -h

### 43. What is the difference between cron and at?

- cron is used for scheduling recurring tasks.

- at is used for scheduling one-time tasks.

### 44. How do you create a symbolic link in Linux?

You can use the ln command with the -s flag to create a symbolic link.

For example:

ln -s /path/to/file /path/to/symlink

### 45. How do you check which users are currently logged in to the system?

You can use the who or w command to see the currently logged-in users.

For example:

who

### 46. What is SELinux?

SELinux (Security-Enhanced Linux) is a security module that provides access control security policies for Linux systems.

### 47. How do you compress a file in Linux?

You can use the gzip or zip command to compress a file.

For example:

gzip filename

or

zip compressedfile.zip filename

### 48. How do you uncompress a .tar.gz file in Linux?

You can use the tar command to uncompress a .tar.gz file.

For example:

tar -xvzf filename.tar.gz

### 49. How do you check system uptime in Linux?

You can use the uptime command to see how long the system has been running.

For example:

uptime

### 50. How do you find the size of a directory in Linux?

You can use the du command to find the size of a directory.

For example:

du -sh /path/to/directory

### 51. What does the chmod 777 command do?

chmod 777 gives full read, write, and execute permissions to the file owner, group, and others.

### 52. How do you schedule a job to run at a specific time in Linux?

You can use the cron scheduler by editing the crontab file:

crontab -e

Then add a job like this:
0 5 * * * /path/to/script

## 53. How do you kill a process in Linux?

You can use the kill command with the process ID (PID).
For example:
kill PID

## 54. What is the purpose of the /etc/shadow file?

The /etc/shadow file stores encrypted user password information for the system.

## 55. How do you view the contents of a file in Linux?

You can use the cat, less, or more commands to view file contents.
For example:
cat filename

## 56. What does the mount command do in Linux?

The mount command is used to attach a filesystem to a specific directory in the filesystem hierarchy.

## 57. How do you display the last 10 lines of a file in Linux?

You can use the tail command to display the last 10 lines of a file.
For example:
tail filename

## 58. What is the purpose of the /dev directory in Linux?

The /dev directory contains device files that represent hardware components and virtual devices in Linux.

## 59. How do you display the routing table in Linux?

You can use the route or ip route command to display the

routing table.
For example:
route -n

## 60. How do you change the default shell in Linux?
You can use the chsh command to change the default shell.
For example:
chsh -s /bin/bash

## 61. How do you check the disk usage of a filesystem in Linux?
You can use the df command to check disk usage.
For example:
df -h

## 62. How do you change the ownership of a file in Linux?
You can use the chown command to change the ownership of a file.
For example:
chown user:group filename

## 63. What is the purpose of the top command in Linux?
The top command shows real-time system information, including processes, memory usage, and CPU usage.

## 64. How do you check the version of the Linux kernel you re using?
You can use the uname command with the -r option.
For example:
uname -r

### 65. What does the ls -l command do in Linux?

The ls -l command lists files and directories in a detailed format, showing permissions, ownership, size, and modification time.

### 66. How do you view hidden files in Linux?

You can use the ls -a command to view hidden files (files that start with a dot).
For example:
ls -a

### 67. How do you display a list of all active network connections in Linux?

You can use the netstat command to display active network connections.
For example:
netstat -an

### 68. How do you check system logs in Linux?

You can use the journalctl command (for systemd) or view log files in /var/log/.
For example:
cat /var/log/syslog

### 69. How do you create an alias in Linux?

You can use the alias command to create a shortcut for a command.
For example:
alias ll= ls -l

### 70. How do you delete a directory in Linux?

You can use the rm command with the -r option to remove a

directory and its contents.

For example:

rm -r directory_name

## 71. What is the difference between soft link and hard link?

- A **soft link** (symbolic link) is a pointer to another file.

- A **hard link** is a direct reference to the file s inode and behaves like a copy of the file.

## 72. How do you count the number of lines in a file in Linux?

You can use the wc command with the -l option to count the number of lines.

For example:

wc -l filename

## 73. What is the /etc/passwd file used for?

The /etc/passwd file contains user account information such as username, user ID (UID), group ID (GID), home directory, and shell.

## 74. How do you create a new user in Linux?

You can use the useradd command to create a new user.

For example:

sudo useradd username

## 75. How do you delete a user in Linux?

You can use the userdel command to delete a user.

For example:

sudo userdel username

## 76. How do you rename a file in Linux?

You can use the mv command to rename a file.

For example:

mv old_filename new_filename

## 77. How do you see all environment variables in Linux?

You can use the printenv command to display all environment variables.

For example:

printenv

## 78. What is NFS in Linux?

NFS (Network File System) is a protocol that allows you to share files and directories over a network.

## 79. How do you set permissions for a directory in Linux?

You can use the chmod command to set permissions for a directory.

For example:

chmod 755 directory_name

## 80. How do you list the processes owned by a specific user in Linux?

You can use the ps command with the -u option to list processes owned by a user.

For example:

ps -u username

## 81. How do you find files in Linux?

You can use the find command to search for files.

For example:

find /path -name filename

## 82. How do you search for text within files in Linux?

You can use the grep command to search for text within files.
For example:
grep  search_term  filename

## 83. How do you compress a file in Linux?

You can use the gzip command to compress a file.
For example:
gzip filename

## 84. What is crontab in Linux?

crontab is used to schedule tasks (cron jobs) to run at specific times.

## 85. How do you display the last 10 lines of a file in Linux?

You can use the tail command to display the last 10 lines of a file.
For example:
tail filename

## 86. What does du command do in Linux?

The du command estimates and displays the disk space used by files and directories.
For example:
du -h

## 87. How do you check the IP address of a Linux system?

You can use the ip command or ifconfig command to check the IP address.
For example:
ip addr show

### 88. What is a shell script in Linux?

A shell script is a file containing a series of commands that are executed by the shell.

### 89. How do you execute a shell script in Linux?

You can run a shell script by making it executable with chmod and then executing it.
For example:

chmod +x script.sh

./script.sh

### 90. How do you monitor system performance in Linux?

You can use commands like top, htop, vmstat, and iostat to monitor system performance.

### 91. What is a daemon in Linux?

A daemon is a background process that runs continuously and usually starts at boot time.

### 92. How do you list all services in a systemd-based Linux distribution?

You can use the systemctl list-units --type=service command to list all services.

### 93. How do you stop a process in Linux?

You can use the kill command followed by the process ID (PID) to stop a process.
For example:
kill PID

### 94. How do you change the default shell for a user in Linux?

You can use the chsh command to change the default shell

for a user.
For example:
chsh -s /bin/bash username

## 95. What is the difference between kill and kill -9 in Linux?

- kill sends a TERM signal to terminate the process gracefully.

- kill -9 sends a KILL signal, which forcefully kills the process.

## 96. How do you display the first 10 lines of a file in Linux?
You can use the head command to display the first 10 lines.
For example:
head filename

## 97. What is a symbolic link in Linux?
A symbolic link is a file that points to another file or directory.

## 98. How do you view disk partitions in Linux?
You can use the fdisk -l command to view disk partitions.

## 99. How do you make a file read-only in Linux?
You can use the chmod command to set read-only permissions.
For example:
chmod 444 filename

## 100. How do you switch between users in Linux?
You can use the su command followed by the username to switch users.
For example:
su username