

## LINUX INTERVIEW QUESTIONS:

### 1. What is Linux?

Linux is an open-source operating system kernel initially developed by Linus Torvalds in 1991. It is the core component of various Linux distributions, providing the foundation for an operating system.

### 2. Differentiate between Linux and Unix?

Linux is an open-source operating system kernel developed by Linus Torvalds, whereas Unix is a family of multitasking, multiuser computer operating systems. Unix is not open-source and has various versions like Solaris, AIX, and HP-UX, while Linux is open-source and has many distributions like Ubuntu, Fedora, and CentOS.

### 3. What is the significance of the root (/) directory in Linux?

The root directory (/) is the top-level directory in the Linux filesystem hierarchy. It contains all other directories and files on the system. In Linux, all paths begin from the root directory.

### 4. Explain what is the purpose of the 'chmod' command in Linux?

The chmod command is used to change the permissions of a file or directory in Linux. It stands for "change mode". With chmod, you can modify the read, write, and execute permissions of files and directories for the owner, group, and others.

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

A symbolic link, also known as a symlink or soft link, is a special type of file that points to another file or directory. It acts as a shortcut or reference to the target file or directory. Symbolic links are commonly used to create aliases or references to files and directories located elsewhere in the filesystem.

### 6. How do you check the disk space usage on a Linux system?

The df command is used to display disk space usage on a Linux system. By default, it shows the disk space usage of all mounted filesystems. The du command can also be used to display disk usage for specific directories.

### 7. Explain what is SSH and how it is used in Linux?

SSH, or Secure Shell, is a cryptographic network protocol used for secure communication between two computers. In Linux, SSH is commonly used for remote login and remote command execution. It provides a secure way to access and manage remote systems over an unsecured network.

### 8. What is the purpose of the 'tar' command in Linux?

The tar command is used to create, manipulate, and extract files from tar archives. It stands for "tape archive". tar is commonly used for creating backups, packaging files for distribution, and archiving directory trees.

### 9. How do you manage services in Linux?

In Linux, services can be managed using the systemctl command. systemctl allows users to start, stop, restart, enable, disable, and check the status of services on a Linux system. It is commonly used for managing system services and daemons.

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

The grep command is used to search for patterns within files. It stands for "Global Regular Expression Print". grep searches for lines matching a specified pattern and prints them to the standard output.

**11. Explain the significance of the '/etc/passwd' file in Linux?**

The /etc/passwd file stores essential information about user accounts on a Linux system. Each line in the file represents a user account and contains fields such as username, encrypted password (or 'x' for shadow password systems), user ID (UID), group ID (GID), home directory, and login shell.

**12. How do you check the open ports on a Linux system?**

The netstat command or the ss command can be used to display information about open network connections and listening ports on a Linux system.

**13. Explain what is the purpose of the 'sudo' command in Linux?**

The sudo command allows users to execute commands with the privileges of another user, typically the superuser (root). It is commonly used to perform administrative tasks that require elevated permissions while providing a level of access control and auditability.

**14. Explain what is the purpose of the 'yum' command in Linux.**

The yum command is a package management tool used in Red Hat-based Linux distributions such as CentOS and Fedora. It is used to install, remove, update, and manage software packages and dependencies from designated repositories.

**15. What is the purpose of the 'awk' command in Linux?**

The awk command is a versatile text processing tool used for pattern scanning and processing. It operates on records (lines) of text input, processing each line based on user-defined patterns and actions. awk is commonly used for data extraction, reporting, and manipulation tasks.

**16. Explain what is the purpose of the 'sed' command in Linux?**

The sed command is a stream editor used for text manipulation and transformation. It reads text input line by line, applies specified editing commands to each line, and then outputs the modified text. sed is commonly used for tasks such as search and replace, text substitution, and line deletion.

**17. What is a shell in Linux?**

In Linux, a shell is a command-line interpreter that provides an interface for users to interact with the operating system. It accepts commands from the user, interprets them, and executes them. Examples of shells in Linux include Bash (Bourne Again Shell), Zsh (Z Shell), and Ksh (Korn Shell).

**PLEASE REFERE ALL LINUX CLASSESS WITH COMMANDS**