Basic Linux Interview Questions

Q1. What is the Linux operating system?

A1. The Linux operating system is an open-source, Unix-like operating system kernel that serves as the foundation for various Linux distributions. Linux is known for its stability, security, and flexibility. It supports multitasking, multi-user functionality, and a wide range of hardware architectures. It is widely used in personal and enterprise environments and has a large and active community of developers and users contributing to its ongoing development and improvement.

Q2: What are some key features of Linux?

A2: Key features of Linux include multi-user capabilities, multitasking, a hierarchical file system, networking support, and a command-line interface.

Q3: What is the root user in Linux?

A3: The root user is the administrative user in Linux who has full system privileges and can perform any operation.

Q4: How do you navigate the file system in Linux?

A4: You can navigate the file system using commands like 'cd' (change directory), 'ls' (list files and directories), and 'pwd' (print working directory).

Q5: How do you create a directory in Linux?

A5: You can create a directory using the 'mkdir' command followed by the directory name, e.g., 'mkdir mydirectory'.

Q6: What are file permissions in Linux?

A6: File permissions determine the access rights for users, groups, and others. The permissions include read (r), write (w), and execute (x) permissions.

Q7: How do you change file permissions in Linux?

A7: You can change file permissions using the 'chmod' command followed by the desired permissions and the file name or path.

Q8: How do you copy files in Linux?

A8: You can copy files using the 'cp' command followed by the source file and destination directory or filename.

Q9: How do you move or rename files in Linux?

A9: You can move or rename files using the 'mv' command followed by the source file and destination directory or filename.

Q10: How do you remove files in Linux?

A10: You can remove files using the 'rm' command followed by the file name or path. Use 'rm -r' to remove directories recursively.

Q11: How do you search for a specific text in a file in Linux?

A11: You can search for text in a file using the 'grep' command followed by the search pattern and the file name.

Q12: What is the command to display the contents of a file in Linux?

A12: The 'cat' command can be used to display the contents of a file on the terminal.

Q13: How do you find files or directories in Linux?

A13: You can find files or directories using the 'find' command followed by the search path and options.

Q14: How do you view and manipulate processes in Linux?

A14: You can view and manipulate processes using commands like 'ps' (process status), 'top' (dynamic process viewer), 'kill' (terminate a process), and 'nice' (change process priority).

Q15: How do you check the disk usage in Linux?

A15: You can check the disk usage using the 'df' command to display overall disk space and 'du' command to display disk usage of specific files or directories.

Q16: What is the purpose of the 'sudo' command in Linux?

A16: The 'sudo' command is used to execute commands with superuser privileges, allowing regular users to perform administrative tasks.

Q17: How do you compress and decompress files in Linux?

A17: You can compress files using utilities like 'tar' (create archives) or 'gzip'/'bzip2' (compress files). To decompress, use the corresponding commands such as 'tar -xvf', 'gunzip', or 'bunzip2'.

Q18: What is the shell in Linux?

A8: The shell in Linux is a command-line interpreter that provides a user interface for interacting with the operating system. It takes user commands and executes them, allowing users to run programs, manipulate files, manage processes, and perform various tasks.

Q19: How do you install software packages in Linux?

A19: In Linux, software packages can be installed using package management systems specific to each distribution. Common package managers include 'apt' (Advanced Package Tool) for Debian-based distributions, 'yum' or 'dnf' (Yellowdog Updater Modified/Dandified Yum) for Red Hat-based distributions, and 'pacman' for Arch Linux. Package managers allow users to easily search, install, update, and remove software packages and their dependencies.

Q20: How do you check system resource utilization in Linux?

A20: To check system resource utilization in Linux, you can use commands like 'top' or 'htop' to monitor CPU and memory usage, 'free' to display memory statistics, 'df' to check disk space usage, and 'iostat' or 'iotop' to monitor I/O (input/output) usage. These tools provide real-time information about system performance and help identify potential bottlenecks or resource-intensive processes.

Linux Admin Interview Questions

Q21: How do you manage user accounts and groups in Linux?

A1: User accounts and groups are managed using commands like 'useradd', 'usermod', 'userdel', 'groupadd', 'groupmod', and 'groupdel'. These commands allow you to create, modify, and delete user accounts and groups, as well as manage user permissions and group membership.

Q22: Explain the process of installing and updating software packages in Linux.

A22: In Linux, package managers such as 'apt' (used in Debian-based distributions) and 'yum' (used in Red Hat-based distributions) are used to install and update software packages. You can use commands like 'apt-get', 'aptitude', 'yum', and 'dnf' to search for, install, and update packages from the distribution's repositories.

Q23: How do you monitor system performance and troubleshoot performance issues in Linux?

A23: System performance can be monitored using tools like 'top', 'htop', 'sar', and 'vmstat'. To troubleshoot performance issues, you can analyze system logs, check resource utilization using 'free' and 'df' commands, and use performance profiling tools like 'strace' and 'perf' to identify bottlenecks and optimize system performance.

Q24: Discuss the steps involved in setting up and configuring network services in Linux.

A24: To set up and configure network services in Linux, you need to edit configuration files such as '/etc/network/interfaces' or '/etc/sysconfig/network-scripts/ifcfg-\*' for network interfaces, '/etc/resolv.conf' for DNS settings, and '/etc/hosts' for hostname resolution. Additionally, you may need to configure services like DHCP, DNS, or firewall rules based on the specific requirements of the network environment.

Q25: Explain the process of managing and securing file permissions in Linux.

A25: File permissions in Linux are managed using the 'chmod' command. The 'chmod' command allows you to set read, write, and execute permissions for the owner, group, and others using symbolic or numeric notation. Additionally, file ownership can be changed using the 'chown' and 'chgrp' commands.

Q26: How do you manage disk partitions and file systems in Linux?

A26: Disk partitions can be managed using utilities like 'fdisk' or 'parted', while file systems can be created and managed using tools like 'mkfs' and 'tune2fs'. You can mount file systems using the 'mount' command and configure them to be mounted automatically at system startup in '/etc/fstab'.

Q27: Explain the process of configuring and managing system services in Linux.

A27: System services can be configured and managed using tools like 'systemctl', 'service', or 'init.d' scripts. You can start, stop, restart, enable, or disable services using these utilities. Configuration files for services are typically located in '/etc' or '/etc/sysconfig' directory.

Q28: How do you secure a Linux server against unauthorized access?

A28: Server security in Linux can be enhanced by implementing measures such as disabling unnecessary services, applying regular security updates, enforcing strong user authentication and password policies, configuring firewalls using tools like 'iptables' or 'firewalld', and implementing access control using tools like 'sudo' or 'ACLs'.

Q29: Discuss the process of managing system logs in Linux.

A29: System logs in Linux are stored in '/var/log' directory. Important log files include '/var/log/messages' (general system messages), '/var/log/auth.log' (authentication logs), '/var/log/syslog' (system logs), and '/var/log/secure' (security-related logs). You can use utilities like 'tail,' 'grep,' or 'journalctl' to view and analyze log files.

Q30: How do you perform system backups and restore data in Linux?

A30: System backups can be performed using tools like 'tar', 'rsync', or 'dump'. You can schedule backups using utilities like 'cron' or 'systemd timers'. Restoring data involves extracting or copying the backed-up files to their respective locations. It is essential to test backup and restore processes regularly to ensure data integrity.

Q31: How do you manage and configure network interfaces using the command-line interface in Linux?

A31: Network interfaces can be managed and configured using tools like 'ifconfig' (legacy) or 'ip' (modern). You can use these commands to assign IP addresses, configure network parameters, enable or disable interfaces, and view interface statistics.

Q32: Explain the process of configuring and securing SSH access in Linux

A32: To configure and secure SSH access in Linux, you need to edit the SSH server configuration file, usually located at '/etc/ssh/sshd\_config'. You can enable/disable SSH password authentication, enforce key-based authentication, specify allowed users or groups, and restrict access based on IP addresses. After making changes, restart the SSH service for the modifications to take effect.

Q33: What are the steps involved in setting up a basic firewall using iptables in Linux?

A33: Setting up a basic firewall using iptables involves the following steps:

Define the firewall rules by specifying the allowed/denied network traffic.

Create the iptables rules using the 'iptables' command, specifying the source/destination IP addresses, ports, and desired action (allow or deny).

Test the rules to ensure they are functioning as expected.

Save the rules to persist across system reboots, typically using the 'iptables-save' command or by placing the rules in a script that is executed during system startup.

Q34: How do you configure and manage software RAID (Redundant Array of Independent Disks) in Linux?

A34: Software RAID in Linux can be configured and managed using tools like 'mdadm'. The process involves creating RAID devices, selecting the RAID level (e.g., RAID 0, RAID 1, RAID 5), adding or removing disks, monitoring RAID status, and rebuilding arrays in case of disk failures.

Q35: Discuss the process of setting up and managing a web server (e.g., Apache or Nginx) in Linux.

A35: The process of setting up and managing a web server in Linux typically involves the following steps:

Install the web server software (e.g., Apache or Nginx) using the distribution's package manager.

Configure the web server by modifying the server configuration files (e.g., 'httpd.conf' for Apache).

Set up virtual hosts to host multiple websites on the same server.

Test the web server functionality by accessing the server's IP address or domain name in a web browser.

Monitor server logs and performance, and make necessary optimizations for better performance and security.

Q36: What is SELinux (Security-Enhanced Linux), and how do you configure and manage it?

A16: SELinux is a Linux kernel security module that provides enhanced access controls and mandatory access control (MAC) policies. To configure and manage SELinux, you can use utilities like 'semanage' and 'setsebool' to manage SELinux policies, 'sestatus' to check the current status, and 'audit2allow' to generate SELinux policy modules based on audit logs.

Q37: How do you configure and manage disk quotas for users or groups in Linux?

A37: Disk quotas can be configured and managed using tools like 'quota' and 'edquota'. The process involves enabling quotas on the file system, setting quota limits for users or groups, and periodically checking and updating the quota usage.

Q38: How do you configure and manage a DNS server in Linux?

A18: To configure and manage a DNS server in Linux, you can use software like BIND (Berkeley Internet Name Domain). The process involves configuring the BIND server, creating zone files to define DNS records, configuring forwarders or root hints for external name resolution, and managing DNS zone transfers and security settings.

Q39: What are the steps involved in setting up and managing a database server (e.g., MySQL or PostgreSQL) in Linux?

A19: Setting up and managing a database server in Linux typically involves the following steps:

Install the database server software using the distribution's package manager.

Configure the database server by modifying the server configuration files (e.g., 'my.cnf' for MySQL).

Set up databases, tables, and users with appropriate privileges.

Monitor database server performance, optimize queries, and ensure backups are in place.

Q40: How do you configure and manage system logs using the systemd journal in Linux?

A40: The systemd journal is a centralized logging system in Linux. To configure and manage system logs using the systemd journal, you can use commands like 'journalctl' to view and filter log messages based on various criteria such as time, severity, or source. You can also configure log rotation settings, forward logs to a remote server, or configure log retention policies using systemd journal configuration files.

Q41: What is the Linux file system hierarchy?

A41: The Linux file system hierarchy defines the organization and structure of files and directories in Linux. It includes directories such as /bin (executable binaries), /etc (configuration files), /home (user home directories), /tmp (temporary files), and /var (variable data).

Q42: How do you list files in a directory in Linux?

A42: You can list files in a directory using the 'ls' command. For example, 'ls' will list files and directories in the current directory.

Q43: How do you create a file in Linux?

A3: You can create a file using the 'touch' command followed by the filename. For example, 'touch myfile.txt' will create a new file named myfile.txt.

Q44: How do you copy a file in Linux?

A4: You can copy a file using the 'cp' command followed by the source file and destination directory or filename. For example, 'cp file1.txt /path/to/destination' will copy file1.txt to the specified destination.

Q45: How do you move a file in Linux?

A5: You can move a file using the 'mv' command followed by the source file and destination directory or filename. For example, 'mv file1.txt /path/to/destination' will move file1.txt to the specified destination.

Q46: How do you delete a file in Linux?

A6: You can delete a file using the 'rm' command followed by the filename. For example, 'rm myfile.txt' will delete the file myfile.txt.

Q47: What are the different types of permissions in Linux?

A47: The different types of permissions in Linux are read (r), write (w), and execute (x). These permissions can be set for the owner, group, and others.

Q48: How do you change file permissions in Linux?

A48: You can change file permissions using the 'chmod' command followed by the desired permissions and the file name or path.

Q49: What is a symbolic link in Linux?

A9: A symbolic link, or symlink, 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.

Linux Interview Questions for Experienced Candidates

Q50: How do you create a symbolic link in Linux?

A50: You can create a symbolic link using the 'ln' command with the '-s' option, followed by the target file or directory and the name of the symlink.

Q51: What is a process in Linux?

A51: A process is an instance of a running program. It represents the execution of a program and consists of code, data, and system resources.

Q52: How do you view running processes in Linux?

A12: You can view running processes using the 'ps' command. For example, 'ps aux' will display a list of all running processes.

Q53: How do you terminate a process in Linux?

A13: You can terminate a process using the 'kill' command followed by the process ID (PID). For example, 'kill 1234' will terminate the process with PID 1234.

Q54: What is a package manager in Linux?

A14: A package manager is a tool used to install, update, and manage software packages in Linux. Examples include 'apt' for Debian-based distributions and 'yum' or 'dnf' for Red Hat-based distributions.

Q55: What is the difference between Unix and Linux?

A55: Unix and Linux are both operating systems, but they have some differences. Unix refers to a family of operating systems that originated in the 1970s, while Linux is a Unix-like operating system that was developed in the 1990s. Unix is a proprietary system, whereas Linux is open source. Additionally, Unix tends to be more standardized across different versions, while Linux distributions can vary more in terms of features and configurations.

Q56: What are the basic components of the Linux operating system?

A56:The basic components of the Linux operating system include the kernel, which is the core of the operating system, providing essential services to other parts of the system. Other components include system libraries, which provide functions and resources for applications, and the shell, which is a command-line interface for interacting with the system. Additionally, Linux has various utilities and applications that perform specific tasks.

Q57: Explain the boot process in Linux.

A58: The boot process in Linux involves several steps:

Power-on: The computer hardware is powered on.

BIOS/UEFI: The system firmware (BIOS or UEFI) performs a Power-On Self-Test (POST) and initializes hardware devices.

Bootloader: The bootloader (such as GRUB) is loaded, which then loads the Linux kernel into memory.

Kernel initialization: The kernel initializes the hardware, sets up essential data structures, and mounts the initial RAM disk (initrd).

Init system: The kernel executes the init process (specified by the initrd), which then starts other processes and services, initializing the user space.

User space: The init process starts other daemons and processes, bringing the system to a fully functional state.

Q59. How do you find out the current version of Linux?

A59: To find out the current version of Linux, you can use the following command in the terminal:

uname -a

This command displays detailed information about the system, including the kernel version.

Q60: What is the difference between a process and a thread?

A60:  In Linux, a process is an instance of a running program that has its own memory space, file descriptors, and system resources. Each process has its own process ID (PID). On the other hand, a thread is a unit of execution within a process. Multiple threads within a process share the same memory space and system resources, allowing for concurrent execution. Threads have their own thread IDs (TID) but share the same process ID.

Q61.Explain the significance of the root account in Linux.

A62: The root account, also known as the superuser or administrator account, has unrestricted access and control over the entire system. It has the highest level of privileges and can perform administrative tasks such as installing software, modifying system configurations, and managing user accounts. It is essential to exercise caution when using the root account as it can modify critical system files and configurations, potentially affecting the stability and security of the system.

Q62: What is a symbolic link in Linux?

A63: In Linux, a symbolic link (or symlink) is a file that acts as a pointer to another file or directory. It provides a convenient way to access a file or directory from a different location in the filesystem. Symbolic links can be created using the ln command with the -s option. Unlike hard links, symbolic links can point to files or directories on different filesystems and can even reference non-existent targets.

Q63. Explain the purpose of the /etc/passwd file

A63. The /etc/passwd file is a text-based file in Linux that stores essential user account information. It contains entries for each user on the system and includes details such as the user's username, user ID (UID), group ID (GID), home directory, and default shell. The purpose of this file is to provide basic user information required during the login process and user management operations.

Q64. What is the difference between hard links and soft links

A64. Hard links and soft links (also known as symbolic links) are two types of links used in Linux file systems. The main difference between them is how they reference and point to the original file:

Hard links: A hard link is a direct reference to the physical file on the disk. It points to the same inode (index node) as the original file and shares the same file content. Modifying either the original file or its hard link affects both. It is not possible to create a hard link for directories.

Soft links (symbolic links): A soft link is a special type of file that contains a path pointing to the location of another file or directory. It acts as a pointer or shortcut to the original file. Unlike hard links, soft links have their own inodes and store the path of the target file instead of the file's data. If the original file or directory is deleted or moved, the soft link will break.

Q65. What is the purpose of the grep command?

A65. The grep command in Linux is used for searching and filtering text or patterns within files. It allows you to search for specific content based on regular expressions or simple patterns and retrieve matching lines from files or standard input. The grep command is extremely powerful and flexible, making it a handy tool for various tasks such as log analysis, text processing, and extracting specific information from files.

Q66. How do you archive files in Linux

A67. To archive files in Linux, you can use the tar command. Tar stands for "tape archive" and is a common command-line utility for creating compressed and uncompressed archive files.  
To create a tar archive, you can use the following syntax:

tar -cvf archive.tar files/directories

Here, -c indicates creating a new archive, -v enables verbose output to show the files being archived, and -f specifies the output file name.  
To compress the archive, you can use additional options like -z for gzip compression or -j for bzip2 compression. For example:

tar -czvf archive.tar.gz files/directories (gzip compression)

tar -cjvf archive.tar.bz2 files/directories (bzip2 compression)

Q67.Explain the difference between a local variable and an environment variable

A67. In programming and scripting languages, including Linux shell environments, there are two types of variables:

Local variables: Local variables are defined within a specific scope, such as a function or a script. They are temporary and only accessible within that scope. Local variables are typically used to store intermediate values or for local computations. They are not available to other processes or programs.

Environment variables: Environment variables are variables that are set and maintained by the operating system or the shell environment. They have global scope and can be accessed by any process or program running on the system. Environment variables are used to store system-wide configuration settings, user-specific preferences, and information that needs to be shared between different processes.

Q68. What is the purpose of the cron daemon in Linux?

A68: The cron daemon in Linux is responsible for executing scheduled tasks or commands at specific times or intervals. It allows users to automate repetitive tasks by defining cron jobs, which are configured using the crontab (cron table) file.

Q69. How do you kill a process in Linux?

A69: To kill a process in Linux, you can use the kill command followed by the process ID (PID) of the process you want to terminate. The general syntax is kill [options] PID. For example, to kill a process with PID 12345, you would run kill 12345.

Q70. Explain the role of the chroot command.

A70: The chroot command in Linux is used to change the root directory of a process. It creates a restricted environment in which the specified directory becomes the root (/) directory for any applications or processes executed within it. This can be useful for isolating processes and limiting their access to the rest of the system.

Q71: How do you check the network connectivity in Linux?

A71: To check network connectivity in Linux, you can use various commands such as ping, traceroute, telnet, or nc (netcat). For example, to check if a remote host is reachable, you can use the ping command followed by the IP address or hostname of the target system.

Q72: What is the purpose of the tar command?

A73:The tar command in Linux is used for archiving files and directories into a single file, often referred to as a tarball or tar archive. It can also be used to extract files from a tar archive. The name "tar" stands for "tape archive," as it was initially developed for creating backups on magnetic tapes.

Q74: Explain the significance of the /var/log directory.

A74: The /var/log directory in Linux contains various log files generated by different system components, services, and applications. These log files store information about system events, errors, warnings, and other activities. Analyzing log files in the /var/log directory can be helpful for troubleshooting and monitoring system activities.

Q75.How do you monitor system resource usage in Linux?

A75: There are several commands and tools available in Linux for monitoring system resource usage. Commonly used ones include top, htop, free, vmstat, sar, and nmon. These tools provide real-time or periodic information about CPU usage, memory utilization, disk I/O, network activity, and other system performance metrics.

Q76.What is the purpose of the ulimit command?

A76.The ulimit command in Linux is used to set or display resource limits for the current shell or user session. It allows administrators to control and manage system resources such as maximum CPU time, maximum number of open files, maximum memory size, and more. The ulimit command is helpful in enforcing resource usage policies and preventing excessive resource consumption.

Q77.How do you mount a file system in Linux?

A77:To mount a file system in Linux, you need to use the mount command followed by the device or partition to be mounted and the mount point (the directory where the file system will be accessible). For example, to mount a partition /dev/sdb1 on the mount point /mnt/data, you would run mount /dev/sdb1 /mnt/data. This makes the contents of the file system accessible at the specified mount point.

Q78. Explain the difference between vi and vim editors in Linux.

A78. Difference between vi and vim editors in Linux:

Vi and Vim are both text editors in Linux, but Vim is an enhanced version of Vi.

Vim (Vi Improved) includes additional features and enhancements compared to Vi.

Vim supports syntax highlighting, multiple buffers, split windows, and other advanced editing features that Vi lacks.

Vi is typically available on most Unix-like systems, while Vim may need to be installed separately.

Q79. What is the purpose of the systemctl command in Linux?

A79. Purpose of the systemctl command in Linux:

The systemctl command is used to control and manage the systemd system and service manager in Linux. It allows you to start, stop, restart, enable, disable, and manage various system services. Systemd is the default init system in many modern Linux distributions, and systemctl provides a command-line interface to interact with it.

Q80. How do you create a new user in Linux?

A80. Creating a new user in Linux:

To create a new user in Linux, you can use the useradd command followed by the username. For example, useradd john.By default, the useradd command creates a new user with minimal settings and assigns them a home directory.

You can set additional options such as specifying the home directory, setting the user's shell, or assigning them to a specific user group.

After creating the user, you may need to set a password using the passwd command to enable login for that user.

Q81. Explain the significance of the /etc/passwd file in Linux

A81. Significance of the /etc/passwd file in Linux:

The /etc/passwd file is a system file in Linux that stores essential user account information.

It contains a list of all user accounts on the system, along with their associated user IDs (UIDs), group IDs (GIDs), home directories, and login shells.

Historically, the /etc/passwd file stored user passwords encrypted, but modern systems store password hashes in a separate file for security reasons.

The /etc/passwd file is used by the system during the login process to validate user credentials and determine user-specific configurations.

Q82. How do you find and replace text in a file using the sed command in Linux?

A82. Finding and replacing text in a file using the sed command in Linux:

The sed command (stream editor) in Linux can be used to find and replace text in a file.

The basic syntax for the sed command is sed 's/pattern/replacement/g' filename, where pattern is the text to search for and replacement is the text to replace it with.

The s indicates the substitution command, and the g at the end stands for global, which replaces all occurrences of the pattern in each line.

For example, to replace all occurrences of "old" with "new" in a file named file.txt, you can use the command: sed 's/old/new/g' file.txt.

Q83.What is the purpose of the crontab file in Linux?

A83. Purpose of the crontab file in Linux:

The crontab (cron table) file is a configuration file used by the cron daemon in Linux.

It allows users to schedule and automate recurring tasks or commands at specific times or intervals.

Each user can have their own crontab file, which contains entries specifying the commands or scripts to be executed and the schedule for their execution.

The cron daemon reads the crontab files and executes the scheduled tasks accordingly.

Q84: What is the purpose of the iptables command in Linux?

A84. The iptables command is used to manage the netfilter firewall in Linux. It allows you to configure firewall rules to control incoming and outgoing network traffic.

Q85: How do you create a symbolic link in Linux?

A85: To create a symbolic link, you can use the ln command with the -s option. For example, ln -s /path/to/source /path/to/link creates a symbolic link named link pointing to the source file or directory.

Q86: Explain the difference between hard links and symbolic links in Linux.

A86: Hard links are directory entries pointing to the same physical location on disk as the original file, while symbolic links are files that point to another file or directory by name. Hard links cannot cross file systems, while symbolic links can.

Q87: What is the purpose of the rsync command in Linux?

A87: The rsync command is used for efficient file synchronization and data transfer between different locations. It can be used to synchronize files locally or remotely over a network, preserving permissions, timestamps, and other attributes.

Q88How do you find and kill a process using the kill command in Linux?

A88: To find and kill a process, you can use the pgrep command to find the process ID (PID), and then use the kill command followed by the PID to terminate the process. For example, kill PID terminates the process with the specified PID.

Q89: What is the purpose of the strace command in Linux?

A89: The strace command is used to trace system calls and signals made by a process. It allows you to analyze and debug the behavior of a program, track file and network activity, and identify performance issues.

Q90: How do you configure a static IP address in Linux?

A90: To configure a static IP address, you need to modify the network configuration file for your distribution. For example, in Ubuntu, you can edit the /etc/netplan/\*.yaml file and specify the IP address, subnet mask, gateway, and DNS servers.

Q91: What is the purpose of the screen command in Linux?

A91: The screen command is used to create and manage multiple terminal sessions within a single SSH session or terminal window. It allows you to detach and reattach to sessions, run processes in the background, and keep them running even after disconnecting.

Q92: Explain the difference between a process and a thread in Linux.

A93: A process is an instance of a program running in memory, while a thread is a lightweight execution unit within a process. Multiple threads can exist within a single process and share the same resources, such as memory and file descriptors.

Q93: How do you check the open ports on a Linux system?

A93: You can use the netstat command with the -tuln options to display the list of open ports and the associated processes. Alternatively, the nmap command can be used to perform port scanning on a remote system.

Q94: What is the purpose of the nohup command in Linux?

A94: The nohup command is used to run a command or script in the background and prevent it from being terminated when the terminal session is closed. It stands for "no hangup" and is often used for long-running tasks or processes.

Q95: How do you create and extract a tarball (.tar) file in Linux?

A95: To create a tarball, you can use the tar command with the -cvf options followed by the desired name of the tar file and the list of files or directories to be included. To extract a tarball, you can use the tar command with the -xvf options followed by the name of the tar file.

Q96: What is the purpose of the sudo command in Linux?

A96: The sudo command allows a user to execute commands with the privileges of another user, typically the superuser (root). It provides a way to perform administrative tasks while maintaining security by controlling access to privileged commands.

Q97: How do you find and remove empty directories in Linux?

A97: You can use the find command with the -type d -empty options to locate empty directories, and then use the -exec option with the rmdir command to remove them. For example, find /path/to/directory -type d -empty -exec rmdir {} \;.

Q98: What is the purpose of the strace command in Linux?

A98: The strace command is used to trace system calls and signals made by a process. It allows you to analyze and debug the behavior of a program, track file and network activity, and identify performance issues.

Q99: How do you find the largest files or directories in Linux?

A99: You can use the du command with the --max-depth option and the sort command to find the largest files or directories. For example, du -h --max-depth=1 /path/to/directory | sort -hr.