Q1. What is the command to change the directory in Linux?

To change the current working directory in Linux, you can use the "cd" command. For example, to change to a directory called "mydirectory", you can type:

cd mydirectory

Q2. How do you list the contents of a directory?

To list the contents of a directory in Linux, you can use the "ls" command. By default, this will display the files and directories in the current working directory. For example:

ls

You can also specify a directory to list the contents of. For example:

ls /home/user/documents

Q3. How do you display the current working directory in Linux?

To display the current working directory in Linux, you can use the "pwd" command. For example:

pwd

This will display the absolute path of the current working directory.

Q4. What is the command to copy a file in Linux?

To copy a file in Linux, you can use the "cp" command. For example, to copy a file called "myfile.txt" from the current directory to a directory called "myfolder", you can type:

cp myfile.txt myfolder/

You can also specify a different name for the copied file by including a new filename at the end of the command. For example:

cp myfile.txt myfolder/newfile.txt

Q5. How do you move a file to a different directory in Linux?

To move a file to a different directory in Linux, you can use the "mv" command. For example, to move a file called "myfile.txt" from the current directory to a directory called "myfolder", you can type:

mv myfile.txt myfolder/

You can also specify a different name for the moved file by including a new filename at the end of the command. For example:

mv myfile.txt myfolder/newfile.txt

Q6. What is the command to remove a file in Linux?

To remove a file in Linux, you can use the "rm" command. For example, to remove a file called "myfile.txt", you can type:

rm myfile.txt

Be careful when using this command, as it will permanently delete the specified file and it cannot be recovered.

Q7. How do you create an empty file in Linux?

To create an empty file in Linux, you can use the "touch" command. For example, to create an empty file called "newfile.txt", you can type:

touch newfile.txt

Q8. How do you create a new directory in Linux?

To create a new directory in Linux, you can use the "mkdir" command. For example, to create a new directory called "myfolder", you can type:

mkdir myfolder

Q9. What is the command to remove a directory in Linux?

To remove a directory in Linux, you can use the "rmdir" command. For example, to remove a directory called "myfolder", you can type:

rmdir myfolder

Note that this command can only be used to remove empty directories. To remove a directory and all its contents, use the "rm -r" command instead.

Q10. How do you display the contents of a file in Linux?

To display the contents of a file in Linux, you can use the "cat" command. For example, to display the contents of a file called "myfile.txt", you can type:

cat myfile.txt

This will display the contents of the file in the terminal. You can also use the "less command to view the contents of a file one page at a time, which can be useful for larger files. For example:

less myfile.txt

This will display the contents of the file one page at a time, and you can use the arrow keys to navigate through the file. To exit the "less" command, press the "q" key.

Q11. How do you set file permissions in Linux using chmod?

In Linux, you can set file permissions using the "chmod" command. The "chmod" command allows you to set permissions for the owner, group, and others on the file.

The syntax for the "chmod" command is as follows:

chmod [options] permissions file

Here are some commonly used options and permission values:

Option	Description
+	Add permission
-	Remove permission
=	Set permission
u	Owner
g	Group
o	Others
r	Read
w	Write
x	Execute

For example, to give the owner of a file read and write permission, you can type:

chmod u+rw myfile.txt

To remove execute permission for the group and others, you can type:

chmod g-o-x myfile.txt

Q12. What is the command to change the ownership of a file or directory in Linux?

In Linux, you can change the ownership of a file or directory using the "chown" command. The "chown" command allows you to change the owner and group of a file.

The syntax for the "chown" command is as follows:

chown [options] owner:group file

Here are some commonly used options:

Option	Description
-R	Recursively change ownership for all files and directories within the specified directory

For example, to change the owner of a file called "myfile.txt" to a user named "user1", you can type:

chown user1 myfile.txt

To change both the owner and group of a directory called "myfolder" and all files and directories within it, you can type:

chown -R user1:group1 myfolder

Q13. How do you display the last 10 lines of a file in Linux?

In Linux, you can display the last 10 lines of a file using the "tail" command. For example, to display the last 10 lines of a file called "myfile.txt", you can type:

tail myfile.txt

You can also specify the number of lines to display by including a number after the command. For example, to display the last 5 lines of the file, you can type:

tail -n 5 myfile.txt

Q14. What is the command to find a specific file in a directory and its subdirectories in Linux?

In Linux, you can find a specific file in a directory and its subdirectories using the "find" command. The "find" command allows you to search for files based on various criteria, such as filename, size, and modification time.

The syntax for the "find" command is as follows:

find [path] [options] [expression]

Here are some commonly used options and expressions:

Option	Description
-name	Search for files with a specific name
-type	Search for files of a specific type (e.g. file, directory)
-size	Search for files of a specific size
-mtime	Search for files modified within a specific time period

For example, to find all files with the name "myfile.txt" in the current directory and its subdirectories, you can type:

find . -name "myfile.txt"

To find all files modified within the last 24 hours in the /home/user/documents directory and its subdirectories, you can type:

find /home/user/documents -type f -mtime -1

This will display a list of all files that have been modified within the last 24 hours.

Q15. How do you terminate a running process in Linux?

In Linux, you can terminate a running process using the "kill" command. The "kill" command sends a signal to a process, asking it to terminate.

The syntax for the "kill" command is as follows:

kill [options] process_id

Here are some commonly used options:

Option	Description
-9	Send a "kill" signal to a process, which cannot be ignored

To terminate a process, you will first need to find its process ID (PID). You can do this using the "ps" command. For example, to find the PID of a process called "myprocess", you can type:

ps aux | grep myprocess

This will display a list of processes matching the search term "myprocess". The second column in the output will show the PID of the process.

Once you have the PID of the process, you can use the "kill" command to terminate it. For example, to terminate a process with PID 1234, you can type:

kill 1234

If the process does not respond to a normal "kill" signal, you can use the "-9" option to force it to terminate:

kill -9 1234

It is important to note that terminating a process with the "kill" command can have unintended consequences, such as data loss or corruption. It is recommended to only terminate a process as a last resort, and to try other methods (such as sending a signal to the process to gracefully exit) before resorting to the "kill" command. Additionally, some processes may require special permissions to terminate, such as root-level access.

Get Pass Pro**New**

All-in-One Pass For All Your Exams

Also Includes

- All Test Series
- Prev. Year Paper
- Practice
- Pro Live Tests
- Unlimited Test Re-Attempts

Linux Commands Interview Questions for Experienced

Q16. How do you create a symbolic link in Linux?

In Linux, you can create a symbolic link (also known as a soft link or symlink) using the "ln" command. A symbolic link is a file that points to another file or directory.

The syntax for the "ln" command to create a symbolic link is as follows:

ln -s target_file link_name

Here, "target_file" is the file or directory that the symlink will point to, and "link_name" is the name of the symlink.

For example, to create a symbolic link called "mylink" that points to a file called "myfile.txt", you can type:

ln -s myfile.txt mylink

Q17. What is the difference between a hard link and a symbolic link?

In Linux, there are two types of links: hard links and symbolic links.

Here are the main differences between hard links and symbolic links:

Hard Link	Symbolic Link
Points to the same inode as the original file	Points to the filename of the original file
Only works for files on the same filesystem	Can point to files on different filesystems
Cannot be created for directories	Can be created for directories

Q18. How do you use the grep command to search for a specific pattern in a file?

In Linux, you can use the "grep" command to search for a specific pattern in a file. The "grep" command searches for lines in a file that match a specified pattern.

The syntax for the "grep" command is as follows:

grep [options] pattern file

Here are some commonly used options:

Option	Description
-i	Ignore case
-n	Show line numbers
-v	Invert the match (show lines that do not match the pattern)
-r	Recursively search all files in a directory and its subdirectories

For example, to search for all lines in a file called "myfile.txt" that contain the word "hello", you can type:

grep hello myfile.txt

To search for lines that do not contain the word "hello", you can use the "-v" option:

grep -v hello myfile.txt

Q19. What is the purpose of the "find" command in Linux?

In Linux, the "find" command is used to search for files and directories based on various criteria, such as filename, size, and modification time. The "find" command is a powerful tool that can be used to perform complex searches on a file system.

Here is an example of how to use the "find" command to search for all files in the current directory and its subdirectories that have the extension ".txt":

find . -name "*.txt"

In this example, the "." specifies the current directory, and the "-name" option specifies the search pattern. The asterisk (*) is a wildcard character that matches any string of characters.

Q20. How do you use the "tar" command to compress and extract files in Linux?

In Linux, you can use the "tar" command to create and extract tar archives, which are used to compress and package files and directories.

Here are some commonly used options for the "tar" command:

Option	Description
-c	Create a new archive
-x	Extract files from an archive
-v	Verbose output

To create a tar archive of a file or directory, you can use the following command:

tar -cvf archive.tar file_or_directory

Here, "archive.tar" is the name of the tar archive that will be created, and "file_or_directory" is the name of the file or directory that will be included in the archive.

To extract files from a tar archive, you can use the following command:

tar -xvf archive.tar

Here, "archive.tar" is the name of the tar archive that will be extracted.

You can also compress a tar archive using one of several compression algorithms, such as gzip or bzip2. To create a compressed tar archive, you can use a command like this:

tar -cvzf archive.tar.gz file_or_directory

In this example, the "-z" option is used to compress the archive using the gzip algorithm. To extract files from a compressed tar archive, you can use a command like this:

tar -xvzf archive.tar.gz

In this example, the "-z" option is used to decompress the archive using the gzip algorithm.

Linux Networking Commands Interview Questions

Q21. What is the command to display the network configuration in Linux?

In Linux, you can use the "ifconfig" command to display the network configuration of your system. The "ifconfig" command displays information about network interfaces, such as IP addresses, MAC addresses, and network packets.

To display the network configuration, open a terminal window and type the following command:

ifconfig

This will display information about all active network interfaces on your system.

Q22. How do you configure a static IP address in Linux?

In Linux, you can configure a static IP address by editing the network configuration file for your system. The network configuration file is located in the "/etc/network/interfaces" directory.

To configure a static IP address, open the network configuration file in a text editor and add the following lines:

auto eth0 iface eth0 inet static address 192.168.1.100 netmask 255.255.255.0 gateway 192.168.1.1

In this example, "eth0" is the name of the network interface, and "192.168.1.100" is the IP address you want to assign to the interface.

Q23. What is the command to check the network connectivity in Linux?

In Linux, you can use the "ping" command to check the network connectivity between your system and another host. The "ping" command sends a packet of data to the target host and waits for a response.

To use the "ping" command, open a terminal window and type the following command:

ping target_host

Here, "target_host" is the hostname or IP address of the target host.

If the "ping" command is successful, you will see a series of messages indicating that packets were sent and received.

Q24. How do you display the routing table in Linux?

In Linux, you can use the "route" command to display the routing table for your system. The routing table contains information about how network packets are routed through your system.

To display the routing table, open a terminal window and type the following command:

route

This will display the routing table for your system, including information about the network interface, the destination network, the gateway address, and the metric.

Q25. What is the command to check the open ports in Linux?

In Linux, you can use the "netstat" command to check which ports are open and listening on your system. The "netstat" command displays information about network connections, including open ports and listening services.

To display a list of open ports, open a terminal window and type the following command:

netstat -tuln

Here, the "-tuln" options specify that we want to see TCP and UDP ports that are both listening and not listening, and that we want to see the numeric port numbers and addresses rather than the symbolic names.

This will display a list of open ports on your system, including the protocol, local address, and state.

Linux Commands for DevOps Interview Questions

Q26. How do you monitor the performance of a Linux system?

In Linux, you can use various tools to monitor the performance of your system, such as:

- top: displays real-time information about system processes and resource usage.

- htop: an improved version of top with a more user-friendly interface.
- vmstat: displays information about system memory, CPU usage, and disk activity.
- iostat: displays information about system I/O activity.
- sar: collects and reports system activity information.

These tools can help you identify system bottlenecks and optimize performance.

Q27. What is the purpose of the "crontab" command in Linux?

In Linux, the "crontab" command is used to schedule and automate tasks on a regular basis. The "crontab" command is used to create, edit, and delete cron jobs.

A cron job is a scheduled task that runs at a specified time or interval. You can use cron jobs to automate tasks such as backups, system updates, and data processing.

To create a cron job, you need to edit the crontab file for your user or system. You can do this by running the following command:

crontab -e

This will open the crontab file in a text editor, where you can add your cron job entry.

Q28. How do you use the "sed" command to edit a file in Linux?

In Linux, the "sed" command is used to edit and manipulate text files. The "sed" command can be used to search for patterns in a file and replace them with new text.

To use the "sed" command, you need to specify the pattern to search for and the replacement text. The basic syntax of the "sed" command is:

sed 's/pattern/replacement/g' filename

Here, "pattern" is the text to search for, "replacement" is the text to replace it with, and "filename" is the name of the file to edit.

For example, to replace all occurrences of the word "hello" with "world" in a file called "example.txt", you can use the following command:

sed 's/hello/world/g' example.txt

Q29. What is the difference between the "curl" and "wget" commands in Linux?

In Linux, the "curl" and "wget" commands are used to download files from the internet, but they have different features and capabilities.

- curl: supports more protocols, such as FTP, SCP, SFTP, SMTP, and more. Can be used to upload files as well as download them. Can be used to transfer data using various protocols, not just downloading files.
- wget: can download entire websites or recursively download files. Can be used to continue interrupted downloads, and supports features such as resuming downloads and bandwidth throttling.

In general, "curl" is more versatile and can be used for a wider range of tasks, while "wget" is more specialized for downloading files and websites.

Q30. How do you use the "git" command to manage source code in Linux?

In Linux, the "git" command is used to manage source code and version control. Git is a popular version control system used for software development projects.

To use the "git" command, you need to initialize a new Git repository in your project directory using the following command:

git init

This will create a new Git repository in your current directory.

You can then use the "git add" command to add files to the staging area, and the "git commit" command to commit changes to the repository.

Other useful Git commands include "git status" to check the status of your repository, "git log" to view the commit history, and "git branch" to manage branches in your project.

To connect to a remote Git repository, you can use the "git remote" command to add a remote URL, and then use the "git push" command to push your changes to the remote repository.

Some common Git commands used in Linux include:

- git init: initialize a new Git repository
- git add: add files to the staging area
- git commit: commit changes to the repository
- git status: check the status of your repository
- git log: view the commit history
- git branch: manage branches in your project
- git remote: manage remote repositories
- git push: push changes to a remote repository
- git pull: pull changes from a remote repository.

AWK Command in Linux Interview Questions

Q31. What is the purpose of the "awk" command in Linux?

The "awk" command is a powerful text-processing tool in Linux that allows you to search, manipulate, and format text files. It can be used to perform complex data processing tasks that would be difficult to accomplish using other Linux commands.

Q32. How do you use the "awk" command to search for a specific pattern in a file?

You can use the "awk" command to search for a specific pattern in a file by specifying the pattern as a regular expression, and then using the "awk" command to scan the file for lines that match the pattern.

The syntax for using "awk" to search for a specific pattern is as follows:

awk '/pattern/' filename

For example, to search for all lines in the file "sample.txt" that contain the word "Linux", you can use the following command:

awk '/Linux/' sample.txt

Q33. What are the basic components of an "awk" script?

The basic components of an "awk" script include the following:

- Pattern: A regular expression that defines the search criteria for the script.
- Action: A set of commands that are executed when a line in the input file matches the pattern.
- Input file: The file that is processed by the script.

The syntax for an "awk" script is as follows:

awk 'pattern { action }' input_file

Q34. How do you use the "awk" command to perform arithmetic operations on columns in a file?

You can use the "awk" command to perform arithmetic operations on columns in a file by specifying the columns as variables, and then using the variables in arithmetic expressions.

For example, to add the second and third columns in a file called "data.txt", you can use the following command:

awk '{ sum = $2 + $3; print sum }' data.txt

Q35. How do you use the "awk" command to format the output of a file?

You can use the "awk" command to format the output of a file by using the "printf" command to specify the format of the output.

The syntax for using "printf" in "awk" is as follows:

printf(format, expression1, expression2, ...)

For example, to format the output of a file called "data.txt" to include two decimal places for the second column, you can use the following command:

awk '{ printf("%s %0.2f %s\n", $1, $2, $3) }' data.txt

This will print the first, second, and third columns of the file, with the second column formatted to two decimal places.