Linux interview questions

Difference between grep and egrep

**grep**

* It uses Basic Regular Expression which means if you use grep 'a|b' it will not not use this "|" as OR operator without using this "\" prefix.
* It searches for PATTERN in each FILE.

**egrep**

* It uses Extended Regular Expression and in this you can use commands like this egrep 'a|b'
* It treats meta-character as it is and does not substitute them as strings like grep.

So, for example, you want to list files in a directory and see only those which contain "mp4" or "avi" as filename extensions. With egrep you will do:

ls | egrep "mp4|avi"

In this example | acts like an OR command. It will grab to output from ls all names which contain either "mp4" or "avi" strings. If you run it with a plain grep command you will get nothing, because grep doesn't know such thing as | command. Instead, grep will search for "mp4|avi" as a whole text string (with pipe symbol). E.g. if you have a file named |mp4|avi|cool-guy.q2.stats in your dir, you will get it with plain grep searching with pipes.

So, that is why you should escape | in your egrep command to achieve the same effect as in grep. Escaping will screen off the special meaning of | command for grep binary.

Uniq cmd filters out duplicate lines from a file and also deltes the duplicate lines

**uniq** filters out the adjacent matching lines from the input file(that is required as an argument) and writes the filtered data to the output file.

Sed cmd can be used for substitution and replace

By using SED you can edit files even without opening them, which is much quicker way to find and replace something in file, than first opening that file in VI Editor and then changing it.

By using SED you can edit files even without opening them, which is much quicker way to find and replace something in file, than first opening that file in VI Editor and then changing it.

By default, the sed command replaces the first occurrence of the pattern in each line and it won’t replace the second, third…occurrence in the line.

Use the /1, /2 etc flags to replace the first, second occurrence of a pattern in a line.

**$sed 's/unix/linux/2' geekfile.txt**

The substitute flag /g (global replacement) specifies the sed command to replace all the occurrences of the string in the line.

**$sed 's/unix/linux/g' geekfile.txt**

**$sed '3 s/unix/linux/' geekfile.txt**

The above sed command replaces the string only on the third line.

The /p print flag prints the replaced line twice on the terminal. If a line does not have the search pattern and is not replaced, then the /p prints that line only once.

**$sed 's/unix/linux/p' geekfile.txt**

Display all recently modified or recently used files.

**$ ls -t**

**diff Command**

Its primary purpose is to compare the contents of two files and display the differences between them. The command provides a comprehensive way to highlight changes, additions, and deletions in a clear and readable format. This command is used to display the differences in the files by comparing the files line by line.

By default, `**diff`** is case-sensitive. To perform a case-insensitive comparison, use the `**-i`** option:

**curl`** is a command-line tool and library for transferring data with URLs.

It supports a wide range of protocols, making it an invaluable tool for fetching, uploading, and managing data over the Internet.

Three different methods of adding a user

Useradd – Create a new user or update default new user info

Adduser – Create new user with all default parameters

Newusers – update and create new users in batch

/bin – is used to store executables

Use "sudo hostnamectl set-hostname <newhostname>" to change the hostname on Linux.

The swap space is located on disk, in the form of a partition or a file. Linux uses it to extend the memory available to processes, storing infrequently used pages there.

a zombie process or defunct process is a process that has completed execution but still has an entry in the process table: it is a process in the "terminated state

Daemons are special processes that are started when the system is started and stopped when the system is shut down. They run in the background and are detached from a controlling terminal. Some of the daemons in the system run in kernel mode, while others run in user mode. Each daemon process performs a specific job.