

# UNIX / LINUX INTERVIEW QUESTIONS

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## Advertisements

Dear readers, these **Unix Interview Questions** have been designed specially to get you acquainted with the nature of questions you may encounter during your interview for the subject of **Unix**. As per my experience good interviewers hardly plan to ask any particular question during your interview, normally questions start with some basic concept of the subject and later they continue based on further discussion and what you answer –

What is shell?

Shell is an interpreter. It interprets the commands and submits for execution.

Name the commonly used shells on different UNIX/Linux variants.

Bsh, csh, ksh and bash.

What is soft link/symbolic link and which command can be used to create one?

It is a short cut to the file or directory. ln is the command used for the same.

What is Sun micro systems UNIX called as?

Solaris.

What is the role of kernel?

It interacts with hardware and most of the tasks like memory management, task scheduling and file management.

Which program is responsible to bring the login prompt?

Login program.

What is the name of the command to change the password?

passwd.

What is the second column designates in the long listing of ls command's output?

Link count.

What are the various ways that you can disconnect/logout with the UNIX server from your console terminal?

Command – logout / ctrl+d / command – exit

Name a command which can be used to shut down the system?

shutdown.

Is UNIX/Linux case sensitive from the console terminal end.

Yes.

Name a command which can be used to restart the machine?

reboot.

Is UNIX open source?

No, Linux is open source.

Name 5 variants of linux?

Redhat, Cent OS, Debian, Ubuntu and Fedora.

With the `ls -l` listing from first column output which  $n^{\text{th}}$  character (out of 10) represents file type?

First.

What is a hidden file?

A file/directory name beginning with. (dot) is considered as hidden one.

Who designed the UNIX operating system?

Ken Thompson

Which programming language is used in the design of UNIX OS.

C

At which company UNIX is designed first.

AT & T Bell labs.

What does the second column signifies in the output generated by 'who' command?

The terminal associated with the respective login.

Which command can give the manual of a command?

man

Which command can be used to know about the directory path of a command?

which

What are the meta-characters which represent to match all and single chracters respectively?

\* And ?

What is the file descriptor which represents the STDIN.

0

What is difference between absolute and relative path?

A pathname is absolute if it is described in relation to root, so absolute pathnames always begin with a /. A pathname if it is relative to your current working directory is called as relative path. Relative pathnames never begin with /

What is the meaning of execute permission on a directory?

Having an execute permission on a directory means to have traverse permission.

Name the environment variable which can be used to change the primary shell prompt.

PS1

Which command can be used to print a document on the line printer typically?

lp/lpr

What is a process?

A running instance of a program is called as a process.

How to open a file in read only mode using vi editor?

vi – R

Which alphabet keys can move the cursor equivalent to arrow keys?

k, j, h and l

What is yanking w.r.t vi editor?

Yanking is the process of holding the cut or copied text into the buffer which can be pasted.

How can you display line numbers in vi editor?

:set nu

What is a shebang line?

A first line in the shell script which tells which shell needs to be used to execute the following commands in the shell script.

Which command can be used to alter the file access permissions?

chmod

How can we retrieve the value of the shell variable?

By prefixing the dollar (\$) symbol for the shell variable.

Which command can be used to delete a shell variable?

unset.

Which shell variable holds the shell script file name?

\$0

What is the value returned by a command after its successful execution?

0

How can we get the execution status of the last executed command?

\$?

Which command can be used to perform arithmetical computations?

expr

Which switch can be used in test expression to determine a file as a regular file?

-f

How can we capture a command's displayable output in a shell variable?

Enclose the command in back quotes and assign it to a variable.

What is a here document?

A here document is used to redirect input into an interactive shell script or program.

Which command can be used to throw/return a value from the function?

return

Is it compulsory to have the extension 'sh' for a shell script?

No, it is a convention.

How can we execute a shell script if execute bit is off for a shell script?

sh <file>

What is the full form of grep?

Globally search for regular expression.

Which filter can be used to extract a/specific/range of character from the lines of text?

cut

Command 'cat' basically does \_\_\_\_

Concatenation of files text.

What is a process id?

OS assigns an unique process identification number for the currently executing processes is called as process-id (PID).

Which is the command used to create a new user on the system?

useradd

Command 'telnet' is used for \_\_\_\_

To connect to remote UNIX/Linux machine.

Which command can be used to stop the current executing process in the background?

kill

What is the basic purpose of 'find' command?

To search for a file/files.

Which filter can be used to display first 10 lines of a file?

head.

What is the first operating system designed using a high level programming language?

UNIX

Explain the use of SUID permission bit on a file.

It give the process to have the privileges of the owner of the file during the instance of the program.

What is a zombie process?

The process is dead but have not been removed from the process table.

Are arrays supported in shell scripts?

Yes

What is the role of boot block?

It contains a program called MBR (Master boot record) which load the kernel as the part of the system booting.

Which command can be used to create alternate name for an existing command?

alias

How can you suppress trailing new line for echo command?

echo -e "text". Option -e places the cursor on the same line

Distinguish between cmp and diff commands?

'diff' shows all the differences from two file whereas 'cmp' shows the only the first occurring difference. The said is applicable only if differences between the files do exist.

How can we redirect the output of one command to the another command?

Place the commands connected with pipes (|).

What is the effect of 'cd ..' if your current working directory is root (/) ?

Still the current working directory would be /

What is a mount point?

It the directory through which data I/O happen on to/from a device.

Which is the environment variable which holds your home directory information?

HOME.

How can you list hidden files too with ls command?

ls -a

Which command you can use to find the remaining disk free space?

df

What is the purpose of 'at' command?

To execute a command/commands at a specific time.

If you are not logged in and the scheduled command produces a displayable output, how would you see it?

Will receive the mail of the same.

What is LILO w.r.t linux?

LILO means linux loader, which loads the kernel into memory and starts the OS.

What is the recommended size of swap space for a typical OS installation?

Double the RAM size.

How can you list all the directories using ls command?

ls -llgrep "^d"

Which command can be used to display basic information about your server?

uname

How can you count for a particular pattern occurrences in a file?

grep -c "pattern" <file>

Explain the purpose of nohup command.

To keep the command running even after the user who issues the command has logged out.

How are devices represented in UNIX/Linux?

For UNIX/Linux every device is a file and are typically located in the directory /dev.

What is inode?

A file is given a unique number by OS and is called as inode.

Which command can be used to execute a command/s repeatedly for the given schedule?

Crontab

Which command can be used to change file access permission bits?

chmod

Which command can be used to rename a file/directory?

mv

What are the respective octal value for the permission bits r, w & x?

4, 2 & 1 respectively for r, w & x.

Which operator can be used to throw a process into background?

Ampersand (&)

How can we list out all currently executing background processes?

ps -e

Which command can be used to know the terminal type?

tty

What is an internal command?

Shell built in commands are called as internal commands.

Which command can be used by the administrator to bring the system into single user mode?

init s

Which command can be used to write onto other currently logged in user's console output terminal.

write

What is UMASK?

UMASK is a Unix environment variable, which automatically sets file permissions created files.

What is the default value of UMASK?

022

Expand UFS in context of file system?

UNIX File system.

Expand JFS in context of file system?

Journal File System

Who designed linux OS?

Linus Torvalds

How can you display n<sup>th</sup> line of a file?

head -<n> file.txt | tail -1

Name three looping constructs provided by shell.

while, until & for.

In which directory by default user home directories are created?

/home

What is the default working directory of administrator?

/root

What is the login name of the administrator?

root

### **What is Next ?**

Further you can go through your past assignments you have done with the subject and make sure you are able to speak confidently on them. If you are fresher then interviewer does not expect you will answer very complex questions, rather you have to make your basics concepts very strong.

Second it really doesn't matter much if you could not answer few questions but it matters that whatever you answered, you must have answered with confidence. So just feel confident during your interview. We at tutorialspoint wish you best luck to have a good interviewer and all the very best for your future endeavor. Cheers :-)