Linux Administration - I   Sample Interview Questions & Answers

1) Which port is used for ssh?

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2) what is df command?

Disk free(df) command report filesystem disk space usage

3) Write command to create a group named sysadmin

groupadd sysadmin

4) write command add user sara to group sysadmin

usermod sara -G sysadmin

5) write command to remove user sara from group sysadmin

gpasswd -d sara sysadmin

6) Write command to give read write execute permission to group sysadmin on a folder.

setfacl -m g:sysadmin:rwx <folder name>

7) what is suid sgid and sticky?

suid sgid and sticky bit are special permission for executable files and directories.

SUID-If SUID bit is set on a file and a user executed it. The process will have the same rights as the owner of the file being executed.

SGID-Same as SUID, The process will have the same group rights of the file being executed. If a SGID bit is set on any directory, all subdirectories and files created inside will get the same group ownership as the main directory, it doesn't matter who is creating.

Sticky Bit-The sticky bit is used to indicate special permissions for files and directories. If a directory with sticky bit enabled will restrict deletion of the file

inside it. It can be removed by the root, owner of the file or who has to write permission on it. This is useful for publically accessible directories like /tmp.

8) What is the kernel and its functions?

A) The kernel is a computer program that is the core of a computer's operating system, with complete control over everything in the system.

Functions

- Resource allocation
- Memory management
- Process Management
- I/O device management
- Security or protection management

9) What is the difference between soft link and hard link

Hard link

Hard Links have the same inodes number.

 ls -l command shows all the links with the link column showing the number of links.

 Links have actual file contents

Removing any link, just reduces the link count but doesn't affect the other links.

You cannot create a Hard Link for a directory.

Even if the original file is removed, the link will still show you the contents of the file.

Soft link

Soft Links have different inodes numbers.

ls -l command shows all links with second column value 1 and the link points to the original file.

Soft Link contains the path for the original file and not the contents.

Removing the soft link doesn't affect anything but when the original file is removed, the link becomes a 'dangling' link that points to nonexistent file.

A Soft Link can link to a directory.

10) What is the use of du command?

Estimate file space usage

11) Write any 10 commands and explain

- mkdir-create directory
- touch-create file
- cp-copy file or directory
- mv-move file or directory
- tail-display last 10 lines of a file
- head-display first 10 lines of a file
- cat-display the contents of a file
- cal-shows calendar
- date-shows the system date and time
- passwd-change user passwords

12) Write the shortcut used in vim editor to cut a single line

cc

13) Write shortcut used in vim editor to go to last line of a file

Shift+g

14) Which are the files modified while creating a user?

/etc/passwd,/etc/shadow are modified and /home/user/* is created

15) Write command to find all the files opened by a user

lsof -u <username>

16) A user complains to you that he is unable to set '123' as his password .What is the reason?

It is a bad password.The password should contain at least 8 character.Password should not be a simple and dictionary word.

17) What is the use of log?

Monitoring and troubleshooting

18) Which command is used to verify the current active shell?

tty

19) What is virtualisation?

In computing, virtualization refers to the act of creating a virtual (rather than actual) version of something, including virtual computer hardware platforms, storage devices, and computer network resources.

20) What is the difference between /sbin directory and /bin directory

/bin stores the commands executable by all users but /sbin stores command which is executable by admin user only

21) Which directory is used to mount devices?

/media,/mnt

22) Write the important files in /etc

/etc/passwd, /etc/shadow,/etc/hosts,/etc/fstab etc..

23) What is the difference between /etc/passwd file and /etc/shadow file?

/etc/passwd saves user information like username,uid,gid,home directory etc. /etc/shadow save users authentication information.

24) Write the different classes in ipv4

- class A(0 to 126)

- class B(128-191)
- class C(192-223)
- class D(224-239)
- class E(240-255)

25) 127.0.0.0 belongs to which class and why?

It does not belong to any class. It is called loopback network and used for testing

26) Write command to create soft link

ln -s <file name> <softlink name>

27) What is inode?

An inode is a data structure on a filesystem on Linux and other Unix-like operating systems that stores all the information about a file except its name and its actual data

28) How to view the process id of a process?

pidof <process name>

29) What are the differences between ctrl-c and ctrl-z(process)?

ctrl-c : terminate process

ctrl-z : suspend process