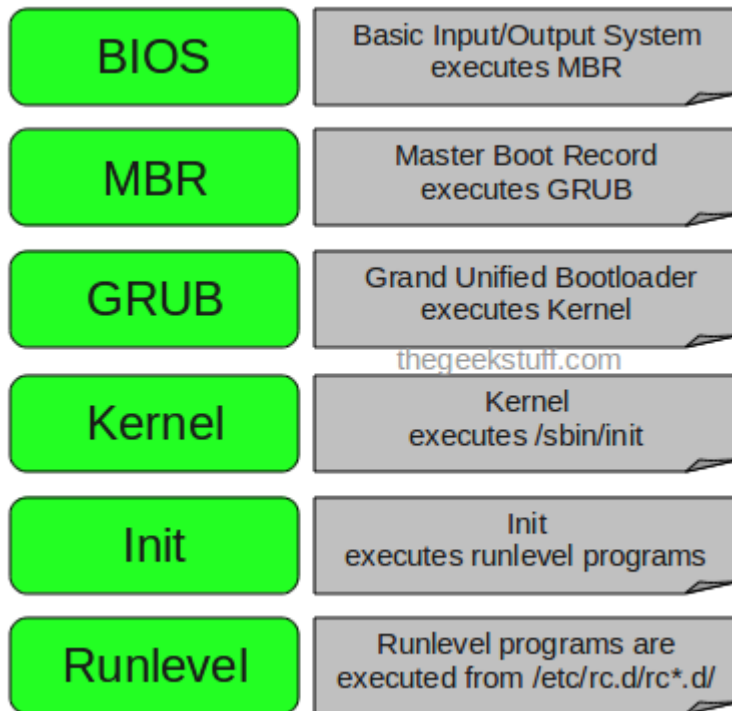


Linux interview questions and answers

1. What is the boot process in Linux?

The following are the 6 high level stages of a typical Linux boot process.



2. How to create zero size file Linux?

To create an empty file from command line in Linux:

#touch <filename>

Verify that file using

#ls -l

3. What is soft link and hard link? How to create? What is the difference between these two?

symbolic or soft link is an actual link to the original file like shortcut, If you delete the original file, the soft link has no value it points to a non-existent file. Where softlink have different inode value

#ln -s source.file softlink.file

hard link is a mirror copy of the original file it have same inode value and same file permission

#ln source.file hardlink.file

4. What is first line written in shell script? What is the meaning of that? If I didn't write that line what will happen? Then how to run the script?

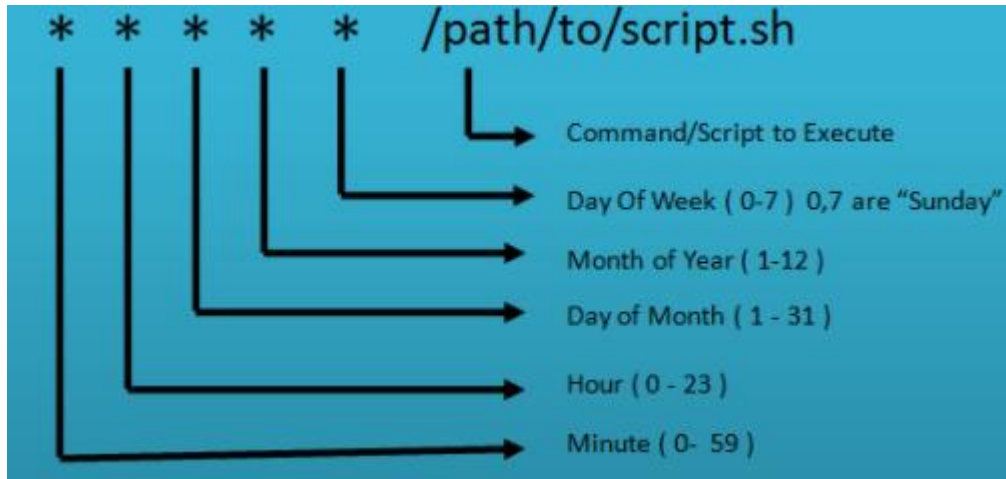
5. How to run a shell script in background?

6. What is cron tab? Explain it? How to configure the schedule a job?

Cronjobs help OS to take a scheduled backup of log files

#crontab -e helps to edit or set a cron job and it is located in /etc folder

Format to run a particular script in a crontab



7. How to allow the ports in Linux?

1)Check the port status using

netstat -na | grep 55555

lsof -i -P |grep http

httpd 5823 root 4u IPv6 42212 0t0 TCP *:80 (LISTEN)

2)Check Port Status in iptables

iptables-save | grep 55555

3)Add the port

vi /etc/services

testport 55555/tcp # Application Name

4)Open firewall ports

firewall-cmd --zone=public --add-port=55555/tcp --permanent

Success

firewall-cmd --reload

Success

iptables-save | grep 55555

-A IN_public_allow -p tcp -m tcp --dport 55555 -m conntrack --ctstate NEW -j ACCEPT

5) Check newly added port status

lsof -i -P | grep http

```
httpd  6595  root   4u  IPv6  43709    0t0  TCP *:80 (LISTEN)
httpd  6595  root   6u  IPv6  43713    0t0  TCP *:55555 (LISTEN)
```

netstat -na | grep 55555

```
tcp6    0      0 :::55555          :::*               LISTEN
```

8. How to trouble shoot the remote server having some issue?

9. What is ping? Telnet? Curl? Wget?

PING allows you to know whether a machine is accessible via the internet.

Telnet(23) is a network protocol used to virtually access a computer and to provide a two-way, collaborative and text-based communication channel between two machines

curl is used in command lines or scripts to transfer data

Wget is a computer program that retrieves content from internet. It supports downloading via HTTP, HTTPS, and FTP.

10. How to check the services in Linux machine?

To check the status/ start/stop the service

#sudo systemctl status <service name>

#sudo systemctl start <service name>

#sudo systemctl stop <service name>

11. How to kill the process in Linux?

In Linux and Unix when you want to stop a running process you can use the kill command via the command line interface.

#Kill <pid value>

12. What is nice and renice?

nice command in Linux helps in execution of a program/process with modified scheduling priority. It launches a process with a user-defined scheduling priority. ... Whereas the renice command allows you to change and modify the scheduling priority of an already running

13. What is inode value?

An inode is a data structure in UNIX operating systems that contains important information pertaining to files within a file system. When a file system is created in UNIX, a set amount of inodes is created, as well. Usually, about 1 percent of the total file system disk space is allocated to the inode table.

14. How to check the CPU utilization?

The top command provides dynamic view of CPU utilization. It displays system information as well as list of tasks currently managed by kernel. It also displays uptime, average load, physical and swap memory utilization.

\$ top

15. Difference between Top/HTop ?

top is the default command-line utility pre installed, Displays processes but not in tree format, Basic text only

htop is not a default one Manual installation is needed,

Yes, including user and kernel threads, Colorful and nicer text-graphics interface

16. What is mount? How to create mount?

*File systems on different partitions and removable devices, such as CDs, DVDs, or USB flash drives, must be attached to the directory hierarchy to be accessed. To attach a partition or device, a mount point must be created. The **/etc/fstab** file is called the file system mount table*

mkdir /test

mount /dev/xvdf1 /test

17. How to trouble shoot live logs?

18. What is sed command?

With SED, we can edit complete files without actually having to open it. It is mainly used for text substitution , find & replace but it can also perform other text manipulations like insertion, deletion, search etc.

19. What is AWK command

Awk is mostly used for pattern scanning and processing. It searches one or more files to see if they contain lines that matches with the specified patterns and then performs the associated actions

20. What is grep and egrep?

grep is a command-line utility for searching plain-text data sets for lines that match a regular expression. egrep we can search using extended regular expression

21. How to list out the only directories in a Linux?

The below command displays only directories inside the particular folder.

#ls -l | grep ^d

22. How to check the process in Linux?

Top command used to check all the system process in linux.

23. How to get the java thread dump?

24. How to check the running ports?

The output displays all listening applications and network connections established from the machine, the local and remote IP address and port in use,

#netstat -nabo

25. How to declare a variable in a shell script?

26. What is \$?, \$#, \$* ?

\$? Stores the exit value of the last command that was executed.

\$# Stores the number of command-line arguments that were passed to the shell program.

\$ is a string containing all arguments.*

27. How to read a command line input in shell script?

28. What is umask?

The user file-creation mode mask (umask) is used to determine the file permission for newly created files. It can be used to control the default file permission for new files.

29. How to change file permission in Linux?

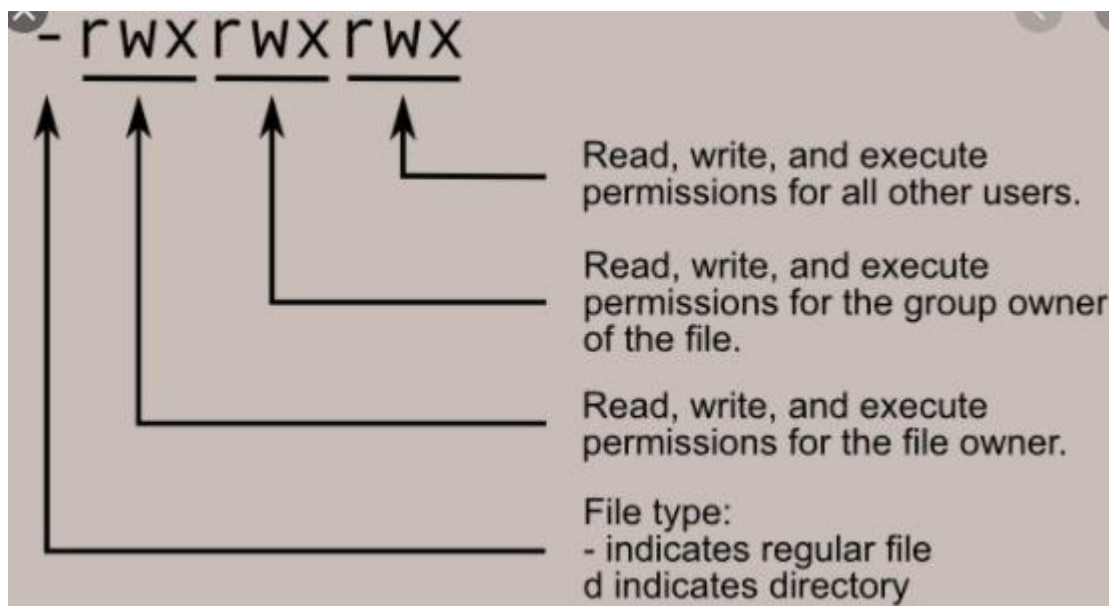
Chmod command used to change the permission of files in linux

#chmod 644 dirname

rwX=4+2+1=7

r-x=4+0+0=4

r-x=4+0+1=5



30. How to connect remote servers without password? How to archive this?

Create public and private keys using ssh-key-gen on local-host

Copy the public key to remote-host using ssh-copy-id

Login to remote-host without entering the password

31. How to open file in read only mode in VI editor?

The -M option forces the 'modifiable' and 'write' options to be unset, so that changes are not allowed and files can not be written.

\$ vim -M my-service.sh

32. What is the purpose of export command?

Export is a built-in command of the Bash shell. It is used to mark variables and functions to be passed to child processes. Basically, a variable will be included in child process environments without affecting other environments.

33. How to send error logs and stdout logs in different files?

34. What is nohup command?

The nohup command executes some other program that is specified as an argument and ignores all SIGHUP (hangup) signals. ... This is where the nohup command can be used, it ignores all hangup signals, and the process will continue to run.

35. What is netstat command in Linux?

The network statistics (netstat) command is a networking tool used for troubleshooting and configuration, that can also serve as a monitoring tool for connections over the network.

36. How to run a script at boot level?

1. Create a file for your startup script and write your script in the file: `$ sudo nano /etc/init.d/superscript`.
2. Save and exit: `Ctrl + X`, `Y`, `Enter`.
3. Make the script executable: `$ sudo chmod 755 /etc/init.d/superscript`.
4. Register script to be run at startup: `$ sudo update-rc.d superscript defaults`.

