1. What is the use of echo command

Echo is a command that outputs the string that are passed to it as argument

echo “Hello World”

1. Explain the difference between relative path and absolute path

Relative path – starts from the current directory

Absolute path - the full path of the directory(starts from the root directory)

1. Which commands can be used to create and edit a file

Vi, nano, touch for creating and vi, nano for editing

1. What is the difference between grep and egrep

In grep you can only search for one string, whereas with egrep you can search multiple strings

Eg egrep “string1|string2|string3”

1. How can you read a file without cat command

Less, more, vi, nano

1. What is the advantage of using less command

We can easily read big files

Forward and backward search is easy

Navigation from top to bottom is easy

1. How to check a file permission

ls -l

getfacl filename

1. How to check ip address of a linux server

Ifconfig or ip addr

1. How to read top 5 lines of a file

head -5 filename

1. How to read last 5 lines of a file

tail -5 filename

1. How to list hidden files

ls -la

1. What is root

Admin or super user is called the root user

There is a root directory with all administrative privileges for the root user

1. What is inode and how to find it for a file

ls -li

inode / index node serves as a unique identifier for a specific piece of meta data on a given file system

1. Which command can be used to find a file ina directory

find or locate command

find /dir\_path -name file\_name

locate filename(but you need to update the database using updated)

1. How to check the no of lines and words in a file

wc filename – this will give lines words characters

wc -l filename – to only check lines

1. How to combine 2 commands using pipe

We can combine 2 commands using | sign

Cmd1 | cmd2

Pipe is used to combine 2 commands and redirect ouput of command 1 to command 2

Eg- cat file | wc -l

1. How to view difference bw 2 files

Using diff command – diff cmd1 cmd2

1. What is the use of shred command

Shred command is used to permanently delete a file which is unable to recover

Cmd is – shred -u filename

shred –remove filename

1. How to check system architecture info

Lscpu

1. How to combine 2 files

cat file1 file2 or cat file1 file2 > file3

1. How can you find the type of a file

file filename

1. How to sort the content of a file

sort filename or cat filename | sort

1. What are the different ways to access a linux server from a windows machine

Using tools like putty, cmd, git bash

1. How to only write error to a file

Command 2> filename

1. How to automate any task or script

Using cron jobs

For which we have crontab and at command

1. How to check scheduled jobs

crontab -l

1. What is the meaning of a cron job

\*\*\*\*\* - day of the week | month | day of the month | hour | minute

1. If your cron job didn’t work how to check

Check systemtime

Crontab entry

Check var/log/messages

1. What is a daemon service

Services that keep running in the background

Eg – httpd, sshd, chronyd

1. How to check if a service is up or not

systemctl status servicename

1. How to start stop a service

systemctl start service

systemctl stop service

1. How to check free disk space

df -h

1. How to check the size of a directory

du -h foldername

1. What is a process in linux

An instance of a running program

Whenever you start a program or an application or execute a command, a process is created

For every process a unique number is assigned which is called PID (Process ID)

1. How to check if a process/ application is running or not

ps -ef | grep process\_name( -e – list every process -f full format listing)

1. How to check if a ip/server is accessible or not –

We can use ping or telnet command

1. Which command to use to get info on ports

netstat -tu

1. How to check open port on linux system

netstat putan | grep portnumber

1. How to check network interfaces in linux

You can use ifconfif or netstat

1. Difference between telnet and ssh

Ssh is secured but telnet is not because it is not encrypted and it does not have authentication

1. Which service should be running on server to allow you to connect remotely

Ssh or sshd

1. What is ssh

Ssh or secure shell is a network communication protocol that enables 2 computers/devices to communicate and share data

1. Why is ssh called secure shell

Because communication between host and client will be in encryted format and there is authentication

1. What is the default port for ssh

22

1. Which command is used to access a linux system from a terminal or another linux system

ssh username@server\_ip

1. What is rhel

Red hat enterprise linux operating system(this is used mostly in corporate sectors, paid version)

1. Give some examples of linux distibutions

Ubuntu, fedora, centos, rhel, kali linux, debian

1. What is kernel

Linux kernel is the main component of a linux os. It acts as a bridge between the hardware the user space

It establishes communication between the 2, managing resources as effectively as possible

1. What is swap space

Swap space in linux is used when the amount of physical memory(RAM) is full. If the system needs more memory resources and the ram is full, inactive pages in ram are moved to swap memory

1. How to replace a word with another word in a file

We can use the sed(stream editor)

Command – sed ‘s/string/replace/g’ filename

Here s stands for substitute and g stands for global meaning change all occurrences of the string not just the first one

1. What is scp and why is it needed

Scp(secure copy) command copies file or directories between a local and a remote machine or bw 2 diff remote machines

Scp uses ssh for data transfer

Cmd – scp /file\_path usrname@ip\_addr:/path\_to\_save\_at

1. What is the use of ftp command

ftp stands for file transfer protocol which is used to exchange files to and from the remote network or computer

1. What is the difference between ftp and scp

Scp is secure, it encrypts data using ssh whereas ftp doesn’t

ftp uses username and password whereas scp uses ssh keys and password

ftp is generally faster but less secure, whereas scp is slower due to encryption but more secure

ftp uses 21 port whereas scp uses 22

cmd for ftp ftp <server> cmd for scp – scp /filepath username@ip:/path\_to\_save

1. What is alias and how to setup

It is used to create a shortcut for a command or task

Cmd – alias name=”entire command”

1. Difference between update and upgrade command

Update – this updates all the presently installed packages to their latest versions that are available in the repositories

Upgrade – performs the same action, but once upgrade is done, all the old packages are removed from the system

1. Name default ports used for DNS, SMTP, FTP, SSH, DHCP and Squid

DNS – 53

SMTP – 25

FTP – 21

SSH – 22

DHCP – 67,68(Client and server)

Squid – 3128

http – 80

https – 443

1. How to check if a package is installed or not

dpkg – l | grep pkg\_name | in rpm -- > rpm -qa | grep pkg\_name

1. What is the command used to send exactly 3 ping packets to google.com

ping -c 3 [www.google.com](http://www.google.com) here c is count

1. Which file contains a list of group names and their GIDs

/etc/group/

1. Which command contains the value of the exit status of the previously executed command

$?

1. Which command displays the number and the type of processors in a linux system

cat /proc/cpuinfo

lscpu

1. Which command should u use to list all the usb devices

lsusb

1. Which env variable is used as default argument for cd when no directory is provided

HOME

1. Will a command following a semi colon be executed no matter what is the exit status of the previous command . Eg – cd /root ; cat /etc/passwd

True

1. What are the valid values of a exit status

0 – 255(0 for successful)

1. According to the file system hierarchy what is the correct directory for log files

var/log

1. What port must be open to ping a given host

Ping does not use port

1. Can you split a file into two

Yes, using split command

Cmd – split -l 2 filename

1. How can you get all the unique values from a list

Using uniq command, but before using uniq we have to sort the file

sort file | uniq

1. What is the TEE command used for?

The TEE command helps in redirecting the o/p of a command to a file as well as on the console

ls -l | tee output.txt

1. What is xargs used for?

If we want to use the o/p of one command as i/p to another command we can use xargs

1. How can you find the total no of files and folders in a directory

ls | wc -l

1. I want to read only lines 25-30 of a 100 lines of a file, how can I do it

head -30 file | tail -5

1. What is the use of tar command

The tar command is used to compress a group of files into an archive. Tar archives combines multiple files and/or directories together into a single file

1. Name some commands for dns(domain name system) resolution

Ping, nslook, dig and host

1. What is the use of at command

At command is used to schedule a task once

1. Which service is used for the at command

Atd(Daemon service )

1. What does chmod 777 filename mean

This is a way for changing the permission using numeric mode. 777 means provide all the permissions read, write and execute to user, grp and others.

1. What is ACL and what is its advantage

Access control list is used to modify the permissions of a file for which we use setfacl and getfacl commands

Advantage : we can provide permission to a specific user

1. What are links in linux and what are its type

Links are a very handy way to create a shortcut to an original directory.

Hard link - A direct copy of a file that shares the same data on disk. Deleting the original file does not affect the hard link.

Cmd - ln file.txt hardlink.txt

Soft link - A shortcut that points to the original file. If the original file is deleted, the symlink breaks.

Cmd - ln -s file.txt symlink.txt

1. What are the different ways to set an env variable

echo ‘export MY\_VAR=”My\_user”’ >> ~/.bashrc(for bash users)

For all shell types – echo ‘export MY\_VAR=”My\_user”’ >> ~/.profile

To set permanently –

echo 'export MY\_GLOBAL\_VAR="GlobalValue"' | sudo tee -a /etc/profile

source /etc/profile

1. How to find all the pids of a processname

pidof process\_name

1. What is the nice value of a process

Niceness scale goes from -20 to 19, the lower the number more priority the task gets

Process\_priority = nice

Eg – nice -n 5 process\_name

1. How to check the nice value of a process

ps -l PID

1. You want a process with pid of 5467 to complete its task faster than the default rate. Which command should you run to accomplish this task

renice <nice\_value> -n <pid>

eg - renice -20 -n 5467

1. If you want to run a process In the background even when you close the terminal, what command can you use

nohup process &

Or

nohup process > /dev/null 2>&1 &

1. How to see all the active jobs

We can use jobs command

1. How to resume a stopped job in the background or foreground

Using commands bg and fg

1. Which command is used to display info about kernel related messages along with hardware and system startup messages stored in kernel ring buffer

We can use dmesg (diagnostics message) command

1. In a directory if I have a combination of files like yml, xml, scripts, logs etc, how can I only see the xml files

Using ls -l \*.yml

1. Create 100 files with naming file 1, file 2.. file 100

touch file{1..100}

1. How would you display only the files that starts with c or m in a given directory

ls [cm]\* 🡪 files starting from either c or m will be displayed

1. Run a command that shows all the lines except for the lines that starts with #

Cat filename | grep -v ^# (-v means except)

1. What is a vm

A virtual machine is a virtual environment that functions as a virtual computer with its own cpu, memory, network interface, and storage created on a physical hardware system

1. What is a hypervisor

It is a software that creates and runs vms

1. What are the types of hypervisors

Type2 hypervisor( hosted)

Type1 or bare metal hypervisor

1. Which command is used to display a list of currently configured physical volumes

lvs

1. Which command is used to display a list of currently configured volume groups

vgs

1. The /home partition is running out of disk space, which command will you use to determine which user’s directory is using most space

Using du command

1. What is linux file system

Os stores and manages data on disk or partitions using a structure called file system

File system includes files and directories and its related permissions

1. How to check your linux file system

lsblk -f

1. What is linux and what are its main features?

Linux is free and open source os based on unix

Its main features include its stability, security, flexibility, free of cost, and support for wide range of hardware

1. What is the diff between linux and unix

The primary

1. What are wildcards

**wildcards** are special characters (like \* or ?) that you can use in Linux to match file or directory names without typing them out exactly. They help you search, list, or act on multiple items at once.