Linux Basics Q and A

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1. What is the command to display the current directory?

Answer:

pwd

2. How do you list all files, including hidden files, in a directory?

Answer:

ls -a

3. Which command is used to change the current directory?

Answer:

cd [directory_name]

4. How do you create a new directory in Linux?

Answer:

mkdir [directory_name]

5. What command do you use to remove a file?

Answer:

rm [file_name]

6. How can you display the contents of a file?

Answer:

cat [file_name]

7. Which command is used to copy files or directories?

Answer:

cp [source] [destination]

8. How do you move or rename a file?

Answer:

mv [source] [destination]

9. What is the command to display the first 10 lines of a file?

Answer:

head [file_name]

10. How do you display the last 10 lines of a file?

Answer:

tail [file_name]

11. What command is used to search for a specific pattern in a file?

Answer:

grep [pattern] [file_name]

12. How do you check the current users logged into the system?

Answer:

who

13. Which command will show you the amount of disk space used and available on Linux file systems?

Answer:

df -h

14. How can you display the running processes in Linux?

Answer:

ps

15. What is the command to kill a process by its PID?

Answer:

kill [PID]

16. How do you check the IP address of your system?

Answer:

ifconfig

or (on newer systems):

ip a

17. What command is used to change file permissions in Linux?

Answer:

chmod [permissions] [file_name]

18. How do you find the location of an executable file?

Answer:

which [command_name]

19. What command would you use to see the manual page for a specific command?

Answer:

man [command_name]

20. How can you check the memory usage of your system?

Answer:

free -h

These questions covers fundamental Linux commands that are essential for basic system navigation and management.

Here are 20 advanced-level Linux questions along with their answers:

Advanced Linux Q and A

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1. How do you schedule a cron job to run every day at 2 AM?

Answer: Edit the crontab file using crontab -e and add the following line:

0 2 * * * /path/to/script.sh

2. What is the purpose of the nice and renice commands in Linux?

Answer:

- nice: Sets the priority of a process when starting it.
- renice: Alters the priority of an already running process.

nice -n 10 command
renice 5 -p 1234

3. Explain how to use iptables to allow traffic on port 80.

Answer:

sudo iptables -A INPUT -p tcp --dport 80 -j ACCEPT

4. How can you create a symbolic link in Linux?

Answer:

ln -s [target_file_or_directory] [link_name]

5. What command would you use to compress a directory using tar and gzip?

Answer:

tar -czvf archive_name.tar.gz /path/to/directory

6. How do you set up passwordless SSH login between two Linux machines?

Answer:

1. Generate SSH key pair: ssh-keygen -t rsa
2. Copy the public key to the remote machine:ssh-copy-id user@remote_host

7. How can you find all files modified in the last 7 days?

Answer:

find /path/to/search -type f -mtime -7

8. Explain how to use sed to replace all occurrences of the word "Linux" with "UNIX" in a file.

Answer:

sed -i 's/Linux/UNIX/g' file_name

9. What is the command to view and analyze the last 100 lines of a log file in real-time?

Answer:

tail -n 100 -f /var/log/log_file.log

10. How do you create a user with no home directory and no shell access?

Answer:

sudo useradd -M -s /sbin/nologin user_name

11. How can you check the default gateway on a Linux machine?

Answer:

ip route show

12. Describe the process to resize a partition using fdisk.

Answer:

1. Unmount the partition:umount /dev/sdXn
2. Use fdisk to delete and recreate the partition with the new size:fdisk /dev/sdX
3. Resize the filesystem:resize2fs /dev/sdXn

13. How do you find the top 5 largest files in a directory and its subdirectories?

Answer:

du -ah /path/to/directory | sort -rh | head -n 5

14. How can you determine which process is using a specific port?

Answer:

sudo lsof -i :port_number

15. Explain how to view shared memory segments on a Linux system.

Answer:

ipcs -m

16. What command can you use to monitor system performance, including CPU, memory, and I/O?

Answer:

htop

or

vmstat 1

17. How do you permanently add a new environment variable in Linux?

Answer: Add the variable to /etc/environment or to a user-specific file like ~/. rc or ~/.profile:

export VAR_NAME=value

18. What is the command to view the system's boot messages?

Answer:

dmesg

19. How do you enable and start a service using systemctl?

Answer:

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sudo systemctl enable service_name
sudo systemctl start service_name
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20. Explain how to perform a remote file transfer using rsync.

Answer:

rsync -avz /local/path/ user@remote_host:/remote/path/