Linux server assignment

1. What is the full form of bash?

Full form of bash: Bourne Again SHell.

2. What is bash shell?

Bash shell: A Unix shell and command language.

3. What is the meaning of $ in terminal?

Meaning of $ in terminal: Denotes a variable or prompts for user input.

4. What is the meaning of # in terminal?

Meaning of # in terminal: Denotes root or superuser privileges.

5. How many virtual consoles are available in Linux 7.0?

Virtual consoles in Linux 7.0: Typically 6 virtual consoles.

6. What is the file system hierarchy in Linux?

File system hierarchy in Linux: Organizes files and directories in a hierarchical structure, starting from the root directory (/).

7. What does "/" represent in Linux?

"/" in Linux: Represents the root directory.

8. What is the purpose of "/etc"?

Purpose of "/etc": Contains system-wide configuration files.

9. What is the purpose of "/home"?

Purpose of "/home": Houses user home directories.

10. What is the Purpose of "/boot"?

Purpose of "/boot": Contains files required for the boot process.

11. What is the use of the man command?

Use of man command: Displays manual pages for commands.

12. What is the use of the passwd command?

Use of passwd command: Allows users to change their passwords.

13. How can I search for a specific string in man pages?

To search for a specific string in man, use "/string" within man pages.

14. How do I exit from man?

To exit from man, press "q".

15. What is the use of the "pinfo" command?

Use of "pinfo" command: Displays information about programs in a nicer format than man.

16. What is the use of the "sosreport" command?

Use of "sosreport" command: Generates a report with detailed system information for troubleshooting.

17. By default, where is the location to store "sosreport"?

By default, "sosreport" is typically stored in /var/tmp.

18. What is the use of the ">file" command?

Use of ">file" command: Redirects command output to a file, overwriting existing content.

19. What is the use of the ">>file" command?

Use of ">>file" command: Redirects command output to a file, appending to existing content.

20. What is the use of the "2>file" command?

Use of "2>file" command: Redirects error output to a file.

21. What is the use of "2>>file" command?

Use of "2>>file" command: Appends error output to a file.

22. What is the use of "whereis" command?

Use of "whereis" command: Locates binary, source, and manual page files for a command.

23. What is the use of "echo" command?

Use of "echo" command: Prints text or variables to the terminal.

24. What is the use of "tty" command?

Use of "tty" command: Prints the file name of the terminal connected to standard input.

25. What is the use of "|" and "tee" command in terminal?

Use of "|" and "tee" command in terminal: Pipes output of one command to another and saves a copy of it to a file.

26. What is the use of "vim"?

"vim" is a text editor for Unix-like operating systems.

27. Give a list of "vim modes".

Vim modes: Normal mode, Insert mode, Visual mode, Command-line mode.

28. What is "gedit"?

"gedit" is a text editor for the GNOME desktop environment.

29. What is "tar"?

"tar" is a utility for packaging files together, often used for creating backups or archives.

30. I want to get backup of /etc directory, how do I write down the command?

"tar -cvf backup.tar /etc".

31. From which command do I extract .tar file?

"tar -xvf file.tar".

32. I want to see the content of .tar file without extracting it, which command will help me?

"tar -tvf file.tar".

33. I want to copy "file1" to a remote desktop computer, which command will help?

"scp file1 user@remote\_host:destination\_directory".

34. Which command is used for remote synchronization?

"rsync".

35. What is ACL?

ACL stands for Access Control List, a list of permissions attached to an object.

36. Which command is used to view the ACL?

"getfacl".

37. Ext3 and Ext4 both file systems support ACL, is it true or false?

True.

38. Which command is used to modify ACL?

"setfacl"

39. What is the use of "grep" command?

Use of "grep" command: Searches for patterns in text files.

40. What happens if I use "< grep -i -v 'cat' >" command?

"< grep -i -v 'cat' >" command redirects input from a file to grep, ignoring lines containing 'cat', and writes the output to another file.

1. What happens if I press “Ctrl + Alt + F1”?

switches to the first virtual terminal (TTY1).

2. What happens if I press “Ctrl + Alt + F2”?

switches to the second virtual terminal (TTY2).

3. What happens if I press “Ctrl + Alt + F3”?

switches to the third virtual terminal (TTY3).

4. What is the shortcut key to finish a session in the terminal?

"Ctrl + D".

5. What is GNOME in Linux 7.0?

GNOME in Linux 7.0 is a desktop environment providing a graphical user interface (GUI).

6. How many workspaces are available in Linux 7.0?

The number of workspaces available in Linux 7.0 varies, often configurable by the user.

7. What is the purpose of “/dev”?

The purpose of “/dev” is to contain device files representing physical and virtual devices.

8. What is an absolute path?

An absolute path specifies the location of a file or directory from the root directory (/).

9. What are relative paths?

Relative paths specify the location of a file or directory relative to the current working directory.

10. What is the difference between "ls -l" and "ls -la" command?

"ls -l" lists files in long format, while "ls -la" includes hidden files (those starting with a dot).

11. What is the use of the “pwd” command?

The "pwd" command prints the current working directory.

12. What is the use of the "man" command?

The "man" command displays manual pages for commands.

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18. By default, where is the location to store the "sosreport"?

"/var/tmp".

1. How do we switch workspaces?

switch workspaces using keyboard shortcuts such as "Ctrl + Alt + ←" or "Ctrl + Alt + →" to move between workspaces to the left or right, respectively.

2. What is the use of the "passwd" command?

The "passwd" command is used to change a user's password on a Linux system.

3. What is the use of the "head" and "tail" command?

The "head" command displays the beginning lines of a file, while the "tail" command displays the ending lines of a file.

4. What is the use of the "history" command?

displays a list of previously executed commands in the terminal session.

5. Which command is used to add a new user?

The "adduser" or "useradd" command is used to add a new user in Linux.

6. What is the meaning of "tail -n 20" command?

displays the last 20 lines of a file.

7. What is the difference between "cd" and "cd .." command?

Cd used to change the current directory, while "cd .." is used to move up one directory level.

8. Explain the command "cp file1 file2".

The "cp" command is used to copy files or directories. In this command, "file1" is copied to "file2".

9. What is the use of the "rm" command?

The "rm" command is used to remove files or directories from the filesystem.

10. Explain the commands "rm -r", "mv", and "mkdir".

"rm -r" removes directories and their contents recursively, "mv" moves files or directories from one location to another, and "mkdir" creates a new directory.

11. Explain the command "mkdir -p".

The "mkdir -p" command creates a new directory and any necessary parent directories. If the parent directories don't exist, it creates them as well.

12. What happens if I use the command "ls ab\*"?

The command "ls ab\*" lists all files and directories in the current directory whose names start with "ab".

1. What is PID?

PID stands for Process ID. It's a unique numerical identifier assigned to each running process in a system.

2. What is PPID?

PPID stands for Parent Process ID. It refers to the PID of the parent process that spawned a particular process.

3. What is the use of the "ps" command?

The "ps" command is used to display information about active processes on a system.

4. What is the use of the "ps aux" command?

"ps aux" is used to display a detailed list of all processes running on a system, including those owned by other users.

5. What is the use of the "top" command?

The "top" command is used to display dynamic real-time information about running processes and system resource usage.

6. Which command is used to change priority value?

The "nice" command is used to change the priority value of a process.

7. What is the use of the "jobs" command?

The "jobs" command is used to display a list of jobs running in the background of a shell.

8. What is the use of the "grep" command?

The "grep" command is used to search for specific patterns or text within files or command output.

9. What is a system?

A system refers to the combination of hardware, software, and users that work together to perform computing tasks.

10. What are daemons?

Daemons are background processes that run without direct user interaction, typically performing system tasks or providing services.

11. How can you check the service status for "sshd"?

You can check the service status for "sshd" using the command `systemctl status sshd`.

12. How do you stop and start services in the terminal?

To stop a service, you can use `systemctl stop <service\_name>`, and to start it, use `systemctl start <service\_name>`.

13. What is the use of OpenSSH?

OpenSSH is a set of network connectivity tools used to encrypt communication sessions over a network, primarily used for secure remote login.

14. Which command is used to generate a key in Linux?

The `ssh-keygen` command is used to generate SSH keys in Linux.

15. Which command is used to copy SSH keys?

The `ssh-copy-id` command is used to copy SSH keys to remote servers securely.

16. How do you prohibit the root user from logging in using SSH?

You can edit the SSH configuration file (/etc/ssh/sshd\_config) and set `PermitRootLogin no`, then restart the SSH service.

17. How do you prohibit password authentication using SSH?

In the SSH configuration file (/etc/ssh/sshd\_config), set `PasswordAuthentication no`, then restart the SSH service.

18. Where do you find general logs?

General logs are typically located in `/var/log/`.

19. Where do you find secure logs?

Secure logs are usually located in `/var/log/secure`.

20. Where do you find mail logs?

Mail logs can be found in `/var/log/mail.log` or `/var/log/maillog`.

21. Where do you find scheduling logs?

Scheduling logs are often located in `/var/log/cron` or `/var/log/syslog`.

22. Where do you find booting logs?

Booting logs can be found in `/var/log/boot.log` or `/var/log/messages`.

23. What is the use of the "lastb" command?

The "lastb" command is used to display a list of failed login attempts, typically from the file `/var/log/btmp`.1. What is PID?

PID stands for Process ID. It's a unique numerical identifier assigned to each running process in a system.

1. How do you access the remote user "KAMAL" on the host "NADIAD" via SSH?

To access the remote user "KAMAL" on the host "NADIAD" via SSH, you would use the command: `ssh KAMAL@NADIAD`.

2. What is the use of the "w -f" command?

The "w -f" command is used to display detailed information about logged-in users and their processes.

3. What are SSH host keys?

SSH host keys are cryptographic keys used to authenticate hosts during the SSH handshake process, ensuring secure communication between the client and server.

4. Where is the default location for the server's public key on the client side?

The default location for the server's public key on the client side is typically stored in the `~/.ssh/known\_hosts` file.

5. How do you execute the "ls -l /etc" command on the remote host "desktop"?

To execute the "ls -l /etc" command on the remote host "desktop", you would use the command: `ssh desktop "ls -l /etc"`.

6. What is the purpose of the command "journalctl --since today"?

The command "journalctl --since today" is used to display system logs since the beginning of the current day.

7. What is "chronyd"?

"chronyd" is a daemon used for network time synchronization on Linux systems, providing accuracy and stability for system clocks.

8. What is the full form of NTP?

NTP stands for Network Time Protocol.

9. What is the port number for NTP?

The port number for NTP is 123.

10. How do you check the timezone?

You can check the timezone using the command: `timedatectl`.

11. How do you set the timezone?

To set the timezone, you can use the command: `timedatectl set-timezone <timezone>`.

1. What is…

a. `/dev/sda`: It typically represents the first hard disk drive in a system.

b. `/dev/sdb`: It usually represents the second hard disk drive in a system.

c. `/dev/sda1`: It represents the first partition on the first hard disk drive.

d. `/dev/sda2`: It represents the second partition on the first hard disk drive.

e. `/dev/vda`: It represents a virtual disk drive, often used in virtualized environments.

f. `/dev/vda1`: It represents the first partition on a virtual disk drive.

2. What is the use of the "df" command?

The "df" command is used to display disk space usage on file systems.

3. From which command do we get the UUID of a file system?

You can get the UUID of a file system using the command: `blkid`.

4. I want to use /dev/sdb1, which command will be used?

To use `/dev/sdb1`, you would typically mount it using the command: `mount /dev/sdb1 <mount\_point>`.

5. Where do we find all hardware info?

Hardware information can be found in various system files like `/proc/cpuinfo`, `/proc/meminfo`, and by using commands like `lscpu`, `lshw`, and `hwinfo`.

6. Which command is used to create MBR partition?

The `fdisk` command is commonly used to create MBR (Master Boot Record) partitions.

7. Which command is used to create GPT partition?

The `gdisk` or `parted` command is used to create GPT (GUID Partition Table) partitions.

8. What are sda, sdb, sdc, sdb1, sdb2, sdb3?

These are device names representing storage devices and their partitions in Linux. For example, `sda` represents the first hard disk drive, and `sdb1`, `sdb2`, `sdb3`, etc., represent partitions on the second hard disk drive.

9. What is the use of a swap partition?

A swap partition is used as virtual memory when the system's physical memory (RAM) is full. It allows the system to temporarily move data from RAM to disk and vice versa, helping to prevent memory exhaustion and improve performance.

10. Explain LVM

Logical Volume Manager (LVM) is a storage management solution that allows for dynamic disk partitioning, resizing, and management on Linux systems. It abstracts physical storage devices into logical volumes, providing flexibility, scalability, and easier management of storage resources.

11. Define the following terms:

1. PV (Physical Volume): A physical volume is a storage device or partition that is part of a volume group in LVM. It serves as the building block for logical volumes.

2. VG (Volume Group): A volume group is a collection of one or more physical volumes combined together to form a single storage pool in LVM. It provides a centralized pool of storage that can be dynamically allocated to logical volumes.

3. LV (Logical Volume): A logical volume is a virtual disk partition created from space allocated from a volume group. It behaves like a physical disk partition and can be formatted, mounted, and used like any other disk partition.

12. From which command can we get information about LVM status?

You can get information about LVM status using the command: `lvdisplay`, `pvdisplay`, and `vgdisplay`. These commands provide detailed information about logical volumes, physical volumes, and volume groups, respectively.