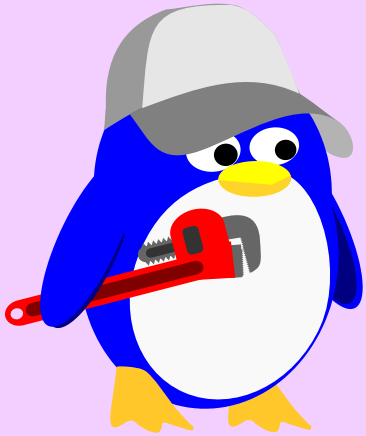
LINUX MCQ SOLUTION



Linux is a free and open-source operating system based on the Unix-like kernel. It provides a stable, secure, and versatile platform for various computing devices, from servers and desktops to embedded systems and smartphones. With its robust command-line interface and vast software ecosystem.

1. What is the command to list files and directories in Linux?

a) ls
b) cd
c) pwd
d) cp

Answer: a) ls

Explanation: The "ls" command is used to list files and directories in Linux. It displays the names of files and directories in the current directory by default. Adding options such as "-l" provides detailed information about the files and directories.

2.How do you change directory in the command line?

a) cd
b) ls
c) mkdir
d) touch

Answer: a) cd

Explanation: The "cd" command is used to change the current directory in the command line. By providing the desired directory path as an argument, you can navigate to a different directory. For example, "cd /path/to/directory" will change the current directory to the specified path.

3.What command is used to create a new directory in Linux?

a) ls
b) rm
c) mv
d) mkdir
Answer: d) mkdir
Explanation: The "mkdir" command is used to create a new directory in Linux. By specifying the desired directory name as an argument, you can create a new directory within the current working directory. For example, "mkdir new_directory" will create a directory named "new_directory".

4.How do you copy a file in Linux?

a) rm
b) mv
c) cp
d) touch
Answer: c) cp
Explanation: The "cp" command is used to copy files in Linux. By providing the source file and the destination path as arguments, you can create a copy of the file in the specified location. For example, "cp source_file destination_path" will copy the file to the desired destination.

5.What command is used to remove a file in Linux?

a) cp
b) touch
c) mv
d) rm
Answer: d) rm
Explanation: The "rm" command is used to remove (delete) a file in Linux. By providing the file name as an argument, you can delete the file from the file system. Caution should be exercised when using this command, as deleted files cannot be easily recovered.

6.How do you check the current working directory in Linux?

a) cd
b) pwd
c) ls
d) mkdir
Answer: b) pwd
Explanation: The "pwd" command is used to check the current working directory in Linux. It displays the full path of the current directory. Running the "pwd" command will show you the directory you are currently in.

7.What is the command to display the contents of a file in the terminal?

a) ls
b) cp
c) touch
d) cat
Answer: d) cat
Explanation: The "cat" command is used to display the contents of a file in the terminal. By providing the file name as an argument, you can view the contents of the file directly in the terminal.

8.How do you rename a file in Linux?

a) rm
b) mv
c) cp
d) mkdir
Answer: b) mv
Explanation: The "mv" command is used to rename a file in Linux. By providing the current file name as the first argument and the desired new file name as the second argument, you can rename the file. For example, "mv old_name new_name" will rename the file to the new name.

9.What command is used to search for files and directories in Linux?

a) find
b) cp
c) touch
d) rm

Answer: a) find

Explanation: The "find" command is used to search for files and directories in Linux. It allows you to search for files based on various criteria such as name, size, modification time, and more. You can specify the starting directory for the search and customize the search parameters.

10.How do you change file permissions in Linux?

a) chmod
b) chown
c) chdir
d) rm

Answer: a) chmod

Explanation: The "chmod" command is used to change file permissions in Linux. It allows you to modify the read, write, and execute permissions for the owner, group, and others on a file. You can use numeric or symbolic mode to specify the permissions.

11.Which command is used to display the manual pages for a specific command in Linux?

a) info
b) man
c) help
d) doc

Answer: b) man

Explanation: The "man" command is used to display the manual pages for various commands and topics in Linux. It provides detailed documentation, usage examples, and options for each command. By typing "man" followed by the command name, you can access the corresponding manual page.

12.How do you create an empty file in Linux?

a) touch
b) cp
c) mkdir
d) rm

Answer: a) touch

Explanation: The "touch" command is used to create an empty file in Linux. Simply typing "touch" followed by the desired file name will create a new empty file in the current directory. If the file already exists, the "touch" command updates its modification timestamp.

13.What command is used to find and replace text in a file in Linux?

a) grep
b) find
c) sed
d) awk

Answer: c) sed

Explanation: The "sed" command is used to find and replace text within a file in Linux. It supports powerful text transformations and substitutions using regular expressions. By specifying the search pattern and the replacement string, you can modify the contents of a file.

14.How do you terminate a running process in Linux?

a) ps
b) kill
c) shutdown
d) exit

Answer: b) kill

Explanation: The "kill" command is used to terminate a running process in Linux. By providing the process ID (PID) of the target process, you can send a signal to the process, instructing it to terminate. The default signal sent by "kill" is SIGTERM (termination signal).

15.What command is used to compress files into a tar archive in Linux?

a) gzip
b) tar
c) zip
d) compress
Answer: b) tar
Explanation: The "tar" command is used to create tar archives in Linux. It can combine multiple files and directories into a single archive file. By specifying the appropriate options, you can compress the archive using tools like gzip or create uncompressed tar archives.

16.How do you set environment variables in Linux?

a) env
b) set
c) export
d) vars
Answer: c) export
Explanation: To set environment variables in Linux, you can use the "export" command. By typing "export" followed by the variable name and its value, you can create or modify environment variables. These variables are then available for use by the current shell and any child processes.

17.What command is used to display the last lines of a file in Linux?

a) tail
b) head
c) less
d) more
Answer: a) tail
Explanation: The "tail" command is used to display the last lines of a file in Linux. By default, it shows the last 10 lines of the file. However, you can specify the number of lines to display using the "-n" option, such as "tail -n 5" to display the last 5 lines.

18.How do you check the disk usage of a file or directory in Linux?

a) ls
b) du
c) df
d) disk

Answer: b) du

Explanation: The "du" (disk usage) command is used to check the disk usage of files and directories in Linux. It displays the disk space occupied by each file and directory. By using options like "-h" or "--human-readable", the output is presented in a more readable format.

19.What command is used to change the ownership of a file or directory in Linux?

a) chmod
b) chown
c) chgrp
d) own

Answer: b) chown

Explanation: The "chown" command is used to change the ownership of a file or directory in Linux. By specifying the new owner and, optionally, the group, you can transfer ownership rights. For example, "chown user:group file" changes the owner and group of the file.

20.How do you schedule a recurring task in Linux?

a) cron
b) timer
c) alarm
d) task

Answer: a) cron

Explanation: To schedule recurring tasks in Linux, you can use the "cron" service. It allows you to create cron jobs, which are scheduled tasks that run automatically at specified intervals. By configuring the crontab file using the "crontab" command, you can define the timing and command for each task.

21.What command is used to display the current date and time in Linux?

a) time
b) date
c) clock
d) now

Answer: b) date

Explanation: The "date" command is used to display the current date and time in Linux. By simply typing "date" in the terminal, it will print the current date and time information. You can also format the output using various options to display specific date components.

22.How do you recursively copy a directory and its contents in Linux?

a) mv
b) cp
c) mkdir
d) rm

Answer: b) cp

Explanation: The "cp" command is used to copy files and directories in Linux. To recursively copy a directory and its contents, you can use the "-R" or "-r" option with the "cp" command. For example, "cp -R sourcedir destdir" will copy the directory and its contents to the destination directory.

23.What command is used to search for a specific string within files in Linux?

a) grep
b) find
c) locate
d) search

Answer: a) grep

Explanation: The "grep" command is used to search for a specific string within files in Linux. By specifying the search pattern and the files or directories to search, "grep" will display the lines that contain the matching string. It supports regular expressions and various options for advanced searching.

24.How do you create a symbolic link in Linux?

a) symlink
b) link
c) ln
d) mklink
Answer: c) ln
Explanation: The "ln" command is used to create symbolic links in Linux. By specifying the source file or directory and the target name, "ln" creates a symbolic link that points to the original file or directory. Symbolic links act as pointers to other files or directories.

25.What command is used to display the running processes in Linux?

a) top
b) ps
c) status
d) proc
Answer: b) ps
Explanation: The "ps" command is used to display information about running processes in Linux. By typing "ps" in the terminal, it will show a list of processes running in the current session. You can use various options to customize the output and view specific process details.

26.How do you archive and compress files using tar and gzip in a single command?

a) zip
b) gzip
c) tar.gz
d) tar -zcvf
Answer: d) tar -zcvf
Explanation: To archive and compress files using tar and gzip in a single command, you can use the "tar" command with the "-zcvf" options. For example, "tar -zcvf archive.tar.gz file1 file2" will create an archive named "archive.tar.gz" and compress the specified files using gzip compression.

27.What command is used to display the network configuration in Linux?

a) ifconfig
b) netstat
c) ipconfig
d) network

Answer: a) ifconfig

Explanation: The "ifconfig" command is used to display the network configuration information in Linux. It shows the IP addresses, network interfaces, and related details for the system. However, newer Linux distributions often use the "ip" command instead of "ifconfig" for network configuration.

28.How do you recursively delete a directory and its contents in Linux?

a) rmdir
b) rm
c) del
d) erase

Answer: b) rm

Explanation: The "rm" command is used to remove files and directories in Linux. To recursively delete a directory and its contents, you can use the "-r" or "-rf" option with the "rm" command. However, be cautious when using the "rm" command as it permanently deletes files and directories.

29.What command is used to change the permissions of a file or directory in Linux?

a) chmod
b) chown
c) chgrp
d) perm

Answer: a) chmod

Explanation: The "chmod" command is used to change the permissions of a file or directory in Linux. It allows you to modify the read, write, and execute permissions for the owner, group, and other users. You can use symbolic or numeric mode to specify the desired permissions.

30.How do you check the system hardware information in Linux?

a) sysinfo
b) lshw
c) hardware
d) hinfo
Answer: b) lshw
Explanation: The "lshw" command is used to check the system hardware information in Linux. It provides detailed information about various hardware components such as the processor, memory, storage devices, network interfaces, and more. Running "lshw" with appropriate options will display the hardware details.

31.What command is used to view the contents of a compressed file without extracting it?

a) unzip
b) unrar
c) tar
d) zcat
Answer: d) zcat
Explanation: The "zcat" command is used to view the contents of a compressed file without extracting it. It is specifically used for gzip compressed files. By using "zcat" followed by the compressed file name, the command will display the uncompressed contents of the file on the terminal.

32.How do you add a user to a group in Linux?

a) addgroup
b) useradd
c) usermod
d) groupadd
Answer: c) usermod
Explanation: The "usermod" command is used to modify user account properties in Linux, including adding a user to a group. To add a user to a group, you can use the "-aG" option with the "usermod" command followed by the group name. For example, "usermod -aG groupName username" adds the user to the specified group.

33.What command is used to display real-time system resource usage in Linux?

a) top
b) ps
c) free
d) vmstat
Answer: a) top
Explanation: The "top" command is used to display real-time system resource usage in Linux. It provides an interactive and dynamic view of the system's CPU usage, memory usage, running processes, and other system information. Pressing the "q" key exits the "top" command.

34.How do you redirect the standard output of a command to a file in Linux?

a) >
b) |
c) <<
d) <
Answer: a) >
Explanation: The ">" symbol is used to redirect the standard output of a command to a file in Linux. By using the ">" followed by the file name, the output of the command will be written to the specified file. For example, "command > output.txt" redirects the command's output to the "output.txt" file.

35.How do you add a user to a group in Linux?

a) addgroup
b) useradd
c) usermod
d) groupadd
Answer: c) usermod
Explanation: The "usermod" command is used to modify user account properties in Linux, including adding a user to a group. To add a user to a group, you can use the "-aG" option with the "usermod" command followed by the group name. For example, "usermod -aG groupName username" adds the user to the specified group.

36.How do you check the available disk space on a Linux system?

a) df
b) du
c) diskutil
d) fspace
Answer: a) df
Explanation: The "df" command is used to check the available disk space on a Linux system. It displays information about file system disk space usage, including the total, used, and available space for each mounted file system. Running "df" without any options shows the disk space in a human-readable format.

37.What command is used to start a stopped or background process in Linux?

a) bg
b) stop
c) continue
d) fg
Answer: a) bg
Explanation: The "bg" command is used to start a stopped or background process in Linux. It resumes a suspended or stopped process and moves it to the background. This allows the process to continue executing without occupying the terminal.

38.How do you add a user to a group in Linux?

a) addgroup
b) useradd
c) usermod
d) groupadd
Answer: c) usermod
Explanation: The "usermod" command is used to modify user account properties in Linux, including adding a user to a group. To add a user to a group, you can use the "-aG" option with the "usermod" command followed by the group name. For example, "usermod -aG groupName username" adds the user to the specified group.

39.What command is used to display the manual pages for a specific command in Linux?

a) info
b) man
c) help
d) doc
Answer: b) man
Explanation: The "man" command is used to display the manual pages for a specific command in Linux. It provides detailed documentation and information about various commands, utilities, and system functions. By typing "man" followed by the command name, you can access the corresponding manual page and navigate through it.

40.How do you find the process ID (PID) of a running program in Linux?

a) pid
b) ps -a
c) pgrep
d) top
Answer: c) pgrep
Explanation: The "pgrep" command is used to find the process ID (PID) of a running program in Linux. By specifying the program's name as an argument to the "pgrep" command, it will display the corresponding PID. For example, "pgrep programName" will return the PID of the running program.

41.How do you create a compressed tar archive in Linux?

a) gzip
b) zip
c) tar
d) compress
Answer: c) tar
Explanation: The "tar" command is used to create a compressed tar archive in Linux. Tar is commonly used for creating backups or archiving files and directories. By using the appropriate options, such as "-z" for gzip compression, you can create a compressed tar archive. For example, the command "tar -zcvf archive.tar.gz files" creates a compressed tar archive named "archive.tar.gz" from the specified files.

42.What command is used to change the ownership and group of a file or directory in Linux?

a) chown
b) chmod
c) chgrp
d) own

Answer: a) chown

Explanation: The "chown" command is used to change the ownership and group of a file or directory in Linux. By specifying the new owner and/or group, along with the file or directory name, you can change the ownership and group permissions. For example, the command "chown newuser:group file.txt" changes the ownership to "newuser" and the group to "group" for the file "file.txt".

43.How do you monitor system performance in real-time using the command line in Linux?

a) top
b) vmstat
c) sar
d) perf

Answer: a) top

Explanation: The "top" command allows you to monitor system performance in real-time using the command line in Linux. It provides a dynamic view of system resource usage, including CPU, memory, and process information. By running the "top" command, you can observe the real-time statistics and sort processes based on different criteria.

44.What command is used to create a backup of a file or directory in Linux?

a) cp
b) backup
c) tar
d) zip

Answer: c) tar

Explanation: The "tar" command is often used to create backups of files or directories in Linux. It can combine multiple files and directories into a single archive file. By specifying appropriate options, such as "-cvf" to create a new archive file, you can use the "tar" command to create backups. For example, the command "tar -cvf backup.tar files" creates a backup archive named "backup.tar" from the specified files.

45.How do you set up a firewall in Linux?

a) iptables
b) ufw
c) firewall-cmd
d) firewalld
Answer: a) iptables
Explanation: The "iptables" command is used to set up a firewall in Linux. It allows you to configure firewall rules and network address translation (NAT) in Linux systems. However, please note that there are newer firewall management tools available, such as "ufw" (Uncomplicated Firewall) for Ubuntu and "firewalld" for CentOS and Fedora, which provide a simpler and more user-friendly interface for managing firewalls.

46.What command is used to display the contents of a compressed file in Linux?

a) zcat
b) gunzip
c) unzip
d) tar
Answer: a) zcat
Explanation: The "zcat" command is used to display the contents of a compressed file in Linux. It is specifically used for gzip compressed files. When you run "zcat" followed by the name of the compressed file, it displays the uncompressed content of the file on the terminal.

47.How do you monitor disk usage and free space in Linux?

a) df
b) du
c) ls
d) disk
Answer: a) df
Explanation: The "df" command is used to monitor disk usage and free space in Linux. It displays information about the file system disk space usage, including the total, used, and available space on mounted file systems. By running the "df" command without any options, it provides a summary of disk space usage for all mounted file systems.

48.How do you monitor disk usage and free space in Linux?

a) df
b) du
c) ls
d) disk

Answer: a) df

Explanation: The "df" command is used to monitor disk usage and free space in Linux. It displays information about the file system disk space usage, including the total, used, and available space on mounted file systems. By running the "df" command without any options, it provides a summary of disk space usage for all mounted file systems.

49.How do you monitor disk usage and free space in Linux?

a) df
b) du
c) ls
d) disk

Answer: a) df

Explanation: The "df" command is used to monitor disk usage and free space in Linux. It displays information about the file system disk space usage, including the total, used, and available space on mounted file systems. By running the "df" command without any options, it provides a summary of disk space usage for all mounted file systems.

50.How do you create a new user account in Linux?

a) useradd
b) passwd
c) usermod
d) adduser

Answer: a) useradd

Explanation: The "useradd" command is used to create a new user account in Linux. It adds a new user to the system by creating the necessary user and group entries in the system files. By running the "useradd" command with the desired options and specifying the username, you can create a new user account. For example, the command "useradd newuser" creates a new user account with the username "newuser".

51.How do you find all files containing a specific word or phrase in Linux?

a) grep
b) find
c) search
d) locate

Answer: a) grep

Explanation: The "grep" command is used to search for specific words or phrases within files in Linux. It scans files and outputs the lines containing the specified pattern. By using the appropriate options, such as "-r" for recursive search and "-i" for case-insensitive search, you can find all files containing a specific word or phrase. For example, the command "grep -r 'word' /path/to/directory" searches for the word 'word' in all files within the specified directory.

52.What command is used to display the process tree in Linux?

a) ps
b) pstree
c) top
d) tree

Answer: b) pstree

Explanation: The "pstree" command is used to display the process tree in Linux. It shows the relationship between processes, representing them in a hierarchical tree structure. By running the "pstree" command without any options, it displays the entire process tree on the system.

53.How do you enable and start a system service in Linux?

a) systemctl enable
b) service start
c) start service
d) initctl enable

Answer: a) systemctl enable

Explanation: To enable and start a system service in Linux, you use the "systemctl" command. The specific command to enable a service is "systemctl enable servicename", which configures the service to start automatically at system boot. After enabling the service, you can start it using the "systemctl start servicename" command.

54.What command is used to monitor and manage network interfaces in Linux?

a) ifconfig
b) ipconfig
c) netstat
d) ip
Answer: d) ip
Explanation: The "ip" command is used to monitor and manage network interfaces in Linux. It is a versatile command-line tool that allows you to view and modify network configuration parameters, including IP addresses, routes, interfaces, and more. By running the "ip" command with appropriate options, you can perform various networking operations and obtain detailed information about network interfaces.

55.How do you find the size of a directory in Linux?

a) ls -l
b) du -sh
c) df -h
d) ls -lh
Answer: b) du -sh
Explanation: To find the size of a directory in Linux, you can use the "du" command with the "-sh" options. The "-s" option displays only the total size of the directory, and the "-h" option provides the output in human-readable format, making it easier to interpret the size.

56.What command is used to view and manipulate the contents of a text file in Linux?

a) nano
b) vim
c) cat
d) less
Answer: c) cat
Explanation: The "cat" command is used to view and manipulate the contents of a text file in Linux. It is often used to display the contents of one or more files on the terminal. Additionally, "cat" can be used to concatenate multiple files or create new files by combining existing ones.

57.How do you create a symbolic link to a file or directory in Linux?

a) symlink
b) link
c) ln
d) mklink
Answer: c) ln
Explanation: The "ln" command is used to create a symbolic link to a file or directory in Linux. Symbolic links, also known as soft links, are references to other files or directories. By using the "ln" command with the "-s" option, you can create a symbolic link. For example, the command "ln -s /path/to/target linkname" creates a symbolic link named "linkname" that points to the file or directory at "/path/to/target".

58.What command is used to view the system logs in Linux?

a) syslog
b) logwatch
c) dmesg
d) journalctl
Answer: d) journalctl
Explanation: The "journalctl" command is used to view the system logs in Linux. It provides access to the logs generated by systemd, the system and service manager in modern Linux distributions. By running the "journalctl" command, you can view and search through system logs, filter log entries based on various criteria, and track system events.

59.How do you set up a network interface with a static IP address in Linux?

a) ifup
b) dhclient
c) ifconfig
d) ip addr
Answer: d) ip addr
Explanation: To set up a network interface with a static IP address in Linux, you can use the "ip" command with the "addr" subcommand. By specifying the desired IP address, netmask, and gateway, you can assign a static IP configuration to a network interface. For example, the command "ip addr add 192.168.0.100/24 dev eth0" sets the IP address 192.168.0.100 with a netmask of 24 bits to the "eth0" interface.

60.How do you add a user to the sudoers file in Linux?

a) useradd
b) adduser
c) visudo
d) sudoadd

Answer: c) visudo

Explanation: The "visudo" command is used to edit the sudo configuration file, which is typically located at "/etc/sudoers". It ensures safe and correct editing of the sudoers file by checking for syntax errors before saving any changes. By running "visudo" command, you can add a user to the sudoers file by granting them the necessary privileges to run commands with administrative permissions using the "sudo" command.

61.What command is used to check the disk space usage of a file or directory in Linux?

a) df
b) du
c) fspace
d) diskusage

Answer: b) du

Explanation: The "du" command is used to check the disk space usage of a file or directory in Linux. It provides information about the sizes of files and directories.

62.How do you display disk space usage in human-readable format in Linux?

a) df -h
b) du -h
c) diskusage -h
d) spaceusage -h

Answer: a) df -h

Explanation: The "df" command with the "-h" option is used to display disk space usage in human-readable format in Linux. It shows sizes in kilobytes (K), megabytes (M), or gigabytes (G).

63.What command is used to find the largest files or directories on a Linux system?

a) big
b) lsize
c) largest
d) find
Answer: d) find
Explanation: The "find" command is used to find the largest files or directories on a Linux system. By combining it with options like "-size" and "-exec", you can customize the search criteria.

64.How do you delete files older than a specific number of days in Linux?

a) rm -o
b) delete -o
c) find -delete
d) find -mtime
Answer: d) find -mtime
Explanation: The "find" command with the "-mtime" option is used to delete files older than a specific number of days in Linux. It allows you to specify the age of the files to be deleted.

65.What command is used to identify disk usage by file type in Linux?

a) dftype
b) filetype
c) df
d) du
Answer: d) du
Explanation: The "du" command, when combined with other options like "-a" and "-t", can be used to identify disk usage by file type in Linux. It provides a breakdown of disk space usage by file or directory.

66.How do you identify the largest directories on a Linux system?

a) ls -l

b) du -h

c) find -size

d) dir -l

Answer: b) du -h

Explanation: The "du" command with the "-h" option is used to identify the largest directories on a Linux system. It displays the sizes of directories, including subdirectories, in human-readable format.

67.What command is used to move a file or directory to another location in Linux?

a) mv

b) cp

c) mvdir

d) movedir

Answer: a) mv

Explanation: The "mv" command is used to move a file or directory to another location in Linux. It can also be used to rename a file or directory.

68.How do you check the available disk space on a Linux system?

a) df

b) du

c) fspace

d) diskspace

Answer: a) df

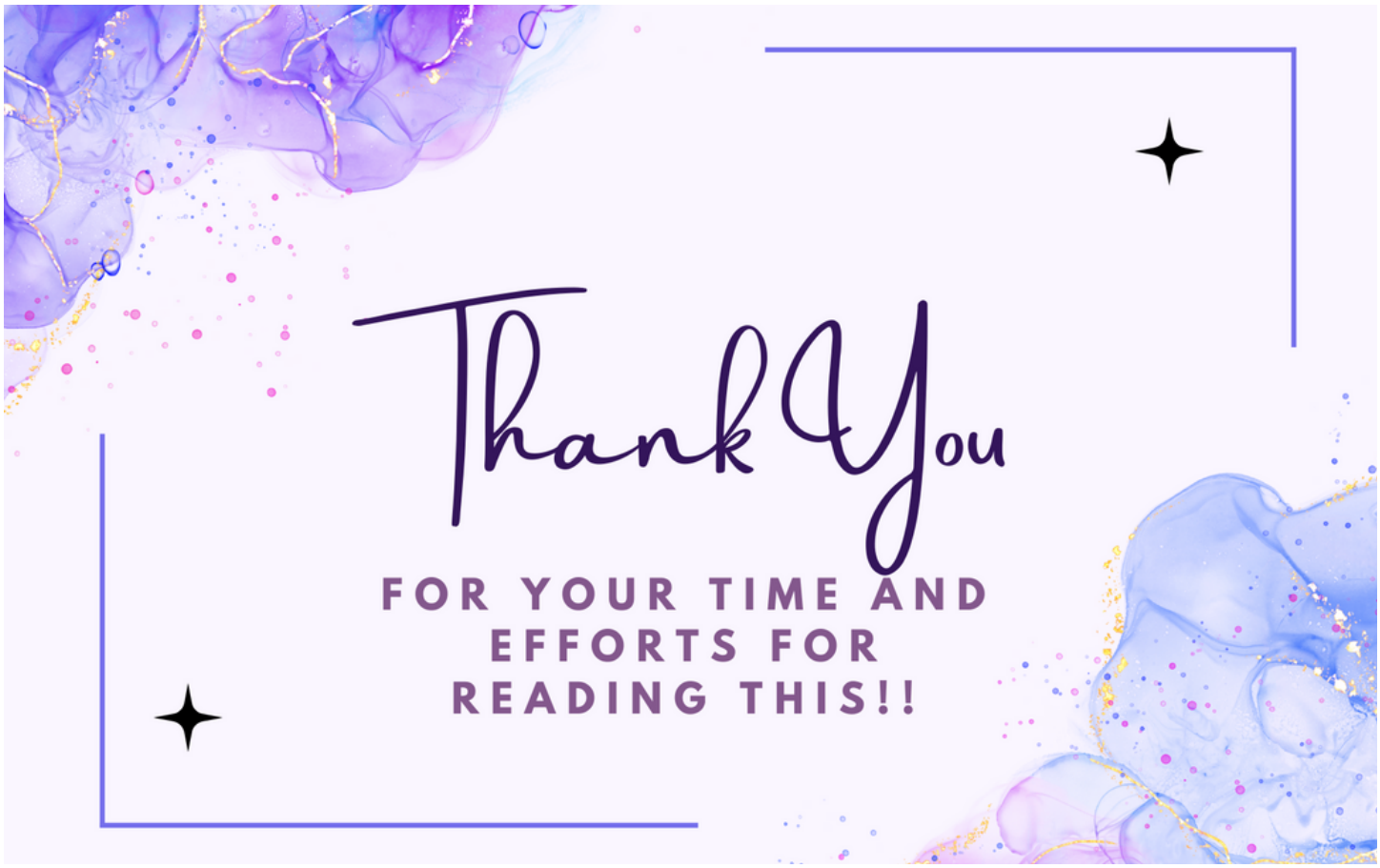
Explanation: The "df" command is used to check the available disk space on a Linux system. It provides information about disk usage, including available space.

69.What command is used to create a symbolic link to a file or directory in Linux?

a) link
b) symlink
c) slink
d) ln
Answer: d) ln
Explanation: The "ln" command is used to create a symbolic link to a file or directory in Linux. Symbolic links are shortcuts that point to another file or directory.

70.How do you check the disk space usage of all mounted file systems in Linux?

a) df -a
b) du -a
c) fspace -a
d) diskusage -a
Answer: a) df -a
Explanation: The "df" command with the "-a" option is used to check the disk space usage of all mounted file systems in Linux. It displays information for all file systems, including the ones mounted on specific directories.



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