LPI Linux Essentials (D281 and C851) Practice Exam (Sample)

Study Guide

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Questions

1. What functionality does 'apt search' provide?

A. Searches the available repository

B. Shows information about packages

C. Installs a package

D. Removes a package

2. What is the purpose of the useradd command with options such as -s, -d, and -G?

A. Add a user with specific configurations

B. Modify an existing user's shell

C. View user accounts

D. Delete a user account

3. What does the 'mv' command do in Linux?

A. Moves files or directories

B. Manufactures virtual files

C. Multiplies files

D. Maps virtual directories

4. Which of the following commands can be used to resolve a DNS name to an IP address?

A. dns

B. query

C. host

D. iplookup

5. What information does the 'who' command provide in a Linux system?

A. The system's firewall rules

B. The users who are currently logged in

C. The network configuration details

D. Disk partition details

6. What does the command 'tar' primarily do in Linux?

A. Compresses and extracts files from an archive

B. Creates a directory

C. Modifies file permissions

D. Deletes temporary files

7. Which option is used with the 'free' command to display memory in human-readable format?

A. -g

B. -m

C. -h

D. -k

8. What file would indicate services started via SysV scripts during startup?

A. boot.log

B. messages/syslog

C. GDM logs

D. secure logs

9. Which command would you use to list all currently running processes in Linux?

A. ps

B. top

C. jobs

D. htop

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

A. del

B. remove

C. rm

D. erase

Answers

1. A
2. A
3. A
4. C
5. B
6. A
7. C
8. A
9. A
10. C

Explanations

1. What functionality does 'apt search' provide?

A. Searches the available repository

B. Shows information about packages

C. Installs a package

D. Removes a package

The 'apt search' command is primarily used to search for packages within the available repositories configured on the system. When you execute this command, it scans through the package lists stored on your system and returns a list of packages that match the search criteria you specify. This can be particularly useful when you are unsure of the exact name of a package or want to find related packages based on keywords. Choosing 'search' as a function highlights its role in helping users discover packages that might not be directly visible or easily identified, facilitating package management within Debian-based systems like Ubuntu. The ability to search the repository for software packages is a fundamental aspect of package management, allowing users to explore what's available before taking further action, such as installation or removal.

2. What is the purpose of the useradd command with options such as -s, -d, and -G?

A. Add a user with specific configurations

B. Modify an existing user's shell

C. View user accounts

D. Delete a user account

The useradd command is a fundamental tool in Linux for creating new user accounts, and it allows for various configurations tailored to the needs of the user being created. When using options such as -s, -d, and -G, the command not only adds a new user but also customizes their account settings. The -s option specifies the user's login shell, which determines the environment the user will work in once logged in. This can be crucial for user experience, as different shells (like bash, sh, or zsh) come with different features and behaviors. The -d option sets the home directory for the user, directing the system to create a personal space for the user to store their files, configurations, and data. This is essential for the organization of user-related files and ensures that the user has a designated area to work from. The -G option allows the administrator to specify additional groups that the user should belong to, beyond the primary group assigned to them. This is important for managing permissions and access controls on files and processes that may be shared among multiple users in the same group. Together, these options enable the administrator to add a user with specific configurations that optimize their capabilities and properly define their environment on the system, making this

3. What does the 'mv' command do in Linux?

A. Moves files or directories

B. Manufactures virtual files

C. Multiplies files

D. Maps virtual directories

The 'mv' command in Linux is primarily used for moving files or directories from one location to another within the filesystem. When you specify a source file or directory and a destination, the command will relocate the specified item to the new location. It's important to note that this command can also be used to rename files or directories by providing a different name as the destination while keeping the source in the same directory. The functionality of 'mv' is fundamental for file management in Linux, making it essential to understand its capabilities for effective navigation and organization within the filesystem.

4. Which of the following commands can be used to resolve a DNS name to an IP address?

A. dns

B. query

C. host

D. iplookup

The command that is used to resolve a DNS name to an IP address is "host." This tool is designed to perform DNS lookups and can provide information about a hostname, its corresponding IP address, and other relevant DNS records. The "host" command is straightforward to use and provides a simple output to confirm the resolution of a DNS name to its associated IP address. In DNS operations, this task is essential, as it is often necessary to convert human-readable domain names into machine-readable IP addresses in order to access services on the Internet. The direct nature of the "host" command makes it a preferred choice for users seeking quick DNS inquiries. Other commands listed do not serve the specific purpose of resolving DNS names. For instance, "dns" is not a standard command in Unix/Linux systems; it may refer to a general concept or tool depending on the context but not for DNS lookups directly. Similarly, "query" is not specifically recognized as a standalone command for DNS resolutions in standard Linux utilities, and "iplookup" does not exist as a common utility for resolving DNS names. Overall, "host" stands out as the effective and correct command for this specific task.

5. What information does the 'who' command provide in a Linux system?

A. The system's firewall rules

B. The users who are currently logged in

C. The network configuration details

D. Disk partition details

The 'who' command in a Linux system is designed to display information about the users currently logged into the system. It shows each user's login name, terminal, the time they logged in, and sometimes other details like their originating IP address or hostname. This is particularly useful for system administrators and users who need to monitor active sessions on a multi-user system, allowing them to see who is currently accessing the machine. The other choices address different aspects of system information. The first choice relates to firewall rules, which can be managed typically with commands like 'iptables' or 'firewall-cmd'. The third option refers to network configuration details, which can be viewed using commands such as 'ifconfig' or 'ip addr'. Lastly, disk partition details can be obtained using commands like 'df' or 'lsblk', which provide information about mounted filesystems and disk space usage. All these commands serve distinct purposes and do not overlap with the functionality of the 'who' command.

6. What does the command 'tar' primarily do in Linux?

A. Compresses and extracts files from an archive

B. Creates a directory

C. Modifies file permissions

D. Deletes temporary files

The command 'tar' is primarily used for creating and manipulating archive files in Linux. Its main function involves bundling multiple files and directories into a single file, making it easier to distribute or back up data. While 'tar' itself does not compress files by default, it can be combined with compression tools like gzip or bzip2 to create a compressed archive. This makes it versatile for both archiving (packing files) and compression (reducing file size). When using the 'tar' command, you have options to extract files from an existing archive as well as create new archives. The overall intention of 'tar' is to provide a means to package files together to simplify their management. Therefore, the correct answer captures the primary function of 'tar' in handling archives in the Linux environment.

7. Which option is used with the 'free' command to display memory in human-readable format?

A. -g

B. -m

C. -h

D. -k

The option used with the 'free' command to display memory in a human-readable format is indeed the '-h' option. When this option is utilized, the output of the command is adjusted to automatically use the most appropriate size units (such as kilobytes, megabytes, or gigabytes) based on the amount of memory being reported. This makes it easier for users to understand the output at a glance, as the numbers are converted into a format that is more relatable, avoiding confusion caused by raw byte counts. This human-readable format is particularly useful when monitoring system memory usage, as it provides clarity without requiring users to perform manual conversions. The command could output something like "1.2G" for gigabytes or "256M" for megabytes, thereby enhancing the ease of interpretation of the memory stats provided by the 'free' command.

8. What file would indicate services started via SysV scripts during startup?

A. boot.log

B. messages/syslog

C. GDM logs

D. secure logs

The correct file that indicates services started via SysV scripts during startup is boot.log. This log file specifically records the output from the init system and system boot processes, detailing which services were initiated and whether they started successfully or encountered issues. Because SysV-style initialization scripts are executed during system boot, any relevant messages pertaining to these services are captured within boot.log, making it a valuable resource for troubleshooting and verification during system startup. In contrast, messages or syslog files generally capture a broader range of messages from the kernel and various services, but they are not exclusively dedicated to service startup logs. GDM logs are specifically related to the GNOME Display Manager and would not pertain to overall service startup, while secure logs focus on authentication and security-related messages. Therefore, boot.log is the best choice when looking to identify the services initiated via SysV scripts during the system's boot process.

9. Which command would you use to list all currently running processes in Linux?

A. ps

B. top

C. jobs

D. htop

The command that lists all currently running processes in Linux is "ps." When executed without any options, the "ps" command provides a snapshot of the current processes for the user running the command. By default, it shows processes associated with the current terminal session. However, it can be used with various options to display additional information, including processes for all users and additional details about each process. While "top" and "htop" can also provide information about currently running processes, they do so in a dynamic, real-time format that continuously updates the display. This is helpful for monitoring system resource usage but does not provide a simple listing like "ps." The "jobs" command is used specifically to display the status of jobs started in the current shell session, making it less relevant for listing all running processes across the system.

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

A. del

B. remove

C. rm

D. erase

The command used to remove a file in Linux is "rm." This command stands for "remove" and is specifically designed for deleting files and directories from the file system. It is a standard Unix command that has been adopted in Linux, and it provides a straightforward way to manage files through the terminal. When using "rm," you can specify various options to modify its behavior, such as using "-r" to remove directories recursively or "-f" to force removal without prompts. This flexibility makes "rm" a powerful tool in the command-line environment for file management. The other options, although they might sound plausible, are not commands in the Linux operating system for removing files. For example, "del" is commonly used in Windows systems for deleting files, while "remove" and "erase" are not recognized as valid commands in Linux environments. Therefore, understanding that "rm" is the correct and standard command for file deletion in Linux is crucial for effective command-line usage.