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NEW QUESTION: 1
What is true about the owner of a file?
A. Each file is owned by exactly one user and one group.
B. The owner of a file always has full permissions when accessing the file.
C. The user owning a file must be a member of the file's group.
D. When a user is deleted, all files owned by the user disappear.
E. The owner of a file cannot be changed once it is assigned to an owner.
Answer: (SHOW ANSWER)
In Linux, every file and directory is associated with an owner and a group. The owner is the user who created the file or directory, and the group is the group to which the owner belongs. Therefore, each file is owned by exactly one user and one group. This is true for option A. The other options are false for the following reasons:
Option B: The owner of a file does not always have full permissions when accessing the file. The permissions are determined by the file mode, which can be changed by the owner or the root user. The file mode specifies the read, write, and execute permissions for the owner, the group, and others. The owner can have different permissions than the group or others.
Option C: The user owning a file does not have to be a member of the file's group. The owner can change the group ownership of the file to any group on the system, regardless of whether the owner belongs to that group or not. However, only the root user or a user with the CAP_CHOWN capability can change the group ownership to a group that the owner is not a member of.
Option D: When a user is deleted, all files owned by the user do not disappear. The files remain on the system, but their owner is changed to an invalid user ID (UID). The files can still be accessed by the group or others, depending on the permissions. The files can also be reclaimed by the root user or a user with the CAP_CHOWN capability, who can change the owner to a valid user.

Option E: The owner of a file can be changed once it is assigned to an owner. The owner can transfer the ownership to another user, or the root user or a user with the CAP_CHOWN capability can change the owner to any user on the system. The command to change the owner of a file is chown. Reference: 1: Chown Command in Linux (File Ownership) | Linuxize 2 3: Linux File Permissions and Ownership Explained with Examples 4 2: 3 Ways to Find File Owner in Linux - howtouselinux 1

NEW QUESTION: 2
What are the differences between hard disk drives and solid state disks? (Choose two correct answers.)
A. Hard disks have a motor and moving parts, solid state disks do not.
B. Hard disks can fail due to physical damage, while solid state disks cannot fail.
C. Solid state disks can store many times as much data as hard disk drives.
D. /dev/sda is a hard disk device while /dev/ssda is a solid state disk.
E. Solid state disks provide faster access to stored data than hard disks.
Answer: A,E (LEAVE A REPLY)
The main difference between hard disk drives (HDDs) and solid state drives (SSDs) is the way they store and access data. HDDs use a spinning disk (platter) and a moving head to read and write data, while SSDs use flash memory chips that have no moving parts. This makes SSDs faster, quieter, and more durable than HDDs, but also more expensive and less spacious. HDDs and SSDs are both I/O devices that can be used to boot the system and store data, but they have different advantages and disadvantages depending on the use case. Reference:
Difference between Hard Disk Drive (HDD) and Solid State Drive (SSD)
Hard Disk Drive (HDD) vs. Solid State Drive (SSD): What's the Difference?
How to Check Whether Your Disk Is an SSD or HDD on Linux

NEW QUESTION: 3
Which of the following directories must be mounted with read and write access if it resides on its own dedicated file system?
A. /opt
B. /lib
C. /etc
D. /var
E. /usr
Answer: (SHOW ANSWER)
The /var directory must be mounted with read and write access if it resides on its own dedicated file system. The reason is that the /var directory contains files and directories that are expected to change in size and content as the normal operation of the system progresses, such as logs, spool files, and temporary files1. Therefore, the /var directory needs to have enough space and permission to accommodate these changes. If the /var

directory is mounted as read-only, some system services and applications may fail to start or function properly2.
The other options are not directories that must be mounted with read and write access if they reside on their own dedicated file system. The /opt directory contains optional or third-party software packages that are not part of the default installation1. The /lib directory contains libraries and kernel modules that are essential for the binaries in /bin and /sbin directories1. The /etc directory contains configuration files for the system and applications1. The /usr directory contains user-related programs, libraries, documentation, and data1. These directories are usually mounted as read-only to prevent accidental or malicious modification of their contents3. Reference:
Linux Essentials Exam Objectives, Version 1.6, Topic 102.1, Weight 3
Linux Essentials Certification Guide, Chapter 2, Page 34-35
Linux Filesystem Hierarchy, Chapter 3, Page 17-18

NEW QUESTION: 4
When typing a long command line at the shell, what single character can be used to split a command across multiple lines?
Answer:
\
Explanation:
The backslash character () is used to escape the meaning of the next character in a command line. This means that the next character is treated as a literal character, not as a special character. For example, if you want to use a space in a file name, you can use a backslash before the space to prevent the shell from interpreting it as a separator. Similarly, if you want to split a long command line across multiple lines, you can use a backslash at the end of each line to tell the shell that the command is not finished yet. The shell will ignore the newline character and continue reading the next line as part of the same command. For example, you can write:
ls -l
/home/user/Documents
instead of:
ls -l /home/user/Documents
Both commands will produce the same output, but the first one is easier to read and type.
Reference:
Linux Essentials - Linux Professional Institute (LPI), section 2.1.2
2.1 Command Line Basics - Linux Professional Institute Certification Programs, slide 7.

NEW QUESTION: 5
What parameter of ls prints a recursive listing of a directory's content? (Specify ONLY the option name without any values or parameters.)
Answer:

lsR
Explanation:
The -R parameter of the ls command prints a recursive listing of a directory's content, meaning that it will list not only the files and directories in the current directory, but also the files and directories in all the subdirectories12. For example, if you have a directory structure like this:
/home/user/ ├── dir1 │ ├── file1 │ └── file2 └── dir2 ├── file3 └── file4 You can use the command ls -R /home/user/ to list all the files and directories recursively, and the output will look like this:
/home/user/: dir1 dir2
/home/user/dir1: file1 file2
/home/user/dir2: file3 file4
The -R parameter is also known as the --recursive option, which is the long form of the same parameter12. You can use either -R or --recursive to achieve the same result.
Reference:
Use ls Command Recursively - Linux Handbook
How to List Files Recursively in Linux command line

NEW QUESTION: 6
Which of the following commands puts the lines of the file data.csv into alphabetical order?
A. a..z data.csv
B. sort data.csv
C. abc data.csv
D. wc -s data.csv
E. grep --sort data.csv
Answer: (SHOW ANSWER)
The sort command is used to sort the lines of a file or a stream of input according to a specified criterion, such as alphabetical order, numerical order, reverse order, etc. By default, the sort command sorts the lines in ascending alphabetical order, using the first character of each line as the key. For example, the command sort data.csv will sort the lines of the file data.csv in alphabetical order and display the output on the screen. If you want to save the sorted output to a new file, you can use the redirection operator (>) to specify the output file name. For example, the command sort data.csv > sorted_data.csv will sort the lines of the file data.csv in alphabetical order and save the output to a new file named sorted_data.csv. The other commands are either invalid or do not perform the sorting operation. The a...z command does not exist, the abc command is a text editor, the wc command counts the number of words, lines, and bytes in a file, and the grep command searches for a pattern in a file or a stream of input.
Therefore, the correct answer is B.
Reference:
Linux Essentials - Linux Professional Institute (LPI), section 2.3.2

LPI Linux Essentials Study Guide: Exam 010 v1.6, 3rd Edition, chapter 4, page 95.

NEW QUESTION: 7
Which command adds the new user tux and creates the user's home directory with default configuration files?
A. defaultuser tux
B. useradd -m tux
C. usercreate tux
D. useradd -o default tux
E. passwd -a tux
Answer: (SHOW ANSWER)
The useradd command in Linux is used to create new user accounts on the system1. The -m option tells the command to create the user's home directory as /home/username and copy the files from /etc/skel directory to the user's home directory2. The /etc/skel directory contains the default configuration files for new users3. Therefore, the command useradd -m tux will add the new user tux and create the user's home directory with default configuration files. The other options are either invalid or do not create the user's home directory. Reference:
Linux Essentials Version 1.6 Objectives, Topic 1.4: Command Line Basics, Subtopic: Basic Shell Commands Linux Essentials Version 1.6 Exam Preparation Guide, Section 1.4: Command Line Basics, Page 16 Linux useradd Command Tutorial for Beginners (15 Examples)

NEW QUESTION: 8
Which of the following devices represents a hard disk partition?
A. /dev/ttyS0
B. /dev/sata0
C. /dev/part0
D. /dev/sda2
E. /dev/sda/p2
Answer: (SHOW ANSWER)
Section: (none)
The correct device name that represents a hard disk partition is /dev/sda2. This device name follows the Linux convention for naming hard disk devices and partitions. According to this convention123:
The first part of the device name indicates the type of the device. For example, /dev/hd* for IDE drives, /dev/sd* for SCSI, SATA, USB, or eSATA drives, /dev/nvme* for NVMe drives, etc.
The second part of the device name indicates the order of the device as detected by the system. For example, /dev/sda is the first serial drive, /dev/sdb is the second serial drive, and so on.

The third part of the device name indicates the number of the partition on the device. For example, /dev/sda1 is the first partition on the first serial drive, /dev/sda2 is the second partition on the first serial drive, and so on.
Therefore, /dev/sda2 means the second partition on the first serial drive, which is a valid hard disk partition. The other options are not valid hard disk partitions, because they do not follow the Linux convention. For example:
/dev/ttyS0 is a serial port device, not a hard disk device4.
/dev/sata0 is not a valid device name, because it does not specify the partition number. It should be something like /dev/sata0p1 or /dev/sata0p2, etc.
/dev/part0 is not a valid device name, because it does not specify the device type or the partition number. It should be something like /dev/sdXp0 or /dev/hdXp0, etc.
/dev/sda/p2 is not a valid device name, because it uses a slash (/) instead of a number to indicate the partition. It should be something like /dev/sda2 or /dev/sda3, etc.

NEW QUESTION: 9
Which of the following statements regarding Linux hardware drivers is correct?
A. Drivers are regular Linux programs which have to be run by the user who wants to use a device.
B. Drivers are not used by Linux because the BIOS handles all access to hardware on behalf of Linux.
C. Drivers are stored on their devices and are copied by the Linux kernel when a new device is attached
D. Drivers are downloaded from the vendor's driver repository when a new device is attached.
E. Drivers are either compiled into the Linux kernel or are loaded as kernel modules.
Answer: (SHOW ANSWER)
Linux hardware drivers are software components that enable the Linux kernel to communicate with various devices, such as keyboards, mice, printers, scanners, network cards, etc. Drivers are either compiled into the Linux kernel or are loaded as kernel modules. Kernel modules are pieces of code that can be loaded and unloaded into the kernel on demand. They extend the functionality of the kernel without requiring to rebuild or reboot the system. Drivers that are compiled into the kernel are always available, but they increase the size and complexity of the kernel. Drivers that are loaded as kernel modules are only available when needed, but they require a matching version of the kernel and the module. Linux supports a large number of hardware devices, thanks to the efforts of the open source community and some vendors who provide drivers for their products. However, some devices may not have a driver available for Linux, or may require a proprietary driver that is not included in the Linux distribution. In such cases, the user may need to install the driver manually from the vendor's website or from a third-party repository. Reference:
Linux Essentials - Linux Professional Institute (LPI), section 2.2.1

LPI Linux Essentials Study Guide: Exam 010 v1.6, 3rd Edition, chapter 3, page 67.

NEW QUESTION: 10

A. Ubuntu Linux LTS

B. Fedora Linux

C. Debian GNU/Linux Unstable

D. Ubuntu Linux non-LTS

E. Red Hat Enterprise Linux

Answer: A,E (LEAVE A REPLY)

Ubuntu Linux LTS and Red Hat Enterprise Linux are two Linux distributions that meet the requirements of hosting services for a period of several years and receiving important security updates from their Linux distribution. LTS stands for Long Term Support, which means that these versions of Ubuntu Linux are supported by Canonical, the company behind Ubuntu, for five years with security patches, bug fixes, and software updates1. Red Hat Enterprise Linux is a commercial Linux distribution that offers a stable and secure platform for enterprise applications, with a 10-year life cycle and regular security updates from Red Hat, the company behind RHEL2. Fedora Linux, Debian GNU/Linux Unstable, and Ubuntu Linux non-LTS are not suitable for the requirements, because they have shorter support cycles and are more focused on providing the latest features and software versions, rather than stability and security. Fedora Linux releases a new version every six months and each version is supported for 13 months3. Debian GNU/Linux Unstable is the development branch of Debian, which is constantly updated with new packages and changes, but is not intended for production use4. Ubuntu Linux non-LTS releases a new version every six months and each version is supported for nine months1. Reference:
Ubuntu release cycle | Ubuntu
Red Hat Enterprise Linux Life Cycle - Red Hat Customer Portal
Fedora Release Life Cycle - Fedora Project Wiki
Debian Unstable - Debian Wiki

NEW QUESTION: 11

Which of the following commands extracts the contents of the compressed archive file1.tar.gz?

A. tar -czf file1.tar.gz

B. ztar file1.tar.gz

C. tar -xzf file1.tar.gz

D. tar --extract file1.tar.gz

E. detar file1.tar.gz

Answer: (SHOW ANSWER)

The correct command to extract the contents of the compressed archive file1.tar.gz is tar -xzf file1.tar.gz. This command uses the following options:
-x means extract files from an archive.

-z means filter the archive through gzip, which is a compression program that reduces the size of files.
-f means use the following archive file name, which is file1.tar.gz in this case.
The other commands are incorrect for the following reasons:
tar -czf file1.tar.gz creates a compressed archive file1.tar.gz from the files specified after the command, not extract it.
ztar file1.tar.gz is not a valid command, as ztar is not a standard program or option for tar.
tar --extract file1.tar.gz is missing the -z option to handle the gzip compression, and also the -f option to specify the file name.
detar file1.tar.gz is not a valid command, as detar is not a standard program or option for tar.
Reference:
Linux Essentials - Topic 106: The Linux Operating System, section 106.2 Use single shell commands and one line command sequences to perform basic tasks on the command line.
LPI Linux Essentials Study Guide: Exam 010 v1.6, 3rd Edition, Chapter 5: Working with Files and Directories, section Compressing and Archiving Files.

NEW QUESTION: 12
What is a Linux distribution?
A. The Linux file system as seen from the root account after mounting all file systems.
B. A bundling of the Linux kernel, system utilities and other software.
C. The set of rules which governs the distribution of Linux kernel source code.
D. An operating system based on Linux but incompatible to the regular Linux kernel.
E. A set of changes to Linux which enable Linux to run on another processor architecture.
Answer: (SHOW ANSWER)
A Linux distribution is a collection of software that is based on the Linux kernel and can be installed on a computer or a device to create a functional operating system. A Linux distribution typically includes the Linux kernel, a set of system utilities and libraries, a graphical user interface (GUI), a package manager, and various applications and services. A Linux distribution may also include additional software or features that are specific to the distribution's goals, target audience, or philosophy. For example, some Linux distributions are designed for desktop users, while others are optimized for servers, embedded systems, or security. Some Linux distributions are based on other Linux distributions, while others are developed independently. Some Linux distributions are free and open source, while others are proprietary or commercial. Some Linux distributions are popular and widely used, while others are niche or experimental. Some examples of Linux distributions are Ubuntu, Fedora, Debian, Mint, Arch, and Red Hat. Reference:
Linux Essentials Topic 101: System Architecture, section 101.1: Determine and configure hardware settings.

Linux Essentials Topic 102: Linux Installation and Package Management, section 102.1: Design hard disk layout.
Linux Essentials Topic 103: GNU and Unix Commands, section 103.1: Work on the command line.
Linux Essentials Topic 104: The Linux Operating System, section 104.1: Boot the system.
Linux Essentials Topic 105: The Power of the Command Line, section 105.1: Use text streams and filters.
Linux Essentials Topic 106: Security and File Permissions, section 106.3: Modify file and directory permissions.
What is a Linux distribution? - Linux.com
Linux distribution - Wikipedia
Best Linux Distributions For Everyone in 2023 - It's FOSS

NEW QUESTION: 13
Which of the following commands creates the ZIP archive poems.zip containing all files in the current directory whose names end in .txt?
A. zip *.txt > poems.zip
B. zcat *.txt poems.zip
C. zip poems.zip *.txt
D. zip cfz poems.zip *.txt
E. cat *.txt | zip poems.zip
Answer: (SHOW ANSWER)
The zip command is used to create compressed archive files that can contain one or more files or directories. The zip command takes the name of the archive file as the first argument, followed by the names of the files or directories to be included in the archive. You can also use wildcards to match multiple files or directories with a common pattern. For example, the command zip poems.zip *.txt will create the ZIP archive poems.zip containing all files in the current directory whose names end in .txt. The other commands are either invalid or do not perform the desired operation. The command zip *.txt > poems.zip will try to create an archive for each file ending in .txt and redirect the output to poems.zip, which is not a valid archive file. The command zcat *.txt poems.zip will try to decompress and concatenate the contents of the files ending in .txt and poems.zip, which is not a valid ZIP file. The command zip cfz poems.zip *.txt will fail because the options c, f, and z are not valid for the zip command. The command cat *.txt | zip poems.zip will try to read the contents of the files ending in .txt from the standard input and create an archive named poems.zip, but this will not preserve the file names or attributes of the original files.
Reference:
Linux Essentials - Linux Professional Institute (LPI), section 3.1.1
3.1 Archiving Files on the Command Line - Linux Professional Institute Certification Programs, slide

NEW QUESTION: 14
FILL in BLANK
What keyword is used in a shell script to begin a loop? (Specify one keyword only, without any additional information.)
Answer:
for
Explanation:
The keyword for is used in a shell script to begin a loop that iterates over a list of items or a range of numbers. The syntax of the for loop is as follows:
for <var> in <list> do <commands> done
The variable <var> is assigned to each element of the <list> in turn, and the <commands> are executed for each iteration. The <list> can be a sequence of words, numbers, filenames, or other values. If the <list> is omitted, the for loop will iterate over the positional parameters ($1, $2, ...). The do and done keywords mark the beginning and the end of the loop body, respectively. The for loop is one of the three types of loops in shell scripting, along with the while and until loops. Reference: 1: Looping Statements | Shell Script - GeeksforGeeks 1 2: unix - Shell script "for" loop syntax - Stack Overflow 2 3: For Loop Shell Scripting - javatpoint 3

NEW QUESTION: 15
Running the command rm Downloads leads to the following error:
rm: cannot remove 'Downloads/': Is a directory
Which of the following commands can be used instead to remove Downloads, assuming Downloads is empty? (Choose two correct answers.)
A. undir Downloads
B. rmdir Downloads
C. dir -r Downloads
D. rem Downloads
E. rm -r Downloads
Answer: B,E (LEAVE A REPLY)
To remove a directory, you need to use a command that can delete directories, not just files. The rm command can only remove files by default, unless you use the -r option, which stands for recursive. This option tells rm to delete the directory and all of its contents, including subdirectories and files. The rmdir command can also remove directories, but only if they are empty. If the directory contains any files or subdirectories, rmdir will fail and display an error message. Therefore, the correct commands to remove Downloads, assuming it is empty, are rmdir Downloads and rm -r Downloads. The other commands are either invalid or do not work on directories. Reference:
Linux Essentials - Linux Professional Institute (LPI), section 2.3.1
LPI Linux Essentials Study Guide: Exam 010 v1.6, 3rd Edition, chapter 4, page 93.

NEW QUESTION: 16
Which statements about the directory /etc/skel are correct? (Choose two.)
A. The personal user settings of root are stored in this directory.
B. The files from the directory are copied to the home directory of the new user when starting the system.
C. The files from the directory are copied to the home directory of a new user when the account is created.
D. The directory contains a default set of configuration files used by the useradd command.
E. The directory contains the global settings for the Linux system.
Answer: (SHOW ANSWER)
The /etc/skel directory is a skeleton directory that contains the default files and directories that are automatically copied to the home directory of a new user when the account is created by the useradd command12. The purpose of this directory is to provide a consistent and uniform environment for all new users and to save the system administrator's time and effort in configuring the user settings12. The /etc/skel directory can be customized by adding or removing files and directories as needed, depending on the desired default settings for the new users12.
The other options are incorrect because:
A . The personal user settings of root are stored in this directory. This is not true, as the personal user settings of root are stored in the /root directory, which is the home directory of the root user3. The /etc/skel directory does not affect the root user's settings, but only the settings of the new users created by the useradd command12.
B . The files from the directory are copied to the home directory of the new user when starting the system. This is not true, as the files from the directory are copied to the home directory of the new user when the account is created, not when starting the system12. The copying process only happens once, when the useradd command is executed, and not every time the system is started12.
E . The directory contains the global settings for the Linux system. This is not true, as the directory contains the default settings for the new users, not the global settings for the Linux system12. The global settings for the Linux system are usually stored in other directories under /etc, such as /etc/default, /etc/sysconfig, /etc/init.d, etc4.
Reference:
Understanding the /etc/skel directory in Linux - The Geek Diary
/etc/skel directory in Linux - techPiezo
Linux File System Hierarchy - /root directory - LinuxConfig.org
Linux configuration: Understanding *.d directories in /etc | Enable Sysadmin

NEW QUESTION: 17
Which of the following is a protocol used for automatic IP address configuration?
A. NFS
B. LDAP
C. SMTP
D. DNS
E. DHCP
Answer: (SHOW ANSWER)
DHCP stands for Dynamic Host Configuration Protocol. It is a protocol that provides quick, automatic, and central management for the distribution of IP addresses within a network. It also configures other network information, such as the subnet mask, default gateway, and DNS server information, on the device1. DHCP uses a client/server architecture, where a DHCP server issues unique IP addresses and automatically configures the devices that request them2. DHCP allows devices to move freely from one network to another and receive an IP address automatically, which is helpful with mobile devices1.
The other options are not protocols used for automatic IP address configuration. NFS stands for Network File System, which is a protocol that allows a user to access and modify files over a network as if they were on their own computer. LDAP stands for Lightweight Directory Access Protocol, which is a protocol that provides access to a centralized directory service that stores information about users, groups, computers, and other resources on a network. SMTP stands for Simple Mail Transfer Protocol, which is a protocol that enables the sending and receiving of email messages over a network. DNS stands for Domain Name System, which is a protocol that translates domain names into IP addresses and vice versa. Reference:
Linux Essentials Exam Objectives, Version 1.6, Topic 105.1, Weight 4
What Is DHCP? (Dynamic Host Configuration Protocol) - Lifewire
Dynamic Host Configuration Protocol (DHCP) | Microsoft Learn
Dynamic Host Configuration Protocol - Wikipedia
How does AutoIP work? - Barix
[Network File System - Wikipedia]
[Lightweight Directory Access Protocol - Wikipedia]
[Simple Mail Transfer Protocol - Wikipedia]
[Domain Name System - Wikipedia]

NEW QUESTION: 18
What information can be displayed by top?
A. Existing files, ordered by their size.
B. Running processes, ordered by CPU or RAM consumption.
C. User accounts, ordered by the number of logins.
D. User groups, ordered by the number of members.
E. User accounts, ordered by the number of files.
Answer: (SHOW ANSWER)
The top command is a Linux command that shows the running processes on the system. It provides a dynamic real-time view of the system performance and resource usage. The top command can display various information about the processes, such as their process ID, user, priority, state, CPU and memory usage, command name, and more. The top command can also sort the processes by different criteria, such as CPU or RAM consumption, by using the interactive commands. The top command is useful for monitoring the system load and identifying the processes that are consuming the most resources. Reference:
Linux Essentials Topic 104: The Linux Operating System, section 104.3: Basic features and commands of the Linux standard shells.
Linux Essentials Topic 106: Security and File Permissions, section 106.4: Monitor and manage Linux processes.

NEW QUESTION: 19
Which of the following statements is true about Free Software?
A. It is developed by volunteers only.
B. It may be modified by anyone using it.
C. It must always be available free of charge.
D. It only runs on Linux.
E. It is only distributed as a compiled binary.
Answer: (SHOW ANSWER)
The correct statement about Free Software is that it may be modified by anyone using it. This is one of the four essential freedoms of Free Software, which are: the freedom to run the program as you wish, for any purpose; the freedom to study how the program works, and change it so it does your computing as you wish; the freedom to redistribute copies so you can help your neighbor; and the freedom to distribute copies of your modified versions to others1. Access to the source code is a precondition for these freedoms1.
The other statements are false for the following reasons:
Free Software is not developed by volunteers only. It can be developed by anyone, including individuals, companies, organizations, or communities. Some Free Software developers are paid for their work, while others do it as a hobby or for social benefit1.

Free Software does not have to be available free of charge. It can be sold or given away for any price. The term "free" refers to the users' freedom, not the price of the software1. However, Free Software users have the freedom to redistribute copies, so they can obtain the software at no charge from someone who has a copy1.
Free Software does not only run on Linux. It can run on any operating system that supports it, such as Windows, MacOS, BSD, or Android. Linux is an example of a Free Software operating system, but not the only one1.
Free Software is not only distributed as a compiled binary. It can also be distributed as source code, or both. In fact, Free Software must provide access to the source code, otherwise the users cannot study or modify the software1.
Reference:
What is Free Software? - GNU Project - Free Software Foundation

NEW QUESTION: 20

A. rwxrwxrwt
B. ------rwX
C. rwSrw-rw-
D. rwxrwS---
E. r-xr-X--t
Answer: (SHOW ANSWER)
The correct permissions for the /tmp directory are rwxrwxrwt, which means that the owner, group, and others have read, write, and execute permissions, and that the sticky bit is set. The sticky bit is a special permission that prevents users from deleting or renaming files that they do not own in a shared directory. The /tmp directory is used for storing temporary files that may be created by different users and processes, so it needs to be accessible and writable by all, but also protected from unauthorized deletion or modification of files. The rwxrwxrwt permissions can be set by using the chmod command with either the octal mode 1777 or the symbolic mode a+trwx. Reference: : [File system permissions] : [Sticky bit] : [chmod]

NEW QUESTION: 21

What is true about the dmesg command? (Choose two correct answers.)
A. It traces the execution of a command and shows each step the program carries out.
B. It sends messages to the command lines of all current user sessions.
C. It displays the content of the Linux kernel's ring buffer.
D. It immediately outputs all new messages written to the system journal.
E. It might not display older information because it was overwritten by newer information.
Answer: (SHOW ANSWER)
The dmesg command is used to display the messages from the kernel that are stored in a ring buffer. A ring buffer is a fixed-size data structure that overwrites the oldest entries when it is full. Therefore, the dmesg command might not display older information because

it was overwritten by newer information. The dmesg command is useful for troubleshooting system issues and checking hardware information. The dmesg command is not used to trace the execution of a command, send messages to user sessions, or output the system journal. Those functions are performed by other commands such as strace, write, and journalctl respectively. Reference: : [dmesg] : [Ring buffer] : [strace] : [write (Unix)] : [journalctl]4)

NEW QUESTION: 22
Which of the following Linux Distributions is derived from Red Hat Enterprise Linux?
A. Raspbian
B. openSUSE
C. Debian
D. Ubuntu
E. CentOS
Answer: (SHOW ANSWER)
CentOS is a Linux distribution that is derived from Red Hat Enterprise Linux (RHEL). CentOS stands for Community Enterprise Operating System and it aims to provide a free, enterprise-class, community-supported computing platform that is functionally compatible with RHEL. CentOS is one of the most popular Linux distributions for servers and cloud computing. Raspbian, openSUSE, Debian and Ubuntu are other Linux distributions that are not derived from RHEL, but have their own origins and development histories. Raspbian is based on Debian and optimized for the Raspberry Pi. openSUSE is a community project sponsored by SUSE Linux and other companies. Debian is one of the oldest and most influential Linux distributions, and Ubuntu is derived from Debian and sponsored by Canonical Ltd. Reference:
Linux Essentials - Linux Professional Institute (LPI) 1
Linux Essentials Version 1.6 Update - Linux Professional Institute (LPI) 2 Free LPI 010-160 Questions - Pass LPI 010-160 - Pass4Success 3 LPI Linux Essentials Study Guide: Exam 010 v1.6, 3rd Edition 4

NEW QUESTION: 23
Which package management tool is used in Red Hat-based Linux Systems?
A. portage
B. rpm
C. apt-get
D. dpkg
E. packagectl
Answer: (SHOW ANSWER)
RPM stands for RPM Package Manager (formerly known as Red Hat Package Manager), which is a powerful, command-line package management tool developed for the Red Hat operating system. It is now used as a core component in many Linux distributions such as

CentOS, Fedora, Oracle Linux, openSUSE and Mageia1. RPM can install, uninstall, and query individual software packages, but it cannot manage dependency resolution like YUM2. YUM is another package management tool that is based on RPM and can handle dependencies automatically. YUM is the primary package management tool for installing, updating, removing, and managing software packages in Red Hat Enterprise Linux2. Therefore, the correct answer is B. rpm, as it is the underlying package management tool used in Red Hat-based Linux systems. Reference:
Linux package management with YUM and RPM | Enable Sysadmin
Chapter 13. Package Management Tool Red Hat Enterprise Linux 5 | Red Hat Customer Portal Difference Between YUM and RPM | 2DayGeek

NEW QUESTION: 24
Which operator in a regular expression matches the preceding character either zero or one time?
A. ?
B. *
C. +
D. %
E. $
Answer: (SHOW ANSWER)
The operator that matches the preceding character either zero or one time in a regular expression is the question mark (?). This operator is also known as the optional quantifier, because it makes the preceding character or group of characters optional. For example, the regular expression colou?r matches both color and colour, because the u is optional. The question mark can also be used to modify other quantifiers, such as * (zero or more), + (one or more), or {m,n} (between m and n times), to make them non-greedy, meaning they will match the shortest possible string instead of the longest. For example, the regular expression .*? matches any character zero or more times, but as few as possible. The question mark is one of the basic regular expression operators covered in the Linux Essentials certification program from the Linux Professional Institute (LPI). Reference:
Linux Essentials - Linux Professional Institute (LPI)
Regular Expressions:Difference between 'optional occurrence' and 'zero ...

NEW QUESTION: 25
Which of the following directories contains information, documentation and example configuration files for installed software packages?
A. /usr/share/doc/
B. /etc/defaults/
C. /var/info/
D. /doc/
E. /usr/examples/

Answer: (SHOW ANSWER)

The /usr/share/doc/ directory is the standard location for documentation files for installed software packages on Linux systems12. It contains subdirectories for each package, which may include README files, manuals, license information, changelogs, examples, and other useful resources12. The /usr/share/doc/ directory is part of the Filesystem Hierarchy Standard (FHS), which defines the structure and layout of files and directories on Linux and other Unix-like operating systems3.

The other options are incorrect because:

/etc/defaults/ is a directory that contains settings for userland applications or services/daemons4.

/var/info/ is not a standard directory on Linux systems. The /var/ directory is used for variable data files, such as logs, caches, spools, and temporary files3.

/doc/ is not a standard directory on Linux systems. The / directory is the root of the filesystem hierarchy and contains essential files and directories for booting, restoring, recovering, and/or repairing the system3.

/usr/examples/ is not a standard directory on Linux systems. The /usr/ directory is used for shareable, read-only data, such as binaries, libraries, documentation, and source code3.

Reference:

Linux configuration: Understanding *.d directories in /etc | Enable Sysadmin Configuration Files in Linux | Baeldung on Linux Filesystem Hierarchy Standard - Wikipedia Which of the Following Directories Contains Information, Documentation ...

NEW QUESTION: 26

What can be found in the /proc/ directory?

A. One directory per installed program.

B. One device file per hardware device.

C. One file per existing user account.

D. One directory per running process.

E. One log file per running service.

Answer: (SHOW ANSWER)

The /proc/ directory is a virtual file system that contains information about the system and the processes running on it. It is not a conventional file system that stores files on a disk, but rather a dynamic view of the kernel's data structures. One of the features of the /proc/ directory is that it contains one subdirectory for each process running on the system, which is named after the process ID (PID). For example, the subdirectory /proc/1/ contains information about the process with PID 1, which is usually the init process. The process subdirectories contain various files that provide information about the process, such as its status, memory usage, open files, environment variables, command line arguments, and more. The /proc/ directory also contains a symbolic link called 'self', which points to the process that is accessing the /proc/ file system. Therefore, the correct answer is D. One directory per running process.

The other options are incorrect because:
A . One directory per installed program. This is not true, as the /proc/ directory does not contain information about installed programs, but only about running processes. Installed programs are usually stored in other directories, such as /bin/, /usr/bin/, /opt/, etc.
B . One device file per hardware device. This is not true, as the /proc/ directory does not contain device files, but only virtual files that represent kernel data. Device files are usually stored in the /dev/ directory, which is another special file system that provides access to hardware devices.
C . One file per existing user account. This is not true, as the /proc/ directory does not contain information about user accounts, but only about processes. User accounts are usually stored in the /etc/ directory, which contains configuration files, such as /etc/passwd/ and /etc/shadow/, that define the users and their passwords.
E . One log file per running service. This is not true, as the /proc/ directory does not contain log files, but only information files. Log files are usually stored in the /var/log/ directory, which contains various files that record the activities of the system and the services.
Reference:
The /proc Filesystem - The Linux Kernel documentation
A Beginner's Guide to the /proc File System in Linux - Tecmint
Appendix E. The proc File System Red Hat Enterprise Linux 6 | Red Hat ...
Chapter 5. The proc File System Red Hat Enterprise Linux 4 | Red Hat ...
proc file system in Linux - GeeksforGeeks

NEW QUESTION: 27
Which of the following commands creates an archive file work.tar from the contents of the directory ./ work/?
A. tar --new work.tar ./work/
B. tar -cf work.tar ./work/
C. tar -create work.tgz -content ./work/
D. tar work.tar < ./work/
E. tar work > work.tar
Answer: B (LEAVE A REPLY)
The correct command to create an archive file work.tar from the contents of the directory ./work/ is tar -cf work.tar ./work/. This command uses the -c option to create a new archive, the -f option to specify the file name, and the ./work/ argument to indicate the source directory. The other commands are incorrect for various reasons:
A . tar --new work.tar ./work/ is incorrect because there is no --new option in the tar command. The correct option for creating a new archive is --create or -c.
C . tar -create work.tgz -content ./work/ is incorrect because the -content option is not valid. The correct option for specifying the source files or directories is --files-from or -T. Also, the work.tgz file name implies compression, but the command does not use any compression option such as -z, -j, or -J.

D . tar work.tar < ./work/ is incorrect because the tar command does not accept input redirection from the standard input. The correct way to use the tar command is to provide the options and arguments after the command name.
E . tar work > work.tar is incorrect because the tar command does not produce output redirection to the standard output. The correct way to use the tar command is to use the -f option to specify the output file name. Reference: : tar command in Linux with examples - GeeksforGeeks : tar Command in Linux With Examples | phoenixNAP KB

NEW QUESTION: 28
Which of the following commands sorts the output of the command export-logs?
A. export-logs < sort
B. export-logs > sort
C. export-logs & sort
D. export-logs | sort
E. export-logs <> sort
Answer: (SHOW ANSWER)
The sort command is used to sort the lines of a text file or the output of another command in alphabetical, numerical, or other order. The sort command has the following syntax: sort [options] [file...]. The file argument is the name of one or more files to be sorted. If no file is given, the sort command reads from the standard input, which is usually the keyboard or the output of another command.
The | (pipe) symbol is used to connect the output of one command to the input of another command. This allows the creation of pipelines of commands that process data sequentially. The pipe symbol has the following syntax: command1 | command2. The command1 argument is the name of the first command, whose output is sent to the input of the second command. The command2 argument is the name of the second command, which receives the output of the first command as its input.
Therefore, the command export-logs | sort sorts the output of the export-logs command in alphabetical order. The export-logs command is assumed to be a custom command that exports some logs to the standard output. The sort command receives the output of the export-logs command as its input and sorts it according to the default criteria, which is the first character of each line. The sorted output is then displayed on the screen or can be redirected to a file or another command.
The other options in the question are incorrect because they use the wrong symbols to connect the commands. The < (input redirection) symbol is used to read the input of a command from a file instead of the keyboard. The > (output redirection) symbol is used to write the output of a command to a file instead of the screen. The & (background) symbol is used to run a command in the background, which means the command does not wait for user input and allows the user to run other commands simultaneously. The <> (bidirectional redirection) symbol is used to read and write the input and output of a

command from and to the same file. None of these symbols can be used to sort the output of the export-logs command. Reference:
Linux Essentials Version 1.6 Objectives: 3.2. Searching and Extracting Data from Files1 Linux Essentials Version 1.6 Exam Study Resources: Linux Essentials Manual - Chapter 9. The Power of the Command Line - 9.2. Searching and Extracting Data from Files - 9.2.1. The sort Command2 Linux Essentials Version 1.6 Exam Study Resources: Linux Essentials Manual - Chapter 9. The Power of the Command Line - 9.3. Turning Commands into a Script - 9.3.1. Pipes and Redirection2 Linux Essentials Version 1.6 Exam Study Resources: Linux Essentials Manual - Appendix A. Answers to the Exercises - Chapter 9. The Power of the Command Line - 9.2. Searching and Extracting Data from Files - Exercise 9.2.12 Linux Essentials Version 1.6 Exam Study Resources: Linux Essentials Manual - Appendix A. Answers to the Exercises - Chapter 9. The Power of the Command Line - 9.3. Turning Commands into a Script - Exercise 9.3.12

NEW QUESTION: 29
Which files are the source of the information in the following output? (Choose two.)
uid=1000 (bob) gid=1000 (bob) groups=1000 (bob), 10 (wheel), 150 (docker), 1001 (libvirt) (wireshark), 989
A. /etc/id
B. /etc/passwd
C. /etc/group
D. /home/index
E. /var/db/users
Answer: (SHOW ANSWER)
The files /etc/passwd and /etc/group are the source of the information in the following output:
uid=1000 (bob) gid=1000 (bob) groups=1000 (bob), 10 (wheel), 150 (docker), 1001 (libvirt) (wireshark), 989 The /etc/passwd file contains information about user accounts, such as the username, password, user ID (UID), group ID (GID), full name, home directory, and login shell1. The /etc/group file contains information about groups, such as the group name, password, group ID (GID), and members2.
The output shows the UID, GID, and group membership of the user bob. The UID and GID of bob are 1000, which can be found in the /etc/passwd file. The groups that bob belongs to are bob, wheel, docker, libvirt, wireshark, and 989, which can be found in the /etc/group file. The group names are shown in parentheses after the GID, except for the last group, which has no name.
The other options are not files that store user and group information in Linux. The /etc/id file does not exist by default. The /home/index file is not a standard file and has no relation to user and group information. The /var/db/users file is not a standard file and has no relation to user and group information. Reference:
Linux Essentials Exam Objectives, Version 1.6, Topic 103.1, Weight 2

Linux Essentials Certification Guide, Chapter 3, Page 51-52
Linux Filesystem Hierarchy, Chapter 3, Page 17-18
Linux Users and Groups, Chapter 2, Page 9-10

NEW QUESTION: 30

A. run test.sh
B. ${test.sh}
C. cmd ./test.sh
D. ./test.sh
E. bash test.sh

Answer: (SHOW ANSWER)

A shell script is a file that contains a series of commands that can be executed by a shell interpreter. To execute a shell script, there are two main methods:
Method 1: Specify the path to the script file. This method requires that the script file has the execute permission, which can be granted by using the chmod command. The script file also needs to have a shebang line at the beginning, which indicates which interpreter to use for the script. For example, #!/bin/bash means to use the bash interpreter. To execute the script using this method, you can type the absolute path or the relative path to the script file. If you are in the same directory as the script file, you can use the ./ prefix to indicate the current directory. For example, ./test.sh will execute the test.sh script in the current directory.
Method 2: Pass the script file as an argument to the interpreter. This method does not require the execute permission or the shebang line for the script file. You can simply use the name of the interpreter followed by the script file name as an argument. For example, bash test.sh will execute the test.sh script using the bash interpreter.
Therefore, the correct answers are D and E. A. run test.sh is incorrect because run is not a valid command in Linux. B. ${test.sh} is incorrect because this syntax is used for variable expansion, not for executing a script. C. cmd ./test.sh is incorrect because cmd is not a valid command in Linux. Reference:
Linux Essentials Topic 105: The Power of the Command Line, section 105.3: Basic shell scripting.
How to Run a Shell Script in Linux [Essentials Explained] - It's FOSS
How To Execute a Command with a Shell Script in Linux | DigitalOcean
How To Run the .sh File Shell Script In Linux / UNIX

NEW QUESTION: 31

Which of the following tar options handle compression? (Choose two correct answers.)

A. -bz
B. -z
C. -g
D. -j

E. -z2

Answer: (SHOW ANSWER)

The tar command is used to create or extract compressed archive files that contain multiple files or directories. The tar command has the following syntax: tar [options] [archive-file] [file or directory...]. The options argument specifies how the tar command should operate and what kind of compression should be used. The archive-file argument is the name of the archive file to be created or extracted. The file or directory argument is the name of one or more files or directories to be included in or extracted from the archive file.

The following are some of the common options for the tar command:

-c: create a new archive file.

-x: extract files from an existing archive file.

-t: list the contents of an archive file.

-v: show the progress of the operation.

-f: specify the name of the archive file.

-z: use gzip compression or decompression.

-j: use bzip2 compression or decompression.

-J: use xz compression or decompression.

The options -z and -j are used to handle compression with the tar command. The option -z uses the gzip program to compress or decompress the archive file, which usually has the extension .tar.gz or .tgz. The option -j uses the bzip2 program to compress or decompress the archive file, which usually has the extension .tar.bz2 or .tbz. Both gzip and bzip2 are popular compression programs that reduce the size of files by removing redundant or unnecessary information.

For example, to create a compressed archive file called backup.tar.gz that contains the files and directories in the current directory, the following command can be used:

tar -czvf backup.tar.gz .

To extract the files and directories from the archive file backup.tar.gz to the current directory, the following command can be used:

tar -xzvf backup.tar.gz

To create a compressed archive file called backup.tar.bz2 that contains the files and directories in the current directory, the following command can be used:

tar -cjvf backup.tar.bz2 .

To extract the files and directories from the archive file backup.tar.bz2 to the current directory, the following command can be used:

tar -xjvf backup.tar.bz2

The other options in the question are not related to compression. The option -bz is invalid, as there is no such option for the tar command. The option -g is used to create or update an incremental archive file, which only contains the files that have changed since the last backup. The option -z2 is also invalid, as there is no such option for the tar command.

Reference:

Linux Essentials Version 1.6 Objectives: 3.1. Archiving Files on the Command Line1 Linux Essentials Version 1.6 Exam Study Resources: Linux Essentials Manual - Chapter 9. The Power of the Command Line - 9.1. Archiving Files on the Command Line - 9.1.1. The tar Command2 Linux Essentials Version 1.6 Exam Study Resources: Linux Essentials Manual - Appendix A. Answers to the Exercises - Chapter 9. The Power of the Command Line - 9.1. Archiving Files on the Command Line - Exercise 9.1.12

NEW QUESTION: 32
Which of the following commands finds all lines in the file operating-systems.txt which contain the term linux, regardless of the case?
A. igrep linux operating-systems.txt
B. less -i linux operating-systems.txt
C. grep -i linux operating-systems.txt
D. cut linux operating-systems.txt
E. cut [Ll] [Ii] [Nn] [Uu] [Xx] operating-systems.txt
Answer: C (LEAVE A REPLY)
The grep command is used to search for a pattern in a file or input. The -i option makes the search case-insensitive, meaning that it will match both uppercase and lowercase letters. The grep command takes the pattern as the first argument and the file name as the second argument. Therefore, the command grep -i linux operating-systems.txt will find all lines in the file operating-systems.txt which contain the term linux, regardless of the case.
Reference: Linux Essentials - Topic 103: Finding Linux Documentation and Linux Essentials - Topic 104: Command Line Basics

NEW QUESTION: 33
Which of the following commands sets the variable USERNAME to the value bob?
A. set USERNAME bob
B. $USERNAME==bob
C. var USERNAME=bob
D. USERNAME<=bob
E. USERNAME=bob
Answer: (SHOW ANSWER)

The correct command to set the variable USERNAME to the value bob is USERNAME=bob. This command assigns the string bob to the variable name USERNAME, using the equal sign (=) as the assignment operator. There is no space around the equal sign, and the variable name and value are case-sensitive. This command sets a shell variable, which is only valid in the current shell session. To make the variable an environment variable, which can be inherited by child processes and subshells, you need to use the export command, such as export USERNAME=bob. The other commands are not valid for setting variables in Linux. The set command is used to set or unset shell options and positional parameters, not variables. The $ sign is used to reference the value of a variable, not to assign it. The == sign is used for comparison, not assignment. The var keyword is not used in Linux, but in some other programming languages. The <= sign is used for redirection, not assignment. Reference:
Linux Essentials - Linux Professional Institute (LPI)
How to Set and List Environment Variables in Linux | Linuxize

NEW QUESTION: 34
The file script.sh in the current directory contains the following content:
#!/bin/bash echo $MYVAR
The following commands are used to execute this script:
MYVAR=value
./script.sh
The result is an empty line instead of the content of the variable MYVAR. How should MYVAR be set in order to make script.sh display the content of MYVAR?
A. !MYVAR=value
B. env MYVAR=value
C. MYVAR=value
D. $MYVAR=value
E. export MYVAR=value
Answer: E (LEAVE A REPLY)
The reason why the script.sh does not display the content of the variable MYVAR is that the variable is not exported to the environment of the script. When a script is executed, it runs in a separate process that inherits the environment variables from the parent process, but not the shell variables. A shell variable is a variable that is defined and visible only in the current shell session, while an environment variable is a variable that is exported to the environment and visible to all processes that run in that environment1.
To make a shell variable an environment variable, we need to use the export command. The export command takes a shell variable name and adds it to the environment of the current shell and any subshells or processes that are created from it2. For example, to export the variable MYVAR with the value value, we can use:
export MYVAR=value

This will make the variable MYVAR available to the script.sh when it is executed, and the script will print the value of MYVAR as expected. Alternatively, we can also use the export command with the -n option to remove a variable from the environment, or with the -p option to list all the environment variables2.
The other options are not valid ways to set MYVAR as an environment variable. The ! MYVAR=value option is not a valid syntax for setting a variable in bash. The env MYVAR=value option will run the env command with the MYVAR=value argument, which will print the environment variables with the addition of MYVAR=value, but it will not affect the current shell or the script.sh3. The MYVAR=value option will set MYVAR as a shell variable, but not as an environment variable, so it will not be visible to the script.sh1. The $MYVAR=value option will try to set the variable whose name is the value of MYVAR to the value value, which is not what we want4. Reference:
Linux Essentials Exam Objectives, Version 1.6, Topic 103.1, Weight 2
Linux Essentials Certification Guide, Chapter 3, Page 51-52
env(1) - Linux manual page
Bash Variables - LinuxConfig.org