

2.10.6 Practice Questions

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Score: 83%

Passing Score: 80%



▼ Question 1:

✓ Correct

The **ls** command in the current working directory gives the following listing:

```
lrwxrwxrwx 1 root root 4 2010-11-05 mydata -> shantsgems  
-rwxr-xr-x 1 root root 382 2010-10-05 shantsgems
```

Which of the following is true of the files in this listing?

- ☐ The mydata file is a hard link to the shantsgems file.
- ➔ ☒ The mydata file is a symbolic link to the shantsgems file.
- ☐ The shantsgems file is a link to the mydata file.
- ☐ The shantsgems file is a backup of the mydata file.

Explanation








The "lrwxrwxrwx 1 root root 4 2010-11-05 mydata -> shantsgems" listing indicates that mydata is a symbolic link to the shantsgems file.











A hard link will have a dash as the first letter of the permission string.

A backup file is identified by a tilde following the file name.

The mydata file is a symbolic link to the shantsgems file, not the other way around.

References

-  2.8.1 Directory Navigation
-  2.8.2 Navigate Directories
-  2.8.3 Directory Management
-  2.8.4 Manage Directories
-  2.8.5 Directory Management Facts
-  2.9.2 File Management
-  2.9.4 Manage Files

-  2.9.5 File Management Facts
-  2.10.1 Links
-  2.10.2 Create Links
-  2.10.3 Link Facts
-  2.12.2 Finding Linux Commands
-  2.12.3 Finding Files
-  2.12.4 File Search Facts
-  2.12.5 Content Search Utilities
-  2.12.6 Find File Content
-  2.12.7 Content Search Facts

q_in_lp5_01.question.fex

▼ Question 2:

✓ Correct

Ted, a Linux user, creates symbolic links in his home directory to a set of files in their **/data** directory using the **ln -s** command. Later, a system administrator deletes the files in the **/data** directory.

What happens to the symbolic links that Ted created?

- ➡ ☒ The symbolic links still exist in Ted's home directory, but they are useless because the link has been broken.
- ☐ The files would not be deleted because duplicate files were created when Ted created the links.
- ☐ The links in Ted's home directory are automatically removed when the administrator deletes the files.
- ☐ Ted can still access the files until the system is rebooted even though they are deleted because the links point to a cached copy of the files in memory.

Explanation

When a symbolic link is created, a new entry is created in the file system. If the original file is deleted, the link still exists, but is broken.

No duplicate files are created when symbolic links are created.

Symbolic links are stored in the file system, not in memory.















Deleting a file will not automatically delete symbolic links that point to the file.

References

 2.8.1 Directory Navigation

 2.8.2 Navigate Directories

 2.8.3 Directory Management

-  2.8.4 Manage Directories
-  2.8.5 Directory Management Facts
-  2.9.2 File Management
-  2.9.4 Manage Files
-  2.9.5 File Management Facts
-  2.10.1 Links
-  2.10.2 Create Links
-  2.10.3 Link Facts
-  2.12.2 Finding Linux Commands
-  2.12.3 Finding Files
-  2.12.4 File Search Facts
-  2.12.5 Content Search Utilities
-  2.12.6 Find File Content
-  2.12.7 Content Search Facts

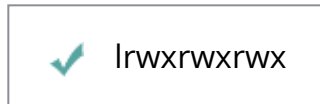
q_In_lp5_02.question.fex

▼ Question 3:

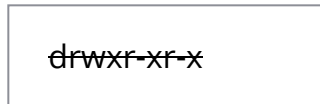
✕ Incorrect

Drag the permission string on the left to the category on the right. Some permission strings will not be used.

Symbolic link



Hard link



-rwxr-xr-x

Explanation

The first character in the permission string determines the category as follows:

l = symbolic link











d = directory

- = hard link (or original file)

s = socket

p = pipe

References

-  2.8.1 Directory Navigation
-  2.8.2 Navigate Directories
-  2.8.3 Directory Management
-  2.8.4 Manage Directories
-  2.8.5 Directory Management Facts
-  2.9.2 File Management
-  2.9.4 Manage Files
-  2.9.5 File Management Facts
-  2.10.1 Links
-  2.10.2 Create Links



2.10.3 Link Facts



2.12.2 Finding Linux Commands



2.12.3 Finding Files



2.12.4 File Search Facts



2.12.5 Content Search Utilities



2.12.6 Find File Content



2.12.7 Content Search Facts

q_ln_lp5_03.question.fex

▼ Question 4:

✓ Correct

Which of the following is a characteristic of a hard link?

- ➡ ☒ Valid inode for the file data even if the original file is deleted.
- ☐ Lowercase L (l) as the first character in the permission string.
- ☐ Works across volumes and file systems.
- ☐ Distinct (non-duplicate) inode.

Explanation












A hard link maintains a valid inode for the file data even if the original file is deleted.

A hard link has a duplicate inode.

A hard link must be on the same partition and do not work across volumes and file systems.

A hard link has a dash as the first character in the permission string (example: -rwxrwxrwx).

References

-  2.8.1 Directory Navigation
-  2.8.2 Navigate Directories
-  2.8.3 Directory Management
-  2.8.4 Manage Directories
-  2.8.5 Directory Management Facts
-  2.9.2 File Management
-  2.9.4 Manage Files
-  2.9.5 File Management Facts
-  2.10.1 Links
-  2.10.2 Create Links
-  2.10.3 Link Facts



2.12.2 Finding Linux Commands



2.12.3 Finding Files



2.12.4 File Search Facts



2.12.5 Content Search Utilities



2.12.6 Find File Content



2.12.7 Content Search Facts

q_ln_lp5_04.question.fex

▼ Question 5:

✓ Correct

Which of the following is a characteristic of a symbolic link?

- ☐ Valid pointer to the linked file's data even if the original linked file is deleted.
- ➡ ☒ Distinct (non-duplicate) inode.
- ☐ Dash (-) as the first character in the permission string.
- ☐ Indistinguishable from the original linked file.

Explanation







A symbolic link has a distinct inode. However, this inode specifies where the link physically exists on a disk, not where the data for the linked file exists.

The pointer in a symbolic link is broken when the original linked file is deleted.

A symbolic link has a lower case L (l) as the first character in the permission string. For example, lrwxrwxrwx.

A symbolic link is only a pointer to a linked file and can be distinguished by both a lower case l as the first character in the permission string and also by the (->) characters that follow the symbolic link name when the **ls -l** command is run.

References

-  2.8.1 Directory Navigation
-  2.8.2 Navigate Directories
-  2.8.3 Directory Management
-  2.8.4 Manage Directories
-  2.8.5 Directory Management Facts
-  2.9.2 File Management
-  2.9.4 Manage Files
-  2.9.5 File Management Facts



2.10.1 Links



2.10.2 Create Links



2.10.3 Link Facts



2.12.2 Finding Linux Commands



2.12.3 Finding Files



2.12.4 File Search Facts



2.12.5 Content Search Utilities



2.12.6 Find File Content



2.12.7 Content Search Facts

q_ln_lp5_05.question.fex

▼ Question 6:

✓ Correct

Leroy needs to create a link to a file in the /opt/corp directory that points to the original file in /usr/bin directory. The file is named "scrub".

The /opt directory is on a separate physical drive with a separate file system than /usr/bin. Which of the following commands will work?

- ☐ ln -s /opt/corp/scrub /usr/bin/scrub
- ☐ ln /opt/corp/scrub /usr/bin/scrub
- ➡ ☒ ln -s /usr/bin/scrub /opt/corp/scrub
- ☐ ln /usr/bin/scrub /opt/corp/scrub


Explanation

The correct answer is '**ln -s /usr/bin/scrub /opt/corp/scrub**' because only a symbolic link works across different file systems. A hard link shares inodes, which only are relevant on the same file system.

The correct syntax for the **ln** command is '**ln [OPTION] TARGET LINK_NAME**'.

Of the other answers, if it doesn't have the '-s' option, it is for a hard link. If it uses the link path first, it is incorrect.

References

 2.10.3 Link Facts

q_ln_lp5_inodes.question.fex

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