

## 2.8.5 Directory Management Facts

Navigating within and making changes to the directory structure are tasks you will frequently perform when using a Linux system.

This lesson covers the following topics:

- Navigate a Linux directory
- Create, copy, and move, a Linux directory
- Remove a Linux directory

### Navigate a Linux Directory

The following table describes basic commands you use to navigate within a Linux directory.

Command	Description	Examples
<b>pwd</b>	Displays the current working directory.	<ul style="list-style-type: none"> <li>▪ If a user named Fred is currently in his home directory and types <b>pwd</b> at the shell prompt, <b>/home/Fred</b> is displayed.</li> </ul>
<b>cd</b>	Changes the present working directory. <ul style="list-style-type: none"> <li>▪ <b>cd ..</b> changes to the parent directory.</li> <li>▪ <b>cd ../..</b> to changes two levels up in the directory.</li> <li>▪ <b>cd /</b> changes to the root directory.</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>cd directory1</b> changes to a directory named <b>directory1</b> within the current working directory. (This is a <i>relative</i> path.)</li> <li>▪ <b>cd /home/Fred/directory1</b> switches to <b>directory1</b> in Fred's home directory, regardless of the current working directory. (This is an absolute path.)</li> </ul>
<b>ls</b>	Displays the contents of a directory. Options include: <ul style="list-style-type: none"> <li>▪ <b>-a</b> displays all directory contents, including hidden content.</li> <li>▪ <b>-l</b> displays extended information, including the owner, modified date, size, and permissions.</li> <li>▪ <b>-R</b> displays the contents of a directory and all of its subdirectories.</li> <li>▪ <b>-d</b> displays directories but not files.</li> <li>▪ <b>-r</b> reverses the sort order.</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>ls -al</b> displays a long listing of all the contents in the current working directory, including hidden content.</li> <li>▪ <b>ls -d</b> displays only directories within the current directory.</li> <li>▪ <b>ls -R /etc</b> displays the contents of the /etc directory and all of its subdirectories.</li> </ul>

### Create, Copy, and Move a Linux Directory

The following table describes basic commands you use to manage a Linux directory:

Command	Description	Examples
<b>mkdir</b>	Creates a new directory. Use the <b>-p</b> option to create all directories within the specified path when that path does not already exist.	<ul style="list-style-type: none"> <li>▪ <b>mkdir work_files</b> creates a directory named <i>work_files</i> in the current working directory.</li> <li>▪ <b>mkdir /home/Fred/work_files</b> creates a directory named <i>work_files</i> within the specified path.</li> </ul>
<b>cp</b>	Copies directories. Copying leaves the source contents (directories and files) intact. Use the <b>-r</b> or <b>-R</b> option to recursively copy subdirectories and files within the directory.	<ul style="list-style-type: none"> <li>▪ <b>cp -r /temp /home/user</b> copies the entire <b>/temp</b> directory (with all of its files, subdirectories, and files in the subdirectories) to the <b>/home/user</b> directory.</li> </ul>
<b>mv</b>	Moves or renames directories (and files). Moving directories removes the source directory and places it in the destination. Options include: <ul style="list-style-type: none"> <li>▪ <b>-f</b> overwrites a directory that already exist in the destination directory without prompting.</li> <li>▪ <b>-i</b> prompts before overwriting a directory in the destination directory.</li> <li>▪ <b>-n</b> never overwrites files in the destination directory.</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>mv /temp/station ~/doc/</b> moves <b>station</b> from the <b>/temp</b> directory to the <b>~/doc</b> directory.</li> <li>▪ <b>mv /current /previous</b> renames the directory <b>current</b> to <b>previous</b></li> </ul>

Remove a Linux Directory

The following table describes basic commands you use to remove a Linux directory:

Command	Description	Examples
<b>rmdir</b>	Deletes an empty directory.	<ul style="list-style-type: none"><li>▪ <b>rmdir ~/Fred/work_files</b> deletes the <b>work_files</b> directory if it is empty.</li></ul>
<b>rm</b>	<p>Removes the directory and file information from the file system, which makes the directories and files inaccessible. Options include:</p> <ul style="list-style-type: none"><li>▪ <b>-i</b> prompts before removing.</li><li>▪ <b>-r</b> removes directories, subdirectories, and files within them.</li><li>▪ <b>-f</b> eliminates prompt for read-only files and avoids an exit code error if a file doesn't exist.</li></ul>	<ul style="list-style-type: none"><li>▪ <b>rm -rf /home/user/temp</b> deletes the temp directory with all its subdirectories and files without prompting.</li><li>▪ <b>rm -r /home/user/*</b> deletes all directories and files in the <b>/home/user</b> directory.</li></ul>

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