Linux commands for file and directory management

- **ls command:**

the ls command lists all files and directories in your system. Here's the syntax:

ls [/directory/folder/path]

if you remove the path, the ls command shoe the current working directories content. You can modify the command using these options.

-**R**: lists all the files the subdirectories

-a: shows all files, including hidden ones.

-**lh**: converts sizes to readable formats such as MB, GB, and TB

- **pwd command:**

The pwd command prints your current working directory's path, like /home/directory/path. Here's the command syntax:

Pwd [option]

It supports two options. The -L or –Logical prints environment variable content, including symbolic links. Meanwhile -p or – physical outputs the current directory's actual path.

- **Cd command:**

Use the cd command to navigate the Linux files and directories. to use it run this syntax with sudo privileges.

Cd /directory/folder/path

Depending on your current location it requires either full path or the directory name.

For example omit/username from /username/directory/folder if you are already within it.

Omitting the arguments will take you to the home folder. Here are some navigation shortcuts.

Cd~[username]- goes to another users home directory.

Cd.. – moves one directory up

Cd- - switches previous directory.

- **Mkdir command:**

Use the mkdir command to create one or directories and set their permissions. Ensure you are authorized to make a new folder in the parent directory. Here's the basic syntax

mkdir [option] [directori_name]

to create a folder within a directory, use the path as the command parameter. For example mkdir music/songs will create a songs folder music . here are several common mkdir command options

-**p**: creates a directory between two existing folders

-**m**: sets the folder permissions. For instance enter mkdir -m777 directory to create a directory with read, write, and execute permissions for all users.

-**v**: prints a message for each created directory.

- **rmdir command:**

use the rmdir command to delete a empty directory in linux. The user must have sudo privileges in the parent directory. Here's the syntax

rmdir [option] directorie_name

if the folder contains a subdirectory, the command will return an error. To force delete a non-empty directory, use the -p option

- **rm command:**

use the rm command to permanently deletes files within a directory. here's the general syntax

rm [filename1][filename2][filename3]

adjust the number of files in the command according to your needs. If your encounter an error, ensure you have the write permission in the directory.

To modify the command, add the following options:

-**i**: prompts a confirmation before deletion.

-**f**: allows file removal without a confirmation.

-**r**: deletes a files and directories recursively.

Warning use the rm command with caution since deletion is irreversible. Avoid using the -r and -f options since they may wipe all your files. Always add the -I option to avoid accidental deletion

- **Cp command:**

Use the cp command to copy files or directories including their content from your current location to another. It has various use cases, such as

Copying one file from the current directory to another folder. Specify the file name and target path:

Cp filename.txt /home/username/Documents

Duplicating multiple files to a directory. Enter the file names and the destination path

Cp filename1.txt filename2.txt t=filename3.txt /home/username/Documents

Copying a files content to another within the same directory. Enter the source and the destination file.

Cp filename1.txt filename2.txt

Duplicating entire directory. Pass the -R flag followed by the source and destination directory.

Cp -R /home/username/Documents /home/username/Documents_backup

- **Mv command:**

Use the mv command to move or rename files and directories. To move items, enter the file name followed by the destination directory.

Mv filename.txt /home/username/Documents

Meanwhile use the following syntax to rename a file in Linux wit the mv command.

Mv old_filename.txt new_filename.txt

- **Touch command:**

The touch command lets you create a empty file in a specific directory path. Here s the syntax:

Touch [option] /home/directory/path/file.txt

If you omit the path, the command will create the item current folder. You can also use the touch to generate and modify a timestamp in the Linux command line.

- **File command:**

The file command lets you check a file type – whether it is a text, image, or binary.

Here's the syntax:

file filename.txt

To bulk-check multiple files, list them individually or use their path if they are in the same directory. Add the -k option to display more detailed information and -i to show the file's MIME type.

- **Zip, unzip commands:**

The zip command lets you compress items into a ZIP filewith the optimal compression ratio. Here's the syntax:

zip [options] zipfile file1 file2....

For example, this command compresses note.txt into archive.zip in the current working Directory.

zip archive.zip note.txt

Use the unzip command to extract the compressed file. Here's the syntax:

unzip [option] file_name.zip

- **tar command:**

The tar command archives multiple items into a TAR file– a format similar to ZIP with optional compression. Here's the syntax:

tar [options] [archive_file] [target file or directory]

For instance, enter the following to create a new newarchive.tar archive in the **/home/user/Documents** directory:

tar -cvzf newarchive.tar /home/user/Documents