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Commands for navigating the file system

LS

- ls is used for listing files and directories.
- By default it will list the current directory when no directory is specified.
- Listing means to see what is inside a directory.
- I use this command whenever I want to "open and see" what is inside a given folder in my Linux system
- I can also use this command when I need to see some information (metadata) of a file. For example, when it was last edited, its size, permissions, etc...

FORMULA/SYNOPSIS

- `ls` + `option` + `directory(ies) or file to list`

EXAMPLES

- See all the options of the ls command:
  - `ls --help`
- List all the files including hidden files in current directory:
  - `ls -A`
- Long list a directory
  - `ls -lA ~/Pictures`
- Long list multiple directories excluding group and owner information, with human readable file size and sorted in reverse order.
  - `ls -lhgGr Documents/ Pictures/`

CD

- cd Changes the current working directory to another directory

DESCRIPTION

- `cd` + `path do directory`

Examples

- Moves into the "Documents" directory
  - `cd Documents`
- Moves one directory up (to the parent directory).
  - `cd ..`
- Takes you to your home directory.
  - `cd ~`

PWD

- pwd Displays the absolute path of the current working directory.

FOMULA/SYNOPSIS

- pwd

EXAMPLES

- This shows the directory you're currently in. /home/map
  - pwd

What is a variable?

A variable is a named storage location that holds data or values in memory. In Linux shell scripting, variables store information such as text, numbers, or command outputs. ex "name="Miguel"

How do I use a variable?

You can use a variable by prefixing its name with a $ symbol. ex- "echo $name"

What is an environment variable?

An environment variable is a system-wide variable that affects the behavior of running processes. ex- echo $HOME echo $PATH

What is a user defined variable?

A variable created manually by the user within a script or terminal session.

What is the root directory?

The root directory (/) is the top-level directory in the Linux file system hierarchy. Every file and directory starts from /.

What does "Parent Directory" mean?

The parent directory is the folder one level above the current directory. It can be accessed using ..

What does "Current working directory" mean?

The current working directory is the directory you are currently in while working in the terminal. use pwd to check

What is an absolute path? Include an example

An absolute path shows the full directory path starting from the root (/). /home/student/Documents/file.txt

What is a relative path? Include an example

A relative path is a path relative to your current working directory. If you're in /home/student,Documents/file.txt is a relative path.

What is the difference between "Your home directory" and "The home directory"?

Your home directory (~) refers to the personal directory for your user (e.g., /home/map).

The home directory (/home) is the parent folder that contains all user directories on the system.

Example:

/home/map - your personal home directory

/home - directory containing all users' home folders