File System Navigation Commands

ls (List)

- Description: Shows you the files and folders in the current directory.
- Usage/Formula: ls [options] [file/directory]
- Examples:
- ls (Just lists what's there)
- ls -l (Lists with details like permissions, size, etc.)
- ls -a (Lists all files, even hidden ones)
- ls Documents (Lists what's in the Documents folder)

cd (Change Directory)

- Description: Moves you to a different directory.
- Usage/Formula: cd [directory]
- Examples:
- cd Documents (Goes into the Documents folder)
- cd .. (Goes up one level to the parent directory)
- cd ~ (Goes to your home directory)

pwd (Print Working Directory)

- Description: Tells you where you are in the file system (the current directory).
- Usage/Formula: pwd
- Examples:
- pwd (Just type it, and it tells you the path)

Definitions

File System:

- Basically, how your computer organizes files and folders. Like, the whole structure.

Pathname:

- The "address" of a file or directory. Tells you where it is.

Absolute Path:

- The full path from the root directory (the very top). Starts with /. Example: /home/user/Documents/myfile.txt

Relative Path:

- The path from your current location. Doesn't start with /. Example: Documents/myfile.txt (if you're in /home/user)

Your Home Directory vs. The Home Directory:

- "The home directory" is like, the root of all user home directories. like /home
- "your home directory" is where your personal files are stored. like /home/yourusername

Parent Directory:

- The directory that contains another directory. Like, if you're in Documents/Homework, Documents is the parent.

Child Directory/Subdirectory:

- A directory inside another directory. Like, Homework is a child of Documents.

Bash Special Characters:

- Characters that have special meanings in the Bash shell. Like * (wildcard), > (redirect output), < (redirect input), | (pipe), etc. Example: ls *.txt (lists all text files).

Environment Variables:

- Variables that store information about the system and the user's environment. Like $PATH (where the system looks for commands), $USER (your username), $HOME (your home directory).

User Defined Variables:

- Variables that you create in your Bash scripts or command line.
- Example: my_variable="hello".

Why use $ with variables?

- Bash, you need to use $ before a variable name to get the value of the variable. If you just type the variable name, Bash thinks you're talking about the name itself, not what's stored inside it.

- Example: my_variable="hello" echo my_variable (prints "my_variable") echo $my_variable (prints "hello")