Notes 3

https://cis106.com/extra/thelinuxfs/

File System

- **Definition**:
    - The structure in which files and directories are organized on a computer.

Pathname

- **Definition**:
    - The location of a file or directory within the file system, can be absolute or relative.

Absolute Path

- **Definition**:
    - The full path to a file starting from the root directory.
- **Example**:
    - `/home/user/Documents/file.txt`

Relative Path

- **Definition**:
    - The path relative to the current directory.
- **Example**:
    - `../Documents/file.txt` (one directory up)

Difference Between "Your Home" and "The Home" Directory

- **Your Home Directory**:
    - The user-specific directory where personal files are stored.
    - Example: `/home/username`
- **The Home Directory**:
    - The parent directory of all user home directories.
    - Example: `/home`

Parent Directory

- **Definition**:
    - The directory above the current directory.

Child Directory

- **Definition**:
    - Also known as a subdirectory; it is located inside another directory.

Bash Special Characters

- **Definition**:
  - Characters that perform specific functions in Bash.
- **Examples**:
  - `.` (current directory)
  - `..` (parent directory)
  - `~` (home directory)
  - `/` (root directory)

Environment Variables

- **Definition**:
  - Store values of the user's environment, used in shell commands.
- **Examples**:
  - `$HOME` - User's home directory
  - `$USER` - Current username

User-Defined Variables

- **Definition**:
  - Variables created by the user to store data.
- **Example**:
  - `filename="report.txt"`

Why Use `$` with Variables

- **Definition**:
  - `$` is used to access the value stored in a variable in Bash scripting.
- **Example**:
  - `echo $HOME` displays the home directory path.