operating-systems-linux

CE.1.6 Assignment

How is that everything in Linux is considered a file?

Linux is a fundamental design philosophy that reflects the Unix-like operating system's architecture.

Linux is known for it's simplicity and flexibility.

A Linux system, just like UNIX, makes no difference between a file and a directory, since a directory is just a file containing names of other files.

- 1. <u>Devices</u> can be represented as file-like object under /dev/ filesystem
- 2. <u>Pipes and Sockets</u> Pipes and sockets are also treated as files. Pipes (represented as files) allow for interprocess communication by using the standard input and output streams. Sockets (represented as special files) are used for network communication
- 3. <u>Directories</u> Directories are also considered files, but they contain a list of other files and directories. They are essentially files that map names to inodes (data structures that represent files). This hierarchical structure allows for the organization of files and directories in a filesystem. (ie. /home)