

Faculty of Computer Science, Dalhousie University
CSCI 2132 — Software Development

23-Nov-2018

Lecture 31: File Manipulation

Location: Chemistry 125 Instructor: Vlado Keselj
 Time: 12:35 – 13:25

Previous Lecture

- Linked list example: student database (finished)
- Merge Sort with Linked List, example.

Slide notes:

Merge Sort with Linked List

- finished
- recursive version of the merge function

Slide notes:

Git and GitLab

- Comparison to SVN
- SVN centralized, Git distributed
- SVN process: checkout, add, commit, update
- Git process: clone, add, commit, push, pull
- SVN per directory checkout, Git no
- GitLab and Github

25 File Manipulation

Files are important in Unix. Previously we learned that in Unix, everything is either a file or a process. Now let us learn how to use C to manipulate files.

25.1 Streams and Files

Reading: Chapter 22, King.

In C, a stream is any source of input or any destination of output. Streams may be associated with various devices. There are three standard streams: `stdin`, `stdout`, and `stderr`. C abstracts all file operations into operations on streams of bytes. Thus we have the notion of input streams and output streams. We learned that Unix also treats a file as a stream of bytes, and this model was made popular by Unix.