

# Lassonde School of Engineering

EECS 2032

## LAB 3

### Lab Objectives

To get familiar with sed and cross-referencing data in multiple files using bash

### Problem 1

Consider a small database in a bookstore that consists of two files, “books” and “courses”

Books is a file contains records, each record is on a separate line. Each record consists of multiple fields separated by “!” (without the quotes).

Book title, ISBN, Author 1, author 2, .... Number of copies available in the bookstore.

For example

The C Programming Language!0–13–110370–9!Brian Kernighan!Dennis Ritchie!44

The courses file contains the following fields

course number, course name, ISBN, R/O

where R/O is a field that contains either “R” if the book is required, or “O” if the book is optional.

For example

EECS2032!Introduction to embedded systems!0–13–110370–9!R

Write a shell script that runs as “bash lab3\_1.sh flags and arguments”

Depending on the arguments, the script does the following:

- -num followed by a course number. The program displays the textbook title, followed by a “:” then the name of the authors, and the number of copies in the library separated by a single space. For the above record, it should be:

The C programming Language: Brian kernighan Dennis Ritchie 44

- -nobook without any arguments, the program displays the course number of the courses that does not require a required text. Each course number is on a line by itself.
- -toomuch without any arguments displays the courses that requires more than 2 required textbooks.

**Save as 2032E LAB3 lab3\_1.sh**

## **Problem 2**

Write sed commands in a file that does the following:

Any line that does not contain the pattern “ABABAB” must not be displayed (deleted).

if the line that was not deleted, contains the word rain, change that to heavy rain

**Save as 2032E LAB2 lab3\_2.sed**