

# **COMP 30400 – Programming I & II**

## **Lab 10 – 4 hours**

### **(Final Lab Practical)**

#### **Practical Overview**

This practical is for Lecture 11/12. All portfolio programs require a header at the start of every source file. Refer to lecture notes on how to format it. Comments are expected throughout the code, where relevant. They should be used to discuss motivations for your approach and alternative ways of implementing the solution where appropriate.

Appropriate error checking for memory allocations, and free-ing of memory and files is required where relevant.

#### **1) Portfolio Program 39**

Finish programs 37 and 38 first, then make the program use a linked list to store a list of student structures. The program should be able to store any number of students.

Hints: You need to design a way to save your linked list to a file and load it again. One way is to save the number of elements (i.e. an int), and then save each element individually using fwrite. When loading the list, it's important to ensure the pointers to the next element(s) are correct.

#### **2) Remember to backup your portfolio.**