CS 4/53201 # Homework #1 **Operating Systems**

Due in class on Wednesday 19 February

1. Exercise 1.5 from Operating Systems Concepts, Silberschatz & Galvin

2. Exercise 2.4 from Operating Systems Concepts, Silberschatz & Galvin

3. Exercise 3.7 from Operating Systems Concepts, Silberschatz & Galvin

4. Exercise 4.4 from Operating Systems Concepts, Silberschatz & Galvin

5. Using the fork( ) system call in UNIX, write a C program in which a parent process creates a child process, and that child then creates its own child (grandchild to the original parent process). Use the wait( ) system call to synchronize the processes so that the grandchild first displays a message using printf (and then terminates), then the child displays a message (and then terminates), and finally the parent displays a message (and then terminates). You should make no assumptions about the relative execution speeds of the processes. (Note: you might want to test your program to make sure it does what you think it does.)